Grundtvig Project

LeadLab

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http://leadlab.euproject.org/
leadlab@learningcom.it

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EUROPEAN MODEL OF PERSONALIZATION

FOR ADULT LEARNERS
SUMMARY

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Introduction

The present document is part of the LEAD-LAB project that refers clearly with the aims of the LifeLong Learning Programme: the development and exploitation of education in adult and elderly contexts have strong reference with the actions conceived by the proposal that addresses just the priority areas of Call. The difficulties of adult education are well-rendered in data and figures on percentage of participation in education and training, very far from Lisbon objectives (for ex. in EU27 in 2006 was 8,8%; it's -3,7% by 12,5% expected).

Countries involved in project experimentation (in particular Italy at -6,8% in 2006) are the ones where participation is under the average mark. A solution for implementing participation is make adult education system more attractive by quality empowering. LEADLAB will try to, through introduction of personalization and self-learning methods in trainer's "luggage".

LEAD-LAB aims to support the European NVEA system by the development of an integrated model based on personalization and self-learning approaches according to the “Andragogic” (Adult) paradigm; a Learning Personalization trainers job profile and map of competences; a "blended" combination of these approaches and the best practices in adult education can contribute in a meaningful way to improve the attractiveness of NVEA in a logic of sustainability.

Personalized paths allow adults to conciliate learning activities with the job and the leisure time; self-learning focuses on self-awareness of oneself learning styles and intelligences (e.g. Gardner's multiple intelligences). Objectives and results of the proposal are formulated appropriately to answer to the challenge to make adult education more flexible and "learner friendly" through the empowering and the development of competences of trainers and teachers in NVEA.

Partners of LeadLab Project:
Learning Community srl (IT) www.learningcom.it;
AFOL- Agenzia Formazione Orientamento Lavoro Sud Milano (IT) http://www.afolsudmilano.it/;
CNAM - Conservatoire National des Arts et Metiers (FR) www.cnam.fr;
TV – Thüringer Volkshochschulverband e.V. (DE) www.vhs-th.de;
CECE - Confederación Española de Centros de Enseñanza (ES) www.cece.es;
The present document is aimed to describe the LEADLAB Model for the adult learning personalization. The model is the result of the previous study realised about the Status Artis of Personalization and Adult education in the Partners’ Countries, and the diffused practices of personalization in Europe. The document describes the theoretical requirements, learning approach, learning pathway, educational methodology, learning environments, educational interaction, evaluation and assessment methodology of the integrated model of personalization of adult learning. The model is part of a wide design including also the job description and the design of the map of competences of the Learning Personalization Trainer (LPT), describing the main areas of competences and necessary knowledge and skills, for who wants to become expert in personalization of NVAE learning pathways. The LEADLAB model represents the ideal framework where this innovative professional figure should operate.

The LEADLAB model here presented will be tested and validated within an experimental course involving 10-15 trainers of adult/elderly learners in Spanish, German, Italian, French Adult Education Institutions.

**Abstract**

The LEADLAB model is the result of the comparison among several meanings, experiences, theoretical perspectives and paradigm of personalization and adult learning.

Following is described the rationale of the design of a model of personalization for adult learners, the features of such a model and the feasibility conditions for its application.

The Model design is based on a shared definition of what is a model, what is adult learning, what is personalization, shared among partners, coming from different cultural background, were the same words could have different meaning.
Then LEADLAB Model, following described, is the result of an:
- integrated meanings;
- integrated experiences;
- integrated theoretical perspectives and paradigms, including for Adult learning, (andragogy, anthropogogy) theories of Knowles, Adkins, Mezirow, Feuerstein, Liendeman; and for Personalization, theories of Gardner, Hoz, Kolb, Przesmycki;
- integrated systems and specialized professional figures: Learning Personalization Trainer, Trainer, Instructional Designer;
- integrated contexts, including the ideal context foreseen by the model and the real contexts where adults learn.

After this necessary introduction, is described the possible design of personalized curricula and courses, indicating suggested learning and teaching methodologies and strategies; suggested features of the learning environment; the dynamics of a personalised educational interaction; evaluation and assessment strategies.

Finally are highlighted some feasibility conditions for the application of the model, even in different countries having different rules and institutional Organization addressed to adult learning. Are identified strengths and opportunities of the application of such an innovative and integrated model of personalization and possible suggestions in order to allow the integration and the development of the LEADLAB model in the traditional educational System.

**Why to develop a model of personalization for adult learners**

In 2005 in Europe 10.8% of adult working age population (24-64) has participated in Non Vocational Adult Education (NVAE); one benchmark adopted by the Council in 2003 was to reach an average level of participation of at least 12.5%. Recent studies (EAEA, Adult education trends and issues in Europe, 2006; Eurydice, Non vocational adult education in Europe, 2007) show common participation patterns in NVAE: participation declines with age; participation rates increase as the level of education of the participants rises; the main obstacles are lack of time, of money, of customized learning paths, unsupportive social environment, bad previous learning experience, and so on. NVAE learning paths lack of attractiveness: they are stereotyped, don’t valorise adults learning styles and biographic elements, are inadequate for elderly people. Successful approaches are often diffused only in
restricted contexts, and the good pedagogic practices are not standardized nor recognized out of those contexts.

LEAD-LAB refers clearly with the aims of the Programme: the development and exploitation of education in adult and elderly contexts have strong reference with the actions conceived by the proposal that addresses just the priority areas of Call. The difficulties of adult education are well rendered in data and figures on percentage of participation in education and training, very far from Lisbon objectives (for ex. in EU27 in 2006 was 8,8%: it's -3,7% by 12,5% expected). Countries involved in project experimentation (in particular Italy at -6,8% in 2006) are the ones where participation is under the average mark.

The Status Artis analysis highlighted common characteristics of European countries, with regard to adult education, showing common participation patterns in NVAE: participation declines with age; participation rates increase as the level of education of the participants rises; the main obstacles are lack of time, of money, of customized learning paths, unsupportive social environment, bad previous learning experience, and so on. NVAE learning paths lack of attractiveness:

- they are stereotyped, don’t valorise adult learning styles and biographic elements;
- are inadequate for elderly people;
- successful approaches are often diffused only in restricted contexts, and the good pedagogic practices are not standardized nor recognized out of those contexts.

It is anyway possible to intercept good practices oriented to the personalization and taking in to account constraints of adult learning. Yet the "practices" in question are developed within the institutional structure of the adult education field, which varies from one country to another. Furthermore, the very notion of individual and person and their relationship to the collective, is not the same in national cultures: the Latin, French, Anglo-Saxon or Germanic traditions, vary significantly. It is striking, for example, to find that in each country, organizations, which develop the mentioned good practices, are specific. There is no transposition of an organization type from one country to another one.

The challenge of LEADLAB project is therefore to design, from and beyond the national traditions, a new paradigm to be verified in the different countries, to enable the formulation of a joint and integrated model for the personalization of adult learning at the European level.
**What is a model?**

Before introducing the LEADLAB model, taking into account the both cultural and institutional differences among the involved countries, it is worth to clarify a shared meaning of what we here intend for educational model.

The term “model” acquires different meanings according to the various context and the users. Generically, it can be defined as a mental image that helps us to understand something we cannot directly see or experience; in the education science a model is a mass of systemic guidelines to design and realize a learning path, a visual representation of a process in which are illustrated elements and phases composing it and their relationships. A model gives the procedural architecture to systematically produce learning paths; one of its peculiarities is reproducibility.

The value of a model is determined by the context of use: as any instrument, a model assumes the specific intentions of its user. In instructional design model are the most general level, inside which is possible to define teaching strategies, methods, technical competencies and students’ activities. A learning environment always presupposes a learning model; the theoretical structures allow selecting and applying the adequate educational approach.

For McPherson and Nunes a pedagogic model is a theoretical construction that can be used by practitioners as a structure to understand educational actions through a specific learning theory. A pedagogic model allows practitioners and trainers to elaborate thinking to decide the goals and the activities to reach them. The model must include a clear definition of the learning philosophy, describing which learning typologies are compatible with it, designing pedagogic strategies and tactics to realize goals and objectives.

Thus, we can illustrate the model with the following picture:
For McPherson and Nunes pedagogical models are based on general philosophies and epistemic assumptions aiming to support experts and teachers to design, plan and develop educational actions. Implementation models, instead, have the purpose to facilitate the application of pedagogical model in specific environments and contexts. Pedagogical models tend to be persistent, implementation models change by context, technologies and users’ profile.

The dimension of value and the philosophical paradigm are underlined in the concept of theoretical model proposed by Philippe Meirieu. A pedagogical model must include three dimensions: the values it promotes, the theoretical structure on which it's based, and the operative tools it makes disposable. Values belong to the axiological side, which constitutes one of the fundamentals of an educational model: every model aim to promote values. The second side is the scientific one, with scientific, sociological, linguistic, epistemological knowledge able to legitimate the model; this knowledge is derived from a choose preceding the creation of the model itself. The third side is the praxeological one: a pedagogical model must create tools that are coherent with its aims, and that are clarified by the scientific knowledge.

The inner organization of the model includes five main components:

- Didactic formalization;
- Educational situations and learning environments;
- Resources and training aids;
- The typology of pedagogical relationship between learner and teacher;
- The assessment strategies1.

Michele Pellerey, an Italian pedagogist, proposes the concept of educational model as a tool to realize a meta-reflection process on the educational practices2. The term *model* has two meanings: the master who is the reference model for the behaviour of the learner; a physical structure, a mock-up that reproduces reality. To build a model it's necessary to identify the

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main elements of a situation or practice and of the relationship among them, and to adequately represent them in a verbal, figurative or symbolic form\(^3\).

Charles M. Reigeluth defines model a prescriptive theory, with actions and methodologies to be applied within a theoretical reference. The theoretical reflection is followed by the application of the model, that implies an interpretation and contextualization activity by the designer\(^4\).

In the picture situations represents the aspects of the operative context that influence methodological chooses; they are related to desired outcomes and instructional conditions. Outcomes concern effectiveness (to reach a certain result), efficiency (relation between costs and benefits) and appeal (satisfaction by learners). Instructional conditions concern the nature of the contents of learning (concepts, skills, competences, etc.), the peculiarities of the learner (previous knowledge, learning strategies, motivation), the learning environment (self-directed learning, class, etc.), the delivery constraints (time, budget, human resources)\(^5\).

For Glenn Snelbecker of Temple University a theory is a gathering of guidelines and a model is the concretization of the theory. Knowledge producers (researchers and scholars) create theories and models; knowledge users (teachers an lecturers) use these theories and models\(^6\).

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\(^3\) Ivi, p. 131.
\(^5\) Ibidem. Lo schema riprodotto si trova a p. 9.
The LEADLAB Model

LEAD-LAB refers clearly with the aims of development and exploitation of education in adult and elderly contexts. A solution for implementing participation is make adult education system more attractive by quality empowering. LEAD-LAB tries to meet this challenge through the introduction of personalization and self-learning methods in trainer’s “luggage”.

LEAD-LAB aims to support the European NVEA system by the development of an integrated model based on personalization and self-learning approaches according to the Andragogic paradigm; a "blended" combination of these approaches and the best practices in adult education can contribute in a meaningful way to improve the attractiveness of NVEA in a logic of sustainability. Personalized paths allow adults to conciliate learning activities with the job and the leisure time; self-learning focuses on self-awareness of oneself learning styles and intelligences. The integrated model of personalization for adult learners is then designed in order to answer to the challenge to make adult education more flexible and "learner friendly" through the empowering and the development of competences of trainers and teachers in NVEA.

Why integrated model of personalization for adult learners

LEAD-LAB, aiming to support European NVEA system by developing a new andragogic approach, is an integrated model at several levels:

1. it tries to integrate a common vision of personalization, through the identification of common elements within the different meanings and cultural background towards a common definition and common meanings and language about personalization that is a concept rich of meaning that is subject to manifold interpretations;

2. it is designed on the basis of an integrated vision of methodologies, models and practices developed and applied in the European partner Countries;

3. it aims to integrate personalization and self-learning approaches within an adult (andragogic-anthropogogic) paradigm;

4. it integrates the personalized vision of adult learning within three system levels:
   - learning level;
   - teaching level;
   - organizational level;
5. It consequently implicates the interaction of three professional figures within a personalization inspired integrated educational system:
   - Trainer;
   - Instructional Designer;
   - Learning Personalization Trainer;

6. It integrates the personalized vision of adult learning within three context levels:
   - macro;
   - meso;
   - micro.

Each of the cited elements of integration is detailed in the follow description and presentation of the LEADLAB Model.

**Personalization: an integrated meaning**

The term "person" refers to three major cultural references through which Partner Countries identify the training in which the learner is considered in its singularity and is actor of his training.

In Germany we have the term "Selbstbildung" which is rooted in the great German romantic tradition, especially developed by Goethe.

In France, the term "Autoformation" (self-learning) brings together practitioners and researchers who designate thus the phenomenon by which learners control their own learning. The training organization that refers explicitly to the self-learning uses the term "personalized" in its name (Personalized Learning Workshops).

The term of individualization, heavily used in all these countries, is subject to different interpretations.

In France, for example, researchers clearly differentiate, schemes aiming at empowering, and those with an institutional objective. A definition which makes consensus among key actors.

We find the similar difference between the concept of Independent Learning and Personalising Learning of the Eurydice document. Thus, Independent Learning is defined as “whereby the place, time, duration, content and intensity of the learning can all be adapted to the individual's requirements is considered a good response to the flexibility needs of adults.”

It is only question here of better adapt the learning to the needs and constraints of the adult learner.
On the other hand, the Personalising Learning states that “The learning may be self-directed or may be facilitated by a tutor on a one-to-one basis and/or within a group setting”.

The G100 conference (bringing together 14 countries) at the National Academy of Education Administration (NAEA) in Beijing, China 16-19 October 2006 aiming to discuss the transformation of and innovation in the world’s education systems, suggests in its conclusions, the following: “Personalization as a mean enabling every student to reach their potentials, to learn how to learn and to share the responsibility for their own education”.

Furthermore, the OECD published a book in 2004 with the title: “Personalising Education”, comprising contributions from Canada, Denmark, France, Germany and United Kingdom. Hopkins defines, in summary, the personalization as follows: “Personalisation is a very simple concept. It is about putting citizens at the heart of public services and enabling them to have a say in the design and improvement of the organisations that serve them”.

We find here two basic ideas: the flexibility of the device, on one side, the role of the learner as actor who takes charge of his learning and its organization, on the other side.

Thanks to the result of the research’s stage about the Status Artis, a common definition of Personalization has been found within the frame of Leadlab Project.

The personalization of the training includes the following dimensions:

- all the dimensions of the learner: the personalization does not only include the cognitive dimension of the person. It has for goal his/her development, both cognitively and emotionally, as well as social and citizen.

- self-directed learning: the personalization is based on the learner self-direction, which means: a. that he has the ability to choose by himself the object and to determine the objectives of his learning (learning self-determination) and b. that he can have a control over the terms and means of this learning (learning regulation: place, calendar, educational approach and material).

- learner as actor and co-producer of the learning process: according to a personalized approach the learner is seen as the actor of his learning and in this sense, is associated with the decisions of the training organization.

- Within a personalized learning vision the trainer is a facilitator of the learning process: the role of the teacher or of the trainer is not to transmit contents, but to support the learner in the control of his learning.

Through the analysis of the partner’s contribution to the research about the Status Artis in the partners’ Countries, it is also possible to highlight different and similar aspects of
personalization models, concepts, practices and identify the following recurrent features:

– Involvement of the all dimensions of learner;
– Development of self directed learning process;
– Development of self regulated learning process;
– Co-design of the learning pathway and process;
– Development of self-evaluation process;
– Learning challenges not learning objectives;
– Learning pathway not instructional curriculum or training program;
– Achievable results are not predictable a priori.

**Personalization: an integrated European experience**

What is striking, it is the diversity of organizational forms in which the personalization of the adult education is developed in the European Partners Country. It varies essentially under a form:

- of a "pedagogical label," defined by a national charter, and implemented by different Organizations (for example the APPs in France);
- of training methods implemented in a more global offer (such as the "evening Universities" in Germany).

A first observation can thus be made: this is not all training devices in the NVEA that would tend towards the personalization.

This finding requires to define a strategy and a policy of the educational innovation:

- either to develop localized experimentations with the risk that they remain exceptions, without a possible extension;
- or decide to change the overall supply of training, by small steps, by introducing in the traditional educational devices the dimensions of the personalization.

That is what LEADLAB intends to do through the design of a common European framework, supporting the introduction of the personalization dimension, to be flexibly adopted in the different contexts and backgrounds.

That is why it is decisive to acquire the knowledge about the diffused European personalization experience in order to design the LEADLAB model.
**Finland**

“Online learning services can be provided with a highly personalized approach, managed via a Member engine which presents info, functionalities and services based on ID, memberships in groups and clusters, usage level, and usage history. All web pages, forms, and other presentation interfaces are built with application generating engines that enables personalization both through relevance and access rights as well as conditionalising based on past performance (e.g. via electronic footprints), gained assets and/or conditionalization statements with a wide range of conditionalization options. The interactive environment includes more than 15 engines by which different personalization features can be built. Some of these can be both interconnected with each other as well as be interconnected to internal or external learning services, such a LMS/VLE services” (Library Management System/Virtual Learning Environment).

**France**

In the "best practices" area, the approach that best illustrates the LeadLab's project issues is that of the APPs.

The personalized learning workshops (APP - Ateliers de Pédagogie Personnalisée) support all dimensions of people, hence the choice of the term « pédagogie personnalisée » (personalized pedagogy). They are situated in the social and professional integration field, but not exclusively. They are for anyone, working or not. This choice has the advantage of not developing segregation against a population suffering from social disqualification.

In its action field, this kind of device allows to develop a different relationship with learning (« I gained confidence in the fact that I am capable of learning », say some APP's users). By frequenting these places, they can develop a positive image of themselves become actors in their social and professional life and develop new social relationships. Knowledge acquisition, cognition and socialization operations are thus closely interrelated.

For more information about this approach and device please see the French contribution on “Best practices” of April, 2010.

**Germany**

An example of one of the best practice organization implementing a training customizing approach - non-formal learning: the LQW – Learner Oriented Quality in the Further Education which is applied at Adult Education Centres (Volkshochschulen) in Germany.
The LQW is the widest spread quality management system in the further and adult education in Germany and Austria. It was supported from 2000 -2005 by the Federal Office for Migration and Refugee and ESF and is recognized as a renowned quality attestation procedure.

What is so particular on LQW? Education is a particular “product” – you cannot sell or buy it. The individual ONLY can educate himself! However, education organisations can support the education process through their services. For the result of the education process, though, the learners themselves are responsible at a high percentage. The education organisations only design and organize the facilitation area for them. LQW considers the learner as a central point of the quality development procedure designed for the further education, which means that the entire quality of the organization is focused on the learners. Notion also of “satisfying learning” (Gelungenes Lernen).

**Greece**

In Greece, practices are limited to the fields of vocational training and continuous learning in enterprises, that is, not in the formal education in primary and secondary school, and in the Universities. At the same time customized training is strictly related to the use of new technologies (Information and Communication Technology (ICT), Open and Distance Learning (ODL) etc.). But maybe some useful elements could be found from the experiences in the Hellenic Open University (EAP or HOU), Adult education centres (KEE), parents schools, centres for distance lifelong learning (KEDBMAP), etc.

**Italy**

Despite laws and speeches, in Italy, NVEA represents a small reality where courses/training are delivered in secondary schools or training centres. Although good or best practices are difficult to find, some experiences or pilot projects can be relevant.

Another experience to be reported is the “@ of self-evaluation” or self-assessment which has been experienced at different educational levels (university, post-graduate education specialization courses...). This model developed by a group of experts in educational processes led by Marco Guspin includes several interesting features:

- “self-assessment is a group reflection in which everyone is asked to describe his or her own behaviour and attitude (how did I work, how did I interact and communicate with others, what other criticalities have surfaced, etc.)”;

- The path or levels representation;
- “The model has been experienced in several adult training courses. Particularly it worth to describe the experience within the courses of a post graduate school of teacher training at University by the professor Marco Guspini in the course of “Evaluation of educational processes”. It is interesting the number of people involved in the experience: about 160 teachers. This experience shows a possible strategy that allow to personalize a training pathway also addressed to a large number of people in a traditional course at a presence”.

- “The symbol of the @ represents just an iterative cycle of progressive improvement of the person that reaches, at each turn of the cycle, a new level of ability, of consciousness, knowledge, competence”.

- “The @ of self evaluation is based on an inductive approach, not didactic, nor directive. The role of the professor is to scaffold and offer peer tutoring. During the whole life cycle of the @ process professor with his/hers assistants (one or two) go through the groups, gives suggestions, answers the questions, encourages participants who are less involved, makes questions, etc. The @ process development is mainly based on a collaborative learning (rather then cooperative) approach. It is not referable to a unique specific pedagogic theory. It rather includes and matches several theoretical elements of cognitivism, constructivism, constructionism, connectivism, interactionism”.

Other identified projects (the PEAPEDA- personalizzare l’apprendimento in ambito EDA (to personalize Adult Learning Pathways) initiative ; the XFORMARE which is an example of an ICT based practice ; the University web based Master: “Cinema: educare e comunicare”), could be also useful to build the map of the competences (WP3) necessary for trainers dealing with adult people, in the NVEA field and in a learning personalization perspective.

Spain

Training customizing in Spain seems to be mainly related to employment and vocational dimension. However, the example of the Angel Martinez Fuertes Foundation identified as a “best practice”, presents some interesting elements (promotion of educational, cultural, research activities..., encouragement of human and personal development, self-control, self-confidence...).
Switzerland

The “good practices” identified by the FDEP as programmes of basic training for adults were rewarded by a price, during the last ten years, if they were respecting the following three criteria as key elements of their strategies:

- education by proximity: near the practices, experiences and needs of every learner, accessible by a large number of people, aims and means being adjusted to the cultural, diversities of actors; education by comprehensiveness: simultaneously general, cultural, vocational, strengthening social and technical competences in order to exercise the citizens’ rights and obligations, to ensure a sound social adaptation and find a qualified job;
- education by participation: a training system which involves learners and trainers, fostering individual and collective self learning and self training.

In the FDEP’s website we can find the presentation and the description of some interesting rewarded projects. For example, “La Suisse en jeu” from the “Français en jeu” Association – 2009 FDEP’s award – is a training project (French courses) intended for migrants in precarious socio-economic situation and aims to improve their knowledge of their environment and their ability to be involved in the Swiss society.

Personalization: an integrated theoretical paradigm

LEADLAB intends to design a “blended” model oriented both to personalization and self-learning approaches within an adult (andragogic-anthropogogic) paradigm.

LEADLAB model is therefore based on three theoretical perspectives and paradigms:

- adult learning (Andragogy, Anthropogogy);
- self learning;
- Personalization.

Adkins’ model

Adkins’ model is founded on the concept that an individual by the years cumulates life experience and this constitutes the incremental basis of further learning. Adkins says that human behaviour is determined by a process including instinct, emotions and reason. Consequently, it is necessary to take account of these factors to have a significant learning.

Winthrop R. Adkins, from Columbia University, has developed a learning model aiming to form the life skills in a global perspective, involving the interior world (insight), knowledge and behaviour of the subject who attends the guidance course. All persons continuously learn, but
while children learning is based on disciplines, adult learning is based on problems. According to this considerations, adult learning should follow these phases:

1. stimulus: presentation of a problem, a difficult (the instinct phase);
2. evocation: discussion of the problem to identify its elements (emotional phase);
3. objective inquiry: the reaching of a conceptual awareness through dialogue and exchange (the reason phase);
4. application: the concrete experience, in classroom and in real world situations, to define the behaviour.

By his method, Adkins wants to allow adults learners to acquire competencies useful in the labour market.

**Gardner's multiple intelligences**

Howard Gardner, an American psychologist, is the author of the theory of multiple intelligences. Multiple intelligences is an idea that maintains there exist many different types of "intelligences" ascribed to human beings. In response to the question of whether or not measures of intelligence are scientific, Gardner suggests that each individual manifests varying levels of different intelligences, and thus each person has refined in subsequent years.

Gardner lists eight intelligences as linguistic, logic-mathematical, musical, spatial, bodily kinesthetic, naturalist, interpersonal and intrapersonal. Each intelligence has a unique biological basis, a distinct course of development, and different expert, or "end-state," performances. At the same time, a lengthy process of education is required to transform any raw potential into a mature social role.

This means that we can't treat in the same way all learners: education must be different for each person. The same thing can be taught in different ways, introducing many strategies according to each student's learning style and intelligence.

**Victor Garcia Hoz: personalization**

Victor Garcia Hoz was the first to talk about personalization in education. To personalize means to allow learners developing their personal freedom. Attention is paid to the individual not only as a learner, but as a protagonist of life experience too. Learning should concern all aspects of the individual, including the affective and relational ones. Personalized education is based on two requirements:

1. educational aims and objectives must be arranged for the personal development, with
the elements characterizing each individual (creativity, difference, originality, freedom, autonomy, socialization, communication);

2. from the didactic side, to personalize means to organize the activities for the individual and autonomous work of each student, who has the responsibility of his learning. Learner is able to re-elaborate, create, discover. In this sense, teaching is to guide and control the autonomous learners’ activities.

Differently from Mastery Learning and individualized education, Hoz stress the importance to differentiate the learning objectives of the courses.

**Malcolm Knowles’ Andragogy**

Knowles' theory of Andragogy is an attempt to develop a theory specifically for adult learning. Knowles emphasizes that adults are self-directed and expect to take responsibility for decisions. Adult learning programs must accommodate this fundamental aspect. Andragogy makes the following assumptions about the design of learning:

1. Adults need to know why they need to learn something;
2. Adults need to learn experientially;
3. Adults approach learning as problem-solving;
4. Adults learn best when the topic is of immediate value.

In practical terms, Andragogy means that instruction for adults needs to focus more on the process and less on the content being taught. Strategies such as case studies, role-playing, simulations, and self-evaluation are most useful. Instructors adopt a role of facilitator or resource rather than lecturer or grader.

Andragogy applies to any form of adult learning and has been used extensively in the design of organizational training programs (especially for "soft skill" domains such as management development).

Andragogy underlines the value of the adult learner and the importance of his involvement in the process of knowledge building. Malcolm S. Knowles defines six assumptions about adult learning:

- Adults need to know the reason for learning something (Need to Know)
- Experience (including error) provides the basis for learning activities (Foundation).
- Adults need to be responsible for their decisions on education; involvement in the planning and evaluation of their instruction (Self-concept).
- Adults are most interested in learning subjects having immediate relevance to their work and/or personal lives (Readiness).
- Adult learning is problem-centered rather than content-oriented (Orientation).
- Adults respond better to internal versus external motivators (Motivation).

ISFOL\(^7\) study "La personalizzazione dei percorsi di apprendimento e di insegnamento\(^8\) describes the main factors for a personalized course:

- The learners has a central position in the educational system;
- The expected outcomes are the acquiring of competencies;
- The previous acquired knowledge and skills must be recognized at the beginning of the course;
- The learner must be autonomous in the educational process;
- The courses must be articulated in modules, according to educational objectives;
- Learning is to be intended as self-directed learning;
- A main role is played by the educational contract;
- The individual interacts with the group;
- A stage in enterprise must be considered.

**Kolb**

David A. Kolb, an American educational theorist, put his focus on experiential learning, the individual and social change, career development, and executive and professional education. In the early 1970s, Kolb and Ron Fry developed the Experiential Learning Model (ELM), composed of four elements:

1. concrete experience;
2. observation of and reflection on that experience;
3. formation of abstract concepts based upon the reflection;
4. testing the new concepts.

These four elements are the essence of a spiral of learning that can begin with any one of the four elements, but typically begins with a concrete experience. He named his model to emphasize its links to ideas from John Dewey, Jean Piaget, Kurt Lewin, and others writers of

\(^7\) ISFOL - Istituto per lo Sviluppo della Formazione dei Lavoratori

the experiential learning paradigm. His model was developed predominantly for use with adult education, but has found widespread pedagogical implications in higher education.

Kolb is renowned in educational circles for his Learning Style Inventory (LSI). His model is built upon the idea that learning preferences can be described using two continuums: active experimentation-reflective observation and abstract conceptualization-concrete experience. The result is four types of learners: convergent (active experimentation-abstract conceptualization), accommodator (active experimentation-concrete experience), assimilator (reflective observation-abstract conceptualization), and divergent (reflective observation-concrete experience).

**Pedagogy of contract**

"The pedagogy of contract is that which organizes learning situations where there is an agreement negotiated during a dialogue between partners who recognize as such, to achieve a goal, whether cognitive, methodological or behavioral "(Halina Przesmycki).

In this definition, the term "learning" is interpreted broadly, it This is the objective of achieving a knowledge or expertise, but also know-being.

Halina Przesmycki defines differentiated instruction as:

a) An individualized teaching that recognizes the student as a person with its own representations of the training situation;

b) A variety of teaching which opposes the myth of identity model unique cultural and education uniform.

It takes into account different learning rates, different cognitive processes in acquiring knowledge, and psychological differences and socio-cultural students.

Through differentiated instruction, the fight against school failure and success students are made possible through the realization of three fundamental objectives:

1. Improving the relationship taught / teachers. Differentiated instruction, through which the teacher is more close to its individual students, leaving the field open to the emergence of such emotions.

2. Enhancing the social interaction. Indeed, each student placed in a group may benefit from a wealth of interaction with other classmates, allowing it to flourish and acquire knowledge and sustainable know-how.

3. Learn self. The training framework of differentiated instruction is a flexible and secure, in which students receive a scope of freedom where they have the right to choose,
decide to innovate and take responsibility. Reviews and more autonomous, more students are creative and imaginative, which promotes their cognitive development and facilitates their learning.

**Personalization: an integrated System**

In an Lifelong Learning System inspired to the learning personalization logic, we can suppose an adult could have a counseling service to be oriented, introduced in and guided through a personalized learning pathway where will find personalized courses and trainers/teachers adopting learning personalization strategies.

In such System personalization need to be applied with the same attention to three levels:

- at a learning level: involving as key variables the competences of adult learners (self orienting competences, learning skill set, personalization competences, self learning attitude, previous learning experiences, previous personalized learning experiences) and their potential area of improvement;

- at a teaching level: involving as key variables the competences of trainers of adult learner (andragogic competences, personalization competences, attitude to apply to himself/herself adult learning strategies being a fully autonomous lifelong learner);

- at an organizational level: involving as key variables the organizational (calendar, courses’ time table, courses’ duration, recruitment of teachers and trainers, etc.); managerial capability of the Institution for Adult education; quality of resources, for ex. the disposability of professional resources such as Instructional designers, LPT, teachers and trainers expert of adult learning, equipment, endowment, structures, relationships with the local territory, etc.

In other term it is not possible to imagine an effective personalization model focused exclusively on the learners attitudes or on the trainers attitudes, since both these actors (learners and trainers) operate and interact within an educational Institution that is part of an educational System that follows specific educational policies. Neither it is possible to refer the personalization function only to the Learning Personalization Trainer, as a professional figure isolated from the educational System, in such a vision the educational personalization aim for adult learners will be inevitably doomed.

We can suppose the existence, within a Lifelong Learning System, of several Educational Institutions addressed to Adults, offering different learning opportunities.

In the perspective of a personalized Lifelong Learning System these Adult Education
Institutions should have a flexible oriented organizational approach as concern the courses’ calendar, the courses’ duration and time table or the courses’ structure itself.

With specific reference to the courses, it appears decisive that their structure is designed both according to adult learning requirements and a flexible curriculum.

These conditions will allow the LPT to orient the adult learners within the multiple training offer and to guide the learner in the choice of courses and curricula, co-designing a personalized learning pathway.
Once the adult learner will be involved within one of these courses, that represents a part of his hers personalized learning experience and pathway, he/she will interact with trainers applying both Andragogic (Anthropogogic) and Personalization strategies.

LEADLAB Model designs an ideal framework, highlighting the core and decisive elements in order to implement and adult educational system authentically inspired to personalization.
This ideal framework must be applied to the real national contexts and adult educational systems, where probably there will not all the hoped features and requirements in order to enact the LEADLAB model. Referring to the ideal purpose of LEADLAB framework of personalization it will be probably necessary to identify, within the different Countries and educational Systems, the “weak link” where to start the implementation of a personalized educational approach, to change the overall supply of training, by small steps, by introducing in the traditional educational devices the dimensions of the personalization.

All the variables involved at the three levels – learning, teaching, organizational – will influence the efficacy and the depth of a personalized educational experience and its results. Within the frameworks designed by the all the possible match of these variables in the real educational contexts we can foresee three different levels of personalization:

- Basic;
- Medium;
- Advanced.

At a basic level we can suppose that the personalization is referred to the best arrangement of:

- duration of the educational experience;
- educational materials;
- educational methods;
- educational models (constructivist, behaviorist, cognitivist, complex,…);
- educational communication models (one to one, one to many, many to many) and styles (cooperative, collaborative, didactic, horizontal, hierarchic …);
- evaluation models, tools, strategies;
- educational environments;
- educational interaction: at a distance or in presence, one alone or in a small/medium/large group;

better in keeping with the detected learning skill set, learning strategies, learning styles, learning attitudes;

- as well the best arrangement of:
  - contents;
  - didactic units;
  - curriculum;
  - difficulty level;
  - suggestions for deepening;
better in keeping with the detected learner’s priorities, motivation, learning needs, learning request, previous knowledge, previous learning experiences, previous competences, potential development area.
This level of personalization could be also computer based and entrusted to an automated system.

At a medium level, the identity and the biography of the learner come into play next to the specific learning features recalled in the basic level. At this level personalization is settled as a customized educational experience, supporting the self realization of the learner, in which:

- representative biography and masterly instinct are valorized for the solution of relevant issues or practical problems, also shared with other learners or people;
- elements of his/hers previous learning experiences, competences and knowledge better linked with the new learning experience are recalled;
- resources brought by the learner are integrated within the pathway;
- learning effort is oriented towards an experience focused on themes and problems significantly connected to the real life, useful and usable in the daily life.

At an advanced level, personalization is intended:

- as a gradual process of acquiring of awareness by the learner about his/hers learning skill set and meta cognitive competences;
- as a gradual process of acquiring of autonomy in the capability of choice, as well as of the development and co-planning of new learning experiences.

At this advanced level the organizational variables appears particularly decisive, since in order to allow this advanced level of personalization is requested an high level of organizational flexibility. This latter can be driven up to the re-negotiation, within the formative contract, of:

- learning challenges;
- curriculum;
- resources;
- tools;
- experiences;
- duration;
- of the group of learning and of the educational interaction;
- courses,
At an advanced level we can indeed suppose that the learner has a good level of awareness and autonomy and that the use of material and resources, as well as the interaction with the actors of the learning experiences and the assessment process can influence, in a deweyian transactional perspective, the development of the learning experience itself. It can happen that the learner realizes that he/she need to include in the learning pathway something that was excluded at the beginning, that the chosen challenges are too much high or low, that the necessary time is more or less than the duration foreseen. Then, in a personalized perspective, the flexibility itself can vary from a basic to an advanced level, but always according to the rules defined in the formative contract and respecting a pedagogic rigor.

From an organizational point of view, within the described model, it is then requested also the interaction, direct or indirect, of three professional figures:

- **Learning Personalization Trainer (LPT):** co-plans, interacting with adult learners, personalized learning pathways, guides, motivates, empowers the learning process⁹;

- **Instructional Designer (ID):** designs macro instructional processes, flexible curricula and courses structures (modules, units, activities, contents, etc.) oriented to adult learning requirements;

- **Trainers/Teachers:** expert of contents, apply learning personalization method and strategies within the single and specific adult courses.

**Personalization: an integrated context**

The implementation of the described model must to be included in a real context with at least three levels of engineering, again implying the Educational System, the Educational Institutions, the Individual variables, respectively at a Macro, Meso and Micro level. In a meta analysis, oriented to the placing of the ideal LEADLAB model within a real context, it is possible to highlight the practical implications of these three levels as exemplified in the following table.

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⁹ Tasks and role of the LPT are detailed in the two documents “LPT job profile” and LPT Map of competences.”
<table>
<thead>
<tr>
<th>Personalization in term of engineering</th>
<th>Macro</th>
<th>Meso</th>
<th>Micro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td></td>
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<tr>
<td>Defining public: opening to all or to specific categories of public</td>
<td>Candidates recruitment: by prescribers' recommendation or by individual approach?</td>
<td>Contract constructed from a learning project of the learner, from the learning profile, from the learners' achievements, his resources and constraints.</td>
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<tr>
<td>How to access to training: home, resource spaces</td>
<td>Partnerships with agencies responsible for employment, vocational training, guidance, popular education, continuing education.</td>
<td>Temporal dimension: possibility to choose the dates of entry, exit and rhythms.</td>
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<td>Territorial distribution of resource spaces</td>
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<tr>
<td>Financial conditions for public access: free of charge?</td>
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<tr>
<td>Access to training and territory</td>
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<tr>
<td>Coachings / Accompaniment</td>
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<tr>
<td>Trainer status / Trades definition / Trainer financing method</td>
<td>Trainer positioning: facilitator, methodologist assistant, content expert, …</td>
<td>Possibility for the user to benefit from different functions of support: path determination (which leads to the contract), methodological support, on content acquisition, on reflective analysis.</td>
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<tr>
<td>Resources / Educational Methods</td>
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<tr>
<td>Institutional Funding / Resources pooling</td>
<td>Institutional funding, independent resources creation, allocation of national resources / path design by resources articulation</td>
<td>Methods: individual use of media with coaching / participation in educational activities on a group basis</td>
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<tr>
<td>Governance</td>
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<tr>
<td>Public organization at the State level / Call for Tender / networking on the basis of an educational label</td>
<td>Steering Committee with local partners / sponsors and learners</td>
<td>At the individual level: path self-regulation / device evaluation</td>
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</tbody>
</table>
Trying to summarize the several levels integrated within the design of the LEADLAB model it is possible to recall:

- An integrated meaning of personalization;
- An integrated experience of personalization at an European level;
- An integrated theoretical paradigm including adult education, self learning and personalization issues;
- A structured educational system addressed to adult learning and inspired to personalization logic where professional figures (LPT, ID, Trainers/Teachers), specialized in adult education and personalization, interacts;
- An integrated context (Macro – Meso – Micro).
**Design of personalized curricula and courses**

Within the range of possible personalization stages (basic, medium, advanced), according to the LEADLAB model, the personalization process involves both the personalization of the whole learning pathway and the personalization of each single course combining the personalized curriculum, where the adult learner will interact with expert trainers/teachers adopting adult learning and personalization strategies.

<table>
<thead>
<tr>
<th>LEARNING PERSONALIZATION TRAINER</th>
<th>ADULT LEARNER</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Images" /></td>
<td><img src="image2.png" alt="Images" /></td>
</tr>
</tbody>
</table>

**PERSONALIZATION PROCESS**

- **INTERVIEW**
  - Who is the learner
  - His previous knowledge
  - His experience
  - His learning style

- **NEEDS ANALYSIS**
  - What the learner is looking for
  - What kind of course, where, how much long, what level, which strategy

- **INFORMATION**
  - Learning opportunities and resources

- **PERSONALIZED PATH**
  - Co-design of the learning challenges and co-planning of learner's curriculum
In order to apply the personalization design, it is requested an high level of flexibility to the Adult Educational System and to the Adult Educational Institutions. In other words curricula and courses must be designed to be combined and eventually re-combined dynamically.
Such specific and professional design should be entrusted to the specific professional figure of the Instructional Designer, also specialized in adult learning and personalization. In a personalization perspective for adult education, for example, a course need to be focused on themes and problems instead of contents and disciplines; need to adopt a situational approach instead of theoretical approach; must include concrete tasks; must indicate a usable application also referable to the daily life; need to be developed in a contained elapse of time eventually articulating a complex process in modules and clusters of simpler sub-activities.

ID outlines the educational macro process and designs the courses’ pathway according to this adult learning requirements and towards the personalization logic. On this base, for each course, the ID will:

- arrange eventual alignment module;
- select activities, contents, materials, resources, media, supports;
- suggest didactic methods, strategies, approaches;
- indicate assessment strategies and tools;
- plan course calendar and schedule;
- develop course’s map, module/units.
INSTRUCTIONAL DESIGNER

INDICATE
assessment strategies and tools

SUGGEST
didactic methods, strategies, approaches.

CONSIDER
adult learning requirements and personalization perspective

SELECT
activities, contents, materials, resources,

ARRANGE
eventual alignment module

DEVELOP
Course map Modules/units

PLAN
course calendar and schedule

DEVELOP
Course map Modules/units

34
Learning and teaching activities and strategies

According to the proposed model that integrates the care of the adult learning features and the orientation to a personalized vision of adult learning, teaching methodologies and learning strategies, should be selected according to these requirements and to be based on:

- the psychological profile of learners;
- the culture of adult learner;
- the biography of adult learner;
- the learner priorities.

Then learning and teaching methodologies should:

- include the biographic method;
- focus the intervention on a perspective on themes and problems, instead of contents and disciplines;
- adopts a situational approach;
- focus the intervention on concrete tasks;
- promote reflection in action;
- valorizes and supports the autonomy of the learner;
- valorizes the masterly instinct of the learner;
- preserves a flexibility margin in the development of the educational experience.
Within the wide scenario of the well-known and applied strategies we try to suggest, as an example, some better suitable to the purposed approach.

**Individual self-directed learning**

According to the shared vision of personalization the self-directed learning can be implemented from a basic to an advanced level.

At a basic level we can suppose to involve the learner one alone in a self-instruction experience, generically called *tutorial*, including individual self-directed learning activities, supplying contents, materials and resources, according to a modular and flexible approach. Self directed learning is oriented, at this level, for example to the customization of learning times and rhythms, difficulty level, kind and amount of contents etc.

The tutorial can be also web based and realized by using different technological supports, including:
• a course structured on sequential units, subdivided in modules, with assessment at the end of every module or unit;

• lessons;

• learning Objects: elementary and reusable components structured in a learning objective, learning contents and earnings assessment;

• knowledge units: unit of reduced dimensions regarding the Learning Object, composed of main didactic content, deepening materials, multimedia contribution and link to external resources;

At an advanced level we can suppose to involve the learner in a highly developed process, consisting in a progressive acquirement of mastery of the self-learning dynamics.

Here we refer to the "@ model of self-learning" \(^\text{10}\), where the key elements are identified in the:

<table>
<thead>
<tr>
<th>Reflection</th>
<th>Includes the reflective practices(^\text{11}) applied to the actions in the real contexts, generating new knowledge and new competences. Reflection is the common denominator of core components of the self-learning process such as the acquiring of awareness, the autobiography, the observation, the self-evaluation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self realization</td>
<td>Includes all the emotional and affective elements of the self-learning experience. The self-realization represents indeed the aim where all the motivational energies are addressed, inducing the strength and the constancy in the learning.</td>
</tr>
<tr>
<td>Self direction</td>
<td>Refers to all the components of coordination and management of the learning experience, through the use of specific learning methods and strategies. It implies a self-awareness of the metacognitive competences.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Refers to the mastery and maturity as concern the task of self learning.</td>
</tr>
</tbody>
</table>

Reflection, Self-realization, Self-direction, Autonomy represents the axes of the self-learning process.

The Reflection is the starting point of this process that is characterized by the following stages:

• acquirement of awareness: there are meaningful themes and problems able to activate in the adult the perception of learning needs and to stimulate the search of pathway that allow to meet them;

\(^\text{10}\) The described approach of self learning is fully described in Beronia G., Autoformazione. Un approccio globale, Roma, Learning Community, 2008.

\(^\text{11}\) D.A. Schön (a cura di), Il professionista riflessivo, Bari, Dedalo, 1993.
• autobiography: it represents the matrix where to install the new learning experience, it is up to the learner to identify the representative elements of his/hers previous experience and knowledge and competences, useful for the new learning experience;
• observation: it is a key element of the reflection attitude in order detect strength and weakness and to became aware of the learning needs;
• self-evaluation: it is a self regulation process allowing the learner to monitor the development of the learning experience and verify the learning results.

The Self-realization is the engine supporting the constant development of the self learning process, it includes:
• self-motivation as the necessary attitude to afford the inconstant fluctuation of the learning behaviour, thanks to the volition, curiosity and intentionality;
• personal responsibility as the capability of the learner to take on the consequences of his/hers choices and to maintain a taken commitment.

The Self-direction implicates:
• self-setting of the aims to be achieved;
• attention and concentration, as the attitude of the learner to effectively address his/hers tensions, emotions and efforts to the achievement of the learning aims, in an ergonomic and strategic key of adaptation to the continuous changing of environments and contexts;
• self-planning, as the necessary attitude to organize the learning experience as concern the timing as well as the choice of the learning strategies;
• self-monitoring and comparison refer to the attitude of the learner to evaluate the quality of the learning experience and to identify the better learning practices and solution, also referring to the experiences of other learners.

Autonomy is the final step of the process including the acquirement of the self-studying mastery and the complete maturity about the management of the self-learning process. At the same time it is the new starting point of a new learning experience as the result of a self-transformation process: the new awareness and acquired autonomy represent again a implementation and a transformation of the previous perspective. It implicates a new disorienting dilemma generating a new development need. Then the self-learning process can be represented in a three-dimensional vision of a continuous and dynamic process that can have an individual as well as a collective connotation.
Then it is possible to imagine the development of the self-learning process also within a group.

**Group self-directed learning**
Activities of self-directed learning could be also carried out through the collective interaction in a group. In a learning community a personalized pathway will give to everyone the possibility to express their own competences and biography, the acquired good practices, ideas, doubts and solutions in order to realize a common result. The collaborative approach will allow the adult learners to interact actively constructing new meanings and making direct experience.

The collective dimension of the self-learning process is well highlighted also through the development of the @ of self-evaluation (previously cited within the practices of personalization) that is the starting point of the @ of self learning as can be argued from the next table:

<table>
<thead>
<tr>
<th>Macro-area</th>
<th>@ of self learning</th>
<th>@ of self evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFLECTION</td>
<td><strong>Acquiring of awareness of a needs of development and of improvement</strong></td>
<td><strong>Focus brainstorming</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Autobiography</strong></td>
<td><strong>Focusing on the topic skills</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Introduction of the representative biographies</strong></td>
<td><strong>Socialization among the members of the group, sharing of information and of personal interests and attitudes</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Sharing of the self evaluation culture</strong></td>
<td><strong>Creation of a learning context encouraging the self evaluation culture</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Self evaluation</strong></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Self Realization</td>
<td>Self Direction</td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Self Realization</strong></td>
<td>Self motivation</td>
<td>Motivation and valorisation of the group of work</td>
</tr>
<tr>
<td><strong>Self Direction</strong></td>
<td>Self setting of learning aims</td>
<td>Transformation of knowledge in competences</td>
</tr>
<tr>
<td></td>
<td>Project planning</td>
<td>Project implementation</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td>Self studying</td>
<td>Identification of the best practices</td>
</tr>
<tr>
<td><strong>Self Transformation</strong></td>
<td>Self improvement and change</td>
<td>focus group of cognitive agglutination</td>
</tr>
</tbody>
</table>
We propose a directory of activities and strategies supporting the development of such an individual or collective learning process, able to allow the expression of the potentiality of the adult learners.

**Project work**

During the face-to-face meetings will be planned and developed the project work. Participants will identify a common objective. The result of the project work will be a concrete professional project to be realized in the course lifetime. For Target 1 this project will regard the modalities of management and animation of the Community of Learners; for Target 2 it will regard the adaptation and/or the development of a OS software for the non profit Sector. The project work is a collaborative methodology based on the active involvement of the participants, divided in groups, for the realization of a product through learning by doing.

**Workshop**

The division of the participants in groups is necessary in order to start effective collaborative activities, otherwise, it appears equally important that the entire community continues to interact joined. The workshop represents the activity that allows to the participants to continue to perceive themselves as a joined community, looking the work in progress of the different groups and to being encouraged to the interaction in order to share doubts, ideas and solutions.

The workshop is therefore a moment of comparison whose general objective is to start a style of common work where different competences and sensibility can interact in the community. Participants are invited to exchange their point of view and their experiences, to discuss their ideas and initiative; all participants play a role of experts. The results from the workshop are therefore the starting point for the deepening of the activities of every group.
The project work activities and workshop can be carried out with different collaborative strategies.\(^\text{12}\)

**Self group assessment\(^\text{13}\)**

The “@” model for learning self-assessment is an attempt to use organizational learning in the assessment field.

The idea came from the use of the Audit methodology in organizational learning to try to re-elaborate and re-use models that already have been experimented and have proven effective.

The “@” symbol, that corresponds to the sign used bys that already have been experimented and have proven effective. The spiral form of the @ has been chosen for the similarity with the recursive ness and cyclicality of the described process.

A new awareness and organization gradually come forth from the facilities and systems to which the model is applied. The self-assessment “@” is the symbol of the path that leads and directs towards consecutive surfacing levels of internal and external aspects of knowledge and competences, in a steady, recursive and progressive spiral growth.

This may also be an individual passage. Self-assessment brings into play the meta-cognitive and critical reflection skills that allow verifying the efficiency of one’s own learning strategies and, if necessary, changing them. The main self-assessment tool is the person himself/herself, and he/she has an active and self-responsible role.

The model focuses however on the results reached by the group before those reached by a single individual. The group assesses objective attainment and the processes implemented to achieve them, through a qualitative and holistic meta-reflection on the strategies adopted to attain skills and competences. Self-assessment is a group of reflection in which everyone is asked to describe his or her own behaviour and attitude (how did I work, how did I interact and communicate with others, what other criticalities have surfaced, etc.). Thus self-assessment plays a central role, it deals with the communicative, emotional and social areas as well as its contents. The goal is therefore to assess, more precisely self-assess, the work group’s efforts.

As said before, the analysis of the procedural course considers both the operational and thematic passages and the perceptional aspect alike and is tied to individual internal checking.

\(^{13}\) The @ of self evaluation has been ideated and developed by a group of experts in educational processes led by Marco Guspinì, who has been adjunct professor at the Second and at the Third University of Rome, faculty of Science of Education, teaching Pedagogy of the work and Learning Psychology for 15 years. The @ Model is presented and described in Guspinì M. (a cura di), Learning Audit. Autovalutazione per l’istruzione e la formazione nell’era della conoscenza, Roma, Anicia, 2003, pp. 159-166.
Two aspects are analyzed:

- contents: regarding the mandate and the specifically operative part of the group;
- emotional aspect: regarding a set of tried out and experimented emotions.

Regarding the "@" procedure, the items of the outline are all included below in order from 1 to 10.

1. Focus brainstorming;
2. Introduction of representative biographies;
3. Sharing the self-assessment philosophy;
4. Skill manifestation;
5. Transforming skills into competences;
6. Integration;
7. Project or design;
8. Outside learning or benchmarking;
9. Good practice identification;
10. Focus group.

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Focus brainstorming (focusing on the topic skills)</td>
<td>Contents: general presentation of the laboratory and of the manner in which the shared and group activities are carried out; illustrating topics discussed during the meetings; an agreement whose final aim is to have the animators/facilitators and participants come to an understanding about their reciprocal commitments.</td>
</tr>
<tr>
<td>2</td>
<td>Introduction of representative biographies</td>
<td>Contents: establishing the work groups; first meeting with the internal tutor, who has the goal and the task of guiding the group during the fine-tuning of the first mandate; members socialization, information exchange and sharing of personal aspects.</td>
</tr>
</tbody>
</table>
| 3     | Sharing the self-assessment philosophy | Contents: initial moment to create an environment that fosters sharing a series of choices that involve self-assessment. Presenting the first product and comparing:  
- Within the group, to see if the product is considered satisfying by the components;  
- Outside the group, therefore comparing with other groups, to see if the product achieves a satisfactory acknowledgement with reference to the mandate and if it falls under the minimum general conditions of the other products. |
| 4     | Skill amplification | Contents: designing. To complete the mandate one must necessarily refer to even if only instinctive designing skills. The tutor’s involvement may be instrumental: he/she must guide the search for areas to create the project, divulging his/her skills and encouraging the creation of a “learning community” |
| 5     | Transforming skills into competences | Contents: actually creating the piece. Specifically, a series of skills must be at first shared, then transforming them, putting them into action, into specific competences for the mandate. |
| 6     | Integration | Contents: union of the various group pieces to assemble one document. This stage, is carried out only by the tutors in two steps:  
- First comparing various projects  
- Integrating them to create only one document that is shared by the group. |
| 7     | Project or design | Contents: completing the collective piece and presenting it to the plenary session of the groups, above all to those who did not participate in the previous stage. Reuniting all macro-group level forces, a core of competences within the project, spawning an “enlarged learning community.” |

Contents: fundamental support is collected from the indications given by the animators/facilitators and the
Outside learning or benchmarking

Material drawn from a certain number of documental sources (with intensive ICT use, that is Information and Communication Technologies) about organizing the layout of the piece to improve the collective document.

Good practice identification

The document is compared to the other already specifically organized documents to gauge the content and stylistic differences and to develop their potential integration.

Cognitive agglutination Focus group

The final focus group represents a cognitive agglutination stage in which it is possible to identify the passage from the learning community to the practices community and that is from a coherent learning group to a complex group-system. The various subjects begin to reveal different aspects compared to the beginning learning stage because their cognitive perception and self-awareness start to come forth and become part of their shared experiences knowledge.

Role playing

It can help to understand how the concepts can be applied in concrete and experiment real situations; it allows to acquire the skills to think and act in different roles and to foresee how the other persons would behave in similar situations. It can also support the development of the critical thought thanks to reflection, discussion and detection of shared solutions to problems.

Simulation

It's similar to the role playing, but it is different because it is more closely correlated to the real life; it consists in making a working task in order to develop the correlated competences. It can be a simple discussion on a task based on complex activities.

Case study

It is the narration of situations that the student has to explore critically, or that he has to create in an independent way. It can be different from the point of view of the form and the complexity, and may include discussions, questions, resources. The process in which the answer is reached is more important than the answer itself; the competences acquired concern the decision making.

Questions to stimulate discussions

Discussion concerning course materials and contents are collaborative activities. Tutor propose the topics and moderates the discussion asking different kinds of questions:
- demand to demonstrate something, aiming to stimulate the critical thought and the feedback between students of a collaborative group.
- demand for clarifications: it stimulates the feedback and the metacognitive reflection.
- open questions: to stimulate the online interactions.
- linking or extension questions: help to develop the topics emerging from discussions and to detect the links between the topics.
- hypothetical questions: are used in role playing, simulations and case studies (what you would make if…)
- questions on the nexus cause-effect: used in the case studies, help to define potential scenarios and solutions.
- questions on summary and synthesis: help the students to understand what they have made working.

**Collaborative dyads**
They can represent a first bridge towards the constitution of the collaborative group: the students who are not used to collaborative activities can familiarize with the support of a colleague. The number of people who collaborate can increase gradually, as an example passing from the dyad to a group of four.

**Small project group**
It is one of the most used collaborative forms and it allows a great involvement of participants in the activities; students are encouraged to expand their own work and their own thought, engaging themselves in the development of the learning issues, they have the possibility to produce in concrete a collective product. The focus is on the collaborative dimension.

**Jigsaw**
It is a good method in order to speed up the development of contents: the student is asked to become expert in a topic and to teach his peers in the group. In this way the knowledges of everyone is recomposed in a jigsaw.

**Blog**
A blog (weblog) is a personal website with link, comments and messages, where readers can add their comments. This form of communication can be realized only on the web and it is often used to develop online communities. Blog is different from a discussion hierarchically organized
(e.g. a forum) because the contributions are not answers in the threads, but are ideas starting from the studied materials; students can collaborate reflecting on the contents through the brainstorming.

**Virtual Teams**

The activity in virtual teams helps the students to find common solutions and to engage themselves in developing discussions; enterprises and educational organizations use the virtual teams as integration to their activities, since they allow to improve strategic skills about distributed work. It can be useful to create little discussion groups in simulations or in the fulfilment of the project; they are used in the training courses, where the students can learn to train and develop a team.

**Debates**

Debates help the students to interact and at the same time to develop critical thought and to prepare materials in order to support their ideas. They can start from individual ideas or can be arranged by the trainers, the tutor or the experts. In particular the discussion should cause a debate but not a flaming; roles and guide lines must be defined in advance in order to make possible that the communication is effective and goal-based.

**Aquarium**

It consists in a group of students making some activities while they are observed by other students; the idea is to realize a kind of “watertight chamber” in which it is allowed to do mistakes and to be criticised in a positive way. It can be a group that interacts with the tutor or whose members interact each other while other students are observing. The observer must be able to remain in silence and pay attention.

**Learning cycles**

Learning cycles are activities used in order to take advantage of the different learning styles and to realize different forms of collaborative activities within a wider project. Cycles consist in subdividing activities in steps, each one concerning a topic or a problem and finalized to the development of specific skills. Once the skills are acquired it’s possible to proceed to the following steps. With learning cycles students can scaffold each other in an independent way.
Web quest
Web quest is a structured search activity on the Internet; it can incorporate different collaborative tasks supported by software applications.

Personalized learning environment
According to the concept of personalized adult learning, the learning environment is the result of an integrated building realized through different spaces, learning experiences, technologies and media; a personal, wide and customizable learning space, where the learners, enhancing their own awareness, became more and more able to furnish with contents, tools, resources useful in order to meet the settled learning challenges.

The learning environment, as well as the learning process is no more developed on the base of a standardized and packed platform, or within the classroom’s boundaries, both limited to static functions, predisposed by someone other, and impossible to be modified by the learner.

The fulcrum of the planning process moves from the instructional agent to the learner, who assumes a wider control of the learning process, including also the arrangement of the learning environment or, better, the learning environments.

The learning environment is composed by several ambient, including informal contexts dynamically interacting, where the learner can express functions of choose, scheduling, self-assessment, identifying and development of resources. A learner-centred environment where the learning interlocutors and the actors have the opportunity to express their potentiality, their inclinations and attitudes, their personality and previously acquired knowledge.

The personalized concept of learning environment expands the learning perspective enriching it with a multiplicity of actors, resources, communication forms and means, where the result is bigger than the sum of each single component.

This wide and rich vision of what can be a learning environment includes both the concrete learning places and the ideal learning space intended as the learning experience itself. The implementation and building of such a vision of learning space follows the same line of the progressive and shallow implementation of increasing levels of personalization of the learning process and of the evaluation process, from a basic level up to an advanced level.

According to the shared meaning of personalization the adult learner is involved in the co-planning of learning challenges, learning pathway as well the learning environment. The enhanced capability of an adult learner to set and to organize the learning environment is one of the results of a personalised learning experience. It can start from the simple choice of
didactic tools that can be furnish his/hers learning place, fit to his/hers detected learning strategies, learning styles, learning attitudes, up to the inclusion of informal learning spaces or virtual learning spaces. The learning environment is intended as active and ubiquitous; learner builds a personalized space using all the tools and resources (human and technical) for research of information, communication, publishing, collaborating, and acting and interacting in the experience of learning. At the same time the whole learning environment, made of people, resources, tools, etc. is intended as a system that helps learners take control of and manage their own learning, to enhance the learners’ control over how they learn. This includes providing support for learners to co-set learning challenges, manage learning process, select contents, communicate with others. In line with the shared idea of personalization, from a technological point of view, the arrangement of the learning environment could be entrust to a computer based system form a basic level of adaptivity to an advanced level of adaptability concept.

The educational interactions

In the perspective of a personalized learning experience the educational interactions are oriented towards the expression of the potentialities of the adult learner and to the progressive development of his/hers autonomy within the learning tasks.

The educational interactions are oriented to sustain the self realization of the learner, that is an adult learner, then as the teaching and learning strategies should carefully respect the:

- psychological profile of learners;
- culture of adult learner;
- biography of adult learner;
- learner priorities.

Then the educational interaction should at least:

- include the biographic method;
- focus the intervention on a perspective o themes and problems, instead of contents and disciplines;
- adopts a situational approach;
- focus the intervention on concrete tasks;
- promote reflection in action;
- valorizes and supports the autonomy of the learner;
- valorizes the masterly instinct of the learner;
- preserves a flexibility margin in the development of the educational experience.
To have all these features, the educational interaction can’t be didactic, directive or deductive, but it should encourage inductive processes of knowledge, explorative and research attitude as well as self-orientation.

It seems to be fundamental the role of trainer or the LPT, who has the job of sustain a development process through assiduous and continuous interactions, offering scaffolding and well-timed feedback to the learner and motivating him/her through the construction of an encouraging space.

In such a personalized learning model a “classical” tutoring interaction would be unsatisfactory, because on the contrary of standard or usual courses, in such a personalized learning pathway are blended different environments, tools and actors of the process toward an extreme integration within a wide learning experience.

The educational interaction is aimed to guide the learners to find, analyse, select, choose, use for their specific aims the disposable resources, both in the formal contexts and in the informal contexts, within or outside the learning environment where a specific course is carried out.

The educational interaction is oriented to animate the learning processes, to encourage the contextualization and the practical use of the acquired knowledge and competences within the real context of action of the learners. Since a learning experience, even if personalised or self directed, it is not necessary one alone experience, it is fundamental a custom-made training interaction that schedules the development of valuable competencies, particularly about social support: emotional, affective and motivational scaffolding, safeguard of a reciprocal trust climate, stimulating collaborative activities, analysis of interpersonal relations, conflict resolution. Then in a collective interaction tutorship and leadership could be dynamic and not fixed ex-ante. The actors of the learning experience could be recognised, time-by-time, by the others as expert de facto according to the specific given task. Within this group the expert or the trainer interact as a primus inter pares participating a san animator of the learning community.
**Evaluation and assessment**

The evaluation process is a decisive and integral part of the learning personalization model. It reflects and respects all the dimensions highlighted in the previous analysis about the ideal framework for a model of personalization of adult learning.

Then it will apply to three levels of

- learning;
- teaching;
- organization;

requiring the interaction of the three professional figures of

- Trainer
- Instructional Designer
- Learning Personalization Trainer

involved in such a personalization inspired integrated educational system, within a:

- macro
- meso
- micro

context.

Within each one of these levels evaluation process will be inspired to the personalized vision of adult learning, according to the shared meaning of personalization. Consequently, independently from levels, tools, and actors, the evaluation will involve:

- all the dimensions of the learner: an evaluation inspired to the personalization approach does not only include the cognitive dimension of the person. It has for goal his/her development, both cognitively and emotionally, as well as social and citizen.
self-directed learning: the personalization is based on the learner self-direction, which means that the evaluation will support the autonomous choice of the objectives of learning (learning self-determination) and will increase the control over the terms and means of this learning (learning regulation: place, calendar, educational approach and material)

- learner as actor and co-producer of the learning process as well of the evaluation of learning process;
- Within a personalized learning vision the trainer is a facilitator of the learning process: the role of the teacher or of the trainer is not only to mark, but to support the learner in evaluation of his learning.

According to the same variables implied in the personalization process at the three levels – learning, teaching, organizational – also the evaluation could be shallow implemented from a minimum to a maximum of self-evaluation grade. Intending for self-evaluation a tool for the active and aware participation to the co-design of the learning pathway and of the learning challenges.

As well as for the learning process, at a basic level we can suppose that the self-evaluation can be referred to the test of learning skill set, learning strategies, learning styles, learning attitudes, This level of evaluation could be also computer based and entrusted to an automated system.

As concern the involvement of the adult learner in the analysis of priorities, motivation, learning needs, previous knowledge, previous learning experiences, previous competences, potential development area:

- at a basic level the adult learner could be guided to recall and become aware of the representative elements of his/hers biography, of his/hers previous learning experiences, competences and knowledge better linked with the new learning experience in the perspective of the co-planning of the future learning experience;
- at a medium level the adult learner could be supported to identify by him/herself the representative elements of the his/hers biography in the perspective of the co-planning of the future learning experience;
- at an advanced level learner could be assigned to realize a self directed analysis of his/hers biography in order to identify by him/herself the representative elements in the perspective of the co-planning of the future learning experience.
At an advanced level the analysis of the representative biography could be realized in-group among peers instead of in a one to one relation with the LPT or the trainer. The self-evaluation here is intended as an advanced meta-cognitive competence, as a result of a gradually acquired awareness by the adult learner about his/hers knowledge and competences, his/hers own potential development area and in the learning needs analysis capability that will allow the learner, one alone or in a group, to set by him/herself

- learning challenges;
- curriculum;
- resources;
- tools;
- experiences;
- duration;
- courses,
- etc…

Within this frame we can list some possible strategies, tools and models of evaluation suitable for a personalized learning approach.

At the three recalled levels – learning, teaching, organization – the three professional figures of LPT, ID and Trainer are differently involved even if under the same cultural perspective of personalization approach.

Trainers and LPT, directly interacting with adult learners, will apply tools and strategies of evaluation. The Trainer have previously an assessment role, LPT has previously an auditing and monitoring role.

ID will include in the instructional design experiences and opportunities of evaluation taking care that they are consistent with the personalization approach, fit with the adult learning features and feasible within the real context of the learning experience.

The Trainer or the LPT will have the responsibility to choice the better solution according to context and the feasible level (basic, medium, advanced) of personalization.

The monitoring and the assessment are two essential elements in the evaluation process. Monitoring is finalized to a continuous control of the situation by the acquisition of the relevant data. In the described model the monitoring can be referred both to the development of the learning pathway and the achievement of the learning challenges.
Assessment of learning outputs is carried out in order to obtain a formal acknowledgment of what it has been acquired. In a perspective of a personalized adult learning, both monitoring and assessment promote the improvement of the performances and the development of the personal achievement. Then evaluation tools must be administered with an approach of negotiated assessment and with an explanation of the obtained results, to improve the learners’ awareness.

The steps of the evaluation process are:

- **diagnostic**: carried out before the learning pathway to co-diagnose the potential development area of the learner;
- **formative**: is carried out during the whole learning experience and courses in order to verify the learning processes. Operative tasks and reflection on action allow the adult learner to check learning results, to apply additional strategies and to verify if the learning challenges can be reached;
- **final**: is carried out at the end of the learning experience with the purpose to evaluate if and how the learning challenges has been met and to decide about next learning experiences.

When evaluation is appropriately planned:

- it reminds to the students that there is someone who is careful of their progresses;
- clarifies which topics are more important to learn;
- it addresses the efforts of the student towards some key topics;
- it commits the students in activities that are appropriate to the contents;
- it reveals strong points, criticality, learning styles;
- it supplies a feedback for the improvement of the student  

**Actors of evaluation**

In a personalized adult learning perspective, could be considered these approaches:

- **self-assessment**: the student reflects on his learning process and on the achieved result;
- **peer assessment**: every member of a learning group assesses others members and their contribution to the job of the whole group;

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• external-assessment: the LPT, or the trainer, or the experts, assess the achievement of the learner or of the group;
• group assessment: the group reflects on its learning process and on the achieved results from the point of view of the social acquisition of new knowledge and from the point of view of activated learning development dynamics.

Assessment subjects
In a personalized adult learning perspective it is important to evaluate, besides the learning outputs, the acquisition of awareness about the learning skill set and the metacognitive competences related to the ability to choice new learning challenges and co-design a learning pathway.

Learning outputs are then the results of each single component (course, learning experience, cultural travel, etc...) of a learning pathway, as well as the achievement of the settled learning challenges through the whole learning pathway.

Learning outcomes
The assessment of learning outcomes should be carried out during the whole lifecycle of the learning experience. Some recent assessment theories, generally called new assessment, are focused on these methodologies and procedures:
• assessment and constant monitoring of the instruction-learning process (training assessment);
• diachronic and longitudinal reading of the appraisal of product of the single performance (rendering it thus a process assessment);
• subdivision of the responsibilities of the result of the learning between trainers and learners, in a collaborative climate;
• active participation of the learners to the assessment practices (self-assessment);
• involvement of the assessment in the daily practices of learning related to a specific area.
Conclusions

The LEADLAB model here described really represents an innovative perspective, integrating cultural backgrounds, practices and theoretical paradigms, for the personalization of adult learning at a European level.

This represents a hard challenge and requires defining a strategy and a policy of the educational innovation both at the level of the Educational System and of the Educational Institutions.

The implementation of such a model for the personalization of adult learning indeed requires educational policy oriented to the personalization ideal, an organizational system able to answer to requirements of flexibility of a personalized pathway, the recognition and training of the innovative professional figure of the Learning Personalization Trainer, the diffusion of the personalization culture among trainers to be trained to the use of personalization strategies for adult learners.

Furthermore these requirements conflict with real heterogeneous contexts with a different diffusion of the personalization culture, with a different attention to the adult learning constraints, with a different organization of Adult education System, with a different culture of NVAE.

What LEADLAB model tries to do is to propose a common framework to be adopted at a European level and to be tested in the different partners’ Countries. The experimental course will be set in order to identify the adaptation adjustments necessary for the implementation of this framework, according to the specific requirements of each environment or Institution.

Nevertheless the highlighted constraints, it worth to test this innovative approach that shows interesting exploitation and developing horizons, within the active aging, social inclusion of ex detainees people, of migrants and refugees, of people with special needs, or of linguistic and ethnic minorities.

A possible way to start the implementation of such innovation is to empower, exploit and disseminate the existing localized experimentations, trying to find the weak point of the System where it is simpler to start introducing the dimensions of the personalization in the existing traditional educational devices, by small steps.
Main References about personalization and adult education

**Italian references**


Cede (Centro Europeo dell’Educazione), *L’educazione in età adulta: primo rapporto nazionale*, Milano,
Angeli, 1996.


Ceriani A., La simulazione nei processi formativi, Milano, Angeli, 1996.

Ce.Ri.Fo.P. Centro di Ricerca per la Formazione Permanente (a cura di), Università e formazione permanente: stili e profili di formazione, Milano, Vita e Pensiero, 1995.


Commissione delle Comunità europee, EUROPA 2020 Una strategia per una crescita intelligente, sostenibile e inclusive, Bruxelles, 2010.

Commissione delle Comunità europee, Educazione degli adulti: non è mai troppo tardi per apprendere, Bruxelles, 2006


Commissione delle Comunità europee, Per un'Europa della conoscenza, Bruxelles, 1997.

Commissione delle Comunità europee, Memorandum sull'istruzione e la formazione permanente, Bruxelles, 2000.


Conferenza sull’Educazione degli Adulti (Quinta), Dichiarazione di Amburgo sull’educazione degli adulti, 14/18 luglio 1997.


Crozier M., La crisi dell'intelligenza, Roma, Edizioni lavoro, 1996.


Demetrio D., Raccontarsi, Milano, Cortina, 1996.


Demetrio D., Autoanalisi per non pazienti. Inquietudine e scrittura di sé, Milano, Raffaello Cortina, 2003.

Demetrio D., Ricordare a scuola. Fare memoria e didattica autobiografica, Roma-Bari, Laterza 2003.


Gallina V. (a cura di), Prospettive dell’educazione degli adulti in Europa: obiettivi e strategie politiche, Roma, Armando, 1996.


Granger D., Benke M., Supporting Students at Distance, in “Adult Learning”, v. 7, n.1, sep.-oct. 1995, pp. 22-23.


Guerriero G.B. (a cura di), Adult education, Napoli, Edizioni scientifiche italiane, 1996.


Lengrand P., *Introduzione all’educazione permanente*, Roma, Armando, 1976²


Piccardo C., Empowerment, Milano, Raffaello Cortina, 1995.


Russo P., L’educazione permanente nell’era della globalizzazione, Milano, Franco Angeli, 2001


Talamo A., Zucchermaglio C., Inter@zioni. Gruppi e tecnologie, Roma, Carocci, 2003.


**Finnish References**


Challenge Based Learning homepage: http://ali.apple.com/cbl/


Finnish Educational system – background info

Education System in Finland
http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/?lang=en

Finnish learning service providers

Introduction to Finnish Adult Education and Lifelong Learning
http://www.die-bonn.de/doks/pantzaro701.pdf

Lifelong learning in Finland

Key competencies for lifelong learning in Finland

Finnish Adult Education Association

French References


LA LETTRE ALGORA, le bulletin des Ateliers de Pédagogie Personnalisée, Edition spéciale-N°61, info flash/N°654, 1er au 15 mars 2005

LE BULLETIN DES APP, Algora, mission nationale d’appui et de liaison des Ateliers de Pédagogie Personnalisée, N° 60, décembre 2004 – janvier 2005


TROLLAT Anne-Françoise, MASSON Claire (sous la dir.), *La formation individualisée*, Conférence de consensus – Collectif de Gilly-les-Cîteaux, Dijon, Educagri, Coll. Transversales, 2009


VANDERSPELDEN Jean, *APP : Individualiser n’est pas personnaliser, ou apprendre à s’autoformer*, *Actualité de la Formation Permanente*, N° 194, Janvier-Février 2005, St. Denis, Centre INFFO, pp. 35-43

*Internet resources*


Centre de Documentation sur la Formation et le Travail (CDFT) du CNAM : http://cdft.cnam.fr/

Centre Inffo : http://wwwcentre-inffo.fr/


La Ligue de l’enseignement : http://www.laligue.org/


Office québécois de la langue française/dictionnaire terminologique. Disponible sur : www.olf.gouv.qc.ca

**German References**

**Bannach**, Michael: Selbstbestimmtes Lernen, Baltmannsweiler, 2002


**Bönsch** Manfred (Hrsg.): Selbstgesteuertes Lernen in der Schule (Praxisbeispiele aus unterschiedlichen Schulformen), Neuwied [u. a.] 2002


Hannover 2009: Expressum/Bestellung Band 15 Pädagogische Qualität  Beschreibung Band 15 Pädagogische Qualität

Dehn, Claudia (Hrsg.): Raum + Lernen - Raum + Leistung. Strukturbedingungen kontinuierlicher Qualitätsentwicklung. Hannover 2008: Expressum/Bestellung Band 14 Raum + Lernen  Beschreibung Band 14 Raum + Lernen


Eichelberger, Harald: Der Jenaplan heute, ISBN 3706513102


Lischewski, Friedhelm; Müller, Renate: INDIVIDUALISIERTES LERNEN – MÖGLICHKEITEN UND GRENZEN IN DER SCHULPRAXIS, vorgelegte Dissertation, Dem Fachbereich Bildungswissenschaften der Universität Duisburg-Essen, 2006

Moegling, Klaus (Hrsg.): Didaktik selbstständigen Lernens (Grundlegung und Modelle für die Sekundarstufen I und II), Bad Heilbrunn 2004

Petersen, Peter: Der Kleine Jena-Plan, ISBN 3407220804


Zech, Rainer: Lernerorientierte Qualitätssicherung in der Weiterbildung. Leitfaden für die Praxis. Modellversion 3., ArtSet Forschung, Bildung, Beratung, Qualitätstestierung, Expressum-Verlag, Hannover, 2006


Zech, Rainer: Systemveränderung - Umbau der Erwachsenenbildung, 2008

Zech, Rainer: Handbuch Qualität in der Weiterbildung. Weinheim und Basel: Beltz, 2008 Bestellung Handbuch Qualität in der Weiterbildung; Beschreibung Handbuch Qualität in der Weiterbildung


Greek References


M. Cecil Smith (Editor), Nancy DeFrates-Densch (Editor), *Handbook of Research on Adult Learning and Development* (1st edition), 2008.


[www.inquiry.net/adult/trainer/index.htm](http://www.inquiry.net/adult/trainer/index.htm)