Socrates
Grundtvig

GRUNDVIG-1-104452-CP-1-2002-SI
ADDED – Adult Education Driving Licence

Adult Learner

1st Module

The project has been carried out with support of the European Union within the frame of the Socrates Grundtvig Action - entitled Adult Education Driving Licence 104452-CP-12002-1-SI –Grundtvig-G1.

Adult learner – 1st module is available also on the project web site www.added4.org until December 2005.

ADULT LEARNER - 1st Module

Published by:
Slovenian Institute for Adult Education, project co-ordinating institution
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Ljubljana, December 2004

CIP - Kataložni zapis o publikaciji
Narodna in univerzitetna knjižnica, Ljubljana

374.7(063)(082)

ADULT learner : 1st module / [authors of the chapters Jan Sorli .[et al.] ; edited by Metka Svetina, Ema Perme]. - Ljubljana : Slovenian Institute for Adult Education, 2005

ISBN 961-6130-41-2
1. Sorli, Jan 2. Svetina, Metka, 1957-

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Introduction

You are starting with reading and review of the result of international work and cooperation in a field of adult education, which was started in 2002 as a Grundtvig project with aim to fill up the gap in adult educators professional development. There were four countries and its expert involved in the process to discover needs and aims of adult teachers, who work with adults in vocational and other education and training, but the starting point was the statement that their competences are lacking of basic and advanced knowledge and skills to work with adults in educational process effectively and also properly. All partners in the project team participate in the project team with intention to add new quality in educational process of adult educators.

The development of the manual

The manual was planned as a final result of the project work and international cooperation of four partners in partner countries: Slovenian Institute for Adult Education as a coordinator, VOX from Norvay, Institute for Continuing Adult education from Greece and Department of Andragogy of Tallinn Pedagogical University from Estonia as partners. To satisfy the aims and goals of the project and also the objectives was necessary to work in phases.

The first phase was inevitably **focused on searching**, what **are the real needs of adults in educational** process and also the needs of adult educators who work with them in this process. Trough the process of choosing and designing the most suitable method and instrument we have learned a lot about the existing differences among the partner countries and their educational systems and consecutive differences among adult educators and their knowledge background. In general we could conclude there are differences between the north and the south and the east and the west and the historical and political background of each country also has an impact on development of adult education and its professionals. In this period of the project we took a big challenge to harmonize those differences to the level we could and go forward with our work. We found out appropriate method to find out real needs of adults in educational process as the needs of adult educators, who run this process. In further work **we used contemporary sociological method – focus groups** in all countries to gather the data. After this phase it was necessary to design the structure of possible programme for the target group of adult educators in partner countries.

Concerning the goals and objectives of the project the contents and structure of the programme **in the second phase six modules were prepared**:

Module 1 - The adult learner - suggested content:

- The development of adult education
- Basic concepts
- Learning theories
- Basic principles of adult learning
- Learning styles
- Learning environments
- Formal, non-formal, informal learning

Module 2 - Organisation of learning activities - suggested content:

- Setting goals and objectives
- Planning learning activities
- Learning and teaching strategies
- Methods (e.g. storytelling)
- Techniques
- Evaluation, assessment & self-evaluation

Module 3 - The learner and the others - suggested content:

- Guiding
- Observing
- Problem solving
- Communicating
- Group dynamics

Module 4 – Motivation - suggested content:

- Basic factors of motivation
- Impact of the expectations and goals on motivation for learning
- Characteristics of inner and outer motivation
- The role of the teacher in stimulating motivation
- Obstacles in adult learning
- Confidence building
- Incentives
- Lifelong learning

Module 5 - Flexible learning and learning resources - suggested content:

- Learning material
- ICT literacy
- ICT use as a learning resource
- Use of internet
- Networking

Module 6 – Inclusion - suggested content:

- Reading & writing difficulties
- Tackling social exclusion
- Working with multicultural groups
- New basic skills
- Tackling the digital divide

Further on we have been working on **objectives and detailed content of the 1st Module** of the programme and also on developing of **the manual for the 1st Module**, which should be the practical guide for adult educator.

In accordance to equal participation of **each partner** we decided that each partner country should prepare **two chapters of the manual for the 1st Module**. In further reading there is a result of common work of

partner countries and organizations with additional editing of the prepared materials in each country.

In supplement it is necessary to add, that working together was a great challenge for all of us, because we learned also a lot from each other about the cultural and other differences which have been with us all the time and we used this opportunity to enrich ourselves with other dimension.

Structure of the manual

The structure of the manual was defined on professional comprehensions of contemporary findings of **useful materials for the practical use**. It is important to adjust the content and the graphical design.

The content of the **1st Module** was prepared on the basis of results which we got in focus groups: ***1st Module should present some fundamental and contemporary knowledge about the adult education and its trends*** in context of European dimension and broadened with stimulating thoughts for further discovery, experiments and different adjustments, which enrich the adult education process. ***The manual is oriented on adult educator***, who works in practice with a need to develop his knowledge and skills when he or she works with adults in learning process.

The goals and objectives of the 1st Module are:

- to give the reader a brief survey of the development in European adult education and of recent changes in EU adult education policies
- to clarify the meanings and usage of the key concepts of adult learning and also the principles of adult learning
- to clarify some concepts and contemporary terms used in adult education
- to improve teachers' effectiveness with adult learners.
- to better analyze the characteristics of the individual learner, the subject matter and the particular learning situation
- to improve teachers' effectiveness with adult learners with better understanding of learning in adulthood
- to know more about impact of physical environment on the learning process

So, ***the basis is the content*** and its practicability, which has an **impact on a graphical design of the manual afterwards**. Owing to the applicability the structure of self-study and flexible learning materials was accepted, which includes: introduction, objectives of each chapter, the content with easily scanned fonts and language, examples, activities and self-evaluation questions and summary, key terms and other

sources for further reading suggestions. This kind of structure also enables different approaches of learning, could be face to face learning or combining self-directed learning with some instructions or mentor work.

The design of the manual followed the content in a consciousness to allow the possibility to supplement it with some additional pages regarding the need of the user of the manual, it was specially meant to give the adult educator an opportunity to complete the manual with the content and characteristics of each country. We are convinced there is a need to upgrade materials according to the development and some specialities of each target group of adults, methods used in an educational process and other conditions in certain learning situation. The text is easily readable with chapters and subchapters, bold, underlined and on other way marked parts. We also used simple graphics to enrich the content to make it interesting enough and encourage the reader to go further. The form and the format of the manual is common used and rather different in compare to some academic materials.

We would like to use this opportunity to thank all who contributed, to the final form of our work. It is necessary to expose those who have actively participated in focus groups in all the four countries, professionals and adult learners, who gave us useful and important information about their work, learning, feelings about learning, suggestions for improvement of adult learning, teaching and education as a whole. Nevertheless, it is necessary to thank evaluators, who gave us the opportunity to work together and learn much more than merely about adult learning and education in European Community. It was an unforgettable experience and hopefully will be useful also to all, who will take this manual as a guide to improve any kind of life situation.

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Adult Learner
1st Module

CHAPTER 1

The development of adult education

Chapter

1

The development of adult education

1. Introduction

The learners' aims of this chapter are:

- to give the reader a brief survey of the development in European adult education and the forces behind the changes
- to make the reader aware of the variety of learning arenas
- to give the reader an impression of recent changes in EU adult education policies

Initial activities
Decide on three important changes that have taken place in your life during the past 10 years.

To what extent can you relate any of these changes to the general changes in society?

Complete activity a) before you look at activity b).

a) Make a list of 10 things that you think you are good at.

b) Go through the list and decide which of these things you learnt in school. What does this tell you about arenas where learning takes place?

What does the term "flexible learning" mean to you? Discuss the term with your fellow students or colleagues.

2. Changes in European societies and their effect on adult learning

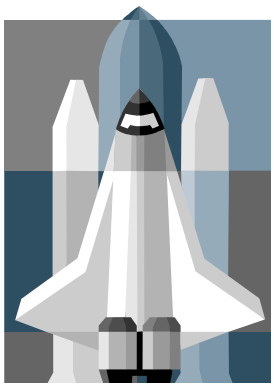
Through the ages we find very different attitudes to learning in the various societies. These attitudes will naturally be defined by the way a society is organised, economically and socially. In relatively static societies little need is felt for the re-education or continuing education that very large parts of the world community feel today. The farmer taught his son or sons, and probably very rarely daughters, how to run a farm. Mothers taught their daughters their household chores and other tasks that they were responsible for in the family unit. The shoemaker had learnt his trade from his father or a relative or neighbour. No immediate need for innovation was felt.

A couple of centuries ago initial education was very often synonymous with religious education. When people in Europe learnt how to read and write, the main objective was to prepare them for Christian rites – and perhaps there was some degree of social control of the masses implied. The alternatives of eternal salvation or damnation may have cajoled people to stay on the straight and narrow track. At a later stage there are also examples that nation-building strategies have influenced the content of a country's education. Particularly in the Nordic countries there has been a strong tradition of non-formal education, organised by non-governmental organisations, which has played an important role in the democratic development of these countries.

The relationship between the teacher and the learner was traditionally defined by the fact that the teacher knew something that he or she was supposed to pass on to the pupil. Those who knew became figures of authority for those who didn't know. Discipline, in the sense of obeying the teacher, was a natural effect. Copying was the main method of learning. The proper age for learning was childhood. A lot of learning, of course, actually took place throughout life, but no need for further learning in an organised form was felt, at least not by the overall majority of people.

2.1. Rapid changes

The description above no longer holds good, for very obvious reasons. Our societies have become complex and they change rapidly. It is therefore obvious that what you learnt in your childhood will not be sufficient when you face the challenges of adult life in modern society. The ICT revolution makes this obvious to everybody, but there are lots of other changes that have their effect. Sophisticated machinery replaces hands and the European hands are being replaced by Chinese hands. Relating to the information flow from TV and other media is a necessity for those who want to feel part of their society. Work is no longer done *at work* only; travelling to work is often combined with working, as lap-tops and mobile phones make this increasingly easy. Continuous innovation becomes necessary to compete on a world market, and creativity has become a quality that we no longer look for only in artistic expression.



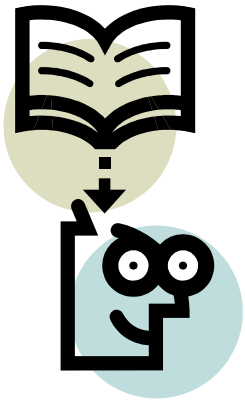
In a complex society there is a large variety of roles to be filled. Education will necessarily reflect the need for the various qualifications. Previously there were jobs for those who did not have a specialist education. Today most of these jobs have disappeared, and qualification past the obligatory level has become a necessity if you want a job. In addition many people may have to face the fact that the job they qualified for when they were young, no longer exists a couple of decades later. Shoemakers are hardly needed as people are supposed to buy new shoes instead of repairing the old ones. Logistics has become a science that makes the warehouse worker into a computer engineer. Even the dairy farmer now presses buttons to milk his cows and tend to them in other ways. And disappearance of jobs is just one of the reasons why lifelong learning has become a necessity.

2.2. Adaptability

In a complex and rapidly changing society one of the most important human qualities becomes adaptability. Most people will have to adapt to various working environments during their working lives. Even If they do not change jobs, their job situation is guaranteed to change. This may be due to e.g. new machinery or organisational changes. Whatever the reason for the changes, a need for new knowledge will be felt in most organisations and in the majority of individuals. Accordingly lifelong learning, which was an unknown concept only 30 years ago, has become a household term today. What the term implies, however, has changed during the past few years. Only a decade ago the term was practically synonymous with adult education. The focus was on giving adults "a new chance" to make up for their lost opportunities. Recent development has changed the term into actually implying learning from early childhood to post-retirement.

2.3. Demographic changes

There are two aspects of demographic change that will have an effect on adult education: a) the rising average age of the population and b) the number of immigrants in the countries. As there are fewer young people to replace the people who are approaching retirement age, the authorities in many countries these days try to find incentives to make their senior employees postpone their retirement. At the same time these senior employees need to have their competence adjusted to the needs of working life. Learning in order to cope with new work challenges at the age of 50 and even 60 becomes a natural development, and the workplace becomes the natural place for this learning. And the people who do retire can expect to live longer than their parents and grand-parents. This again leads to an increased need to learn for pleasure, e.g. to improve hobby activities or to learn foreign languages to make the travel experience even more fulfilling.



Over the past few decades most western European countries have seen an influx of immigrants from Non-European countries. Some have come with a very good education from their home countries, but the majority have had limited education. Irrespective of their level of education, they have needed to learn the languages of their new countries. Additional education will increase their employability

and will reduce the risk of social exclusion. Accordingly, investment in adult education for these groups has been seen both as a way of reducing potential social tension in society and as a means of providing possibilities for the individuals.

2.4. Life-wide learning

As the competitive challenge from other economies increases, Europe has to find ways of enhancing its competitive advantage, i.e. its relatively high average level of education. Although specialist educations will be necessary and must be improved, there is also a growing feeling that we need to learn in a wider sense in order to preserve our creativity and our general wellbeing as citizens of our communities. The idea of *life-wide learning* has therefore come up as a dimension of lifelong learning. Life-wide learning is wide both in the sense of including a variety of fields or topics of learning and a variety of arenas where learning takes place. In addition to learning for a job function there have been alternative motivating forces for adult learning for a very long time: Popular movements have organised themselves in non-governmental organisations (NGOs) and have found their ways of organising common learning, particularly in the form of *study circles*. The aim can be the education of the members of the organisation in order for them to do their job in the organisation better, and it can be various other learning perspectives, including learning for hobbies. Non-formal and informal learning has contributed to a wider range of learning than what strictly formal learning has. Although popular movements may have lost some of their momentum today, the type of adult learning that they organise is well worth preserving for the sake of this life-wide perspective, which naturally includes the idea of active citizenship. (See chapter 6 for a further discussion of formal, non-formal and informal learning.)

2.5. Learning how to learn

The development of adult education has now reached a level where the most important aspect of it has become not the factual matter to be learnt, but learning how to learn. If you have learnt how to learn, you can handle the content of the learning process, or series of processes, in the self-directed and flexible way that is required. *Where* people learnt things is no longer particularly important; it is *what* they know that carries weight. Institutions of learning therefore lose their exclusive position, and the trend today is the development of the workplace as a place of learning. At the same time people want to document their knowledge and have it accredited in order to be used in connection with new employment for example. Various systems of transfer of credits are therefore being considered on a transnational level.

3. Some of the political consequences and the influence on ideas of adult learning

Various European countries have had their adult education policies changed under the influence of the new trends in adult learning. A number of initiatives have been taken nationally to adjust learning activities to the needs of the individual, the needs of working life and the needs of society as a whole.

Recent developments in learning technology have made it possible for most adults to take education irrespective of their life situation. The flexibility of e-learning has great potential, but the general experience seems to indicate that most people will feel a need to have pure e-learning supported by other learning activities. A "social environment" on the Web cannot replace the physical meeting place. *Flexible learning* is therefore a better concept than e-learning as it implies multiple forms of input and ways of working. It is a paradox that some people feel that all this learning flexibility has reduced their own flexibility: They no longer have an excuse for not learning in an organised manner, and the familiar *time squeeze* that particularly young mothers often feel, will tighten even further.

Many immigrants will feel a cultural squeeze in their European learning situation. Many of them have had their attitudes defined by societies that are relatively more static than the present European ones. This will make great demands on their adaptability, and there are ample opportunities for conflict with their teachers as these teachers will have had their attitudes formed by a very different society.

3.1. White Paper on Education and Training

On a European political level a number of initiatives have contributed to forming recent ideas of adult learning. It is worth noting that in spite of the fact that the EU has no formal authority over the education policies of the member countries, the countries are nevertheless approaching common educational goals through a number of initiatives. We are not going into full details of these initiatives, but a few important documents and developments should be mentioned. In 1995 the "White Paper on Education and Training - Teaching and Learning - Towards the Learning Society" was published. It was usually referred to as Jacques Delors' White paper on education. The main purpose of the paper was to suggest ways of counteracting the rising unemployment in the union, particularly long-term unemployment among young people. Education and training are in no way given the responsibility for solving the unemployment problem, but they will be vital contributors. The central idea is that education and training on a once-and-for-all basis should give way to new patterns of lifelong learning. If the suggested policies are adopted, this will help "to put Europe on the road to the learning society", according to the paper. In order to reach its objectives, the paper suggested the following lines of action:

- encourage the acquisition of new knowledge
- bring school and the business sector closer together
- combat exclusion
- develop proficiency in three European languages
- treat capital investment and investment in training on an equal basis

It is interesting to note how the document regards imagination as vital to the to the innovation process:

"One function of this White Paper is to draw attention to the crucial matter of teaching to promote innovation. In fact an excessive standardisation of knowledge prevails. It tends to give the impression that everything has to be taught in a strictly logical order and that producing and identifying quality is a question of mastering a deductive reasoning system based on abstract concepts, in which mathematics play a predominant role. In certain

cases deductive approaches can thus make students passive and restrict the imagination."

The White Paper also formed the background for the Commissions declaration of 1996 as the ***European Year of Lifelong Learning***. The objective was "to make the European public aware of the importance of lifelong learning, to foster better cooperation between education and training structures and the business community, particularly small and medium-sized enterprises, to help to establish a European area of education and training through the academic and vocational recognition of qualifications within the European Union, and to stress the contribution made by education and training to the equality of opportunities."

3.2. The Lisbon Declaration

The Lisbon strategy, declared by the European Council in 2000, defines as the European Union*s strategic goal "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion". This has had obvious effects on adult education, which is defined as a core element of the strategy. The goals have been more clearly defined in the so-called future objectives, i.e. "Concrete future objectives of education and training systems" (2001). The optimistic idea is that these objectives should be reached by 2010. Twelve working groups have been set up to work towards the goals. Adult education will be effected by several of the measures. Among the more obvious ones we find:

- Improving education and training for teachers and trainers
- Ensuring access to ICTs for everyone
- Making learning more attractive
- Supporting active citizenship, equal opportunities and social cohesion
- Strengthening the links with working life and research, and society at large

In 2001 the Commission adopted a Communication on ***Making a European Area of Lifelong Learning a Reality***. It came as a result of the debate in member states of the Commission's 2000 ***Memorandum on Lifelong Learning***. The communication includes an interesting new definition of lifelong learning. In the mid 1990s lifelong learning seemed to be synonymous with adult learning. The new definition of lifelong learning as given by the Communication is: ***"all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective."***

The new concept is that "lifelong" now actually means throughout life. As the EU home page on Education and Training sums it up: "Lifelong learning is therefore about:

- Acquiring and updating all kinds of abilities, interests, knowledge and qualifications from the pre-school years to post-retirement. It promotes the development of knowledge and competences that will enable each citizen to

adapt to the knowledge-based society and actively participate in all spheres of social and economic life, taking more control of his or her future.

- Valuing all forms of learning, including: formal learning, such as a degree course followed at university; non-formal learning, such as vocational skills acquired at the workplace; and informal learning, such as inter-generational learning, for example where parents learn to use ICT through their children, or learning how to play an instrument together with friends. "

3.3. The social funds

Experience from the Community action programmes Leonardo da Vinci and Socrates has had a lot of importance as input for the discussion of EU adult education policies. The overall adult education and training activities, however, have to a far greater extent been finances by the social funds. Through the funds at least €12 billion is earmarked for lifelong earning over the period 2000 – 2006. Over almost the same period, i.e. 2000 – 2007, Leonardo da Vinci receives € 1.15 billion. The social funds are a tool to support the union's employment strategy, which means that their aims are well in line with the overall lifelong learning perspective. In the 1994-99 period they have supported learning activities that include:

- developing basic skills and upgrading existing skills
- promotion of training cultures in enterprises and developing continuous training
- development of certification and qualification frameworks
- development of new approaches to learning through modular and open learning
- help to reform technical vocational training curricula
- strengthening links between education and the workplace
- promoting better careers information and guidance

Having an influence on the development of adult learning is not an exclusive right belonging to the political institutions. Among persons and organisations working for the development of adult learning in Europe, the European Association for Education of Adults (EAEA) has had a particularly influential position. The organisation today has around 100 member organisations from 34 countries. The organisation has been and still is a powerful advocate for adult learning in Europe. Among their activities has been the development of "good practice" through projects, publications and training.

4. Effects on how we look upon learning

The debate concerning adult education through the last couple of decades may not have changed actual learning theories in a fundamental way, but it has had considerable effect on our ideas of ***how*** learning is best organised, on ***where*** it can take place, on ***when*** it can take place and on the overall ***purpose*** of education and training.

4.1. Access to ICT

The development of ICT, of course, has meant a revolution in the way learning can be organised. It is extremely flexible and it can be relatively inexpensive once the investment in multimedia resources has been made. There are those who have claimed that participation in education which implies physical presence together with other learners will be for the wealthy ones in the future. Those who can't afford this luxury will be stuck with their computers.

There are obvious advantages implied in using ICT, and this certainly means that everybody ought to have access to the resources on the Internet and the variety of multimedia software. Bridging the digital divide has therefore become one of our democratic and pedagogical challenges. *Ensuring access to ICTs for everyone* is one of the *future objectives* related to the Lisbon strategy. Making sure that people have access is not enough, however. There is a technical threshold that many people find it hard to pass, at least if they lack proper assistance. For those who pass the technical threshold there will still be problems connected with using ICT as a pedagogical tool. The human being is a social animal, and learning together with others helps maintain motivation and momentum. There are ample examples that pure e-learning solutions have not given the intended results. Those who once coined the phrase "Content is king" must have had their experience from highly motivated students, probably on university level. Those who once were e-learning advocates are now advocates of *flexible learning* which in most cases will also imply occasional physical meetings among the learners.

4.2. Learning in the workplace

The workplace is developing into an important place for learning. There are several reasons for this: On one end of the scale there are companies who find that the specialist education that they require is not supplied by educational institutions. On the other end of the scale there are companies who experience problems because of reading and writing difficulties among their employees. The obvious solution in both cases is to organise learning activities at work rather than taking the employees out of productive work for lengthy periods to send them to educational institutions. Learning in the workplace may be combined with or supported by learning at home via ICT. Although educational institutions will still play vital roles in European societies, a clear dividing line between such institutions and the rest of society is becoming blurred. Knowledge acquired through non-formal and informal learning is increasingly being acknowledged. Accreditation of prior learning (APL) or accreditation of prior experiential learning (APEL) therefore becomes important both in relation to continued formal learning and in relation to employability.

4.3. Flexibility

The flexibility of modern adult learning will naturally also imply flexibility in time, i.e. time during the day and week, but also time during your lifespan. There is no particular time for learning. It can

and does take place during working hours, in an organised form or not. It takes place in your leisure. It also takes place at the various stages of your life. In reality people can hardly avoid learning, but learning probably becomes more efficient if it is organised in one form or another. Individual adaptations of goals and learning strategies have their obvious advantages. The ultimate individual adaptation is the one you can make yourself. Learning how to learn therefore becomes of paramount importance as it can make you into the self-directed learner that should be the goal of all modern education. This again affects teacher training: Improving education and training for teachers and trainers includes the upgrading of teacher/trainer skills "to motivate their learners not only to acquire the theoretical knowledge and vocational skills they need, but also to assume the responsibility for their own learning, so that they have the competencies required for both society and work today", according to the above-mentioned document on future objectives of education and training systems.

5. Human capital and social capital

There is an obvious threefold reason for investment in education and training: The needs of the individual, the needs of society through active citizenship and the needs of working life. There is hardly disagreement about such a statement, but the weight laid on each of these reasons may vary over the years. Educational institutions have to relate to the needs of working life; this is still of major importance in Europe today. As we have seen, they no longer have an exclusive position, however. They also have their roles defined by new requirements, in particular a shared responsibility in fighting social exclusion. Access to education is clearly a part of this since employability is, to a great extent, defined by educational background. There are other requirements, however, that partly define the role of schools and other educational institutions. Among those we find the so-called ***new basic skills***. The 2000 Memorandum defines new basic skills as "those required for active participation in the knowledge society and economy". The Lisbon European Council has been more specific in listing certain areas. The list, which is not meant to be exhaustive, includes *IT skills*, ***foreign languages***, ***technological culture***, ***entrepreneurship and social skills***. These skills, according to the Memorandum, are "the essential foundation for active citizenship and employability in 21st century Europe."

5.1. Cooperation and social inclusion

These skills, which we want to foster through a variety of measure, are all a question of investment in human resources, i.e. the investment in human capital. This is in no way a new idea. The 1995 White Paper has as one of its aims to "Promote the perception of training as an investment and not as operating expenditure". The term ***human capital*** seems to be well established and refers to the development of resources within the human beings. The term ***social capital***, which refers to the relationship ***between*** human beings, is not so well established. It is, however, a very important concept to discuss in relation to the function that is being expected of educational institutions.
Social capital is difficult to define precisely and even more difficult to measure. It refers to ***networks*** within a society, the ***codes of conduct*** in a community and also ***confidence in public institutions***. The degree of ***trust*** within a community has been used as an indicator of its level of social capital. If you have full trust in your fellow human beings and in the

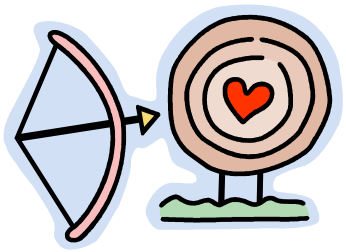
institutions of your society, you don't need to spend a lot of time worrying about how to avoid being cheated. You can concentrate on productive work, perhaps in cooperation with others in your community. A report to the Nordic Council of Ministers in 2001 reveals a clear link between the level of participation in adult education and the level of trust in other people. Investment in adult education, therefore, is also an investment in the positive productive forces that are implied in a high level of social capital. Further education will enhance people's employability and will most probably imply personal satisfaction, but in this particular context it is the perspective of active citizenship that is particularly important. If you understand the functions of the institutions in your society and if you are aware of your own responsibility as a citizen in your community, you will probably have more confidence in your possibility to influence the development of your society. In other words, you will increase your society's social capital.

The way we relate to social capital can also be defined in negative terms, i.e. how do we avoid reducing our social capital? When we in Europe pay a lot of attention to fighting social exclusion, this has a clear connection with our knowledge that a society with great social divides is a society which harbours potential unrest and perhaps physical conflict. The overall strategies of reducing unemployment, of integrating immigrants, of bridging digital divides, of helping people with reading and writing difficulties and of investing in new basic skills, are all part of an underlying awareness of the importance of social capital.

6. Regional differences

In these pages we have referred to a common European approach to adult learning. Although this common attitude may exist on a political level, it has not necessarily filtered though to the local, operational level. We believe there is still a wide variety of ways in which adult education is organised, and the way teachers relate to their functions is possibly even more varied. We know that there are regional differences that might be described. But we leave out a description of these differences as it is very difficult to generalise and at the same time give a fairly accurate description of the trends in various regions. It is possible, however, to argue that regional differences should be retained rather than levelled out. When people who belong to different regions meet to discuss educational questions, their varied experience can be a valuable contribution to achieving better results. People from similar backgrounds are more likely to find similar solutions, and these may not be as good. Cultural differences should be seen as incentives to imagination, and intercultural awareness ought to be part of all courses in European adult education. For the sake of better results ethnocentric attitudes have to give way to appreciation of European differences in all fields of cooperation. The students at one particular adult education course summed this up by saying that "they would have liked more focus on intercultural awareness, as this would probably have made them move beyond their prejudices at an earlier stage. Learning from their differences might have been easier if reflection on intercultural aspects had been made part of every module."

6.1. Common goals?



If a greater degree of similarity is not advisable, how are we then going to achieve our common goals? The goals set by the European Council, can probably be reached in different ways. When looking at the vast differences in European education, it is amazing to what extent European politicians have actually agreed to common educational goals. The vital thing, however, is to achieve transparency, not similarity. It is one of the central ideas in the EU that people should be able to move freely across borders to find work in other countries. This requires us to standardise our descriptions of learning outcomes. There is a movement in this direction through several initiatives. European Credit Transfer System (ECTS) is one of those, and there are activities going on to find common ways of accrediting prior learning and common ways of writing a CV. The Europass training, which implies that some of your training can be taken in another country, is not created to approach similarity between member states in the way they organise their education and training. But the Europass document that will be the resulting documentation is a common European document. It is, however, only documentation for the part of the training taken in a foreign country and it does not replace the certificate from the person's country of origin. But education and training mobility can lead to mobility in connection with jobs. We therefore have to be able to understand European certificates and diplomas, but this is a far cry from making education and training similar.

7. Discussion topics

- To what extent do you think creativity can be learnt?
- What is the potential conflict between the attitudes of the authorities and the individual companies when it comes to investment in adult learning for the 50-60 year-olds?
- To what extent is the definition of lifelong learning in the 2001 Communication wide enough to include the concept of life-wide learning?
- How do you look upon the idea that ICT-based learning will be for the less wealthy ones in the future, whereas those who can afford go to courses where they can meet other people?
- Why are "new basic skills" needed in Europe? Which of these skills do you consider most important?
- How do you understand the term social capital? In what way can adult education play a part in developing it?
- In what ways can European differences be both drawbacks and assets?

8. Self-evaluation questions

- How has the meaning of the term lifelong learning changed in Europe in recent years?

- What is the goal of the Lisbon strategy?
- What is meant by bridging the digital divide?
- Give at least two reasons why the workplace has become an important arena for learning?
- Why do we argue in this chapter that retaining regional educational differences can have positive effects?

9. Key terms

NGOs (non-governmental organisations) - voluntary organisations, very often with an idealistic goal, belonging to what is usually described as the third sector, i.e. in addition to the public and private sectors

Adaptability - the ability to adjust to new situations and challenges

Demographic - having to do with the description of the population of an area, e.g. the relative size of the elderly population versus the young population

White paper - an official document (report) from the authorities in which future plans for a policy area are described

The European Council - a council consisting of the Heads of State or Government of the Member States of the European Union. Their main function is to gives guidelines for the social, economic and political development of the union.

The digital divide - the gap (difference) between those who know how to use ICT (computer) resources and those who don't

10. Further readings

White Paper on Education and Training - Teaching and Learning - Towards the Learning Society, 1995
A Memorandum on Lifelong Learning: Commission of the European Communities (CEC), 2000
Making a European Area of Lifelong Learning a Reality: Communication from the Commission (2001)
Report from the Education Council to the European Council: "The concrete future objectives of education and training systems" (2001)
Albert Tuijnman e.a. (2001): Curious Minds – Nordic Adult Education Compared, Nordic Council of Ministers
Magda Trantallidi ed. (1996): Adult Continuing Education for developing human resources in the European Union of the year 2000, Athens
Paolo Federighi e.a. (1997): The Preparation and Management of Transnational Adult Education Projects, EAEA, Amersfoort

Mark Dale ed. (2000): Towards the End of Teaching? – Innovation in European Adult Learning, Nordic Folk Academy
John Field ed. (2002): Promoting European dimensions in lifelong learning, NIACE

Adult Learner
1st Module

CHAPTER 2

Basic concepts and principles

Chapter 2

Basic concepts and principles

1. Introduction

Concepts are words that label ideas, which are of key importance to us. They have therefore a resonance, which goes beyond that of ordinary words. This resonance depends crucially, of course, upon the context. It is therefore a characteristic of concepts that their interpretation and usage varies. They may be accorded varied meanings by different interest groups, such as adult educators, trainers, politicians, representative bodies, employers, trade unions, central and local governments and international organizations. These understandings also vary across time and space. In other words, concepts are contested. In spatial terms, the meaning and significance of concepts may vary from country to country, region to region, even from town to town (Tight 1996). However, in an increasingly internationalized world, ideas and practices are converging and many more concepts are having global application and meaning. The impact of global transformations on the development of concepts and practices is currently manifested in the form of a movement for lifelong learning, in economically developed societies. From the mid-90's, the European Commission has become a major Inter-governmental policy actor and has influenced current developments of LLL strategy in Europe. Lifelong Learning concepts and practices, in the Member States, are analysed and current policy priorities of the governments are reviewed in an attempt to do justice to a European perspective to educational policy sectors (E. Commission 2000).

2. Aims and objectives

The aim of this unit is to clarify *the meanings and usage of the key concepts of adult learning and also the principles of adult learning*, as they are perceived and contextualised in Europe today. The goals of the unit are:

- to enhance mutual understanding in the framework of the European pilot ADDED project
- to develop the European dimension in the field of adult teaching and learning, and
- to understand different international concepts and their application in national contexts.

- to better understand how adults learn,
- to provide a sound foundation for planning adult learning,
- to better analyse the characteristics of: the individual learner, the subject matter and the particular learning situation,
- to improve teachers' effectiveness with adult learners.

The selected concepts in this unit are the most common and central, and therefore, the most for essential to understanding the field of adult learning. They are often used by governments, current literature and the media. However, some new concepts are currently "buzz' words in use among politicians and educationalists rather than conceptualized by adult educators and the public.

3. Adult learner – adulthood

An "Adult" is a person aged over 16 years (E. Commission 2000b). This concept seems to maintain the strong influence of the 1976 UNESCO definition, according to which adults are people whom their society considers mature enough to start performing adult roles, such as full-time employee, spouse, parent, and tax-payer and so on. Thus, the concept is not directly connected with age, nor does it conform to the legal definition of the age of majority (Knowles et al.1973).
Rogers argues that the term "adult" encompasses a wide range of concepts, for example, it can refer to a stage in the life cycle of the individual, it can refer to status, accepted by the society, it can refer to a social sub-set to distinguish from children or it can include a set of ideals and values (Rogers1996).

Adulthood may thus be considered as a state of being, which accords status and rights to individuals and simultaneously confers duties or responsibilities upon them (Tight, M.1996).

Havinghust (1961) illustrates the changes in developmental tasks during the three periods of adult life as follows:

Adult Learners are all the socially mature citizens, who undertake an educational activity for a variety of motives: personal, professional, economic, social, cultural, civic and spiritual (Jarvis 1995).

Adult learners are those who are 'participants' in adult learning opportunities. They form, therefore, a heterogeneous group of people with different educational biographies and diversified educational needs. Recent research suggests that Adult learners are all the socially mature citizens regardless of their attitude towards learning. "Non participants" in adult learning are to be included in the notion of "adult learners" because their demand for education is implicit (Belanger&Federighi 2000). Nevertheless, the application of the notion of "Adult" in practice is often subject to age-related restrictions imposed by European regulations and/or national laws.

Early Adulthood (ages 18 to 30):

- Selecting a mate
- Learning to live with a marriage partner
- Starting a family
- Rearing children
- Managing a home
- Getting started in an occupation
- Taking on civic responsibility
- Finding a congenial social group

Middle Age (ages 30 to 55):

- Achieving adult civic and social responsibility
- Establishing and maintaining an economic standard of living
- Assisting teenage children to become responsible and happy adults
- Developing adult leisure-time activities
- Relating to one's spouse as a person
- Accepting and adjusting to the physiological changes of middle age
- Adjusting to aging parents

Later Maturity (ages 55 and over):

- Adjusting to decreasing physical strength and health
- Adjusting to retirement and reduced income
- Adjusting to the death of a spouse
- Establishing an explicit affiliation with one's age group
- Meeting social and civic obligations
- Establishing satisfactory physical living arrangements

We suggest critical thinking about age groups and how they take place in your country and local community.

In fact, this targeting age approach serves as an artificial distinction of adult to youth learning (Field 2000). The age of 25 is often considered as the threshold to adult learning opportunities and this trend can be traced in the recent and current European policy papers (E. Commission 2000, 2002).

4. Adult education / learning

Education is conceived as "organized and sustained instruction" within the formal education and training system, including primary, secondary and tertiary levels (CEDEFOP 1996).

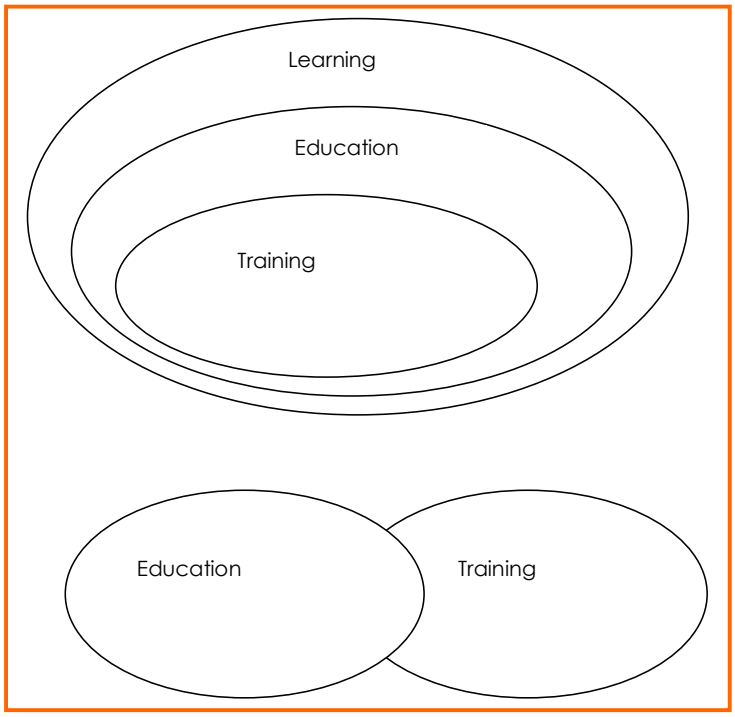


Figure 1. Alternative diagrammatic representations of core conceptual relations. Source: Tight (1996).

The conceptualization of education as taking place in explicitly educational institutions is not satisfactory because it refers only to the location and not to any of the qualities of education (Jarvis 1995). It also seems not to recognize that education also can take place in other kinds of institutions, the primary function of which is not education, such as working places, prisons, churches, military bases, health centres and so on. It might also take place outside of institutions, as for example in the case of distance education (Tight 1996).

Moreover, UNESCO views education as: "organized and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all the activities of life' (quoted in Jarvis 1990,p.105).

According to this broad definition, education implies the following elements:

- an instructor and possibly an institution involved,
- a process that occurs over a long timeframe,
- the transmission of general worthwhile knowledge to those committed to it,
- the acquisition of skills, as part of the educational process,
- the ability to understand a wide range of knowledge by internationalized information, explanation and reasoning,

- a combination of knowledge, skills and understanding, valuable for all human activities.

However, education should not be seen in individualistic or psychological terms only. On this matter, some sociologists focus their analyses on the function and place of education, within a given social context (Jarvis 1996). For example, some consider the purposes of education - that is, knowledge and understanding - to be socially constructed (Bourdieu-Passeron 1990). With this perspective, educational systems are viewed as reproducing social and economic divisions, and formal education as an apparatus of the state to produce people with desired skills and qualities. Hence, this school of thought reveals a particular interest in non-formal forms of education that are outside the influence and control of the state.

Learning could be seen as not necessarily involving instruction, as often occurring over a shorter timeframe and in smaller chunks.

Learning, like breathing, is something everyone does all of the time even if they do not realize that they are doing it. It is a fundamental human process. Unlike breathing and education, however, there is no common understanding of how we learn and there are many and divergent opinions amongst psychologists and educators about just what learning is (see unit on learning theories).

However, distinctions between education and learning are not always cut and dried. They allow us to conceive both concepts as ends of the same spectrum and as shading into each other. To some extent, therefore, the terms may be used interchangeably (Tight 1996).

How, then, to distinguish between education and training? The commonest approach to making a distinction is to use the ideas of breadth and/or depth.

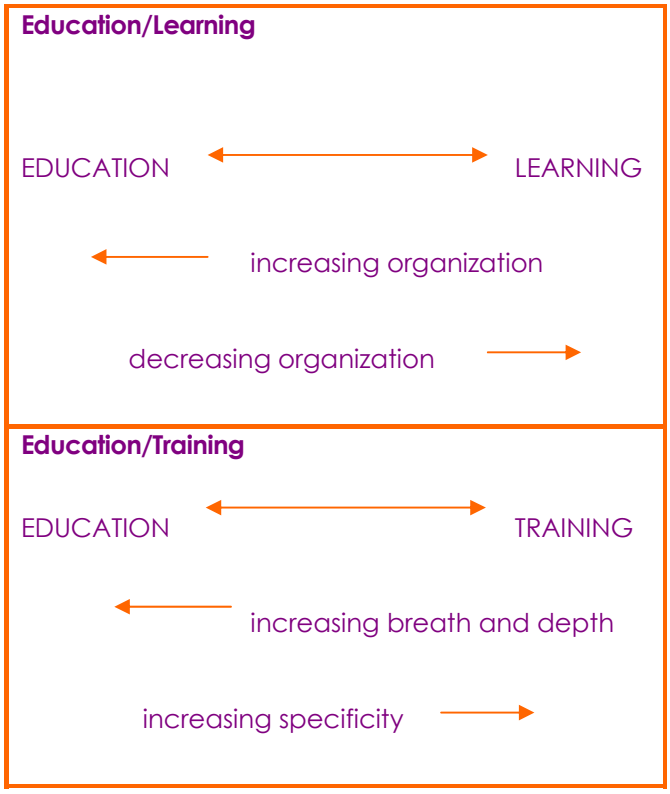


Figure 2. The education/learning and education/training spectra. Source: Tight (1996)

While, **Education** is considered as broad, general, knowledge-based, long term and humanistic, one would argue that **Training** is narrow, skill-based, specific, vocationally oriented and hence has a linkage with the economy.

Vocational training applies, with two qualifying concepts.

5. Initial & continuing training

The former is perceived as vocational and technical education and training within the school system, including university level education. The latter is perceived as vocational training provided to mainly four categories of adult learners:

- those who are already employed,
- those who want to change profession,
- the short-term or longer-term unemployed and,
- those who wish to enter the labour market for the first time at a later stage in their life, or wish to return after a long period of absence.

Continuing training includes diversified forms, such as:

- re-training to acquire new competences,
- specialised training to update their knowledge and skills,
- on-the-job or in-service training, when it takes place within the work place (CEDEFOP1996).

However, this conceptual distinction between initial and continuing training is the reflection of an artificial division of adult education into levels or sectors to legitimate the fragmentation of policies into different, often rival government departments (Field 2000). As mentioned earlier, Vocational training, introduces the notion of competence, as distinct from knowledge and skills, hence, to contribute to economic production and development (see also competence &HRD).

Vocational training is considered to relate to labour market issues, hence, to contribute to economic production and development. On this belief, lies the underpinning of the argument for greater investment in Human resource development (HRD; OECD 1996). However, an HRD approach to education is considered to be very narrow and restricts education to learning for a future job as it focuses on the economic utility of education and overlooks the humanistic values.

Adult learning theory makes a distinction between 'education of adults" and 'adult education'.
Rogers argues (1986) that the former applies to all forms of education planned for those over 16 years, regardless of the relevant experience they may have, the ability to control their own learning and their possibility to contribute to the learning process.
By contrast, the latter "consists of all those forms of education that treat the student participants as adults –capable, experienced, responsible, mature and balanced people" (Rogers 1996).

Thus, adult education/learning includes all types and forms of processes for adults and the following key elements can be identified:

- the locations are diversified, as it can take place in educational institutions, at the workplace or in the community,
- the objectives are multifaceted aiming at the development of knowledge, skills and abilities of the individual,
- the forms, content areas and methods of delivery are varied,
- the development is holistic, encompassing personal, cultural and economic dimensions,
- it implies adaptation to change in the life of the individual through empowerment and action,
- it has a humanistic and holistic approach to learning, which brings about change in attitudes or behaviour.

Consequently, adult education/learning is a complex concept and its functions are diverse and complementary. It can, be seen as a tool for personal enhancement as well as economic and social development (E. Commission 2000c). However, current Human Resource

Development (HRD) policies have impacted on a reductive conceptualisation of adult education to continuing vocational training. This trend restricts adult education to learning for a job because it mainly focuses on the economic utility of adult education and overlooks its humanistic values.

Malcolm Knowles, an American adult educator, developed the concept, which has taken on a broader meaning and refers to learner-focused education for people of all ages, hence, the popularity of the concept in several countries.

Knowles popularized the concept of "andragogy", although he was not the first to use the term. Andragogy first appeared in the writing of a German teacher named Alexander Kapp, in 1833. Commenting on Plato's education theory, Kapp contrasted andragogy (andr - meaning 'man') with pedagogy (paid- meaning 'child' and "agogy' meaning 'the process of leading somebody'). The term did not take popular hold and fell into disuse until a century later, when Lindeman applied the term in English. This led to a gradual recognition of andragogy in France, Yugoslavia and Holland. Knowles argues that the term "Andragogy" was first introduced into the American culture in 1967 by Dusan Savicevic, a Yugoslavian adult educator, as a concept and a label to differentiate it from Pedagogy, the theory of learning for children.

Interesting point

'Andragogy', although it sounds Greek, is not a Greek word. The term has been coined and used by non-Greek speaking scholars. Therefore, Andragogy, is etymologically problematic and has a sexist feel because in modern Greek it means "didactic teaching for male adults". As a result, it cannot apply in Greece as an international concept as it contradicts the core principle of critical thinking and the overarching principle of "inclusiveness", both implicit in adult learning theory.

However, Andragogy did contribute to widening interest in adult education during the 1980's but was weakened by growing recognition of diversity and the need for a multiplicity of practical and theoretical approaches in adult education. Adult education is a field of research and practice and draws on several disciplines such as: sociology, psychology, political economy, political science, anthropology etc. It is therefore highly unlikely for Andragogy to be viewed as sufficient to explain or shape the education of adults.

6. Adult teaching / learning

The idea of teaching may be thought of as a natural complement to those of learning and education. In order to learn, the reasoning runs, you have to be taught. However, learning may take place without the direct presence of a teacher, so the relationship is the other way round, in order to teach, you need at least one learner. Yet, for adult educators and trainers, learning is a lifelong process and narrow interpretations of teaching may be regarded as unduly restricted (Tight 1996).

Additionally, the advent of information and communication technologies (ICT), has brought about a paradigm shift in education and training, that is, the shift from education to learning. This shift impacts on traditional teaching and learning practices (E. Commission 2000). Thus, from traditional and passive forms of learning there is a shift to active learning, facilitated by electronically based information. Additionally, time and space dimensions to learning opportunities are developing, and diversified methods, teaching aids, learning environments and time schedules are on offer. Consequently, new forms of adult learning provision are challenged to meet the varied learning needs of diverse and heterogeneous learners.

This notion is often applied to provision which tries to remove barriers that prevent attendances at more traditional courses, but it also suggests a learner-centred approach to learning. This kind of learning, in the form of courses flexibly designed to meet individual requirements, may be offered in a learning centre, or most of the activity may be carried out away from such a centre e.g. at home, at work etc. in nearly every case specially prepared or adapted materials are necessary (E. Commission 2002).

7. Adult educator / learning facilitator

The role of adult educator has been defined broadly in the literature as: teacher, tutor, trainer, instructor, lecturer, helper, facilitator, consultant, broker, human resource developer, change agent and mentor. In fact, those working in adult learning often reject the term 'teacher" itself, in part from a wish to distinguish themselves from schoolteachers and in part because of the perceived inappropriateness of what are seen as typically school teaching methods to adults. The adult educator should use the adult learning theory in practice.

Part of being an effective adult educator 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 Malcolm Knowles. He introduced a new approach to more systematically apply Andragogy across multiple domains of adult learning practice. The following figure 3. graphically summarises the core content of this approach.

Therefore, Knowles suggested that adult educators should:

- set a cooperative learning climate
- create mechanisms for mutual planning
- arrange for a diagnosis of learner needs and interests

- enable the formulation of learning objectives based on the diagnosed needs and interests
- design sequential activities for achieving the objectives
- execute the design by selecting methods, materials, and resources; and
- evaluate the quality of the learning experience while re-diagnosing needs for further learning (Knowles 1980).

However, and as a result of the technological developments, adult teaching is also a changing paradigm, from transmitting knowledge to facilitating and supporting learning roles. Teaching is no longer seen as imparting and doing things to the student but is defined as "facilitation of self-directed learning"(see also unit on andragogy vs. pedagogy).

Moreover, recent studies (TTnet 2002) suggest that other professionals currently receive more recognition incentives to develop their contribution to learning and their construction of a sense of European citizenship.

The following professionals should, therefore, also function as learning facilitators:

- Teachers & trainers for youth
- Professional adult educators
- Volunteer adult educators
- Community workers
- Youth workers
- Technology professionals
- Social workers
- Health workers
- Trade union activists
- Librarians

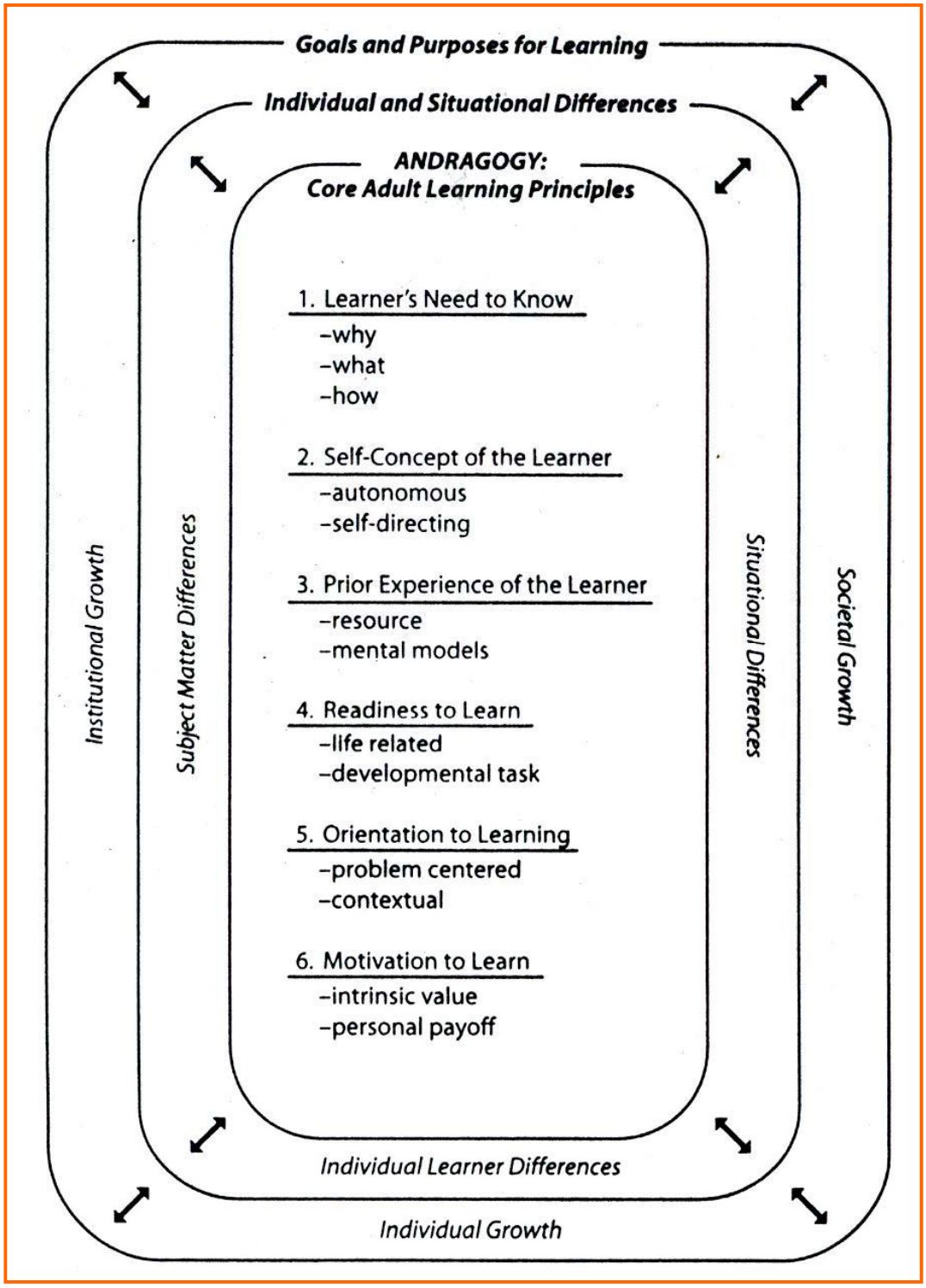


Figure 3. Andragogy in practice (Knowles, Holton and Swanson,1998)

8. Lifelong education / learning

Both concepts illustrate the growth in international thinking, policymaking and cooperation in the field of adult education and training after the Second World War. In essence, lifelong education/learning argue for a rejection of the "front-end" model, that is a model of education that is confined to childhood, adolescence and early adulthood. Instead, education is portrayed as being available throughout life, as needed and desired, for everyone. Thus, alternative models of "recurrent" education are initiated, that is, models that imply the alternation of education with other activities, of which the principal would be work, but which might also include leisure and retirement (Tight 1996).

Some would argue that the origin of the notion of learning throughout life can be traced back to Plato (Jarvis 1990, Edwards 1999), however, the current use of the concept is strongly influenced by Anglo-Saxon culture (Field 2000) embedded in the OECD and European Commission policy papers(OECD 1996, E. Commission2000).

The significance of the concept appears to be very broad and inclusive and it is mainly perceived as a new strategy for transition towards a learning society.
Trying to interpret the EU member Governments' (Eurydice survey 3-2000c) understanding of LLL, the following key elements can be identified:

- LLL is an inclusive and multidimensional concept,
- it is considered to involve mainly adults,
- it involves both formal and non-formal education,
- it is lifelong and life-wide, as it takes place in the work place, the family, the community and through the media,
- it is associated with many factors, agents and policies.

However, some consider LLL as an ideal that can have a valid, inspirational role to stimulate concern for and direct attention to learning across the life-span, more than to offer a model or target, against which progress and practice might be judged (Tight 1996).

Life-wide learning

While lifelong education, as mentioned earlier, has to do with the extension of education and learning throughout life, life-wide learning is acknowledging the importance of education, learning and training, which takes place outside recognized specialist educational institutions.

Life-wide learning is all learning activity whether formal, non-formal or informal. In other words, it is one dimension of lifelong learning (Communication 2001).

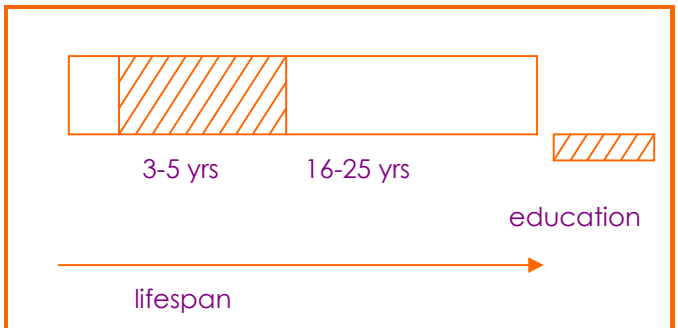


Figure 3. The front-end model of education
Source: Boyle (1982)

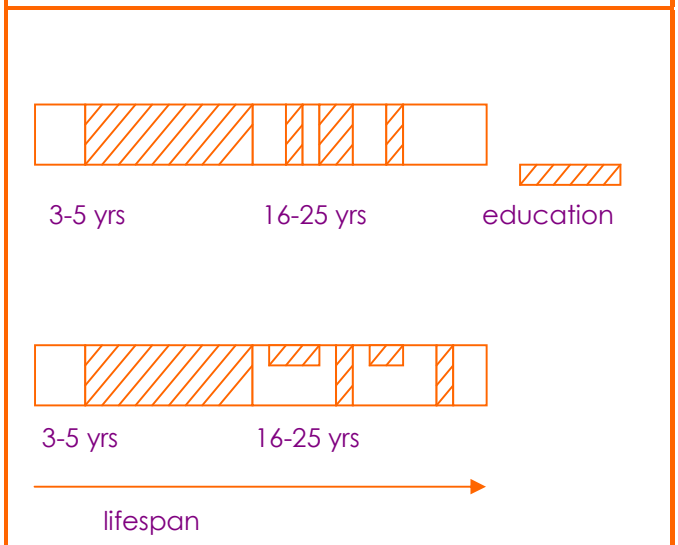


Figure 4. Alternative models of lifelong education
Source: Boyle (1982)

9. Knowledge

As mentioned earlier, Vocational training introduces the notion of competence, as distinct from knowledge and skills.

Alternatively, competence is the ability to draw on a pool of general knowledge and multiple skills in order to perform better in different situations.

Competence is essentially characterized by performance and is directly relevant to the needs of employment.
Employers often think that knowledge and skills tend to be educationally oriented in content and values, while neglecting performance, hence, their motivation to introduce competence-based education and training in current policy (Tight 1996).

> Identification of competences is the process of specifying and defining the boundaries and nature of competences
>
> Formal recognition of competences is the overall process of granting official status to competences gained either formally by awarding certificates or in a non-formal or informal setting by granting equivalence, credit units, validation of gained competences.
>
> Social recognition of competences is the acknowledgement of the value of competences by economic and social stakeholders (Communication 2001).

Consequently, competence is concerned with what people can do rather than with what they know. This has several implications:

- Competence must have a context, as it is concerned with doing
- Competence is an outcome, it does not describe the learning process which the individual has undergone
- There must be clearly defined and accessible standards through which performance is measured or accredited, and
- Competence must refer to what somebody can do at a particular point in time (Edwards 1999).

It is clear that, global transformations have brought about structural changes, and European societies and economies are in a process of intensive transformations, which impact on the re-configuration of adult learning policies. However, macro changes may be a threat to the cohesion of European societies. People are risking higher levels of inequality in the information age. There may be a divide between "*winners*", who benefit from the developments in information, communication, travel and employment possibilities, and "*losers*", who risk social exclusion and marginalisation. In brief, knowledge, skills and competence are considered to be the vehicle leading to social integration and mobility. Hence, the concern of the states and communities to invest in the development of the "human resources" of the people in order to be "*employable*" and to become "*adaptable*". Also, organisations see human resource development as a necessary and integrated response to a variety of contemporary pressures felt by organisations. These include competitive restructuring, internationalisation, decentralisation, technological changes, quality and service improvements etc.

However, there are objections and criticisms to the notions discussed above at both conceptual and practical levels. In the former case, there are many who object to the idea of considering people as "human resources" and their current and future economic productivity.

Perhaps "Developing resourceful humans" (Burton 1992) or "Unlocking people's creative forces" (Belanger & Federighi 2000) is more appropriate to adult learning theory and practice. The practical objections to the concepts is that most organisations continue to respond to change in a piecemeal fashion than to adopt a central, integrated and comprehensive HRD approach (Tight 1996).

Thus, the idea of the learning organisation applies the same idea as Lifelong Learning but at the organisational or company level rather than the individual or societal level and the concept arises from the concerns about change and survival.

However, the consensual nature of idealisations such as the learning organisation ,which may be seen as a solution to problems of competitiveness, have been criticised in various ways, as there are substantial variations in practice and experience. For example, who is included within the ambit of the learning organisation: permanent, full-time staff, part-timers, all grades, customers, all plants? Is the learning organisation about empowerment or exploitation? In which ways are the resulting profits channelled? Could it be that the idea of learning organisations is as idealistic and unrealisable as the idea of lifelong education? (Tight; 1996).

10. Learning (knowledge-based) society / economy

This is a recently developed concept, defined in the policy papers as:
A society whose processes and practices are based on the production, distribution and use of knowledge by all its members (Communication 2001).

Edwards argues (1999) that at least three interpretations have been placed on the concept of the learning society:

- As an educated society, committed to active citizenship, liberal democracy and equal opportunities
- As a learning market, enabling institutions to provide services for individuals as a condition for supporting the competitiveness of the economy
- As learning networks, in which learners adopt a learning approach to life, drawing on a wide range of resources to enable them to develop their interests and identities (Edwards 1999).

Additionally, two more concepts are presented as models for national or organisational systems of provision for implementing lifelong education and they both have a central role within the learning society.

However, there is a vast disparity between the rhetoric of a learning society / community / region / city and present reality. The actual amount of learning adults undertake is low in most EU countries, because of the persisting structural inequalities associated with access to education and training.

Thus, the above concepts seem to be either mere rhetoric or a partial vision of the learning society for highly qualified people, who form part of an international elite. The majority of

people are still excluded because none of these models is likely to suit everybody and every circumstance. So we might simply treat these concepts as overlapping alternative patterns to be used as needs suggest and circumstances allow (Tight 1996).

In conclusion, to make LLL a reality for all, Governments are challenged to adopt long-term reform of the whole education and training system, with the involvement of all the relevant players, in particular, the social partners, the civil society, as well as the local and regional authorities Furthermore, they are invited to increase substantially public and private investment in order to create a comprehensive system of accessible and enabling adult education and training (E. Council 2002).

11. Three rings of andragogy

Part of being an effective adult educator 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 Malcolm Knowles. He introduced a new approach to more systematically apply Andragogy across multiple domains of adult learning practice. The following figure graphically summarises the core content of this approach.

The three rings of Andragogy in practice are:

- Goals and purposes for learning
- Individual and situational differences
- Core adult learning principles

Goals and purposes for learning are portrayed as developmental.

The traditional view among experts and practitioners is to think exclusively of individual growth. Adult learning is equally powerful in developing better institutions and societies.

Individual and situational differences are portrayed as variables. These variables are critical elements for understanding adult learning in practice. They act as filters that shape the practice of Andragogy.

The core adult learning principles are perspectives that come directly from the adult learner and they summarize Andragogical principles within the context of practice.

12. Core principles of adult learning

The 6 core principles of adult learning identified by Malcolm Knowles are as follows:

1. Learner's need to know

-why
-what
-how

Psychological studies suggest that motivational, affective and developmental factors are more crucial in adults than in younger learners. Adults are more able to be reflective and to articulate learning goals. They are more disposed to bring their life experiences to what and how they learn (Kerka, S. 2002).

2. Self-concept of the Adult learner

- autonomous
- self-directing

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 also 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. Specifically, emphasis should be given to:

1. experiential techniques
2. practical application
3. unfreezing and learning to learn from experience

3. Prior experience of the Learner

- resource
- mental models

- As do all learners, adults need to be shown respect. Adult educators 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.

4. Readiness to learn

- life-related
- developmental tasks

- 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, teachers 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.

5. Orientation to learning

- problem-centered frame of mind
- contextual

- 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. Teachers 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.

Therefore the following elements are of major importance for the orientation of adult educators:

- the learning climate
- the timing of learning
- the diagnosis of needs
- the grouping of learners
- the planning process
- the organization of the curriculum
- the design of learning experiences
- conducting learning experiences
- the evaluation of learning

6. Motivation to learn

- intrinsic value
- personal payoff

Moreover, 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. Teachers must tell participants explicitly how the lesson will be useful to them on the job.

13. What motivates adult learners?

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 fulfil 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.

14. Which are the main barriers for participation?

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,
- lack of scheduling problems and problems with child care and transportation.

Motivation factors can also be a barrier. 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. Teachers must learn why their students are enrolled (the motivators); they have to discover what is keeping them from learning. Then the teachers must plan their motivating strategies. A successful strategy includes showing adult learners the relationship between training and an expected promotion.

15. How can a teacher become more effective with adult learners?

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 teacher 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. Teachers should present materials that stimulate 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:

- **motivation**
- **reinforcement**
- **retention**
- **transference**

15.1. Motivation

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

- **Set a feeling or tone for the lesson.** Teachers 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.

15.2. Reinforcement

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

- *Negative reinforcement* is normally used by instructors teaching a new skill or new information. It is useful in trying to change modes of behaviour. The result of negative reinforcement is *extinction* - that is, the teacher uses negative reinforcement until the "bad" behaviour disappears, or it becomes extinct.

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

Reinforcement should be part of the teaching-learning process to ensure correct behaviour. Teachers 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 behaviour.

15.3. Retention

Students must retain information from classes in order to benefit from the learning. The teachers' 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. Teachers 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.

15.4. 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 behaviour 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 the 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.

Important

Andragogy's core adult learning principles take the learner seriously. They go beyond basic respect for the learner and view the adult learner as a primary source of data for making sound decisions regarding the learning process.

While each principle is important, as a set they must be viewed as "a system of elements" that can be adopted in whole or in part. In fact, an essential feature of Andragogy is flexibility (Knowles 1984). However it is easy to see direct interactions between the principles of Andragogy and the variations derived through the ring of *individual and situational differences* and the ring of *goals and purposes for the Learner*. Together they constitute Andragogy in practice.

16. Self-evaluation questions

- What do we mean by key concepts?
- How are concepts interpreted and used?
- Are the same concepts applicable in all European contexts?
- Who is an Adult?
- How we define Adulthood?
- Who is considered as an Adult learner?
- What is the meaning of Adult education?
- Is there one word concept for adult learning in your mother tongue?
- What is the meaning of a paradigm shift in Education and Training?
- Is competence different from knowledge and skills?
- Can competences be recognized and accredited?
- Who is considered an Adult Educator?
- What is a Learning organization?
- What is the meaning of lifelong learning?
- Which is the front-end model of Education?
- Is there a model of lifelong education?
- Why is Human Resource Development so important for the European economies?
- When governments refer to the learning society, what do they mean?
- Have you heard about the learning community, city or region?
- What is community education/learning?
- Are you familiar with the notion of life-wide learning?
- How does Andragogy work in practice?
- Which are the main characteristics of adult learners?
- What motivates adult learners?
- Which are the main barriers against participating in learning?

17. Key terms

Adult education is a comprehensive term that includes all kinds of educational processes for socially mature people who wish to bring about changes to their lives for personal, social and/ or economic reasons (CEDEFOP 1996).

Adult learning is a comprehensive English term encompassing education and training for adults and it does not apply in all the languages as one word concept. It is provided mainly by public, private or social agents e.g. non-profit companies and non-governmental organizations (NGOS).

Andragogy is initially defined as, "the art and science of helping adults learn," Andragogy has come to be understood as an alternative to pedagogy.

Training is conceived as purposeful learning aimed at enhancing knowledge, skills and competences for employment (CEDEFOP1996).

Learning facilitator is anyone who facilitates adults to acquire knowledge and competences by establishing a favourable environment, including those exercising a teaching, training or guidance function. The facilitator orientates the learner by giving guidelines, feedback and advice throughout the learning process, in addition to assisting the development of knowledge and competences (Communication 2001). Learning facilitators are concerned with how best to encourage and develop relevant learning in their trainees/clients.

Knowledge may be seen as a level of awareness, consciousness or familiarity gained by experience, learning or thinking.

Skill is a property of the individual, made up by various combinations of education, training and competence.

Competence is the capacity to use effectively experience, knowledge and qualifications (Communication 2001).

Human resource development is the field of study and practice responsible for the fostering of a long-term, work-related learning capacity at the individual, group and organisational level of organisations. It includes training, career development and organisational development (Communication 2001).

Employability is the capacity for people to be employed: it relates not only to the adequacy of their knowledge and competences but also to the incentives and opportunities offered to individuals to seek employment (Communication 2001).

Lifelong learning is all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment related perspective. (Communication 2002)

Lifelong education is perceived as the organized part of learning provided through policies and programmes, primarily, for adults to update their professional knowledge and skills or to acquire new qualifications (E. Commission 2000).

Learning organisation is any organisation (e.g. enterprise, school, association) that encourages learning at all levels (individually and collectively) and continually transforms itself as a result (Communication 2002). Learning organisations, if they merit the term, should see human resource development as a central and essential aspect of their activities.

Learning community is a community that widely promotes a culture of learning by developing effective local partnerships between all sectors of the community and supports and motivates individuals and organizations to participate in learning (Communication 2001).

Learning city/region is a city/region in which all stakeholders collaborate to meet specific local learning needs and implement joint solutions to common problems (Communication 2001).

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Adult Learner
1st Module

CHAPTER 3
Learning theories

Chapter 3

Learning theories

1. Introduction

Learning can be considered as a known – unknown concept. We know it from our own numerous experiences. Many people are perplexed when asked what the essence of learning is or what learning means to them. What understandings and beliefs do individuals have in regard to learning?

Usual answers are reminiscences of learning in school: acquiring knowledge, books, repetition… They point to the fact that our idea of learning is usually very narrowly connected to learning from books in school. The concept of learning is often associated with negative emotions. Learning is in our consciousness thus associated with the traditional school situation and with something negative. The next question touches upon subjective understanding of learning. What is the essence of learning: is it primarily receiving, accumulating, acquiring, perceiving something, or is it also changing, developing, widening of our horizons.

It is becoming increasingly obvious that these often not quite conscious understandings, ideas and notions determine how we learn, teach and value the results of learning – not the »official« definitions.

- Learning is a part and a result of every human activity and therefore it can not be compared to certain activities in school or training situations. Schools create a fictional belief, that teaching precedes learning and includes a message that learning means obtaining knowledge. When considering learning as a cognitive process, it is important to understand that obtaining knowledge is not an outcome of learning, but rather a prerequisite of the whole process.

- Learning is a complex process. Learning can be characterized through different aspects. Learning is cognition which includes obtaining, interpreting, understanding, acquisition, formulation, forgetting. Life and development accompanies learning. Therefore learning is lifelong and life-wide taking place in different situations and in different ways.

- Readiness to learn depends on adults' apprehensions/imaginations about learning. Learning develops in a socio-cultural environment and contains apprehensions and attitudes about learning, which appear in behaviour and comprehensions.

One of our students wrote:

"Adult learner is always on the way to somewhere…difference lies on the length and difficulty of the path but also how fast it will be passed. Some walk, others speed, third ones jog and fourth ones are so fast that they need to be run after…"

2. Aims

The learners' aims of this chapter are:

- To explain the essence of learning;
- To create readiness for analyzing different learning theories in learning and teaching process;
- To understand learning in adulthood.

3. Learning and learning process

A great deal of research has tried to establish and classify different concepts of learning from the perspective of those who learn. To summarise these categories of concepts (Säljo, 1992, references to Ramsden 1993):

- Learning as accumulating, quantitative increase of knowledge;
- Learning as memorising the mediated contents in order to reproduce them;
- Learning as maintaining, sustained memorising of facts, methods and procedures in order to use them later on;
- Learning as gaining personal meaning (significance) from the things learned;
- Learning as the process of creating one's own interpretation in order to better understand the reality, life, oneself;
- Learning as changing oneself as a personality.

In the stated comprehensions of learning there is an essential shift between the first three and the remained ones. The former concepts have in common the **quantitative view** on learning as increasing the amount of knowledge, collecting unconnected parts of cognition, facts and notions in order to immediately renew or apply them. The other concepts have in common the idea that learning is the process of **qualitatively changing** the existing notions and views, the process of gradual formation of meaning, understanding, creating meaning and new connections. This means that we expand our skills, view things differently, and that we change ourselves in the process.

The research conducted in Great Britain and the Netherlands have shown that concepts of learning are closely connected with:

- the way we undertake learning (approaches and strategies),
- learning motivation,
- emotional relation we establish with it, and finally
- with learning results.

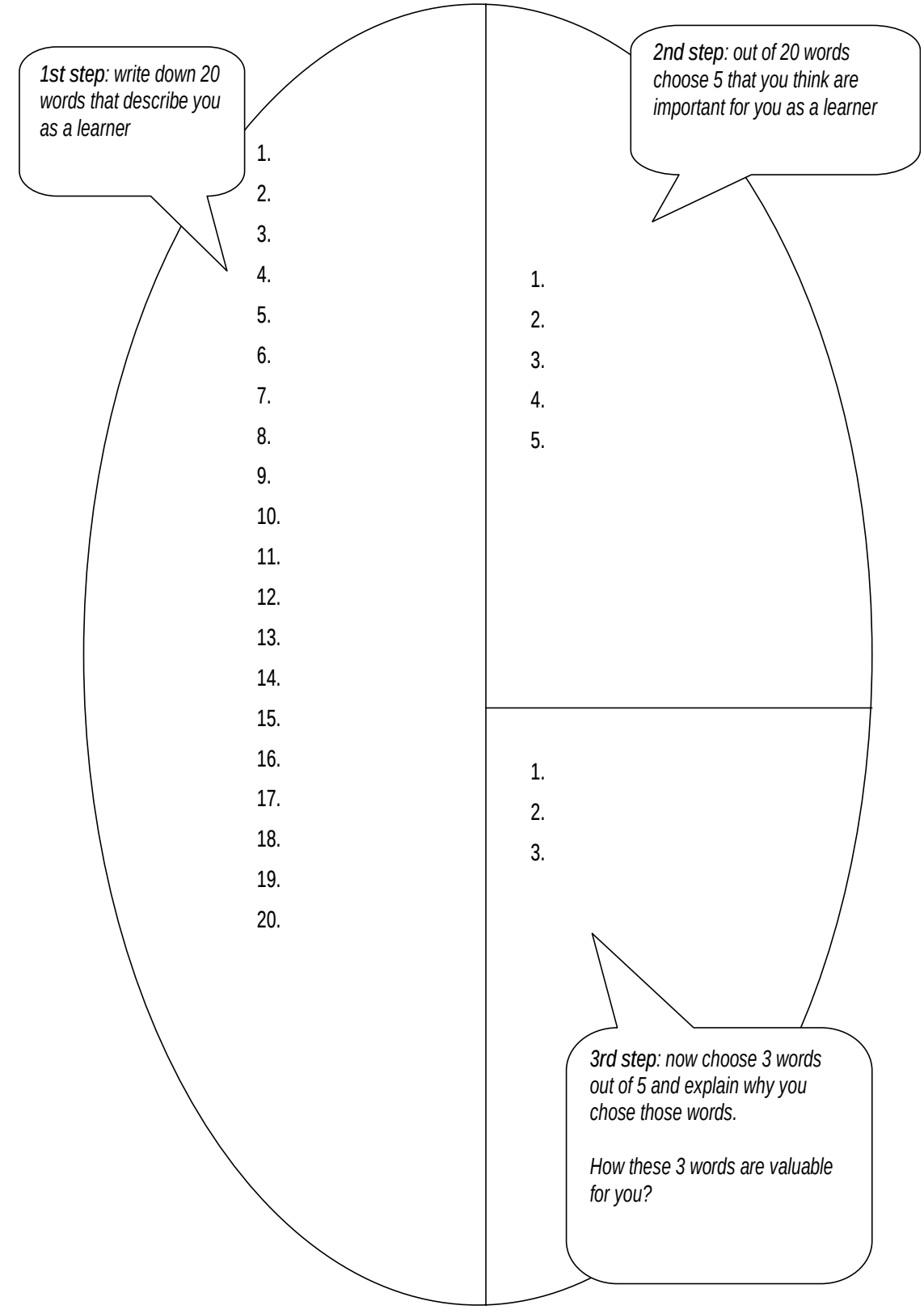
The quantitative concepts of learning are thus usually connected with the superficial approach to learning through external motivation (connected also with the fear of failure); its results are of relatively short duration. The last three concepts, on the other hand, are connected with in-depth approach, with positive emotions of satisfaction and with internal independent motivation.

In order to improve learning/teaching, it is important to know which concepts of learning are dominant in a teacher - this is related to the concept of the teacher's role and which concepts prevail in students, as well as the extend to which they are conscious and harmonised. Adults who resume organised learning after a prolonged gap often have difficulties with overcoming the negative emotional attitude towards learning that they have acquired in school and with overcoming the quantitative concept that school learning is primarily about accumulating impractical knowledge.

Activity
What is in your opinion the essence of learning?

See page 43!

Please think about yourself as a learner. Fill in the following…



Activity
Thermometer of attitudes towards learning.

In order to improve learning it is important to consider teachers' comprehension of learning.

Carefully read the statements below; if you agree with a particular one, put YES in front of its number, NO if you disagree.

1. The essence of learning is adding something new to the old.
2. Learning is actively searching for meaning in the presented material.
3. What is taught is essentially the same for the teacher and for the students.
4. Warm and encouraging interpersonal relationships are crucial for learning.
5. Learning is accepting and maintaining of the prescribed learning material (from textbooks etc.)
6. Learning is re-creating of experience, reconstruction of the existing knowledge.
7. Knowledge is more important than learning (the outcome is more important than the process).
8. To learn is to change in all aspects (as a personality).
9. Learning is a predominantly intellectual process (in one's head).
10. Every student has his or her own way of learning.
11. Learning is primarily the preparation for the life to come.
12. We learn best when solving immediate problems.

Solution:
Draw a straight line (12 cm) and divide it into halves. Mark the middle by "0". Divide the right and the left into six equal parts and number them on both sides from one to six, so the number one is the closest to the zero. Mark the numbers on the right by pluses; mark those on left by minuses. All affirmative answers to the questions with even numbers should be put to the right side; all affirmative answers to the questions with odd numbers should be put to the left side.
If there are more affirmative answers on the right side than on the left side, your understanding of learning is quite modern, and the other way around. Those of you who have more affirmative answers on the left side have obsolete views on learning. You should familiarise yourself with modern concepts of learning!

Official and professional definition of learning (Unesco, ISCED 1993) is: Learning is any change in behaviour, information, knowledge, understanding, attitude, values or skills which is sustainable and cannot be attributed to physical growth or to the development of inherited patterns of behaviour.

This definition widens the field or contents of learning and delineates the comprehension of learning from the comprehension of physiological growth and hereditary based development. Learning appears on the basis of experience, through interaction between man and his environment.

4. Key theories of learning

The issues, such as what is the essence of learning, what are the basic forms of learning, which are the significant conditions that enable learning, were in the last century dealt with by many experts who formed several theories of learning – these are categorised into groups:

- associative
- behaviourist
- gestalt
- cognitive-constructivist
- humanistic
- cybernetic-informational theories of learning.

Inspite of all the differences, the researches in the area of learning have been dealing with several basic issues and dilemmas. One of the dilemmas is the relation between the parts and the totality: is the essence of learning in creating of links/associations among the priorly isolated parts or does a person start from the understanding of totality, from the tendancy for acquiring of sensible samples where his copmrehensions, ideas, attitudes have an essential impact. The second dilemma deals with the issue whether learning is above all a cognitive process – intellectual or individual - or are there also emotional and social elements interwoven in it.

- Learning theories help to see learning more realistically and as well support teachers on effective teaching.
- Knowledge of different learning theories gives the teacher a possibility to make choices in the learning process, to understand, to analyze, to interpret and to become conscious about one's own work and learning.

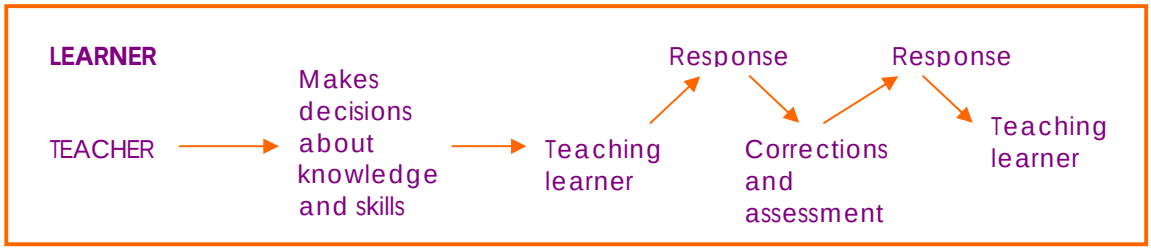
Behaviourist Learning Theory
(Thorndike, Pavlov, Skinner, Hull, Cuthrie, Watson)

Key points:

1. Learning is manifested by a change in behaviour.
2. The environment shapes behaviour; what one learns is determined by the elements in the environment, not by the individual learner.
3. The principles of contiguity (how close in time two events must be for a bond to be formed) and reinforcement are central to explaining the learning process (Grippin and Peters 1984 references to Merriam and Caffarella 1999).

Behaviourist's learning theory emphasises behaviour, measurable extents and external activities. Learning is seen as acceptance, maintenance, association and remembrance

of single details of knowledge, skills and behavioral models. Learning is based on single predetermined facts, storing knowledge in memory and reproducing it even when it would be possible to have different options and solutions. According to behaviorism, learning has occurred when learners witness the appropriate response to a particular stimulus. Assessment is quantitative and through that learners' behavior in situations organised by teachers is being assessed. According to that, learning is better when the learner remembers and reproduces many "right" reactions. In that sense learner is a passive receiver and seems like he doesn't take responsibility. Therefore learner isn't seen as an active and thinking creature that provides new solutions and actions. Learner is seen as a mechanism.



Activity
Please think and find in your teaching practice or learning experience one example in the context of this learning theory.

Cognitive learning theory
(Ausubel, Bruner, Gagne, Kohlberg, Piaget)

Key points:

1. The human mind is not simply a passive exchange – a terminal system where the stimuli gets in and the appropriate response gets out.
2. The thinking person interprets sensations and gives meaning to the events that impinge upon his consciousness (Grippin and Peters 1984 references to Merriam and Caffarella 1999).

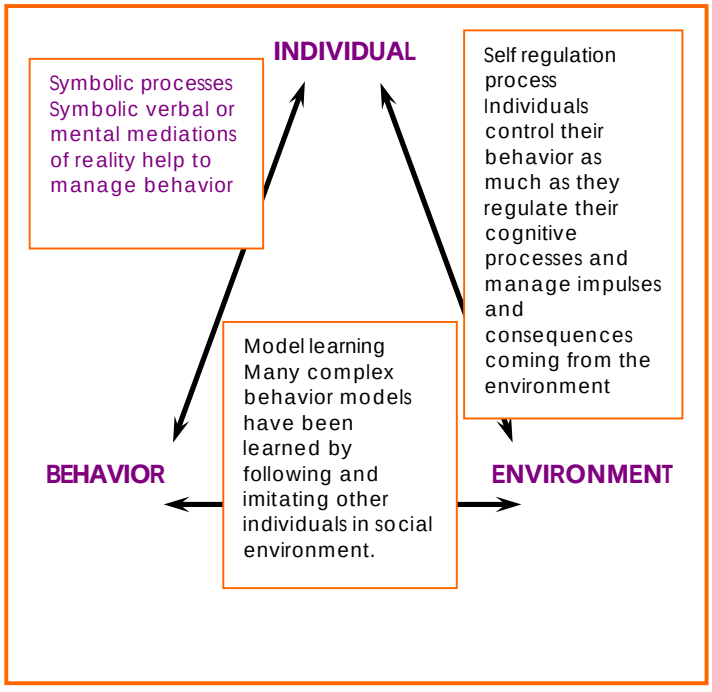
3. General approach that views learning as an active mental process of acquiring, remembering, and using knowledge.

It emphasises learners' thinking, and activity development. Learning is witnessed by a change in knowledge, which makes a change in behaviour possible. Thus learning itself is not directly observable. Learning is a pleasant and conscious activity that helps to solve problems and accomplish better thriving. Learner is seen as active user of knowledge. Therefore learners' goals and reflection becomes important.

Humanistic learning theory
(Maslow, Knowles, Rogers, Mezirow)

Key points:
1. Human beings can control their own destiny;
2. People are inherently good and will strive for a better world;
3. People are free to act, and behaviour is the consequence of human choice;
4. People possess unlimited potential for growth and development (Rogers 1983, Maslow 1970 references to Merriam and Caffarella 1999).

Humanistic theory is based on the individual who is creative and striving for growth. Humanists favour the comprehension that people can control their own destiny, and that they are inherently good and desire a better world for themselves and others. Behaviour is a consequence of choice; people are active agents in their own learning and lives, not helpless respondents to forces that act upon them. Motivation, choice, and responsibility are influences of learning. Life's experiences are the central arena for learning. Knowledge is personal, experiential, developing and deepening through socialisation. New knowledge is being tested as it develops through activities.



Social learning theory
(Miller, Dollard, Bandura, Vygotski)

The social learning theory combines elements from both, behaviourist and cognitive orientations. It states that people learn from observing others. By definition, such observations take place in a social setting – hence the label "observational" or "social" learning (Lefrancois 1996 references to Merriam and Caffarella 1999).

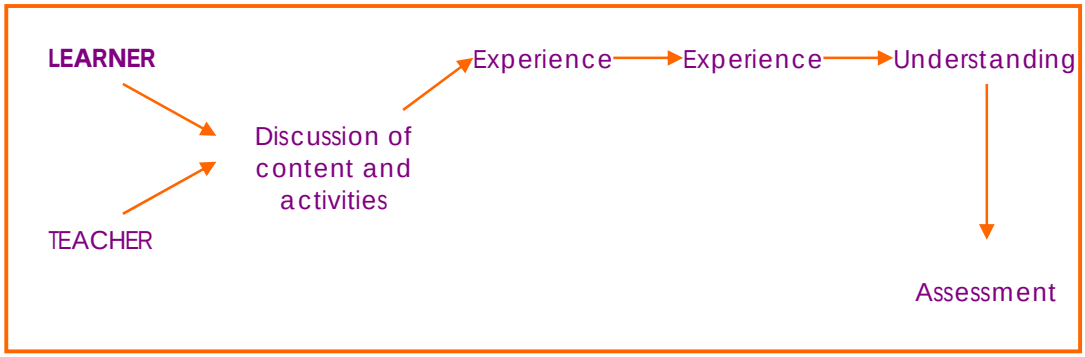
Just how learning occurs has been the subject of several investigations.
Social learning theory focuses on learning that occurs within a social context. It claims that people learn from one another. It includes such concepts as observational learning, imitation, and modeling. Social learning theory observes behaviour and its change in the process of interaction, key elements of which include external events, cognitive processes and consequences of external and internal behaviour.

Constructivist learning theory
(Dewey, Lave, Piaget, Rogoff, Võgotski)

Key points:
1. Learning is a process of constructing meaning;
2. It is how people make sense of their experience.

Beyond that basic assumption, constructivists differ as to the nature of reality, the role of experience, what knowledge is of interest, and whether the process of meaning opinion is primarily individual or social (Steffe and Gale 1995 references to Merriam and Caffarella 1999).

Constructivist learning theory sees learning as an active process in which learners construct new ideas or concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, and makes decisions, relying on a cognitive structure to do so. Cognitive structure (i.e., schema, mental models) provides meaning and organisation to experiences and allows the individual to "go beyond the information given". As far as instruction is concerned, the instructor should try and encourage students to discover principles by themselves. The instructor and students should engage in an active dialog.



Activity
Please think and find in your teaching practice or learning experience one example in the context of this learning theory.

Five orientations of learning (behaviourist, cognitivist, humanist, social learning and constructivist) are based on different assumptions about the nature of learning. See table 1.

Aspect	Behaviorist	Cognitivist	Humanist	Social learning	Constructivist
Learning theorists	Guthrie, Hull, Pavlov, Skinner, Thorndike, Tolman, Watson	Ausubel, Bruner, Gagne, Koffka, Kohler, Lewin, Piaget	Maslow, Rogers	Bandura, Rotter	Candy, Dewey, Lave, Piaget, Rogoff, von Glasersfeld, Vygotsky
View of the learning process	Change in behaviour	Internal mental process (including insight, information processing, memory, perception)	A personal act to fulfil potential	Interaction with and observation of others in a social context	Construction of meaning from experience
Locus of learning	Stimuli in external environment	Internal cognitive structuring	Affective and cognitive needs	Interaction of person, behaviour, and environment	Internal construction of reality by individual
Purpose of education	Produces behavioural change in desired direction	Develop capacity and skills to learn better	Become self-actualized, autonomous	Model new roles and behaviour	Construct knowledge

Teacher's role	Arranges environment to elicit desired response	Structures content of learning activity	Facilitates development of whole person	Models and guides new roles and behaviour	Facilitates and negotiates meaning with learner
Manifestation in adult learning	Behavioural objectives Competency-based education Skill development and training	Cognitive development Intelligence, learning, and memory as function of age Learning how to learn	Andragogy Self-directed learning	Socialization Social roles Mentoring Locus of control	Experiential learning Self-directed learning Perspective transformation Reflective practice

Table 1

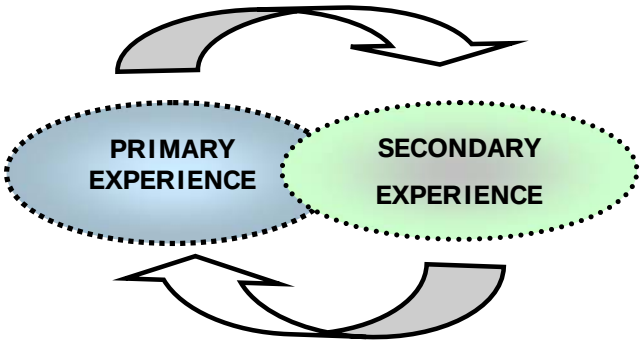
5. Learning in adulthood

- What is distinctive in the learning process in adulthood?
- Do adults learn differently from children?

There is no single theory of adult learning that explains all of human learning. Nowadays adult learning is researched mainly in the context of cognitive psychology. Formation of a cognitive paradigm created a basis for new directions in learning theories all centred on the idea, concerning change and development as a priority, where human development and reflection are important.

Meta-cognitive experience has important place in cognitive approach. Learning motivation is emphasized as it develops based on individual experience (Kolb 1984, Mezirow 1996, Jarvis 1992 references to Merriam and Caffarella 1999).

All experiences occur within a social situation, a kind of objective context within which a person experiences life: "Life may be conceptualized as an ongoing phenomenon, located within a socio-cultural milieu which is bounded by the temporality of birth and death. Throughout the life, people are moving from social situation to social situation; sometimes in conscious awareness but in other occasions in a taken-for-granted manner" (Jarvis 1987). Learning in adulthood is a process of change and enrichment of one's own knowledge, skills and values, influencing everyday environment (*secondary experience concerning externalization)*. On the other hand it is a process, through which knowledge, skills and values are obtained (*primary experience concerning internalization).*



Essence of learning (Jarvis 1992)

Learning in its essence is lifelong and life-wide. Lifelong learning in its wider meaning is connected to a time dimension and experiencing time, where an individual acts appearing intuitively, but actually preserves the outcomes of previous learning experiences and therefore acts meaningfully.

Reflective learning

Learning can be defined as transforming experience into knowledge, skills, attitudes and values. Researchers state that ***transformation*** (Mezirow 1991) or ***divergence*** (P. Jarvis 1992) happens when there is a conflict between the existing and current situation (socio-cognitive conflict), which creates conditions and opportunities for thinking. The individual has to stop and analyse previous experience, think and learn something new. Jack Mezirow, who has researched adult learning, derives from a viewpoint that learning is based on adults' need to understand and interpret his own experience. He states, learning on individual level is *making meaning* in interpreting and reflecting upon reality.

Mezirow's definition of meaningful learning (1990 references to Moon 1999) stresses the function of the cognitive structure:
Learning may be defined as a process of making a new or revised interpretation of the meaning of an experience, guiding subsequent understanding, appreciation and action. What we perceive and fail to perceive, and what we think and fail to think is strongly influenced by habits of expectation that constitute our frame of reference, that is, a set of assumptions that structure the way we interpret our experiences.

J. Mezirow explains the extent of learning flowingly:

- Individual learns in an existing meaning scheme ☺
- Individual learns in a new meaning scheme 🕮
- Individual can change the existing meaning schemes 🕸
- Individual can change the whole meaning perspective 🏂

J. Mezirow claims that transformative learning, which is common to adults, takes place in the two last stages. J. Mezirow sees those transformations as developmental processes, in adulthood called *emancipatory learning*. Change of the existing meaning schemes, causes conflict at the level of meaning perspective, arising conflict in knowledge. P. Jarvis

calls this conflict 'reflective learning' where each learners' own conscious activeness (*reflective practice)*, willingness to experiment (*experimental learning*) and reflect (*contemplation)*, is important. Reflective learning is something that adult teacher should experience by himself, in order to guide and support students to participate in self-development processes.

How is the reflective learning expressed? What are the connections between knowledge, experience, learning and reflection?

Good teaching will support learners in reaching the stage of understanding, thus enabling them to relate the new experience to what they know.

Researchers emphasise that guidance to reflective learning is possible when the learner perceives the importance of knowledge as an idea, when he values learning as an experience, feeling that he is in charge of his own learning, taking responsibility for it.

Reflection is a prerequisite for development of teacher's professionalism and is necessary for giving meaning and purpose to actions. The basis for reflection is experience that is a prerequisite for teachers' learning and for the outcome of learning. P. Jarvis explains the conceptualization of experience as *subjective noticing of situation.* Subjective noticing or becoming conscious of a situation, takes place through self-formation and improvement where learner is an important part of learning.
Many authors claim that experience itself doesn't lead to consciousness and learning. Much more significant is reflection that is followed by a change in action and behaviour. Reflection is based on self-evaluation which requires readiness and skills to observe and analyse one's own teaching by making their experience conscious and giving it a personal meaning.

Reflective thinking requires dialogue with one's self or with other people, goal specific activities, development of new approaches and experiments.
Learners need time in order to reflect (Walker 1985), as well as time and opportunities to learn to reflect as it is unlikely that they will be fully able to use their ability to reflect straight away, even as trained professionals (Hatton and Smith 1995, Francis 1995).

Assuming that teachers may help learners with modelling reflection, Gibbs (1988) describes how learners are asked to watch the operation of a model of a reflective conversation by teachers in order that they can see what they are trying to achieve in reflecting on a specific experience. Gibbs indicates that the crucial features of such a conversation should be:

- a stage of description of events, of looking for details, being objective, questioning how knowing has occurred and how the experience is similar to or different from others;
- a stage entailing judgments about the quality of the experience ("good" or "bad"), the best and worst features and what went well or badly in it.;

a stage of analysis in which there is deeper questioning of what happened ("why?"), making sense of it and how such occurrences might be explained. (References to Moon 1999)

Activity
While reading the previous text, what was that made you reflect upon or arise doubts? Write down five comprehensions concerning the text. Find arguments and examples for these viewpoints from your own experiences as a learner or as a teacher.

Important instructions for teachers

- Seeking new meanings is dominating learning.
- Learning requires looking for new meanings, based on how adults affirm or create new meanings.
- Individuals don't develop through experiences but through the meaning they have attributed to them – the way experiences are inspiring them on the cognitive and/or activity level.
- Reflection on learning is important.

6. Self- evaluation questions

- What is the difference between behaviouristic concept of learning and cognitivist approach?
- What does the expression 'reflective learning' mean?
- Is learning above all a cognitive and intellectual process?
- What is the role that social relations play in the learning process?
- Does teacher's subjective comprehension of the learning essence influence the role of teacher in the learning process of adults?

7. Further readings

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Jarvis, P. (1983): Adult and Continuing Education: Theory and Practice. London: Croom Helm.
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Merriam, S. B. & Caffarella, R. S. (1999): Learning in Adulthood. A comprehensive Guide. Jossey-Bass Publishers
Mezirow, J. (1991): Transformative dimensions of adult learning. San Fransisco: Jossey-Bass
Moon, J. A. (1999): Reflection in Learning and Professional Development. Theory and Practice. Kogan Page.
Säljö, R. (1982): Learning and understanding. Göteborg: Acta Universitatis Gothoburgensis.

8. Web resources

http://sapphire.indstate.edu/~craftont/adultlrn.html
http://interact.uoregon.edu/wrrc/IEP/AdultLearning.htm
http://www.newhorizons.org

Adult Learner
1st Module

CHAPTER 4
Learning styles

Chapter 4

Learning styles

1. Introduction

Some people learn better from books, some by listening to lectures, others by visual presentations of contents. Some people gain more if they check their ideas in group discussions, others learn better when alone and prefer to do so. Some need systematically presented information and learn gradually, others have more integral approach and distil the essence from diverse data and impressions. Some go through all hypotheses and check them when solving a problem, others take the intuitive approach, still others do not think much and choose the first solution at hand, and thus they are more often mistaken.

The list of such and similar observations can be long. Psychological research has been in the last few decades increasingly focused on unveiling of such qualitative differences between people in regard to cognition, learning and solving problems, since it is obvious that by focusing exclusively on quantitative differences on the level of mental functioning (the aspect of intellectual and other abilities) one cannot answer these questions which also have numerous useful and practical consequences. It is the field which links cognitive and personal-motivational characteristics of an individual, and opens a number of questions about the cause as well as the consequences such differences have for the efficiency of learning, teaching and counselling.

2. Goals and objectives

The aim of this unit is to initiate the learner in (adult educator/teachers) recognition and understanding the differences in various approaches to learning and problem solving in groups of adults, in application of these experiences in planning and performing of various educational activities for adults with the purpose to contribute to a greater effectiveness of adult learning. The goals of the unit are:

- *to increase the sensitiveness of teachers to qualitative differences in ways of cognition and learning,*
- *to perceive and understand basic reasons for origin of individual differences in cognition and learning,*

- *to apply recognitions of styles of cognition and learning in planning and carrying out adult education,*
- *to know how to advise adults on how to learn.*

3. Characteristics of adults in the process of learning

When compared with children, adults are much more heterogeneous population. They differ in many aspects. These differences are the result of physiological, psychological and sociological factors. In no way can we apply the term adult learners to define learning adults in general; we can only suppose that most of them share certain common characteristics which are important when preparing and implementing educational activities. The characteristics of adulthood could be defined in the following way:

- *adulthood comprises much longer period than childhood and youth, the differences between individual age groups can be considerable, the same holds true for the differences within these groups;*
- *adults take on different roles in life which are defined by the nature of their work or by their lives in general; while children and youth are primarily students, adults hardly show any similar common denominator, and this of course influences their wishes and needs for learning and education;*
- *adults differ in regard to the level of formal education they acquired; their experiences with the previous education are different, consequently some of them are well motivated to further their education, while others do not participate in education;*
- *the position of an adult within the society is defined by his or her social status and cultural, ethnic, racial, religious and other characteristics, this in turn to a large extent determine the position of an individual in the process of adult education;*
- *adults differ in regard to abilities and other characteristics (these can be different styles of cognition and learning styles or approaches to learning, these characteristics can also be defined by special needs deriving from acquired or inborn characteristics).*

Stated above we can conclude that many adults learn, yet there are important differences in regard to the course of learning. These differences usually derive primarily from their reasons for learning, the way in which learn, the resources they use in learning, the time they spend for learning, the degree of planning their activities and from other characteristics which significantly define the learning process, e.g. prior knowledge of learners, their attitudes towards learning etc.

Further on we will focus only on some characteristics of adults which have to be taken into account when planning their education and are important for understanding learning efficiency. We will discuss adults' learning abilities, characteristics of their cognitive development and the differences in cognising and learning styles.

4. Learning efficiency

Quite common is the belief that learning efficiency depends primarily on the intellectual abilities of those who are learning. The research has also shown that some link exist, though not so decisive.

Psychologists have in the last hundred years developed many definitions of intelligence. Some hold it that intelligence is primarily the ability to learn, some think it is the ability to use symbols (verbal, numeric and others) and abstract thinking, yet others believe it is the ability to solve problems and to cope in new unforeseen situations. Some psychologists never dwell on theoretical models because they believe intelligence is measured by the tests they have designed.

Psychologists usually talk about three key types of characteristics which are important for learning. Let us consider them in the context of adulthood.

Perceptual characteristics are those abilities which decline with age and also make individuals underestimate his or her learning abilities. Here we can talk about the state of sense organs (deteriorate of sight, hearing), about "the general bodily condition" which can influence endurance in regard to intellectual work, about the functioning of nervous system.

Intellectual-cognitive characteristics: these are learning ability, speed and quality, intelligence and mental stamina, thought processes, memory. Learning ability is determined by "general intellectual capacity and special learning abilities (ability to use verbal and numeric symbols).

Emotional-motivational characteristics are determined mostly by adulthood and maturity. These are primarily:

- *Emotional stability – this provides individuals with long-term commitments for achieving the set goals. Motives for learning and goals of adults are clear and usually integrated into a system,*
- *Interests of adults differ from those of young people; this means they are less numerous yet more intensive.*
- *Individuals' responses are economical; this means they respond similarly in similar situations and thus find it difficult to recognise different, more appropriate forms of responding.*
- *Adults are normally much more patient than young people in achieving their goals, they are willing to spend more time and energy to achieve them.*

Adults do differ in these characteristics. Here the major factors of influence are: self-image, experiences and interaction with the environment, formal education, profession. Each individual is unique; this is all the more obvious in the adulthood due to the experiences.

Activity
Before you read the next chapter, think it over and try to answer these questions:

- According to you, what does effective learning depend upon?
- Do you think that learning competences decline with age and its quality therefore lessens?
- Do you feel it was easier for you to learn when you were younger of age?

5. Intellectual abilities in adulthood and old age

Discuss your limitations and they will become yours.
(Richard Bach: Illusion)

There are three prevailing opinions of the abilities of adults and elderly people (Charness, Bieman – Copland, 1992, 301-305):

- *The abilities do not significantly change with age,*
- *The abilities decline with age; some of them more rapidly than the others,*
- *Elderly people replace the decrease of some abilities with the development of others.*

By the end of the sixties decline of intellectual abilities was considered self-evident. Researches were mainly focused on how to identify the partial abilities which decline rapidly and which of them decline slowly. It has been identified that mostly it is the velocity that decline with age while the mental reaction itself remains about the same; older people are less successful (compared to younger ones) at the tasks requiring quick response or those which are diverse or opposite to the reactions they have been used to. They are less successful with proofs carried out in artificial surroundings (for example laboratory), like when they use picture aids (images, fantasy) for remembering. On the other hand they are better at solving life and professional issues having numerous and wider experiences, broader views considering a variety of circumstances.

Each period of adulthood has its own characteristics, the same holds true for the manner of learning in a particular period.

Cognitive development of adults in adulthood

Cognitive development in adulthood is characterised by **changes in the quality of thinking** (cognitive approach) **and its efficacy - velocity of information processing** (regarding quantity). Essential quality changes arise above all in the early (from approximately the first half of the twenties up to the first half of the forties) and middle stage (from approximately the middle of the forties up to the middle of the sixties) of adulthood; as for the changes in quantity, they are rather insignificant and progressive. Some specific competencies may increase while other decrease, some remain intact well into the old age.

According to the findings of the North American developmental psychologist Schaia, the cognitive development follows a foreseeable course of successive stages in adulthood, discernible by the 'direction' a person would direct his intellectual competences to in various developmental periods (Schaie, 1977/1978). The objectives of a particular individual cognition activity gradually change during the transition into the adulthood (early twenties) from **acquiring to the application of cognitions**.

The stage of acquiring cognitions prevails in childhood and young age, regardless of circumstances, mostly because of the cognition itself (where a child or a young person would direct his intellectual input depends of course from his interests). He develops procedures for saving, combining the acquired information and getting to conclusions, based on them. He wants to acquire new data and recognize "things" merely because he wants to know something about them.

The stage of cognitive application starts to prevail in the early adulthood. More than on acquiring, the individual focuses on the application of the acquired cognition in the everyday life. At this stage people think: How can I use what I know, what I have acquired? The issues they have to deal with in everyday life (for example professional, as parents), often don't have just one correct solution as it is the case during the formal education or in the intelligence tests. While looking for solution, young adults mostly deal with the issue, how they would use what they know so it would be effective in practice. The stage of application is obviously the application of cognitive competences in the situations which have large-scale consequences on the individual's long term aims and goals (like decision making of taking a job in a specific organisation, continuing of education etc.).

Because of the stated above, adults are rather more effective at the intellectual work with materials and at the cognitive tasks, formulated in a way that they can be perceived as important and reasonable in their everyday life. They increase their motivation for learning, if they understand why they should know or master something. The teacher's explanation and making sense of the study material or cognitive exercises which the participants in education have to face and positive feedback, increase the level of their cognitive zeal. To secure a more effective educational process, the participants in education should clearly link the relevance of learning contents and methods and their personal (most of the time professional) interests.

The stage of assuming responsibility starts to prevail in middle age of adulthood, though some components of it can be identified in some individuals already in the period of early adulthood. A characteristic tendency in this stage is the application of cognitive skills in the circumstances, requiring social responsibility. The individual solves his cognitive issues within the everyday cognitive frame: How can I apply what I know in a responsible way, considering other people? He integrates into his own cognitive activity the issue itself, the context in which the issue appears and the long-term social consequences of the potential problem solutions, being effective in the current circumstances.

As they try to incorporate responsibility issue into cognitive process, adults (middle aged in particular) appreciate better the adequacy, punctuality and accuracy than the velocity of problem solving or learning.

Reintegrative stage prevails in late adulthood (approximately from sixty five on). Regarding social circumstances (for example retirement) in which they live, we notice a decline in elderly people for acquiring cognitions and for their responsible implementation in a broader social context. Elderly reconsider and reform their interests, attitudes, values etc. - due to their changed way of living – which they use as a guide while selecting the cognitions to acquire and the ways of how to apply them. Contrary to younger adults, it is less probable that the elderly would use their intellectual endeavour for solving the problems, not important for them or people who scarcely appear in their everyday lives. Even before they start to acquire new knowledge or solve intellectual issues, they ask themselves, why they should know something and whether this activity has any sense for them.

We have mentioned before that in adulthood there are changes in the quality of cognitive activities as to strength and above all velocity.

Changes in the structure of thinking

Quality changes in the intellectual activities of adults appear, besides in the redirection of the intellect to the new areas (illustrated by the explanation of Schaie), in the structure of cognitive problems' solving. It is all about the issue weather, in adulthood, we can still talk of further qualitative ability development. Or to put it differently: can the abilities of adults alter or is the formally logical or abstract thinking, developed in late adolescence, the summit of one's mental development, the highest achievement of the intellect?

Formally logical cognitive operations develop rather late in some individuals, not before the transition into early adulthood (around the age of twenty). Most of the adults make use of formally logical operations in the specific areas of their cognitive activities (like the professional area); while they do not make use of them in other fields they don't deal with. Therefore students of physics solve physical cognitive issues merely at the formally logical level while they have difficulties in solving cognitive tasks in political or literary topic.

The application of principles of formal logic in intellectual problems solving declines with aging. Youngsters and very young adults frequently mentally act in the "world" of possibilities while the thinking of adults becomes adapted to practical and often not quite (well) defined life situations, required by the circumstances which they act in. The ability to resolve practical issues in everyday life increases in early adulthood reaches its peak after

the age of forty and is preserved well into the old age. The adult knows and takes into account multiple solutions in everyday life circumstances (social ones in particular) within which he acts; he is inclined to integrate into logic the limitations in reality and so becomes tolerant to the discordance between ideal and achievable problem solutions. He connects the solutions of intellectual tasks with everyday life circumstances and at the same time tries to acquire cognitions in a rather narrow area which he acts in everyday life.

Sternberg believes that the clue of comprehension and intelligence of adults lies in the difference between the solving of abstract, academic and life issues. Abstract logical thinking is helpful while solving the first; life and professional issues require different abilities, which are among the others:

- identify the issue and define it;
- with insufficient, often contradictory information available, look for the best solution;
- taking into account numerous circumstances; while solving environmental issues consider health, social, economy, aesthetic, ethical…;
- getting through with no feedback information about the right choice of the solution.

The above mentioned practical intelligence and wisdom have been included in this kind of problem solving process. Sternberg believes that these two dimensions mean a higher quality level in the developmental process and that they can be gradually developed during the life span. (Sternberg, Berg 1992).

Specialisation of cognition, connected to the context, starts already with the choice of profession.

Tip

We have to be aware of the fact that education is rather based on a formal logic. Adults, who gradually drop this kind of operations in everyday life, should therefore be granted additional varied and concrete examples of a specific phenomenon in the "teaching" process. They should be stimulated to present several possible solutions and then systematically test them (the adults often make deductions too fast), to identify contradictions among them and to relevant use of language, to logical defining (for example by pointing out the contradiction in what they have said or write down and then let them resolve this contradiction by themselves). Besides this the adults usually jump to conclusions, based merely on single examples, therefore they should be directed here to other single examples which do not match theirs and make them consider the relevant data, leading to logical deduction.

Quantity changes: General velocity and effectiveness of information processing start to decrease slightly by the end of the twenties. We have to stress here that this is a very slight decrease which can only be detected in special laboratories or by specific psychometric tests. In the individual's early and middle adulthood it is negligible. This decrease can be detected merely in people who are not mentally active most of the time, in early and the beginning of middle adulthood.

A lot of specific types of cognitive competences from early adulthood into the middle one do not decline even if the researchers taught so not long ago and many non educated people still do nowadays. As for the vocabulary extent, vocabulary understanding, general knowledge, people are improving themselves in the middle adulthood, except in cases when they try to convince themselves (or their social environment does) that they cannot do it. Scientific researches show (for example Schaie, 1994) that particularly the ability of **vocabulary understanding** is well preserved even in late age, compared to the twenty five years olds. It reaches its peak somewhere at the age of forty. Vocabulary fluency does slightly decline though, from the middle adulthood on and so do **numerical skills.** The capacity of **inductive deduction** is rather well preserved until the age of fifty and starts slightly to decline from then on.

The curve lines of cognitive competences development in adulthood vary above all according to **the educational level of individuals** (in highly educated people the curve line of competences grows longer while in lower educated the curve line decline faster), to **the level of their intellectual activity** (the differences in curve line are similar to those, depending from educational level), **to their health condition and the degree of inclusion into social activities**. Adults who live in intellectually stimulating environment (social contacts with family, pals, active inclusion into broader social life, high level of collaboration in professional activity, collaboration in social groups at job, reading newspapers, books, attending cultural events, following popular scientific emissions on television etc.) preserve their competences growing for a longer period of time while their competences decline in a slower pace compared to those living in a less stimulated environment.

We notice a rather early and characteristic decline of cognitive competences in old age in the individual's **velocity in cognitive problem solving**. People gradually solve their cognitive tasks more and more slowly, except for those, connected closely to the area of their specialisation. This happens above all due to more slowly psycho motor adjustment (provided cognitive tasks require from them also dealing with objects) and growing cautiousness and prudence of elderly. Age differences in the velocity of response originate also from age differences in the use of effective strategies (for example various memory techniques, deductions, classification of notions into classes etc.) for cognitive tasks solving. With age the adults use less and less those strategies, as they do not prove very useful at the practical life issues solution to which they assign most of their time in their everyday life).

Tip

In the educational process these strategies are needed and adults have to reactivate them. But they spend less time for this than people who have never developed these strategies. The adults will therefore be cognitively more effective when working with materials and solving cognitive tasks, organised into logical categories and progressive sequences. We can additionally support them in this kind of organisation by:

- Suggestions in how they should organise by themselves the study material into logical units
- Lowering any kind of interferences and disturbing factors. If the participants strengthen the learnt content, before we present new material to them, we will lower interference effects to the minimal extent
- Using visual and audio presentations in the learning process as it stimulates learning in the form of the repeated use of one and only method. (Rice, 2001)

In man's life there is no developmental period where people **could or even should stop learning and getting educated**. **The competence for learning is preserved well into the old age** – there are rather important differences among people as to the velocity of learning, in application of knowledge in concrete circumstances.

The learning competence is not merely connected to the motivation for acquiring of new knowledge and some specific personal characteristics (like intellectual curiosity, interest for new things) but also with cognitive characteristics of people. It is not true that cognitive (or intellectual) competences reach their fullest extent at a young age of adulthood, then stagnate and decline at the rather early age (for a example at the age of forty or even before) - in most people they develop progressively, at least in some specific areas of their intellectual activity. It is true though that the cognitive competences of the adults do not develop as fast and are not as obvious as in childhood and in youngsters. Besides, **in adulthood there are increasing individual differences in cognitive competences,** if compared with equal differences in individuals in early developmental periods. The differences in cognitive competences among adults increase also because they apply their cognitive competences in different ways in the environment they act in, being rather different from the one where the younger individuals act. Therefore there are **bigger individual differences in the learning velocity** which should be taken into account in education even more than in younger participants. Regardless of differences in intellectual competences, the researches show that in an intellectually stimulating environment all the adults gain (same as children and youngsters) – those who show lower, same as those who show higher level of these competences.

We need to stress that the acquiring and saving of cognitive competences in adulthood depends more from what people expect developmental changes would bring and make "happen" in older age. The adults who:

- Think they enter middle adulthood already at the age of thirty,
- Expect their cognitive competences to decline at forty, whether they do or not;
- Believe that from the beginning of the middle adulthood on (or even before) they cannot keep in mind various data at least not as well as they could before when they were younger,
- Are convinced they cannot learn as effectively as they did before,
- Do not try hard enough to stimulate cognitive activity,

will most probably, contrary to those adults who do not think in the same way, make their "predictions" come through. Their cognitive competences will stagnate and eventually gradually decline. They will become less competent because they will not use properly their cognitive potentialities and not because of the processes which might be inherent in the fact of aging.

Tip

The adults who restart their education differ from those who learn continually in particular **by lack of self-confidence, by self-reflection, cognitive intellectual competence and by restraint**. They are anxious whether they would be able to face the requirements the education demands, they often feel less adequate in the area they try to tackle during the educational process, are more reserved when they have to put themselves forward, some of them have already internalised the stereotype about old age and aging. The participation of adults in educational process becomes more efficient in case the adults get rid of their doubts and anxiety. The teacher who teaches adults can reduce this kind of anxiety by raising "learning morale", or by offering individual support in acquiring and/or resuming effective learning strategies and in general by support in overcoming the stereotypes about aging. Adults who are included in educational process, need more opportunities for express what they already know. They are usually more competent and know more than they show. Their cautiousness and deliberateness not to do or say anything that might not be correct, frequently restrain them from showing what they already know or even to express their own opinion about it.

Detailed instructions and gradual direction in acquiring study material, stimulating of expressing opinions, various attitudes and views about "stuff" which cannot be categorically labelled as right or wrong, usually help them in overcoming exaggerated cautiousness and uncertainty.

Besides the stated characteristics of adults who start an educational process, there are some other strategies which proved to be effective (in Hultsch in Deutsch, 1981):

Learning material should be prepared cautiously, taking into account the stage of difficulty, starting from the less to the most demanding – by this we help the adults already at the beginning to strengthen the self-confidence they need, the confidence in their mental competences and skills.

- The participants should be introduced, at the very beginning of education and at the beginning of every consecutive unit, to what we will deal with, how and why and what we expect of them. With this introductory acquaintance we reduce their usually exaggerated emotional excitement to the optimal level, due to the fact that high level of excitement (at the psychological level showing as anxiety) slows down learning.
- We should avoid creating the competitiveness in the group of participants in education; we should also limit valuing assessment of their questions and answers, tasks solutions etc. at the minimal necessary level. In this way we stimulate them to tell us (write down, show) what they know, imagine etc
- In giving feedback it is important – in view to increase motivation for learning – to focus on positive responses of the participants, to stress them, for example when their answers are adequate, effective, correct, when they show progress in acquiring (understanding, application etc.) of knowledge. This component is often being neglected most of the time because of the time limit.

6. Cognitive styles

Cognitive styles are primarily about the characteristics of accepting and processing of information; stimuli are selected and organised to be changed by complicated strategies into meaningful information. We accept those stimuli which we find relevant, and then we connect them with the knowledge and information already acquired. People thus accept, process, organise and memorise information in different ways. Cognitive styles determine the structure of thinking (the way thinking is organised), and they are affected by cognitive, emotional and motivational contents. The development of cognitive styles and their subsequent changing is affected by different factors such as growing up and adulthood, sex, socio-cultural environment, performance in school, activeness of a person.

As teachers we may encounter persons who are completely different as to their cognitive styles. It may happen that we attribute the achievements which are the results of the differences in cognitive styles to the differences in cognitive abilities, which is wrong. In regard to cognitive styles we cannot talk about better or worse functioning because it is primarily about the question of inclination towards a way of carrying out and organising of learning, not about the precision and correctness of an answer. With abilities one can always pass value judgments in the sense that »more is better«; while styles are usually expressed as pairs of opposites. Researchers have approached to styles in different ways; there are many classifications: In order to understand differences among people (students), it is good to know that there are differences in:

- The extent of classification – some people are consistently inclined to classify data into narrow categories while others classify them into broad categories;

- Cognitive complexity versus cognitive simplicity – some people use a great number of different concepts to understand the world around them, some use less concepts;
- Convergent versus divergent cognitive style;
- The tendency to simplify and categorise as much information as possible, thus getting rid of irrelevant details – the process of sceletonisation;
- The analytical (gradual, systematic) versus the intuitive way of cognising the reality and solving of problems, in the latter we follow our instinct and the solution comes suddenly as a flash;
- Nivelation versus escalation of differences – new information is added to what is already known, thus effacing differences;
- Tolerance towards ambiguous, unclear information – do we know how to accept unclear information or do we discard it immediately.

A teacher cannot know all styles, yet it is important that he is sensitive for such differences and for peculiarities of his own mental functioning as well as those pertaining to his students. It is important to know one's own style.

EXAMPLE:
*As an example will serve the cognitive style **impulsiveness-reflectivity**, which is defined as a tendency towards fast or slow decision making in uncertain situations. It refers to the extent in which individuals thoughtfully judge the validity of his or her solutions of problems which contain high degree of uncertainty in regard to the answer. In such situations people face very similar possibilities so the solution cannot be grasped at once. Individuals can come up with correct solutions only after substantial thinking. Differences among individuals appear precisely in their willingness to consider all different possible solutions or merely impulsively choose the first solution they find reasonable. Those who take more time to decide in uncertain situations and consequently make fewer mistakes are »reflexive«, those who prefer quick solutions and make many mistakes are »impulsive«.*

7. Styles of perception

The idea has been gaining ground lately that people differ in the priorities they set in regard to their sensuous impressions (channels) when it comes to perceiving, learning, and also communicating. This division usually encompasses visual, auditory and kynesthetic (sensuous -emotional styles). The process of learning gives the best results when teachers and students have the same style or when the teacher is sufficiently flexible and adjusts his or her way of working. In most people there is a combination of these styles, though one is usually predominant; the most important is visual style.

The examples of external (behavioural) characteristics of people with different styles of perception:

VISUAL STYLE:

Using primarily words which denote colours and visual impressions; forms clear images in his/her mind, gains insight into the essence of problems;
Organised, systematic, calm, thoughtful;
Is able to memorise primarily graphic material, images;
Finds it hard to memorise oral instructions;
Prefers reading alone to listening,
Strives for the overall view, vision (sketches, thought patterns).

AUDITORY STYLE:
Uses expressions such as »that sounds good«; »this is the answer to our question«;
Likes lectures, discussions and is able to memorise well, likes to read aloud;
Uses internal monologue when learning;
Speaks rhythmically and likes music;
Remembers everything in the same order as he or she hears it, in steps;
Better speaker than writer.

KYNESTHETIC STYLE:

Likes to touch people, get close to them;
Constantly moves his or her body, gesticulates;
Remembers more if walking;
Learns while handling objects (e.g. during laboratory exercises);
Memorises the whole experience better than details;
Speaks slowly.

8. Learning style

One of the most important factors in the design and delivery of training is the understanding how people learn. Mindful teachers notice differences among their students. Differences do not pertain only to the level of intellectual abilities, it is about different styles of perception, cognition and learning. As a teacher you should recognize and take account of the differences between people s preferred styles of learning. Knowing and understanding the implications of learning styles is very helpful in structuring the learning and can significantly increase the success of learning and teaching of children and adults

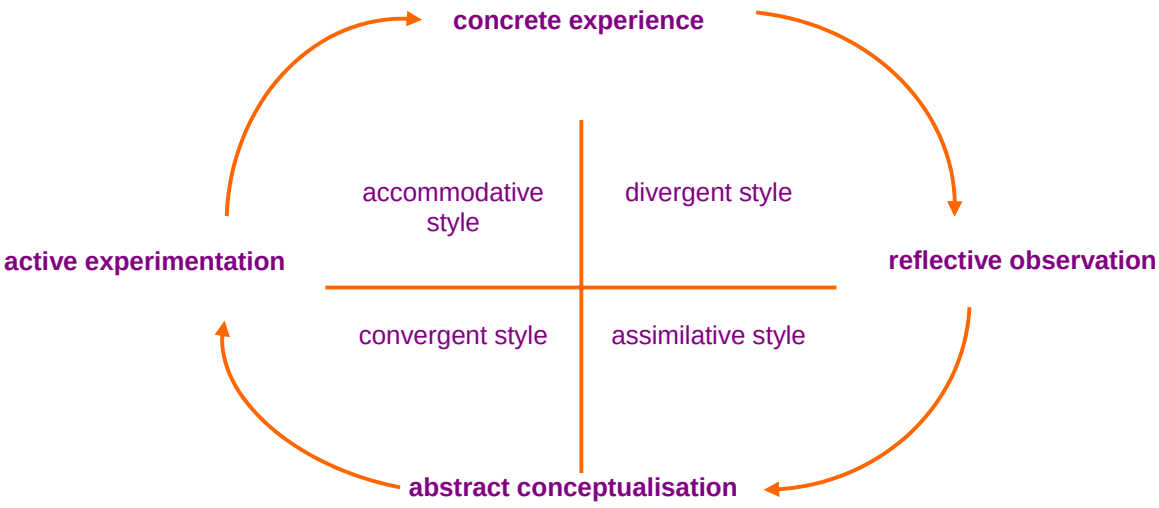
What is learning style?

It is a relatively new field of psychological research. The researchers have been dealing with the learning styles issues (cognitive, learning, perceptual…) in many different modes. The outcome is a great number of various classifications and models. In our case, we have been dealing mostly with Kolb's understanding and definitions of learning styles. It is not the most important issue which model is the right one or the best one. It is important though to realise that various attempts to define qualitative differences in ways of

cognition and learning are not anything final; they are merely approaching this important part of reality from various perspectives.

> **Tip**
> Learning style is a combination of learning strategies characteristic of an individual, which he or she usually uses in most situations. The style consists of a collection of strategies which are favoured by an individual and which are in some situations more appropriate than in others.

David Kolb (Kolb, 1984) builds his model of learning styles on his comprehension of the learning process which is called experiential learning. Experiential learning is a process in which knowledge is created through transforming individual's experience with mutual influence (transaction) of personal and social knowledge. Actively participating in the experience and at the same time reflecting upon it is important for experiential learning. Kolb's model of learning modalities and styles (Kolb, 1984):



Quality learning should connect the four poles depicted in the picture. It should start with a concrete experience, then follows the observation and analysis of experiences, their inclusion into the model of abstract notions and testing of what has been learned in a new situation. This process is cyclical, so that learner who has absorbed one set of learning experiences is ready to undertake the process again with another learning experience. People are different in regard to this. Some by nature find it easier to learn from a concrete experience (e.g. role playing), others find it easier to learn on the basis of abstract cognitions which are systematically presented, e.g. in textbooks. We all develop a specific

way of recognition, characteristic merely for us – we resolve tensions on the way in our own more or less consistent style– based on our nature, experiences from the schooling time, selected profession, tasks at work. Usually our learning is based on one or two poles of cognition, so that characteristic **modalities of learning** can be developed.

Characteristics of persons who favour individual learning modalities:

- People whose learning is based predominantly on concrete experience are focused on immediate experiences with other people in various situations, they learn on concrete examples »here and now«.
- People whose learning is predominantly based on reflective observation will try to understand every situation by closely observing and describing. They find it crucial to understand how things work; to think and not to act.
- Orientation into abstract conceptualisation implies the emphasis on logical inference, on thinking versus feeling.
- Orientation into active experimenting implies the emphasis on actively affecting people and situations. The emphasis is placed on practical application and acting.

The combination of two strong learning modalities defines our characteristic **learning style**. We are talking about the **convergent learning style, the divergent learning style, assimilative and accommodative learning style**. Each style is demonstrated through a series of behaviours and preferred way of learning.

Characteristics of people with individual styles:

- Accommodative style: +carries out plans, adjusts to circumstances, action-oriented, solves problems intuitively; an active person who disregards theories and is often impatient.
- Divergent style: +creates new ideas, mentally flexible, judges from different aspects, pays attention to emotions, fantasies, values, interested in people. A real dreamer with his head in clouds who fails when it comes to a concrete action.
- Assimilative style: + interested in theories, builds theoretical models, connecting ideas, inductive inference. A teorist with no interest for people and for applying ideas in practice.
- Convergent style: + applies ideas in practice, solves problems with one (the best) answer, wants certainty, deductive thinking. A pragmatist – rigid, narrow interests, disregard for people.

It is evident from the description of positive and negative characteristics that one style is not a priori better or worse than another. Each has its strong and weak points. Strong points of a style should be developed while weak points should be overcome.

Learning styles are developed on the basis of man's early experiences, personal characteristics such as being introvert or extravert, experience from schooling (major influence is the selection of school, studies), and the formation of professional career. Learning style is a combination of affective, cognitive, environmental, and physiological

responses that characterize how each person learns.

Nowadays it is increasingly important that a person knows how to adjust to new demands in life and career, to different styles. This flexibility is to a certain extent in the domain of individual's personality, but it can also be developed, e.g. in the process of education.

Learning styles, teaching methods and learning environment

If the teacher wants his teaching to be of quality, he has to know various learning styles, appearing as prevailing learning and problem solving strategies. If the teacher does not know these styles, he cannot assure suitable possibilities for learning and select adequate methods and approaches.

Each particular learning style or modality is linked to optimal methods and techniques of teaching, specific for every individual and characteristics of learning environment. The selection of the most suitable methods for every particular individual, depends from the way, he or she adopts for assimilating and perceiving his or her environment or for problem solving. If learning/teaching is carried out in a way which is not in accordance with the individual's predominant style, failure, resistance and frustration ensue.

The simplified form of these relations can be presented thus (Marentič, Požarnik 1995):

Style and approach	***Characteristic learning methods***	***Study environment, representatives***
Divergent style Approach by »thinking«, reflection	group dynamics role playing, brainstorming discussion	emotionally rich environment typical representatives: artists
Convergent style Approach by »teaching«	solving exercises, problems using knowledge at (technical) exercises	perceptively rich environment typical representatives: technical professions, engineers
Assimilative style Approach by »self-education«	lectures profound study of literature comparison	symbolically rich environment typical representatives: natural scientists, mathematicians
Accommodative style Approach by »acting«	solving practical examples simulations field experiences	behaviourally rich environment typical representatives: social professions, managers.

For the individuals who are prone to learn with concrete experiences, suitable methods would be those, involving emotional strain (emotionally rich environment); these adults tend to have personal contacts with teacher and other participants. For them are suitable mainly these methods: **dialogue, discussion, brainstorm, role playing and simulation**.

For the individuals who, while learning, tend to a more reflective observation, the suitable methods and activities are those, facilitating the cognition of new phenomena and

notions from various points of view. The process of looking for solutions is more important than the answers and solutions themselves are. The methods, suitable for them are **independent observation, data collection (directly or from various literary sources).** The teacher, in this instance, is above all a facilitator, stimulating the learning process and providing rich sensuous environment.

The individuals, who tend to abstract conceptualisation, need an environment, rich with symbols. This means that what they need is to acquire suitable knowledge and not so much its applicability. For them, the teacher is a source of abstract knowledge, a lecturer, the one who explains, asks questions (examiner). For them, the reading of professional literature is rather important. These individuals are reluctant to express their feelings in the learning situation, therefore the learning methods **like systematic lectures, literature and other sources study; the methods, introducing theories and systems (tables, schemes) are suitable for them while discussions, activities or simulations should be avoided.**

The individuals who are inclined to experiments need a rich behaviouristic environment. Personal feedback from other participants and the teacher means a lot to them; they are interested whether the acquired results and ideas are realisable, applicable and effective. As they enjoy problem solving and creating of independent complex projects the methods they need are, **practical and outside (learning situation) activities, project work**.

In the process of education a learner and a teacher should have the opportunity to recognize their styles, their abilities and restrictions, and to learn how to flexibly adjust.

Activity
Determine your own learning style according to Kolb on the basis of the Learning Style Inventory.
Connect the result with the ways of learning and your favourable teaching methods.

Learning Style Inventory 3 (Kolb,1999) is available online (fee required) at:
http://www.hajresourcesdirect.haygroup.com/Products/learning/lsius.htm#lsi

How to deal with differences in individuals' learning styles

The researchers and experts in this field are of the opinion that a great part of learning failures can be attributed to the discord between varying learning styles of learners and the predominant methods and forms of work at different subjects which derive from the teacher's style, professional tradition and the belief that »there is no other way«.

It is good when students and teachers have the same basic style or when the method or the way of presenting the learning matter suits the style of students, the worst scenario is when these styles are diametrically opposed. Entwistle reported in 1981 about the experiment in which a group of »holistic« (oriented towards the whole) and »serialist« students were presented with the material in the form which was in accordance with their style or opposed to their style (logically, step by step or presented by illustrations and analogies). The results were dramatic: the students during the examination answered almost all questions if the manner of presentation was in accordance with their style, and approximately only to the half of the questions if it was not.

Important instructions for teachers

The teacher should be aware of the characteristics and consequences of his or her predominant style and the style of his learners;

The teacher should take into account the characteristics of the predominant style in his learners and adjust to it;

The teacher should broaden his repertoire of procedures, methods, approaches and thus appropriately address the learners with other styles (for example – he should use various methods and forms of work by supplementing his explanations by pictures);

The teacher should explain these differences to adult learners, accustom them to self-observation, offer them the ways of recognising their own styles;

The teacher should stimulate the learners to use their own advantages and to systematically overcome their weak points;

The knowledge from the field of styles cannot be directly translated into instructions on how one should learn; its main purpose is to stimulate teachers to think about it. It is important that they accept the message that learning is not only about quantitative differences between student – some learn hard or slow, others with ease – but that there are also qualitative differences; different people learn differently and they comprehend in different ways. The teacher should be above all, a "thinking practitioner", meaning that he learns from his own experiences in working with the participants. He alternates the use of reflection and action, interweaving one with another other, thus integrating suitable theoretical base with practical work.

Learning Style Philosophy

- Each person is unique, can learn, and has an individual learning style.
- Learning style is a complex construct for which a comprehensive understanding is evolving.
  Individual learning styles should be acknowledged and respected.
- Learning style is a function of heredity and experience, including strengths and limitations, and develops individually over the life span.
- Learning style is a combination of affective, cognitive, environmental, and physiological responses that characterize how each person learns.
- Individual information processing is fundamental to a learning style and may be strengthened over time.
- Teaching individuals through their learning-style strengths improves their achievement, self-esteem, and attitudes toward learning.
- Learners are empowered by a knowledge of their own and others' learning styles.
- Effective curriculum and instruction are learning-style based and personalized to address and honor diversity.
- Effective teachers continually monitor activities to ensure compatibility of instruction and evaluation with each individual's learning-style strengths.
- Every individual is entitled to counseling and instruction that respond to his/her style of learning.
- A viable learning-style model must be grounded in theoretical and applied research, periodically evaluated, and adapted to reflect the developing knowledge base.
- Implementation of learning-style practices must adhere to accepted standards of professional ethics.

Source: http:// www.learningstyle.net

9. Conclusion

We found out that in man's life there is no developmental period where people could or even should stop learning and getting educated. The competence for learning is preserved well into the old age – there are rather important differences among people as to the velocity of learning, in application of knowledge in concrete circumstances.

We found out that, for a successful learning, it is not only important merely, what our intellectual competences, motivation, mental condition or state of senses, are. We would like to stress again that in teaching (so the children as adults) we should pay an extra attention to their various styles of information assimilating and processing and that lessened achievement in some areas does not necessarily mean reduced competence for learning, maybe just a different cognition style from the expected one.

We also found out that various approaches of the teacher lead to learning results of various quality levels. As teachers, we should therefore ask ourselves about how the adults tackle their learning, what they want and what they have to learn, what kind of learning

style they have adopted and how would we select suitable methods of teaching and teaching auxiliary accordingly; we should decide about how to organise the learning situation, in view to satisfy various needs for learning of adults and respond to the anticipated goals, set in the specific educational programme.

10. Discussion topics:

- What is the course of your own learning biography like? What did stimulate you and what hinder you?
- What position has the development of practical intelligence – the competence to manage in concrete, life situations or professional situations in professional education of adults? Think about what measures could be used to further on develop it?
- How are you going to take into consideration - in education of adults - the specific competences of adults, like accumulated knowledge, orientation into life issues – with lesser ability of mechanic memorising and more slowly reacting?
- Is it teacher's responsibility to use, in teaching, various learning styles or is it learner's responsibility to work within the systems designed by teacher? (After all, do not mature and responsible adults have to learn to work in organizations and systems that do not necessarily fit their style?)

11. Self evaluation questions

- Is there only one general intelligence or are there several separate abilities, unevenly distributed among people?
- Are mental competences mostly congenital or can we influence them and systematically develop them?
- Can we make deductions, based on the competences in childhood and through them predict the competences in adulthood?
- Is the level of competences in the individual rather constant or oscillating?
- Does the level of competence decline with age?

12. Key terms

Cognitive style designates relatively consistent and constant peculiarities of an individual in regard to the way he or she receives, maintains, process and organises information to solve problems. Styles are the expression of wider dimensions of personal functioning since emotional-motivational aspects of a person are also present.

Style of perceptions designates the channel of perception – a sense (sight, hearing, touch…) which is favoured by an individual when receiving and internally representing sensual impressions from the environment.

1. Learning style is a related concept, yet it is a bit wider and includes also typical strategies of learning, goals and notions of learning.

2. Learning style is a combination of learning strategies characteristic of an individual, which he or she usually uses in most situations. The style consists of a collection of strategies which are favoured by an individual and which are in some situations more appropriate than in others.

Learning strategy is a specific combination of mental operations which a person uses according to the demands of a concrete learning situation (tasks).
Example: the sequence of operations which a person uses when studying a text for an exam. For example – a person may be learning by first skipping through the text and write down important concepts, then he tries to connect and memorise them. The same person may be preparing for a different exam (different requirements) and will start by close reading and meticulously underlining the text, at the same time trying to memorise every fact.

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Adult Learner
1st Module

CHAPTER 5
Learning environments

Chapter 5

Learning environments

1. Introduction

"Some 25 percent of learning depends on physical environment."
/U.S: Department of Education study/

The major goal of most adult educators in facilitating learning is to use effective organisational arrangements and interaction processes. This goal, coupled with growing knowledge regarding self-directed learning interests and the importance of maximising learner inputs suggests that it is important to establish a learning climate that enhances learner's commitment. We believe that such environmental features as flexibility, attractiveness, comfort, and utilitarianism are very important in optimising the learning that takes place.
Few writers have explored the physical aspects of learning to any great extent. In this part we are going to focus mostly on an area we too often ignore or misunderstand. Results encourage the improvement of learning sessions and the learning of the participants – the physical learning environment.

Initial Activity
What was your best experience of learning environment ever?
Could you describe it, including physical arrangements!

2. Goals and objectives

In this part you will get more information about learning environment on a basic level and about the importance of the role that physical environment plays. We will be mostly focused on physical conditions we need to provide in view to satisfy learning conditions and get out of learning sessions as much of learning as it is possible.

You will:

- know more about the elements of physical environment
- find information about the aspects of seating arrangements
- know more about factors on learning environment
- get some tips about arranging learning environments to have more learning effects

3. Adults learning

While there are many different theories of learning, research generally indicates that optimal adult learning occurs when the participant in training is ***actively*** engaged in the learning process. The information must respond to their personal needs and be relevant to their own goals.

The training session should provide an opportunity for participants to acquire new knowledge, skills, and to raise their awareness. Active training then enhances the probability that new skills and knowledge would be transferred to the job process.

Adults learn best when:

- they are actively involved, not just passive recipients of information
- they take responsibility for their own learning
- the learning process addresses affective (emotional), cognitive(intellectual), and psychomotor (skills) aspects of learning
- the learning methods are varied
- the learning environment is positive and comfortable
- the adult educator guides rather than dictates the learning process

Cognitivism, just like behaviourism, emphasises the role that environmental conditions play in facilitating learning. Instructional explanations, demonstrations, illustrative examples and matched non-examples are all considered to be instrumental in guiding student learning. Similarly, emphasis is placed on the role of practice with corrective feedback. So far, little difference could be detected between these two theories. However, the "active" nature of the learner is perceived quite differently. The cognitive approach focuses on mental activities of the learner leading to a response and acknowledges the processes of mental planning, goal-setting, and organisational strategies. Cognitive theories ascertain that environmental "cues" and instructional components alone cannot account for all the learning that results from an instructional situation. Additional key elements include the mode that learners attend to - code, transform, rehearse, store, and retrieve information. Learners' thoughts, beliefs, attitudes, and values are also considered to be influential in the

learning process. The real focus of the cognitive approach is on changing the learner by encouraging him/her to use appropriate learning strategies.

4. Learning environment

4.1. Physical environment and adults learning

Vosko & Hiemstra found out there are several reasons why the physical environment for adult learners often are neglected, little understood, and largely ignored in literature, related to instructing of adults. This includes factors as follows:

- adult learning activities often take place in spaces designed for other activities and age groups (although we believe this is changing);
- many of adult learners or adult educators are often not aware of the fact that there are serious physical environment issues;
- budgets for adult learning activities seldom include improvements for the physical environment;
- many administrators and adult educators do not feel it is their responsibility to ensure adequate learning environments;
- those who do feel responsible may not feel competent enough to prepare the settings properly;
- those who wish to do something about the environment are not sure where to begin.

White even estimates this might not be of great importance and might not even have any impact on learning: *"... general estimates indicate that while about seventy-five percent of learning is accounted for by motivation, meaningfulness, and memory, the remaining twenty-five percent ... is dependant upon the effects of the physical environment. In general, therefore, the success of adult education is dependant to a considerable extent upon the facilities and environment provided for the learner."*

James found out that learners classified his environment category last considering its impact on learning satisfaction. We think that even if the impact is less than twenty-five percent or not ranged as high in the mind of learners, it still is worth understanding what you can do about the physical environment. Understanding the environment and knowing how to affect it in positive ways can help learners to understand and appreciate its importance.

Knowles initial publication of Modern Practice of Adult Education in 1970 (updated in 1980) was perhaps more effective than any other in trying to focus the attention on the settings in which adults could learn better and to help out adult educators and administrators by encouraging them to get aware and start thinking about eventually needed improvements.

White started (among others) about the same time to call attention to facility deficiencies, expressing concern about the lack of suitable learning space for adults:

"Adults are often physically uncomfortable in child size furniture, and they are psychologically uncomfortable in traditional classroom settings which emphasise the distance and inequality between adult educator and student."

Kidd as well made some suggestions about the environment for adult learning back in1973:
"Luxury is not required, but comfort, excellent illumination without glare, absence from disturbing sounds or movements, provide a setting in which the chances for effective learning are increased".

4.2. Physical factors

The physical environment that your participant find themselves in, can seriously affect the perceived quality of learning and training. Taking the time to create an interesting environment can help settle and focus the participants. Find a way to help participants to focus on learning and to get concentrated to get free from outside distractions, and get ready to participate in learning.

Personal physical conditions such as health, vision, and hearing of the participants may affect the amount of learning actually taking place. Although you cannot control these variables, you can be aware of them and help the participants to get out of your training as much as possible.

Physical factors that may affect training include:

- Room temperature
- Comfort of seating
- Ease of writing
- Ventilation
- Noise level
- Lighting
- Aromas
- Music
- Hard-to-read visuals
- Keeping the attention
- Time of the day
- Formal or informal room arrangement

Explain a recent training situation where physical factors were an issue.
What you did or could you have done to modify those factors?

5. Four elements of learning environment

There are four elements the learning environment is composed of:

1. **The learning room**, the human built environment in which your session take place;
2. **Teaching tools**, those physical objects that help convey your message;
3. **The natural environment**, such as temperature and time of day;
4. **Learning media**, those physical objects that set the stage, reduce barriers, act as stimulators, and assist your participants to learn.

We can chart the four elements in this way:

World	Position	External	Internal
Human-Built		The Learning Room	Teaching Tools
Natural		Natural Environment	Learning Mediums

Source: W. A. Draves, How to Teach Adults, 2000, p. 74)

This scheme could also explain the characteristics like location, whether the element is external to the interaction between adult educator and participants - like the learning room and natural environment, or internal to the interaction - like teaching tools and learning media.

Another characteristic is the nature of elements, whether they are human-built, as are the learning room and teaching tools, or part of the nature world, as natural environment and learning media.

We could certainly change the physical environment to provide better learning. We think it should get aware of this advantage and enhance our teaching by presenting and providing good and encouraging physical environment for learning.

5.1. The learning room

Instead of the usual classroom as a learning place we will use a learning room, in view to avoid any similarity to children classroom and school. It is hard and quite a challenge to

arrange the learning room according to our own wishes, as most of the time we are in adult education bound to share the learning room with other colleagues and groups. But it is still possible to modify and adapt the physical space by arranging the room for our session in a way to enhance our participants' learning and to make them satisfied with our performance.

One of the most crucial decisions for any session is how to set up the room. The right room set-up can contribute exceedingly to create the kind of situation and interaction you want in your class session.

The room set-up will determine:

- Visibility and ability to hear;
- The formality or informality of the session;
- The level to which you want the participants to be involved in discussion;
- The relationship between you as adult educator or presenter and your participants
- The group dynamics that will take place.

Room set-up is one of the most crucial ways by which establish the learning environment you want for your class and session. The physical layout reflects your teaching style. If you want students to collaborate in small groups, for example, organise them around tables or clusters of desks. For frequent whole-group discussions, try a circle or U-shaped desk configuration. If you plan on an individualised, self-paced curriculum, you might set up learning stations.

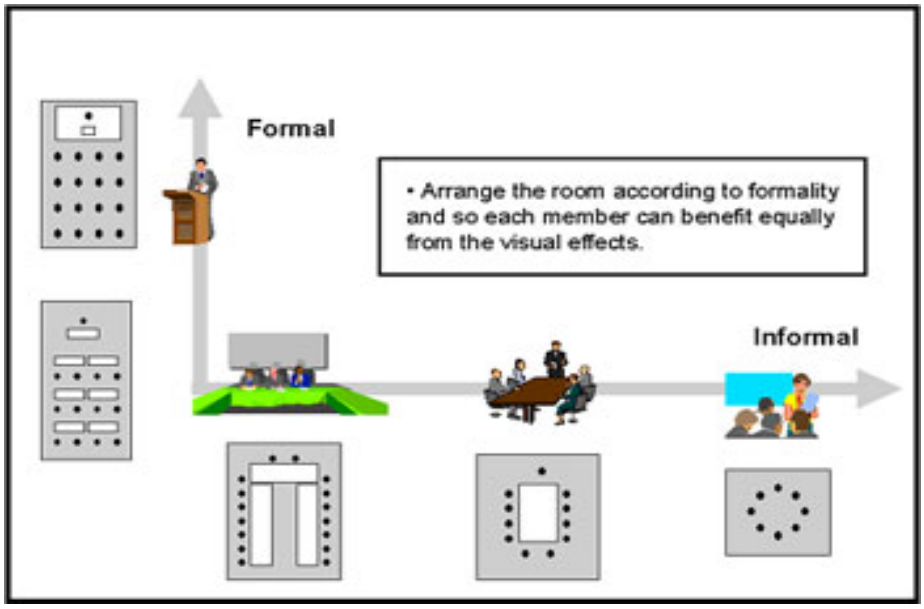
> **Tip**
> The physical layout should also reflect you. Don't hesitate to give the room your personal touch with plants, art, rugs, posters, and maybe some cosy pillows for the reading corner.

Creating such an environment is only possible if trainers understand their audience and their objectives they expect to achieve through the training sessions.

Establishing a good learning environment begins with the **physical setting of the room**. For example, the seating arrangement will set the level of formality of the presentation. A room set up as a lecture hall where the audience sit in rows with the 'lecturer' in front of the room, using a 'weapon' (pointer) and a 'shield' (podium) to drill ideas home, is very formal and can intimidate many adult learners.

People attending workshops are often referred to as participants. This term implies input and feedback which the physical environment should stimulate. A less formal seating arrangement, such as semi-circle, creates fewer physical and psychological barriers between the learners and the trainers, thus encouraging active participation and creating a sense of equality.

Figure 1 shows a variety of seating arrangements that create ***different training atmospheres****.*



How would you feel in each of these settings (as a trainer or participant)?

As an adult educator

As a participant

Determine in advance what your clients' customs are in regard to the room set-up. Some cultures prefer rather formal lecturing style.

The formality of a presentation is in part determined by the **physical setting of the training area**. Figure 1 shows several room arrangements that reflect different levels of formality. There may be limitations on what is feasible due the available space and to the number of participants. When defining the most effective use of space, keep in mind what media

aids you intend to use. Make sure the room is arranged in a way that each member of the audience can benefit equally from any visual displays.

Techniques for establishing a good relationship with participants are crucial when training is taking place in another cultural environment. Studying the cultural issues, requesting trainee profiles or consulting with host-culture contacts, are ways on how to learn more about the specific audience.

Comfort is another factor that should not be neglected. It is difficult to concentrate if the temperature of the room is unpleasant if the chairs are too hard or too soft. Though we could assume that these concerns are not the trainer's responsibility, it certainly makes the job easier if the participants are happy.

The most common styles of room set-up are six models (Draves):

Theatre	This style of learning room set-up has traditionally been used for speeches and lectures in a rather formal one-way communication setting. For the sessions where you want to enhance interaction, it is wise to move closer to the participants and encourage them to sit nearer the front part of the room. We suggest you adjust the setting in the centre of the room, around yourself and lower down the formal podium - if there is one - as much as possible.
Classroom	Classroom style is an instructional mode, theatre style with tables or desks added for note-taking case.
U-shape	The U-shape has interaction and participation built in.
Conference or square	Conference style seating is a more formal setting for small groups.
Banquet	Banquet style has some of the large capacity qualities of the theatre style, but suitable merely for interaction in a small group.
Chairs in a circle	Circle style seating maximises participation and discussion with the educator who in this instance often act more as a facilitator and moderator than a presenter. This style is not used as often as it could be.

There have been quite many researches carried out about the influence exerted by physical environment on learning and its factors. Perhaps one of the most widely researched environmental issues is that of **seating arrangements**. However, this field (with all the other learning environment issues) need more research done and be discussed on, much moor that has been done in educational literature so far. This involves understanding much more about such topics as easy access and egress, colour, light, acoustics, and temperature. There also are several "hidden dimensions" of instructional settings frequently overlooked. No doubt, many of these less obvious factors can affect learning activities in various ways.

5.2. Four areas of seating arrangements

To encourage further researches we present some information that we believe are relevant to adult instruction. There are mainly four areas.

- anthropometry,
- ergonomics,
- proxemics,
- synaesthetics.

Though most of the information actually came from outside the educational circles we have used them, either by applying the concepts and ideas in our own instructional efforts or by discussing the eventual implications with other colleagues from different backgrounds.

Anthropometry
Adults have very different learning needs and expectations. They also come in different shapes and sizes. All these facts are highly important, being relevant in determining what kinds of spaces and furnishing are needed if we are to meet learning needs.
Anthropometry takes care of the issues, involving the study of various human dimensions, important in the design of furnishing and equipment to be used in a particular space.

For example, seat comfort, size, and arrangements are natural areas of concern. Some adults will have lower back problems that necessitate certain kinds of seating support if discomfort is to be reduced. Some people, for example, cannot sit for long periods of time in a chair with no padding or in the one that prevents the moving or frequent crossing of legs to relieve pressure on knees or other joints. During a long lecture, any disturbing features of a seat may reduce the listener's comprehension or involvement.

Ergonomics
Ergonomics deal with everything in reference ***to human factor engineering and are related to the design of living spaces and the objects they contain.*** They deal with the issue of providing comfort for those who occupy a particular space or use a particular piece of equipment.
Research in this area has brought the design of spaces and things into a new direction with the aim of making people feel good about it. Such design, engineering work, and even arrangement of appropriate spaces can provide some complex situations in which suitable solutions are sought. Fortunately, adults have considerable flexibility and "are designed to survive within a quite limited range of the possible environmental conditions". They also find out the insights, related to design needs.

Proxemics
One of the most significant contributions to the design and use of space has been in what is called proxemics, ***associated with the study of how people use space***. Hall (1988) defines it as "***interrelated observations and theories of people's use of space as a specialised elaboration of culture***" Some of them affirm that the environment is much more than just the physical setting. He describes several important proxemic features, including posture, body orientation, gestures, eye behaviour, olfaction, thermal code, and seeking or avoiding touch.

Hall (1974) believes there are basically three aspects of space about which we should be concerned:

1. fixed-feature space (such as a room full of seats, attached to the floor - a standard and often used way to organise individuals and groups)

2. semi-fixed feature space (such as movable desks, tables, and chairs - can be rearranged to suit an adult educator's or group of users' needs; this kind of space features can either encourage or discourage participation, depending on how well designed they are in terms of learning objectives)

3. informal space (determined by what Hall calls the "distinct bounds" people create for themselves).

Steele suggests that there is still another category that he would call:

4. pseudo-fixed feature space (space in which all the components can be easily moved or changed but nevertheless with a touch of constancy - like seminar, conference, or board room.

While choosing a physical setting for adult learning, it is important to understand how different settings function and how people that occupy them define space boundaries.

Synaesthetics

The physical setting affects human senses in a variety of ways. Colours can have impact on a person's mood; a room that is too warm will deleteriously affect attention span or the ability to focus. In addition, several senses may be involved at the same time in our learning efforts, even though we may not realise this polysensory interrelationship. The field of synaesthetics helps us to understanding how the physical environment is perceived in a polysensory manner and how such perceptions affect the learning process. Synaesthetics are concerned with determining how learners can be helped to integrate several sensory experiences simultaneously.

Tip

1. If you anticipate large amounts of supportive or supplemental teaching to take place, establish a teaching area in the classroom.
   - ☺ Small group instructional area
   - ☺ Large group instructional area
   - ☺ Learning centres
   - ☺ Independent work stations
   - ☺ Computer work station
   - ☺ Time -out area
   - ☺ Storage area

2. Consider the learner's toleration of movement or frequent desire to move; organizational abilities/preferences; need for sensory stimulation; as well as the preference to work independently or in a group.
    - ☺ Check to see if lighting and temperature conditions in the classroom are suitable for the learner.
    - ☺ A study carrel is useful. This will benefit the student who is easily distracted.
    - ☺ Depending on the level of distraction, determine whether the student might be better seated at the front or back of room, near the adult educator, away from noise or traffic flow areas.
    - ☺ Find additional storage space away from the student's desk.
    - ☺ Place work space in middle of classroom activity.
    - ☺ Attach learning materials to desk
    - ☺ Laminate a schedule and attach it to the desk. With younger students you could also include pictures of materials needed for each time or activity period.
    - ☺ Use different coloured chalk when recording information on board.
    - ☺ A table placed outside the classroom may also be useful. Some students may prefer to work alone or in a small group outside the classroom because it may be less distracting.
    - ☺ A backpack could be attached to the back of the desk to hold learning materials.
    - ☺ Place necessary but distracting items such as pencils sharpeners, lunchbags, garbage containers etc. away from centres of learning.
3. When preparing seating plans or work areas, consider students' vision, hearing, touch and smell. Egg:
    - ☺ Seat student close to the board, away from the glare of the window,
    - ☺ Provide a slant board for placement of books or papers,
    - ☺ Differentiate parts of the working area using textured materials,
    - ☺ Use scented stickers to designate important activities on the classroom schedule.
    - ☺ Seat students requiring adaptations in an area that will allow easy access to the students without disturbing the rest of the class.
4. Designate a specific spot n the classroom to leave notes, post schedules or changes in schedules, morning announcements and other pertinent information.
5. Establish systems for recording and checking assignments and grades (egg. Assignment sheets, homework books, student calendars/planners.

6. Keep a basket of necessary supplies in each area.
7. Have a cart with wheels. It's a great way to keep supplemental materials you need close at hand.
8. A filing cabinet will help to keep materials and student files close at hand. Keep a central file of modified materials and ideas.
9. Designate one location to hand in daily assignments.
10. Colour code folders for each subject. If possible coordinate folders with the colours of the textbooks used.
11. When using the computer, place a document holder near the computer to prevent pages from falling on the floor.

5.3. Characteristics of high-learning

According to Paul Kihn the physical environment of schools has been well-researched. This action research project approaches the topic of physical space from the less-common vantage point of students' perspective, exploring their ideas about the physical environment and its correlation with learning.

To better understand the student survey findings, I observed places the students ranked highly for both comfort and learning and I recorded some characteristics of those places as follows:

Characteristics of high-learning, high-comfort spaces

- Variety of areas within space
- Variety of student activities within space
- A lot of adult educator mobility
- A lot of student mobility

Building on such ideas, the students' designs ranged from a traditional, square classroom with regimented desks to a circular, underground chamber and a star-shaped room with a river running through its centre. While many of the external features of the designs appeared overly-elaborated or whimsical, an analysis of the interior spaces revealed useful characteristics of students' connections between physical environment and learning:

- A wide variety of de-centralised areas within the space
- High interest environments
- Priority given to physical movement
- Fun built into the learning rooms
- The spaces were mostly centred on student activity, rarely placing the adult educator in a central location

6. Teaching tools

Always help us to enhance our teaching and improve our participants' learning. We are talking about those magic objects, extremely powerful tools, which are there to be used and make learning better and more effective. It is also true they are often very complex as to their use in the way to get as much effect as possible. A lot of users misunderstand them and misuse them. They are not only audio-visual (AV for short) aids, but many we can see in a new light.

6.1. Misunderstanding of audio-visual aids

There are a few statements about AV, causing more harm than benefit to the learning process:

- The more AV the better;
- AV helps deliver information to participants;
- Major points should be summarised with AV aids;
- Low-technology AV aids are fairly simple to use and require little if any participation.

Too many high-technology aids reinforce one-way communication and distance participants from learning rather than involve them.
Major reason we use teaching tools is that we as adults learn differently. Some of us learn better by hearing, other by seeing things, some with using examples and doing things, others need to use concepts. Another reason for using teaching tools is that they create variety and stimulate interest. And finally, teaching tools present your thoughts visually in a way words cannot.

And it is worth to remember, that visuals and other teaching tools are there to assist you in your teaching, they are not the wrote or other kind of show. You are the show, but they are enhancement and aid.

6.2. Devices and aids

We have them to assist us in presenting the materials in an interesting, clear or different manner. Tools which could help you at your teaching and are useful to have them in almost every learning room:

- Flipchart
- Overhead projector
- Slides
- Cassette tapes or CDs
- TV with video or DVD player
- Charts and graphs
- Other instructional aids, which might be helpful, like cork boards, specimens, flannel boards, radio etc.

7. High tech

There is also more and more high-technology in the learning rooms: laser lights, hologram, CD-ROMs, interactive media. But high-technology aids have two or three major problems most of the time:

- Some are very expensive and this is why most of the learning centres cannot afford them;
- Some are not sophisticated enough to establish or stimulate interactive participant-presenter dialogue; they are just an alternative mean for transferring information;
- Nevertheless it is also important that we are confident and comfortable in using high-technology otherwise it is useless to have them and use them.

8. The natural environment

Most learning situations, training and education take place indoors, but even there it is impossible to escape our natural environmental influences and its effects on our teaching and learning.
Important environmental features include **temperature, lighting, and noise level**. These factors affect students in different ways and are directly related to individual learning styles. Studies suggest that when adult educators adjust the environment to students' preferences, the students perform better academically and behave better.

8.1. Lightening

We could very much agree with the Draves thought: *"'Lights up' is the word of illuminating your learning room"*. It is true, that too much artificial light is rarely an issue, but very often not enough artificial light is one. If there is not enough light in the learning room, try to do something about it, bring a couple of standing lamps from home. Do something about getting the room switched.
It is also true the sunlight or natural light can be an issue as well. Looking into the sun, and the sun's rays can both cause difficulties by irritating the eyes and making the vision blurred.

From an optical standpoint, lighting levels can either be a source of pleasure or distraction. If a classroom or nearby exterior space is inadequately lighted, a person's feeling of well being, ability to read learning materials, or need to take appropriate notes can be affected. When showing some sort of audio-visual aid, it usually is necessary to adjust the level of light so that any screen, monitor, or primary area of focus can be adequately observed from all parts of the room. Walking in an unlighted or poorly lighted hallway or parking lot can even create feelings of insecurity or concern for personal safety and may require adult educators to ask learners to walk together in certain areas. The main point here is for adult educators to ensure that the *"quantity of illumination is sufficient for the task"* (Murrell) or to make a couple of necessary adjustments.
There also has been a research aimed at understanding the differences between artificial and natural light sources. Some people believe natural lighting (daylight) is better

because it enhances colour, texture, and even the atmosphere of a room (Bennett, Caudill, Pena, Kennon, Lam, Sommer). Others believe artificial lighting can be better controlled, reduces distractions, and usually is necessary for maximum usage of a space (Knirk, Rasmussen, Sommer).

> **Tip**
> For all these reasons, monitor the sun light in your room carefully throughout your session. If that is a hassle, close the blinds if there is enough artificial light in the room. A little sunlight make people up, but too much could cause a distraction.

8.2. Vision

Be aware of the lack of visual acuity which comes with age.

- Typeset used on tests, hand-outs, and overheads should be as large as possible. Ornate script should be avoided.
- Before teaching a course in an unfamiliar room, check the visibility from various parts of the room. In particular, check for glare. Make sure there is enough overhead light.
- If the lights must be turned down in order to view multimedia presentations, be sure that recessed spotlights are available. Many students will wish to take notes but may not be able to see in the darkened classroom.
- Avoid overhead pens which are light-coloured. If colour contrast is important, avoid red/green combinations which cannot be distinguished by colour-blind learners.

8.3. Noise

The outside noise could destroy a good session.

Knirk suggests that there are at least four components of noise in the learning situation about which we should be concerned:

- noise reduction (sound insulation qualities);
- reverberation (liveliness or prolonged reflection of sound);
- speech interference level (background or conflicting);
- an articulation index (ability to recognise speech components).

The Guide for Planning Educational Facilities (1976) offers an approach for meeting such concerns:

Designing a good acoustical environment in an educational facility requires the solution of two problems:

- controlling sound within a particular space so that sound which is to be heard can be heard well,
- preventing the intrusion of unwanted sounds from outside the space.

Noise, for example, is an environmental factor that can adversely affect our auditory well-being. As Wells notes *"we live submerged in a world far noisier than our ears or nerves were designed to handle, and, for some of us, there is literally no escape."*

Most adult educators have faced the situation of a training site or classroom being under the frequent glide path of a busy airport, next to a construction project, near a noisy lounge, or close to some other creator of unwelcome sounds. At times, even the active discussion emanating from small groups will be disruptive to other small groups trying to work.

We use several techniques for either controlling internal sounds or preventing intrusive noise. One is to make sure that any learners with hearing difficulties are able to situate themselves so that they can minimise any problems. As mentioned before, another is to ensure the availability of adequate breakout rooms or areas so that conversations from one group do not bother another. Closing windows, closing doors, moving in sound barriers, and using audio amplification are other means of coping with noise problems. If certain people are having problems hearing the adult educator or other learners, then they could be moved to more appropriate locations in the room.

> **Tip**
> It is better to cancel it all if there is no possibility to avoid the outside noise, than go on in such conditions. Try to arrange things to continue the session next time, if possible, or even check out the cause of the noise. If you can make it stop in reasonable time then you can go on with your session.

8.4. Hearing

The acuity of hearing diminishes with time. As men age, they tend to lose high frequency hearing. Women, on the other hand, lose hearing of low frequencies. Thus, older male students will hear male adult educators better while older female students will hear female adult educators better.

- Rapid speech can result in a loss of intelligibility of up to 45% for older people. Older adults take longer to translate the meaning of sound and to act on it.
- Try to select a room which is free of outside noise or noise from equipment. Many older learners have difficulty filtering extraneous noise.
- Be sure that multimedia presentations can be heard in all parts of the room. Often, the speakers used in these presentations are not aimed toward the audience and are very small.

Warm, well-run classrooms begin with the room's physical layout — the arrangement of desks and working space, the attractiveness and appeal of bulletin boards, the storage of materials and supplies.

8.5. Temperature

The physical comfort of the room is an important factor, determining how well we would be able to listen, interact, and stay focused. Your feeling about the too hot or too cold learning room is not relevant, because you have more space around you than your participants. Maybe you stand in different part of the room; absorbed in your presentation, trying to facilitate the discussion you may not feel it - unfortunately your participants are less absorbed, and the temperature can affect them.

Tip
Draves said: *"The best advice I have heard has come from seminar guru Anver Suleiman. He urges that participants be given a list off suggestions before the educational meeting or program starts, perhaps with a confirmation statement. One of the suggestions that always would be included is to encourage each participant to wear 'layered clothing'. ...Then if the participants are too hot, they can shed some clothing, and if the room is too cool, they keep the sweater on. In this way, you as adult educator or presenter shift the responsibility for proper temperature control to your participants."*

9. Learning mediums

They differ from teaching tools which help the presenter or adult educator to communicate the information, clarify a point, or illustrate an idea. Learning media, on the other hand, have a different role. Learning media occupy a middle ground between the adult educator and the participant. Sometimes they are the substance through which an effect is transmitted. The learning media are offered as a choice and as an alternative. Learning more about the learning media and understand their effect to a fuller extent, we have a few recommendations on how to use them.

Tip
Playing music before starting your session helps to get your participants into a learning mood in at least two ways: it breaks unpleasant and awkward silence. Some specific music can actually help to put people in the learning mood. Austin and Peters say that flowers help create a good atmosphere. They have calming, engaging and spritely effect on a group. They are excellent visual aid in creating good learning environment.

10. Analyzing the physical environment

There are a number of issues that can be raised in thinking about the physical setting. What is an optimal physical environment, conducive to effective adult learning? What kinds of characteristics should such a setting possess? What kind of decisions and to what extent the control should be the responsibility of the adult educator? What steps can administrators and even learners take to ensure that the environment for learning is as effective as possible?

The preceding material in this chapter hopefully has suggested some answers to these and other related issues. We also believe the participants should be consulted in regard of any of their special or personal needs, related to the environment. Is it possible to satisfy everyone's needs? Probably not! What is possible though, is the effort to honour adults as a source of information, try to find out some of their needs and try to satisfy them as much as possible.

Another important practice is formative evaluation throughout a learning experience. For example, a continual assessment of the environment might reveal that some seats are simply too small or uncomfortable for the type of the performed learning activities. Subsequent efforts could be made to find alternative seats. These kind of suggestions are not the last answers to physical environment concerns, nor do they necessarily provide optimal advice pertaining to physical components within the learning environment. To each adult educator's personality suit specific instructional techniques and institutional constraints obviously need to be matched with peculiarities, present in each group of learners.

To sum up, physical distractions have the potential to dampen your efforts to build an ideal learning experience. By paying attention to the details above, you can limit the risk of serious liability and increase your chances of success.

10.1. Checklists for learning environments

A Responsive Learning Environment Checklist
You will know that the physical environment is responsive when:

1. There is space for students to simultaneously participate in a variety of activities.
2. Students have access to materials with a range of levels and topics.
3. There is space for students to engage in a variety of instructional groupings, and flexible grouping is used.
4. There are areas supportive to student's self-management.
5. Desks are not individually owned.

Checklist for physical factors

Check the temperature.

As noted above, if it is too warm in the classroom, your students will soon be snoring. Extreme heat makes everyone thoroughly uncomfortable. However, cold usually causes a flurry of excited chattering and "jacket-borrowing." You will never find a temperature to please everyone, but try to find a tolerable medium. Physical comfort is a priority in learning.

Check the room size.

Often classes are greatly affected by the size of their meeting area. For smaller groups, avoid isolating them in a large, open area. Instead, try to meet in a smaller room. The group will seem larger and students won't feel "singled-out" if you call on them. An appropriate room or a bigger group should be large enough for comfort, but small enough to promote interaction between regular students and visitors.

Arrange your classroom for active learning.

Successful adult educators know the secret of reinforcing their lesson points with activities students are more likely to remember. Different seating arrangements may foster greater interaction between you and your students. And a change in seating may eliminate disciplinary issues as well (place chairs in a shallow semi-circle around the podium so you are almost within reach of everyone).

Check the appeal.

Decorate (or even better, have your students decorate) your room in a teen-friendly manner. Create "trendy" bulletin boards from pictures of teens in life situations. Check with clothing stores in your local mall. They often discard enormous, professionally designed graphics during the changing of the seasons. Put up a scrap-board with pictures of youth group events. You will find that teens are much less likely to be distracted in an environment with which they are comfortable.

Check the lighting.

Bright lights are great for early classes because they help keep everyone awake. Soft lights work well for evening situations when most teens need a calming influence.

Use eye-catching object lessons and teaching aids.

Students retain far more of what they see AND hear. Use posters, visuals, models, pictures, cartoons, sculptures, special lighting, etc. BE CREATIVE! Although it takes time to create unforgettable surroundings to correspond with your lesson, the impact will be well worth it.

Before your next meeting, arrive early. Stand in the middle of the room and look around.

Try to see the room through the eyes of your students. The suggestions listed above are just the tip of the Iceberg. The possibilities are endless! Have fun …

Conducting a pre-workshop site assessment is a good way for trainers to become familiar with many of the factors mentioned above and helps to ensure a smoothly run session. Electrical outlets and computer network connections (if needed) can also be tested. Although viewing the workshop site may not always be possible when dealing with a remote location, obtaining diagrams or even a photograph of the room and general area can be of great assistance in preparing for the training session.

Know Your Audience

Research has shown that in order for training to be effective, an open, comfortable learning environment is necessary. A few other things are worth looking into beforehand:

Lighting: Is it adjustable? Will it accommodate viewing of slides, etc., while permitting note-taking?
Arrangement: Is the room set up so there are "no bad" seats (e.g., restricted sight lines, proximity to noise sources)?
Storage: Is there a secure space to store materials if the workshop lasts more than one day?
Access: At what time is the room available to trainers? To the participants? Who controls access, and how can they be contacted?
Comfort: Note the location of washrooms, smoking policy, coffee breaks and meals. Are there nearby activities that may be distracting? If so, can they be controlled?
Emergency: Are fire exits and procedures clearly marked? Is there a contact person for medical or other emergencies?
Work schedule: Are the participants normally early or late starters? Will there be prayer times? Take into consideration breaks and meal arrangements (times and locations).
Avoid religious and national holidays: Trainees may be fasting or may be exhausted from national or religious celebrations.

It is to the trainer's benefit to ensure that the physical environment is as comfortable as possible, so that the participants can concentrate on the subject at hand.

11. Conclusion

In short: it is possible to conclude, the learning environment and specially physical environment has a great impact on learning effects and because of these reasons mention above it is necessary to arrange learning space by some characteristics and rules, what help us to make it ‘friendly’ to our students brain and their willing to learn.

12. Self-evaluation questions

- How would you describe a physical learning environment?
- Which are factors in learning environment effect learning and its success?
- Describe the elements of physical environment important to take care in adult learning and education!
- What are main important thing when you prepare seating arrangements in learning room?
- Describe few important things about natural learning environment like lightness, hearing and temperature!

- What would you be aware off when prepare the learning room for your session?
- What are your most crucial points when you need to suggest organizers of different adult education sessions to prepare in learning rooms?

13. Key terms

Rapport
"Rapport is the ability to enter someone else's world, to make him feel that you understand him, that you have a strong common bond. It's the ability to go fully from your map of the world to his map of the world. It's the essence of successful communication," (Anthony Robbins). Rapport is found as a prerequisite for effective communication, whether in counselling, in our personal lives, in our professional lives ... anywhere, and with anyone.

Gesture
- A body movement, posture, or material artifact which encodes or influences a concept, motivation, or mood
- In its most generic sense, a gesture is a sign, signal, or cue used to communicate in tandem with, or apart from, words.
- Gestures include facial expressions, clothing cues, body movements , and postures.

Eye behaviour
Facial muscles can be consciously controlled in all areas of the face except the eyes. Because the eye muscles are not as readily controlled, the ocular response reveals not only the truth but also much about a person's individual personality structure. Eye contact is an aid to social interaction. Establishing and defining relationships Eye contact determines the type of interaction that will take place and how the interaction will develop. It shows willingness on your part to admit interest in others and allows others to gain information about you.

Polysensory
We suggest that the polysensory zone may contribute to the guidance of movement on the basis of tactile, visual and auditory signals. Neurons in premotor cortex of the macaque brain respond to tactile, visual and auditory stimuli (Rizzolatti et al. 1981). The tactile receptive fields of the polysensory neurons are usually on the face, arms, or upper torso, and the visual and auditory receptive fields are usually confined to the space near the tactile receptive fields, within about 30 cm of the body.

Olfaction
The sense of smell is a primal sense for humans as well as animals. From an evolutionary standpoint it is one of the most ancient of senses. Smell (or Olfaction) allows vertebrates and other organisms with olfactory receptors to identify food, mates, predators, and provides both sensual pleasure (the odor of flowers and perfume) as well as warnings of danger (e.g., spoiled food, chemical dangers). For both humans and animals, it is one of the important means by which our environment communicates with us.

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Adult Learner
1st Module

CHAPTER 6

Formal, non-formal, informal learning

Chapter 6

Formal, non-formal, informal learning

1. Introduction

New skills and more knowledge have become an increasing demand at all levels in society. Even at warehouses unskilled workers need skills, not only in handling a truck but also in how to operate a computer to find existing stocks. The worker must also write a bill on the computer to be presented to the cashier before coming back with a receipt to pick up the goods. Another example: Recently it has been decided that engine drivers in Norway have to go through a 60-hour course updating their knowledge and skills in driving and how to use the new brake system. Nothing of this was learnt at school.

Within a community, workplaces will be closed down and new ones will pop up. Many of us will change work at least once if not more often during our working life. A united Europe has made working internationally possible to a degree never considered possible 40 years ago. So the day you apply for a new job, the school leaving certificate from 1974 may not be very helpful and it says little of your experience and competence. Thus there is a need to make visible the entire scope of knowledge and experience held by an individual.

2. Aims/goals

The aim of this chapter is to explain the following concepts:

- Accreditation
- Assessment
- Formal learning
- Informal learning
- Non-formal learning
- Prior learning
- Skills Certificate
- Validation

Initial activities
How many times have you changed workplaces and fields of working?

What new skills have you acquired after you left school?

The next paragraph will present terms used when we talk about previous learning, new skills and experience.

3. What are we talking about?

3.1. Formal education

Education often refers to organized activities with the end purpose of obtaining a certificate or diploma. It is most common to use the term formal education, although formal learning is also used.
Formal education is the learning that is acquired in the education system and usually documented in a certificate. In Europe the traditional system offers 9-10 years of obligatory primary education followed by 3 years of secondary education. This system includes both vocational training and theoretical education preparing for college or university studies. The education is intentional and ends with a certificate or diploma.

Further studies take place at colleges and universities and there are three levels: Bachelor's, Master's and Doctor's degrees. Europe has become more and more transparent in the sense that most countries have accepted the European credit transfer system, ECTS. A year with full time studies is credited with 60 ECTS. The goal is that studies at various places and in different countries may be accepted for the same Bachelors's degree and credited with the same ECTS, but there is still a way to go before this works.

To what extent was your formal education important to your job ten years ago? What about your present job?

3.2. Non-formal learning / education

When it comes to non-formal knowledge both learning and education can be used, though learning is often preferred.

Non-formal learning is a fairly new concept. It refers to the competence acquired outside the traditional education system. The competence increase is intentional and it has objectives, but does not always end with a certificate or diploma. However a documentation is usually issued. This may be from your job, job-related courses and seminars, structured learning organized by associations for adult education and distance learning. It comprises all competence acquired and which is learnt outside your formal education. In cases of organized learning there is often a course documentation of topics dealt with and increased knowledge, but no exam and certificate from the course-provider. Non-formal learning is intentional from the learner's point of view.

If we return to the unskilled warehouse worker it may be interesting to see what new skills he/she has acquired. He/she may have been to courses in truck driving and be the holder of licence 1 and 2. In addition the worker has been to a computer course and learned how to use a programme called Excel. Because the company faced serious competition it decided to attract customers by offering excellent service. Hence all workers have been through a service course. The company not only survived, but these skills made our friend far more attractive when applying for a new job or simply put him/her in a better position for promotion at his work place.

What non-formal learning have you been through?

3.3. Informal learning

Informal learning is not organized. It is what you have learnt at home, in your family, from your hobbies, from voluntary work and social life. In Nordic countries many politicians have started their careers by taking on unpaid responsibilities in political parties. It is often referred to as experiential and can to a certain degree be understood as accidental learning. Nor is this kind of learning structured in terms of learning objectives, learning time and/or learning support.

Up to now this kind of knowledge has never been documented. We are not aware of the fact that we may have very good skills at handling children; a talent for organizing events, bazaars, experience from local theatre groups, orchestras, choirs; voluntary work in the sports club; you may have undertaken the position as leader of your housing cooperative with lots of practical know-how, high competence at presiding meetings and tackling stubborn people, comparing different estimates for replacing the central heating and making decisions. This may also be called tacit knowledge. When applying for a new job this kind of tacit knowledge is up to now not really been credited. With a wider understanding of competence this will change, hopefully.

You may go to courses, take modules, study for years and come out, maybe as a good leader, but not necessarily so. And there are undoubtedly naturally born leaders without any papers.

Social competence, emotional intelligence, creative skills, stress capacity, flexibility and leadership abilities are not only modern phrases. There is an increasing awareness that these qualities are needed and very important in many positions.

None of these skills are written down, assessed or evaluated. They are informal but nevertheless invaluable.

Consider your own life experiences - list informal skills you have, individually.

How should these skills be documented?

3.4. Why is recognition of non-formal and informal learning important?

Schools are neither satisfactorily updated nor sufficiently focused on adequate qualifications in the vocational sector. It takes time before new skills work their way into schools and the curriculum. This holds for most European countries. The focus today is on *what skills* you have and not *where* your have learnt them. It is an established fact that we know far, far more than what our certificates from formal education show. This new competence is valuable. Hence it must be documented.

Another point: A worker is much more than certificates and job experiences. What about creativity, being a good social mixer, adaptability to various systems and environmental changes, capacity for independence, leadership and responsibility? No one holds all these qualities/qualifications, but it makes a big difference to the environment of a workplace where good communicative skills are needed if you don't have them. The more your informal skills are documented the higher is your work deployment. Additionally, to be attentive to the total capital of a person- a kind of holistic view is to be respectful towards the individual. Human resources are sometimes looked upon as the biggest asset/capital of a country.

These terms are included here because they are more and more applied in the discussion of adult learning. It should however be noted that definitions are not agreed on and the terms may be differently understood in various countries, due to different traditions. In this module the definitions used by Cedefop, (The European Centre for the Development of Vocational Training), will be used.

Cedefop provides information on and analyses of vocational education and training systems, policies, research and practice in Europe. Cedefop was established in 1975.

Assessment

The Cedefop definition is: The sum of methods and processes used to evaluate the attainments (knowledge, know-how and/or competence) of an individual, and typically leading to a certificate.
One thing is the practical test or the examination at the end of a course within the established educational system. But it is also possible to assess experiential learning from a workplace or leisure time activities. Methods in the assessment process can be: interviews, demonstrations, practical work, descriptions of tasks, work and skills.

Validation

The Cedefop glossary (2000) defines validation as the process of identifying, assessing and recognising a wider range of skills and competences which people develop through their lives and in different contexts, e.g. through education, work and leisure activities.

There are three main validation areas:
Validation in relation to formal education and training.
Validation in relation to the labour market (enterprises, branches and sectors).
Validation in relation to leisure activities.

Validation in relation to the labour market

When it comes to knowledge gained at the workplace, the main focus now is to make competence visible. Let us make a visit to the workplace. There we may find an uneducated welder or nurse's assistant who just plunged into a job as soon as school was finished. After 16 years in working life they obviously have acquired much competence, but no paper and a lousy pay. What possibilities are there for these people?
Obviously there is a need for a standard, a framework to be evaluated against. As long as the skills are acquired within the field of formal education, they can be assessed and valuated in respect of upper secondary education. The welder may ask for an assessment of his knowledge and practical skills and will be evaluated against the national curriculum for a

Welder's Certificate. The assessment may for example reveal that his competence covers 70 per cent of the curriculum. With cooperation and flexibility from his employer, the remaining 30 per cent can be covered in one year through a specially designed programme.

The nurses' assistant can be assessed against the Certificate of a State Enrolled Nurse. Maybe in her 16 –year- long career she has been through all the practical experience needed. In addition she scores high on laws and regulations, and other theoretical topics because she has been through various courses, classified as non-formal learning. This process is called *validation.*

What she scores low on can be covered in 6 months. With cooperation from the nearest school for State Enrolled Nursing, she may follow some classes, do some courses on her own before she presents herself for the final test of the remaining topics. The key words are again cooperation and flexibility.

Validation of informal learning in the third sector.

Then remains the assessment of informal knowledge. We'll now move back to the leader of a housing cooperation or girls' scout leader. In this situation there is neither a formal education to evaluate against nor a course documentation. Instead the responsibility is placed on the individual. It is possible for him/her to make a self-declaration. This self-declaration includes all activities engaged in, responsibilities undertaken, experiences gained in the third sector.

A common European standard is presently being discussed. Below is an example of such a form used in Norway:

Documentation of spare time activities

Name:	Born:
Activity:	Organization/organizer:
From – to:	Extent (months, years, hours a week / month):

Description of activity and competence acquired from this activity.

The content of the activity, what kind of activity and how the activity took place. Your role, tasks or part in the activity. Experience, knowledge and skills gained and developed in connection with this activity. Link this to tasks, roles, organizing, cooperation and communication with other people.

Reference

Name:	Position:
Address:	Phone/e-mail:

Attestation

Place:	Date:	Signature from organization/organizer:

If necessary

Place:	Date:	Signature from organization/organizer:

Activity:
Work together two and two and find out how much each of you can fill in of the part which says:
Description of activity and competence acquired

Informal learning at the warehouse
Apart from all the various courses employees have been through there is still much left to be documented from working life. We'll stick to the unskilled warehouse worker: Maybe he has been a shop steward or a project leader. In these positions he has organized meetings, shared information about his workplace, explained new regulations and given product information. He has developed a skill in clear communication, undertaken leadership and negotiated with the owners of the warehouse. All these skills can be set down in a Skills Certificate.

Skills Certificate
A Skills certificate is a survey and documentation of competence used in the present job.
- Examples of areas to be documented:
- Main fields of working
- Description of them
- Skills in leadership
- Languages spoken
- ICT skills

Social and personal competence is made visible by describing former and present experience with reference to ways of working, projects, positions of trust and social activities at the workplace.
In this process it may be valuable to get help from a colleague or nearest leader. Modesty may be an active barrier when documenting skills and competence, and two often think better than one. All your skills ought to be uncovered.
The Skills Certificate should also be signed by both employee and employer.

Activity
With background from your work experiences set up a list of skills you have acquired?

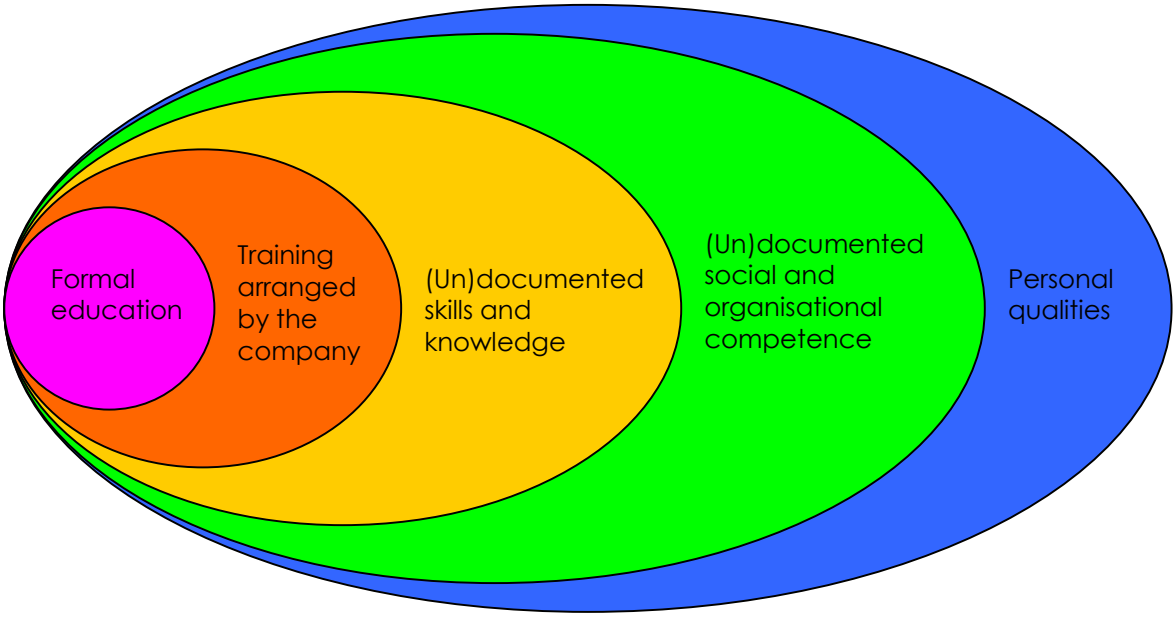
Accreditation and prior learning
The last terms to be introduced are *accreditation and prior learning*.
Prior learning comprises the sum of overall skills individuals have acquired through the education system, paid and unpaid work, organisational activities, family life and life in society. In other words it covers formal education, non-formal and informal learning and knowledge.

Accreditation is the process of accrediting an institution of vocational education or training, a programme of study, or a service, showing it has been approved by the relevant legislative and professional authorities by having met predetermined standards.

Accreditation of prior learning is a process of systematic and valid assessment through which an individual's skills and knowledge can be formally recognised and credited, regardless of how, when or why they were obtained.

There is no control of when a competence is acquired, the main thing is having it documented. Furthermore this system is based on trust among the various authorities. A certificate/documentation is accepted everywhere. This is also called transparency. This system opens up for a work market paying more respect for the employees and easier job transitions.

Activity
With background from your work experiences set up a list of skills you have acquired?



This figure shows a visualization of prior learning.

4. The learning arenas are manifold. Where do we learn?

Traditionally we look upon learning as something that takes place at schools and colleges/ universities. But more than half your life takes place outside school or your workplace. You may get valuable competence in your spare time activities. Your competence comes from what you have done and learnt in these arenas: schools, work, courses, societies, organizations (political, sports clubs, school bands), councils, leadership, projects, festivals, actions, competitions, travels, stays abroad, responsibilities within your own family, individual interests and hobbies etc.

A workplace is also a learning arena. A job is more than simply doing your tasks. There is teamwork in which one must relate to other people with deadlines to be observed, new tasks to be planned and responsibilities to be taken on.

Sometimes a task must be carried out by only one person, something which may bring valuable learning. When it comes to health and security, rules and regulations must be understood, conveyed to everyone and observed.

A family situation may also be regarded as a grand stage for learning with its responsibility and dependence, everyday care, nursing sick children, short-term and long-term

planning. There are laws and regulations necessary to know as soon as a child is born, which just rolls on when formal social learning and education starts. In all this there is a vast amount of tacit, but important knowledge.

Many people take an active part in societies, political work, clubs or organisations; sometimes out of own interests, sometimes through their children. The work may vary from baking cakes, being responsible for the financevs of a sports club, organizing events, taking care of the logistics or chairing meetings. Voluntary work is another arena of learning.

Neither should social skills be underestimated in a person. Being a good mixer is very important glue both in one's work and in social life otherwise. This is acquired through life, at work, at school, with friends, at home.

Likewise are many people very good at not only using a computer but also understanding of how it works. All by themselves they acquired high competence in word processing, using different programmes and finding data on the internet. Today this competence is quite valuable and should also be recognized.

5. How can previous learning be used?

Personally
Documentation of non-formal learning may make people feel more valued and inspire them to develop their skills. With a paper showing what they have done and stating their skills, people may be more eager to undertake responsibility or say yes to new possibilities.

Reinforced self-confidence may trigger a wish for formal education or developing new skills. Being seen and valuated is the best push towards gaining more competence.

Another result is that learning may be looked upon as more meaningful and more enjoyable. Instead of looking upon new learning as a must and something burdensome, it becomes a goal in itself.

By assessing what is learnt and evaluating the competence acquired, the time needed to get a specific formal education may be reduced. Traditionally it takes three years to become a qualified plumber, but with the documentation of your skills this may for instance take only one year.

For the company
With a general feeling of positive job environment a company may see several benefits. A company is far better off with employees who are eager to learn more and want to develop themselves.
Companies that have started using Skills Certificates often report reduced absence. It is less attractive for the workers to stay home from work, because they are looked upon as positive and needed assets for the company.
It is easier to put the right person at the right place because all the skills and competence is known. This means higher efficiency, better utilization of the competence in a company

and more job satisfaction, which again may lead to increased production and financial profit.

6. Conclusion

Apparently the idea of formal, non-formal and informal learning reflects new perspectives on the individual. By giving importance to and recognition of all the aspects of a person's abilities, education and experiences a new attitude is set. We see a more holistic view of the individual.

Moreover, this idea reflects a changed view on education and learning. Education and learning have now really left the school building and training grounds, but it takes place every day and wherever a person may stay. All stages of life are valued as important learning fields.

Finally it is a sincere wish that the ways or tools to describe formal, non-formal and informal learning shall be accepted all over Europe. The overall goal is that there shall be established a transparent systems for documentation of competence. So that in the near future formal, non-formal and informal learning can be not only understood but also recognized all over Europe. Then another aspect of a unified Europe is achieved.

7. Key terms

Accreditation: Is a process of systematic and valid assessment through which an individual's skills and knowledge can be formally recognised and credited, regardless of how, when or why they were obtained.

Assessment: The sum of methods and processes used to evaluate the knowledge of an individual.

Formal learning: Is the learning that is acquired in the education system and usually documented in a certificate.

Informal learning: Experiential and may also be understood as accidental learning.

Non-formal learning: Competence acquired outside the traditional education system.

Prior learning: Comprises the sum of overall skills individuals have acquired throughout life. It covers formal education, non-formal and informal learning and knowledge.

Skills Certificate: Is a survey and documentation of competence used in a job.

Validation: Is the process of identifying, assessing and recognising a wider range of skills and competences.

8. Further readings

Validation of non-formal and informal learning in Norway: VOX P.O.Box 6139, Etterstad, 0602 Oslo.
Common European Principles for Validation of Non-formal and Informal Learning:
a) Note for working group 'H' (Making learning attractive, strengthening links to working life). November 2003.
b) Note for the meeting of 'Objectives group H', 16-17 February 2004.
Colardyn, Danielle, Bjornavold, Jens: Validation of Formal, Non-Formal and Informal Learning: policy and practices in EU Member States.
European Learning Issues for EVC Utilisation. Compiled by C.C.M. Schuur, P.B.Feenstra and R.C.Duvecot.