Literature Review

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Introduction

This literature review has been developed by all partners in the Grundtvig PRILHE project. At the first meeting of the international project team, it was agreed to construct the project literature review both as a collaborative and a developmental process. It was intended that this process would inform the development of the project questionnaire and its overall approach to biographical research.

Preliminary discussions identified the centrality of **reflective biographical learning** to the whole idea of reflective independent learning. Arising from this, three formative thematic strands were agreed where project partners would make initial explorations of the available literature. The figure below represents these three strands and the involvement of the different partners in exploring the relevant literature.

At a later stage, the Swedish and Polish teams added a further review of Transformative Learning which complemented and, to some extent, bridged the three strands above. After all these sections had been drafted and discussed, it was agreed that the term, ‘Critical Autonomous Reflective Learning, was a more appropriate key concept than the original idea of ‘Reflective Independent Learning’. (For further details, see conclusion, page 48).
1. Experiential learning

*Experience is our only teacher* (Peirce 1934, 37)

*... the notion of experience is truly experience only when objective conditions are subordinated to what goes on within the individuals having the experience.* (Dewey, 1938, 37)

1a Experiential learning: a philosophical perspective

For adult educators, learning is a phenomenon *par excellence* in their empirical and theoretical studies. This phenomenon or object is crucial to understand the process of adults' lives or, more specifically, how adults live their lives, i.e. under which circumstances and conditions. In other words, we come to the foundation of human life and from that our interest in biographical learning emerges. As learning occurs in everyday life it is neither planned nor pre-planned, nor situated in special institutions. However, learning also occurs in formal settings and it is there that education becomes significant. Although education has had a long tradition, which goes back to the Enlightenment, its meaning has recently become much more problematised, challenging both its practice and theory (Biesta 2005). Moreover the changing concept of learning, as lifelong and life-wide, also influences the meaning of education and extends it to settings outside traditional institutional boundaries (see e.g. Antikainen 2005). Today, more than ever before, adult educationists are involved in research, theorising and discussions about adults' learning processes and to some extent over their results, the best or optimal conditions for learning, as well as over adults' development and socialisation to different cultures and identities. Some researchers are still interested in motivation or lack of motivation accompanying adults’ learning, their participation and non-participation in learning and educational provisions. Others concentrate on the role of experience in learning, critical reflection and thinking, intersubjectivity, communication and transitions or transformation that adults go through. They also discuss the role of different domains of learning, formal, non-formal and informal. On the whole the interest in meaning of education, or rather learning for individuals, and generally for society, is addressed by social scientists and particularly by adult educationists. Yet it is by no means an easy task to understand adults' learning processes.

Just to refresh our memories, learning theories have changed dramatically since the 1960s. Many established psychological theories, based on stimulus-response views of behaviour, have been challenged by theories of cognitive psychology and an interest in social, cultural, and developmental factors. Learning that was traditionally defined as a change in behaviour performance resulting from experience and practice, has gradually shifted its meaning to the restructuring of knowledge and changes in understanding, rather than changes in behaviour. According to Candy (1991) *problem-solving* rather than *memorisation* has become the prevailing metaphor while dealing with learning. In addition the view that meaning and knowledge are constructed through interaction when we learn has become predominant. Social psychologists as well as sociologists have contributed to these changes, too. The constructivist and interactionist view emerged from the Dewey's and Mead's writings and has influenced much the way we theorise learning. Learning has begun to be seen as a complex process in which learners' cognition and emotions are mutually involved. Antikainen et al. (1996, p. 19) wrote that from the social constructionist point of view individuals are seen as both those who construct the situation and are constructed by it in a given cultural context. A person is seen as active and pro-active, holistic and intentional, who not only adjusts to the circumstances but also continuously recreates and creates the social world s/he is situated in. Candy (1991) claims that adults construct their reality by interpreting new experiences, actions and performances
when they learn new knowledge. Learning then is seen as an active social conduct in which
meaning is constructed to make the world understandable (see also Bron & Wilhelmsson 2004).

There are many theories that try to comprehend adults learning. In the PRILHE project we
enhance further a reflective biographical learning of non-traditional students in higher
education. Reflective biographical learning is a wider and inclusive concept that among others
takes into account experiential learning theories and by definition understands learning as a
continuous and life long lasting process. Our text here is a contribution towards advancing the
concept of biographical learning by concentrating on the role that experiences have in adults' 
lives and particularly in their learning.

Experiential learning is often referred to by adult educationists as the specific and typical
way of how adults learn. This theoretical tradition has been popularised by David Kolb in his
influential book from 1984 Experiential learning. Experience as the source of learning and
development. Moreover it is from this perspective that the models of learning styles were
developed by many authors and used in the consultancy business. According to Kolb, adults
continuously learn new things when they solve problems or handle some tasks. The model Kolb
employs is based on a two-way matrix including concrete versus abstract learning, and active
versus reflective learning.

It can be visualised as followed:

Figure 1 Two dimensional matrixes

| concrete & active learning | versus | abstract & reflective learning |

Learning is understood to occur in a field of tension formed by these categories which, according to Kolb, are cyclically arranged. The notion of a learning cycle is at the heart of the theory, in which it is assumed that, in the process of learning, adults proceed through the four stages of the learning cycle. And yet a concrete experience is the beginning of the process.

There is, however, a contradiction in looking at the categories as two dimensional and at the same time as cyclically arranged, thus making a whole.

Figure 2 Kolb's learning cycle

Concrete Experience

Experimentation

Reflective observation

Conceptualisation

Concrete experience lies at the basis of perception and reflection according to Kolb. Reflective Observation means that an adult may ask questions, such as what was good, what was wrong? S/he collects observations and translates them into a theory, i.e. makes conceptualisation.
Hypotheses can be derived from her/his body of ideas, and these are tested in practice by action, which Kolb calls experimentation and borrows from Kurt Lewin's action research model. This conduct eventually results in a new experience. According to Kolb, four kinds of ability are needed for an optimal learning, i.e. for performing a task. These are in the domains of experience, reflective observation, abstract concept formation and active experimenting.

Although Kolb insists that each particular component in learning cycle is important and if some are omitted (which happens) the learning will be not be complete, it seldom happens that a learner is good enough at all the domains. The model is both normative and goal oriented in the sense that the cycle should be completed, and started again. However, to start from concrete experience, is not only a sufficient condition for learning, but also a necessary one, which is seen as a positive development. And yet Kolb does not explore the issue of novelty of experiences, how new should they be? Concrete experience without any reflection will not lead to any change or development of the perspective (it will only be a little of the same). That is why next stages are very important according to Kolb. This is in harmony with the assumption of learning which is presented as a continuous process. Kolb (1993) emphasises that learning is a process not an outcome which is based on experience. Put simply, it implies that all learning is relearning (Kolb 1993, p. 153). Experiences play an important role in this process. Thus, learning is the process whereby knowledge is created through the transformation of experience (Kolb 1993, p. 155).

However there is an inherent contradiction built-in into the model, which I have mentioned before, in the tension between concrete and active learning versus reflective and abstract. They seem to be in opposition to each other and not a complement or counterpart. This is visible in the learning styles that Kolb introduces. He distinguishes four learning styles, namely: the diverger - who gives new ideas; the assimilator - who assimilates knowledge and skills to these already possessed, s/he is good at structuring, and able to explain to others; the converger - who puts everything together, sees the whole in fragments, and the accommodator – who agrees, looking for compromises and solutions together, that is the one who proves things, makes attempts. Adult learning therefore can be particularly effective if the preferred learning ability or mode is employed. Kolb also distinguishes four types of learners closely connected to both the learning cycle and the learning styles. They are: an activist, a reflector, a theorist, and a pragmatist. (The learning styles are further more developed by Honey & Mumford). While these sound very attractive and probably useful, there is some danger in labelling adults in advance according to which style or description they belong. One can get the impression that by distinguishing the learning styles and learner types, Kolb does not follow his ideal that learning is cyclical. On the other hand by distinguishing different types Kolb is pointing to the strength and effectiveness of the group or team who perform a given task and represent these types. Thus, looking at the learning circle from the perspective of a group but not an individual makes much more sense. In addition, even though Kolb's theory seems relevant especially in planning educational environment for adults, it gets insufficient support in empirical research (see Paul 1990).

There is another criticism of the model, especially in relation to its ontological background. The model is based on a dualistic type of thinking which emphasises the sharp division of the objects of study into body and mind, subject and object. It includes a dualistic view, where experience is seen in opposition to reflection and subject in opposition to object. This criticism is also advanced, or gets support, from the feminist critique (see Fenwick 2003).

More criticism of Kolb's model

From the perspective of informal education there is more fundamental criticism towards Kolb's model to be found at the website www.infed.org. Jeffs and Smith (1999) at http://www.infed.org/foundations/f-explrn.htm, for example, write about Kolb's theory that in reality, these things may be happening all at once. Here's a summary of the main criticisms as presented by Mark K. Smith (2001) (interestingly including an anachronistic one from Dewey!). A number of criticisms can be made of the Kolb model. It pays insufficient attention to the
process of reflection (see Boud et al 1983); the claims made for the four different learning styles are extravagant (Jarvis 1987; Tennant 1997); the model takes very little account of different cultural experiences/conditions; the idea of stages or steps does not sit well with the reality of thinking (Dewey 1933); and the empirical support for the model is weak (Jarvis 1987; Tennant 1997).

The advantage of the model, however, is that it serves the non-formal and informal domains of learning and management in working life, and that it contributes to another way of theorising adults’ learning, by emphasising life and work experiences.

The notion of experiential learning is firmly anchored in adult education practice. Thus, there are others who follow Kolb's footsteps and try to develop experience-based learning theory. One of them is Peter Jarvis, for whom the learning process is of a holistic nature (see Jarvis, Holford & Griffin 1998) in which all human dimensions are involved. By understanding how the process works we can see how lifelong learning is also a part of the total life of an individual, because there is a clear connection, according to Jarvis (1992), between human learning and human development. Therefore a human is nothing else but a sum of his/her learning. Peter Jarvis (2004) tries to make use of experience based learning in his own model. In addition he employs a time dimension with a clear start and end of the learning task or project.

In comparison with the former model, even Jarvis's theory does not escape a normative purpose, which means the learner has a goal orientation or purpose towards becoming a more developed and experienced person through the learning process. (see the criticism to Jarvis and development of his theory in Le Cornu, 2005). Moreover, many adult educationists, especially in the USA, tend to approach an adult learner in too individualistic a way.

The Pragmatist tradition

Kolb gives tribute to John Dewey (1929, 1938) and looks for support in his writings. But he seeks influence not only from Dewey, but also from Piaget (cognitive, constructivism), Kurt Levin (Gestalt psychology, and action research) and Paulo Freire (emancipatory learning). There is some criticism of Kolb’s ontology, which does not match with the pragmatist view generally, and the Dewey - Mead tradition in particular. Therefore it seems more promising to look for the experience-based learning tradition only in Pragmatism. We will refer to both John Dewey and George Herbert Mead looking for theoretical ground that can give us direction to explore ideas on experiential learning. In this way we will (hopefully) omit Kolb and his model as not sufficiently congruent with Dewey's and Mead's ontology and epistemology. What is more we will approach an adult learner as a social actor and not as an individualistic subject.

The Pragmatist interest in experience was a basic way of approaching and understanding reality. According to Joy (2005) William James and John Dewey wrote more in-depth on the issue in a new post-subjective way. Dewey (1916) connected experience to education and especially to the progressive education giving experience a central place in it. Even Mead, another pragmatist and Dewey's friend, who influenced Dewey's philosophical work, wrote about experience as important issue for socialisation and learning. While Dewey concentrates on children and school, Mead makes references to human beings generally. Moreover, Mead develops ideas about social action which, of course, includes or cannot be thought of without people’s experiences.

Generally the pragmatist connection to body-mind unity plays a crucial role in understanding their view on human experience. What is more it is possible to see how experience unifies epistemology with ontology. They go beyond dualism as a basic error of thinkers before twentieth century (Jay 2005, p. 263). For American pragmatism experience, was a double edged sword - a novel experience just in the making of and lessons learned from the past which could be applied in the future. The American 'culture of experience' could be seen as against rational abstraction. Moreover in American philosophy the use of the method of experience has a profound place. Smith (1992) for example underlines the continuity of belief and action in experience, not the mere assertion of this unity and continuity in theory alone, as in pragmatism. (see Jay 2005, p. 266)
Experience is linked to 'know-how' for the pragmatist and moreover to the interaction between self and the world. Charles Sanders Peirce (1934, p. 37) make us believe that for Americans 'Experience is our only teacher'. And yet not all Americans believed in that as much of their reasoning was based on deduction. However, Peirce goes beyond induction and introduces abduction as a way of knowing, i.e. approaching reality and problems to be solved. Nevertheless induction is an important part of the pragmatists’ approach both in everyday life and in understanding reality. Ozmon and Craver (1990; 1976) for example point out that:

The inductive approach that is characteristic of pragmatism is illustrated by the thought of George Herbert Mead. Mead applied induction to social and psychological behaviour in a more thoroughgoing manner than had been accomplished previously. His view of the self as social has particularly influenced Dewey and other pragmatic thinker in education. Mead thought that if we viewed the child from the standpoint of induction, we would see that children did not learn to be social; they had to be social even to learn (italics added). In other words, for Mead the self is by nature social and not some mentalistic, inner thing hidden from view. (p. 120)

Another important contribution of pragmatism, and particularly Dewey's and Mead's, is to view a society and an environment not as a given and static phenomenon but always in the making, developing and growing. Such a view has consequences for how they look at the human being, not as someone who from the beginning is determined by external or internal forces, but one in the making, who is influenced by the environment and other people and still capable of influencing the world around him/her. Becoming at the same time an object and a subject or in other way personal and social is the biggest contribution of Mead to how the self is emerging.

Dewey's approach to the concept of experience

John Dewey (1938, 1998) has, more than any other pragmatist, written on the issue of experience and learning, especially when he considers the role of formal education in forming the younger generation. The role of school is to prepare young people for an adult world through socialisation, for the future world of course. But traditional schooling is not successful in this role. Progressive education which takes as a point of departure learners' experiences can help to make school the place of such socialisation. If we consider that there is 'an intimate and necessary relationship between the processes of actual experience and education' as Dewey writes (1938, p.7) than we need to look carefully at the issue of experience and try to establish a theory of experience. But we have to take into consideration as Dewey indicates that:

The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are mis-educative. Any experiences is mis-educative that has the effect of arresting or distorting the growth of further experience (ibid., p. 13)

While developing the theory of experience, Dewey establishes two criteria. The first is a category of continuity, and the second of interaction. He sees these criteria as the aspects of quality of experience. The category of continuity or the experiential continuum gives us opportunity to discriminate between experiences that are worth while educationally and those that are not in every undertaken effort (p.21). The category of 'interaction' assigns equal rights to both factors in experience - objective and internal conditions. These aspects while taken together, or in their interaction ( ... ) form what we call a situation. (pp. 38-39).

The first category of continuity, as Dewey writes, 'rest upon fact of habit’ (p. 26). By habit Dewey means simply attitude and habits can be emotional and intellectual. Habit covers our
basic sensitivities and ways of meeting and responding to all conditions which we meet in living. And ... the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after. (p. 27) What is more, while taking into account the quality of these aspects of experience, in each new experience, we face, there is an immediate aspect of agreeableness or disagreeableness and there is its influence upon later experiences. In other words wholly independent of desire or intent, every experience lives on in future experiences (p. 16). Dewey's idea about the time sequences here is similar to Mead. According to that the new experience, and a lived experience, always includes the past (habits or attitudes) and the future. The valuable experience for learning is open to change thus is future oriented. Dewey (1938: 51) writes we always live at the time we live and not at some other time, and only by extracting at each present experience are we prepared for doing the same thing in the future. In other words: The present affects the future anyway (ibid., p. 52). He explains by pointing to that every experience influences in some degree the objective conditions under which further experiences are had (ibid., p. 30).

However, the point Dewey makes about continuity of experience does not mean that we are necessarily developing to higher level. Rather he claims that there is no paradox in the fact that the principle of the continuity of experience may operate so as to leave a person arrested on a low plane of development, in a way which limits later capacity for growth (ibid., 30). At the same time he underlines that ... every experience is a moving force (ibid., p. 31). It also helps to grow, and growing or growth is a criterion for education, or in other words for learning. Another similarity with Mead is Dewey's concern that ... all human experience is ultimately social. What he means literally is that it involves contact and communication. (ibid., p. 32).

Experience does not go simply inside a person. It does go on there, for it influences the formation of attitudes of desire and purpose. But this is not the whole story. Every genuine experience has an active side which changes in some degree that objective conditions under which experiences are had. (pp. 33-34) In a world, we live from birth to death in a world of persons and things which in large measure is what it is because of what has been done and transmitted from previous human activities. When this fact is ignored, experience is treated as if it were something which goes on exclusively inside an individual's body and mind. It ought not to be necessary to say that experience does not occur in vacuum. There are sources outside an individual which give rise to experience. pp. 34-35.

This quotation is very much in Mead spirit, which means that there is a direct connection to Mead, but also the both scholars connection to pragmatism. This also fits to Mead's theory of sociality and intersubjectivity (see Joas, 1997). It is worth to quote Mead when he writes: So far as education is concerned, the child does not become social by learning. He must be social in order to learn. (Mead 1968, p. 41 in Joas ibid., p. 220).

As Biesta (1998, p. 92) summarises "Mead's claim about the intersubjective origin of the meaning of our actions/gestures implies a rejection of an objectivistic understanding of this origin". Thus, "social interaction is a meaning-giving event" (ibid.). Intersubjectivity and sociality becomes crucial for understanding the role of experience and learning.

This is an exact way to approach Dewey's second criterion i.e. interaction. It is through interaction that the interpretation of experience is possible. Similarly, as for Mead, and even for Dewey, interaction happens between an individual and objects as well as other persons. Interaction however depends on the situation and the both conceptions are inseparable and dependent on each other. The notion of situation was developed by Chicago sociologists and used by Dewey and Mead. Hans Joas (1996, p. 139) when writing about pragmatists 'situated creativity' points e.g. towards 'how new variations of action are generated by the tension of the problems contained in situations'. It is here where problem-solving and corporal doing integrates
within human action. When Dewey takes up ethics, education and play in his writing he ascribes a more important role to experiential creativity than that contained within notions of normative action, as for example we find in Parsons writings (see Shilling 2003, p.444).

About two principles: continuity and interaction Dewey concludes in the following words:

The two principles of continuity and interaction are not separate from each other. They intercept and unite. ... What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow. The process goes on as long as life and learning continue. Otherwise the course of experience is disorderly, since the individual factor that enters into making an experience is split (Dewey, ibid., p. 42-43).

Mead's approach to the concept of experience

George Herbert Mead advanced or looked upon experience from two perspectives: first from everyday life as for example in the social act, in role taking, and through intersubjectivity; and second from a scientific point of view, by asking the epistemological question - how can we reach or come closer to knowledge and truth? In this way he is influenced by the German distinction between das Erlebnis (the mentally lived experience) and Erfarung (experience) (see e.g. Dillthey, Husserl). The last includes our knowledge based on perception while dealing with scientific problems. However in English the two conceptions are not separated linguistically.

The first usage of experience we can find in Mead's theories of the self. Experience is crucial for developing the self. It tells us about how we use perception to see the world around us including the nature, environment and the people we interact with. But also it includes how we see ourselves. Here the way of how the self-consciousness and a reflexive intelligence develop is important. Such concepts as a self which arises from 'me' and 'I', the role taking through socialisation processes of a play and a game, and the generalised other, all are based on perception and experiences one makes. But to be able to involve and make use of such experiences, an individual has to be, first of all, social.

How is personality possible for Mead? He uses instead the term 'self' which is characterised by development. In other words the self is not possible before we are born, it emerges through the social experience and activity processes. An important element that helps in developing the self is language. The self is an object for oneself and we can see it as a social construction, i.e. we perceive ourselves as others are seeing us. Understanding cannot be non-personal if it does not take an objective, not-affected attitude towards the self; otherwise we only have a consciousness and not self-consciousness, Mead argues.

Mead uses the conception of experience interchangeably with the notion of reflective action. Experience is only possible to be made by the self-conscious self. It is through the interaction with the social environment and the attitudes one has towards it, as well as towards oneself, that the new conduct or act occurs. This new act means learning, and involves a person's reflective intelligence (Mead, 1934, p. 91). When a person listen this means not only that he/she acts according to an order but by giving him/herself the instructions that the other person is offering he/she can act.

We have to realize ourselves by taking the role of another, playing the part of another, taking the attitude of the community toward ourselves, continually seeing ourselves as others see us, regarding ourselves from the standpoint of those about us. This is not the self-consciousness that goes with awkwardness and uneasiness. It is the assured recognition of one’s own position, one’s social relations, that comes from being able to take the attitude of others toward ourselves (Mead 1934, p. 95)

The whole world of experiences - the nature we live through - are connected to the process of social action. Our consciousness is functional according to Mead, as to other pragmatists. The
intelligence which is part of our perception develops very much within what we call 'thinking'. Our thinking is nothing more but the development of the interpretation in terms of our own responses.

Everyday lived experience (Erlebnis) makes us unique as human beings, as those experiences are qualitatively different than any other organisms have. Mead studies human activity as the social act because the character of meaningful experience is possible to be seen there. In that he is close to phenomenologists, particularly Merleau-Ponty. As Rosenthal and Bourgeois (1991, p.15) summarise:

*Every act is an act of adjustment in which both the individual and its environment take on new characters, with the emergence of minds, new meanings, and in which a durational spread of past, present, and future is incorporated. Mead distinguishes four stages or phases of the act in terms of the impulse or anticipatory attitude, perception (or distance perception), manipulation, and consummation.*

This is a distinctive human awareness in perceiving the world and its objects by using both the mind and the human hand, which makes it possible both to have a contact experience with objects as well as manipulative experiences when using them for different purposes.

We experience the world and the others directly, but ourselves we can experience only indirectly. We play a role for ourselves as other people see us; we take others roles in the process of 'role-taking' and in this way we develop our self or personality by differentiating in role-taking. This happens by a play and in a game. The latter helps to develop in ourselves the attitude towards the generalised other.

The second meaning of experience which Mead uses, connects to his view about scientific inquiry. Like other pragmatists he advocates empirical study, but, like them, he goes beyond empiricism. It is not enough to make observations and experiments, but to develop theory, thus empirical studies need to involve both induction and deduction. Mead (1937, p. 93) while concentrating on history as a science writes in the following way:

*History as an observational science can get at its past only through the present and future. But scientific investigation does not end in its data; it begins with it. The outcome of science is a theory or working hypothesis, not so-called facts. It is not recovery of the dream we seek but the interpretation thereof. .. Have we learned to understand the past through the present, or are we learning to understand the present and future through the past? (…) Why this disjunction? Why not both?*

At this point is Mead, as Dewey is, very specific as well. As researcher one needs to obtain scientific data to be able to proceed as a social scientist. According to Kurtz (1984, p. 4) *Efforts by Dewey and Mead to rid modern thought of metaphysics and replace it with scientific research, and their emphasis on the importance of the social, can be seen in the sociology developed at Chicago.*

Everyday lived experiences is however different from experience made in scientific inquiry. The former always involve judgments of what we sense and observe according to Mead. But these judgments need to be distinguished from reflective judgments or second level reflection typical for science, even if they are judgments. Immediate experience is not a pure immediacy but it involves interpretative elements.

Even if Mead has two different ways of looking at experience, as everyday lived life and in scientific work, he nevertheless understands science and everyday life as always connected with each other in an ongoing process. For Mead we are all the time in the making and everything is growing.

**Consequences for adult learning - Reflective biographical learning**

It is possible by taking into account experiential learning and follow Dewey's and Mead's writings to understand better how an adult learner changes and develops, so we can follow
him/her in the process of learning.

As biographical learning is the most helpful method in accessing experiential learning, the organisation of formal learning could be directed towards the adaptation of biographical narration as a method of teaching/learning. However, we need to know as Joas (1997, p. 161) suggested that

Neither the experience of his own body nor the sense of his own life-history can be experientially grasped, if the subject acts alone and attempts to relate himself back to himself in a mirroring fashion, but only if an individual actively participates in practical intersubjectivity as a part of the world and apprehends himself in the practical intersubjectivity. Only the objectification of our activity and social intercourse make it clear to us who we are.

Thus, the use of biographical accounts in learning needs to be taken always in a group of learners who can be involved in interpreting, comparing and reflecting upon them. The method is used and has been used in different palaces and institutions (see Dominicié 2000, Bron 1992, Lönnheden 2004).

Through experience both in everyday life and when knowledge creation/construction takes place, and by judgment and reflective judgment, as well as self-reflection we can change our perspectives, see different phenomena in a new light and better understand reality and ourselves or simply discovered new facts and phenomena, as well as the relation between them. In a specific learning situation experienced based learning helps a learner in his/her reflective, critical and independent learning.

According to Mead we don't have ability as subjects or as 'I' to be aware of our experiences. It is through being an object to oneself, being as 'me' we can have feelings and knowledge of own experience as individuals. Only as objects can we have social relations and interactions with others. And similarly only through experience that we exchange with others in an organised social environment it is likely to make experience about own experience.

References
1b. Experiential Learning: a policy-oriented perspective

Identification, Assessment and Validation/Recognition of Formal, non-Formal and Informal Learning

Introduction

The key characteristic of a knowledge based economy is the belief that wealth (or productivity) is increasingly dependent on the development and application of new knowledge by specialist “knowledge workers”. It is not physical capital or human skills (human capital) alone that determine economic growth. It is a nation’s or region’s capability to apply knowledge itself that is essential to economic development. And the development of such skills traditionally happens in the formal education process.

While formal learning is a feature of modern societies – and as such is highly visible and valued accordingly - knowledge and competences acquired in non-formal and informal settings are far more difficult to recognise and assess, in terms of intrinsic value.

This invisibility is increasingly understood as a problem for those involved with competence assessment and development of individuals. The introduction of methods for recognising prior skills – acquired both life wide and lifelong - may thus be looked upon as one answer to the demand for flexibility, transferability and transparency within and between the spheres of education and work (Bjornavold, 1997:11). The “closed” character of our present formal education and training structures is at odds with the requirements of adult employees. They are looking for recognition of experience and skills, along with easier access and improved opportunities for internal movement, within our educational and training systems, as they navigate the professional qualifications framework and/or transfer to a different country (op. cit.:11).

This means that recognition and validation of skills acquired through non-formal and informal learning has to be introduced and the process given similar visibility to the awards of formal qualifications.

Historical perspectives of concepts and terminologies used. The European Framework

There is much debate in the literature, in terms of defining what is meant by Validation, Accreditation, Certification (and Recognition) of learning derived from experience – non-formal and informal learning – for the purpose of entry to educational progression or employment. All these words are closely related, as we explain by providing the following definitions and comments based on CEDEFOP publications (Bjornavold 1997):

**Accreditation** - “The process of attributing/providing formal evidence of value to competence, irrespective of the way these competences were gained.

**Certification** - is the provision of an official document, as formal proof of the achievement of an individual.

The process of accreditation applies to both non-formal and formal competences. Accreditation of formal learning may lead to certification (provision of diplomas, professional

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1 Non formal learning – learning that is not provided by an education or training institution and typically does not lead to certification. It is however, structured (in terms of learning objectives, learning time or learning support). Non – formal learning is intentional from the learner’s perspective (European Commission, 2001: 32, Annex II Glossary).

Informal learning – learning resulting from daily activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning maybe intentional but in most cases it is incidental or random.
certificate, etc...) whereas the accreditation of non-formal/informal learning may lead to validation i.e. issuing of documents such as portfolios of competences) or to a more formal way of accreditation (granting of equivalence, credit units, etc.). A certification process may follow accreditation of non-formal or informal learning.

Validation of non-formal learning, as opposed to formal certification, “refers to the process of assessing and recognizing a wide range of skills and competences which people develop through their lives and in different contexts, for example through education, work, leisure activities (Bjornavold, 1997).”

Designations vary according to the traditions in place:

- **APL** stands for **Assessment or Accreditation of Prior Learning** and is generally used as an umbrella term, including both prior certified learning and experiential learning. Within APL there are two main categories (DfEE, 2000:7):
  - **APCL**: the accreditation of Prior Certified Learning, learning for which certification has been awarded by an educational institution or another education/trainer provider;
  - **APEL**: the Accreditation or Assessment of Prior Experiential Learning, referring to uncertified learning obtained from experience acquired for example in the workplace or through voluntary activity. APEL is sometimes referred to as RPEL (The Recognition of Prior Experiential Learning); these terms are more commonly used in the UK.

In general, arrangements for APL vary from institution to institution; each institution publishes its own guidelines and quality assurance frameworks.

- **Prior Learning Assessment** (PLA) (more commonly used in USA);

- **Recognition of Prior Learning** (RPL), mostly used in Australia (Bateman and Knight 2003:9) and South Africa (Andersson *et al.* 2004:58);

- **Validation des Acquis Professionnels or VAE - Validations des Acquis de l’Experience** (both designations mostly used in France, to refer to learning acquired through experience; *VAE* is the term that replaced *VAP* since the new legislation came into effect, as of 2002) (Pouget and Osborne, 2004: 62, Note 2); Feutrie (2005:3) states that according to this latter legislation, *VAE* became a right for individuals who can justify of at least 3 years at work or in voluntary organisations; in these circumstances it is now possible for an individual to be awarded a whole qualification (diploma, certificate, title) or at least part of it.

More recently, especially in Australia, other terms such as “recognition of current competency - RCC”, “skills recognition” or “recognition” are being promoted, as alternatives to RPL.

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2 As Bjornavold (1997: 9-10) explains, validation normally takes into account the full range of skills and competences which people develop throughout their lives in different contexts, through education as well as work and leisure activities). Such acquired skills have of course always existed; for example they are implicit in systems of promotion by seniority. In order to make this implicit and partly invisible competencies and skills more explicit and visible for individuals as well as enterprises, the acquired skills have to be identified and assessed and professional and social credit has to be given. The validation process thus confers a value on assessed abilities. The acquired abilities have to be trusted in a professional as well as a social context, their legitimacy being of crucial importance.

3 In the UK, QAA – Quality Assurance Agency for Higher Education has published, in September 2004 the Guidelines on Accreditation of Prior Learning with the aim to provide prompts to HE providers, as they develop and reflect upon their policies and procedures, and seek to assure themselves that their practices promote the maintenance and enhancement of quality and standards (QAA, 2004: 4).
The initial model of recognition of experiential learning was the U.S. GI Bill of 1944, which dealt with returning World War II veterans who wanted their experience, acquired outside the education system, taken into account, in respect of access to vocational or higher education (Colardyn, 2001:8; Fenwick, 2001:6). Veterans from World War II could have access to education regardless of their background before the war.

However, it was nearer the end of 1960’s, beginning of 1970’s before PLA started to be widely used in higher education in the USA. This first type of PLA was regarded as a tool of social justice that made higher education more available to individuals from “untraditional students groups” (Andersson et al. 2004:58).

In Great Britain, it was in the 1980’s that AP(E)L was introduced, influenced by the USA. As Andersson et al. (2004:59) point out, it was initially mainly focused on admission to higher education and social justice. At this time, the processes of making the individual’s knowledge and competence visible were local activities in various education institutions and there was no centralised system (op cit.). Later, the focus on admission to higher education evolved into addressing the needs of the labour market. This connection with the recognition of vocational, experience-based competences, connected with the labour market, was the one that emerged also in Australia (Bateman and Knight, 2003:9).

The concept of APEL is essentially a British one, as pointed out in the document Creating Opportunities for APEL: Recommendations for Change (Gallacher et al. 2002:1) produced in the context of the Socrates - Grundtvig project – Social Inclusion by APEL – the learners perspective (January 2001- December 2002); it highlights that the term APEL refers,

… not only to formal processes, such as portfolio development or ‘assessment on demand’, but also to include informal processes on occasions when a learner actively reflects on their experience and achievements as part of gaining entry to, or credit towards a programme of study or qualification [URL: http://crll.gcal.ac.uk/SOCRATESSite/home.html].

In turn, the Department for Education and Employment (DfEE) funded a project (April 1999 -January 2000) “to build a detailed understanding of current organisational policies and practices”. This project’s report - Mapping APEL: Accreditation of Prior Experiential Learning in English Higher Education Institutions (DfEE, 2000) - outlines in detail the research that was carried out through a two stage survey of HEI’s and in-depth case studies in 10 institutions. For the purpose of this study,

APEL is the accreditation of prior experiential learning, that is, the award of credit for learning based on prior experience - from work, community or volunteer experience - which has not previously been assessed and/or awarded credit. By converting informal learning into certificated learning, APEL provides cost-effective routes to qualifications. It has potential significance for people who, through life and work experience, have learned knowledge, skills and analytical abilities that are comparable to those in a higher education award. APEL offers the possibility for what learners know to be recognised, assessed with the same rigour as any other learning would be at HE level, and awarded credit (DfEE, 2000:1).

In France, VAP (Validation des Acquis Professionelles) leading – since 2002 – to VAE – Validation des Acquis Experienzielles - has developed through statutory provision (Konrad, 2001); it has been regulated through a formal framework of parliamentary acts (lois) and ministerial orders or decrees (décrets) since the 1980’s (Pouget and Osborne, 2004:47). As these authors highlight,

… (it) is embedded firmly within the principle of formation continue (continuing education), itself a concept linked to social justice that can be traced as far back as the French Revolution. The philosopher and mathematician Condorcet stated, in 1792, that education
should be a continuous activity for people of all ages, heralding an “egalitarian” approach where for the first time in French history, the links between learning, work, social justice and technological progress was explicitly put forward as an objective of educational policy (Dif, 2000:24, quoted in Pouget and Osborne, 2004:45).

The contemporary discourse of lifelong learning – which includes flexible forms of educational provision, credit frameworks, work based learning – was highly influenced by the White Paper on Education and Learning - Teaching and Learning towards the Learning Society (European Commission 1995), which proposed the Personal Skills Card as a possible solution to the question of accreditation of prior and non-formal learning (Bjornavold, 1997:11). This has helped to clarify the issue and supports the process at national and regional level. European programmes like Leonardo da Vinci and ADAPT have also contributed in a practical sense by supporting methodological and institutional experimentation (op cit.:28). The European Commission’s Memorandum of Lifelong Learning (European Commission, 2000:3) puts forward lifelong learning as a “guiding principle” underpinning any continuing provision of education and training.

Moreover, the Memorandum stresses the role of APEL, not only in providing social recognition and value to learning and competences acquired in non-formal and informal settings, but also in improving self-esteem, through the process of self-recognition (Pouget and Osborne, 2004:47).

One of the outcomes of the wider consultation launched by this Memorandum has been to highlight the importance of “valuing learning”, be it in formal, non-formal or informal settings (European Commission, 2001:15), as stated in the Communication, Making a European Area of Life Long Learning a Reality, published following the Memorandum consultation.

These concerns lead to the following conclusions regarding the need for new systems of “recognition and accreditation of non-formal and informal learning”:

A comprehensive new approach to valuing learning is needed to build bridges between different learning contexts and learning forms, and to facilitate Access to individual pathways of learning. All contributions to the consultation stressed that progress in this field, particularly in relation to non-formal and informal learning would be a crucial step towards a European area of lifelong learning… (European Commission, 2001:15).

The character of non-formal and informal learning

Identification, assessment and recognition of non-formal and informal learning require methodologies that have to be practical, simple and inexpensive. They have to be based on a clear notion of how technical, institutional and political responsibilities are to be shared, to capture the learning that takes place outside formal education and training institutions, in order to be able to deliver what they promise, the quality of ‘measurement’ being a crucial aspect (Bjornavold, 2001: 216).

To develop such methodologies, it is essential to understand the nature of learning. Learning is contextual in its character. Lave and Wenger (1991) pointed out that, when learning takes place in social and material settings, knowledge and competences are the result of participation in ‘communities of practice’. Viewed in this way learning cannot be reduced to the passive reception of “pieces of knowledge”, in the internalisation of knowledge whether ‘discovered’, ‘transmitted’ or ‘experienced’ in interaction with others. Learning cannot be seen exclusively as something happening inside the brains of people. Lave and Wenger (op cit.) see learning from an alternative approach, in a perspective that involves not only “relational” (the role of the individual within a social group) but also the “negotiated”, the “concerned” and the “engaged” nature of learning (the communicative character of learning) (Bjornavold, 2001:216).
In these circumstances, learning is not only reproduction but also reformulation and renewal of knowledge and competences (Engeström, 1993, 1994, quoted in Bjornavold, 1997: 24). The learner, facing a new situation or an unexpected problem, cannot just rely on his or her basic competences, but must try to find new solutions and develop alternative practices. In these circumstances, assessment methodologies should identify a number of elements that reflect the expansive learning model explained by Engeström (Bjornavold, 2001: 216), and which reflects the “ability to learn”, which include among others: the ability to question facts; the ability to cooperate and find possible solutions; the ability to formulate and implement solutions. In such circumstances, it becomes evident that in any methodology to “capture and assess” non-formal learning, inclusion of the element “Learning how to learn” is crucial.

Secondly, the results of the learning processes – competences – are partly tacit in their character (Polanyi, 1967). This means that it is difficult to verbalise and delimit single steps or rules intrinsic to a certain competence (i.e. how does a carpenter use a tool? how to ride a bicycle?). In some cases, people are not aware of possessing such tacit competences. However, this is an element which is highly relevant when assessing “non-formal learning” and has to be reflected in the models and methodologies implemented for identification and validation of learning acquired in non formal or informal contexts. An important part of what we include in the term of non-formal learning belongs to this area of implicit know-how. The important issue is whether it is possible to develop methodologies that are able to capture the contextually specific and partly tacit competences. Summing up, the importance of APEL is that it recognises informal learning, i.e. new forms of knowledge other than academic, obtained in whatever place – at work, in voluntary organisations, in leisure activities, in society and family, in life…

Overview of policies and practices in EU Member countries on recognition and validation of formal, non-formal and informal learning

In recent years, much effort has been concentrated, at the European level, into developing methodologies and systems for the validation of non-formal and informal learning. These efforts can be interpreted as an effort to open up formal training and education systems to society in general and to working life in particular.

European countries can be clustered around three (sometimes) overlapping stages (Colardyn and Bjornavold, 2004: 72; Bjornavold: 2004)

- Experimentation and uncertainty - These countries are still at an experimental stage (to a varying extent), in accepting the need for initiatives in this field. They are still uncertain as to how much these initiatives will influence existing structures and systems on a permanent basis. Belgium⁴, Denmark⁵, Italy and Sweden are currently at this stage. Important changes taking place in these countries, point towards more active policies in this field. It is also the case for Austria⁶ and

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⁴ The issue of validation of non-formal and informal learning is now well-established on the public policy agenda in Belgium, where initiatives have been developed in recent years in the context of a wider drive to improve access to Lifelong Learning (ECOTEC, 2005: 34).

⁵ There has been an increasing focus on learning and developing skills outside the formal education system in this country (ECOTEC, 2005: 79).

⁶ The methodologies for validating non-formal and informal learning in Austria are still at an early stage of development. One of the reasons for this situation is the Austrian dual system of vocational training, which provides a mix of in-company and school-based training, and is sometimes seen as reducing the need for alternative recognition methods as it reaches most young people and provides a sound educational basis. The social partners and trade bodies are closely involved in setting training standards in the dual system. This makes them reluctant to accept methods for validating non-formal and informal learning as these could infringe on their competencies and potentially make the dual system of vocational training redundant. Finally, Austrian business culture places great emphasis on degree certificates and diplomas issued by recognised providers as proof of professional competence and skills (ECOTEC, 2005:24).
Germany, where the legal and institutional frameworks were, for a long time, considered sufficient\(^7\).

- **National systems emerge.** These are countries moving towards ‘national systems’ building on a defined legal and institutional basis. This approach is illustrated by France\(^8\), Norway, Portugal\(^9\), Spain and the Netherlands.

- **Permanent systems already exist.** These are countries where permanent systems have been introduced; they include Finland\(^10\) and the United Kingdom. However, this does not mean that further policy development is ruled out. In these countries there is a wide and continuing debate on future developments. In Finland, the debate is related to the improvement of the existing competence based system. In the United-Kingdom, it is related to the role played by Accreditation of Prior Learning (APL) within the national education and training system.

This simplified picture illustrates the **dynamic character** of policies on validation of non-formal and informal learning. Political frameworks as well as institutional structures have yet to be permanently settled and the overall situation can still be described as one of ‘trial and error’ (Bjornavold, 2004). Experiences from different European countries illustrate that there is no single methodology or approach able to meet the diverse needs at national, regional or local levels. The most important function of these methodologies and approaches is to establish bridges and assist individuals to combine learning outcomes from different contexts, institutional levels and countries, thus facilitating both lifelong and lifewide learning perspectives (Bjornavold and Cheallaigh 2003, paragraph 3.2 before box 4)

References


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\(^7\) Germany and Austria are two of the European countries where the learning and training based on the prior professional experience has been progressively integrated in the learning and training system. The success of this situation, together with the priority given to the initial education, has prevented those countries from opening themselves up completely to the recognition, validation and certification of competences (Bjornavold, 2003:19).

\(^8\) In the case of France, there is already an opening up of the national education and training system to the competences acquired outside of the formal education system. A contribution has been given by the Chambers of Commerce and Industry as they have been able to establish “independent procedures and rules to assess outside the formal training and education system” (Bjornavold, 2003:21).

\(^9\) Portugal is putting forward measures to validate competences of its labour force, obtained through means other than formal education and training. These efforts are due to the concern of those in the Portuguese public sector with responsibilities for education and training, employment and the labour market. One of the aims of the validation of non-formal and informal competences is to combat the problem of the low levels of formal skills within the labour force (ECOTEC, 2005: 227).

\(^10\) Finland has permanent systems and comprehensive national policies in place for validating informal and non-formal learning. The public and voluntary sectors in Finland have had a number of validation initiatives in place for over a decade; the private sector, together with social partners, are all integrated into the planning and development work of those initiatives. The implementation of competence-based qualifications, the National Certificate of Language Proficiency and the Computer Driving Licence are prime examples of the ways in which competence and skills acquired outside of formal education system are recognised in Finland (ECOTEC, 2005:97).


European Commission (2004). Common European principles for validation of non-formal and


2. The Constructivist Paradigm

2a The ‘Constructivist Discourse’ and its implications for learning and teaching in Higher Education

The application of constructivist basic assumptions to learning and teaching processes

Since the end of the 1970s and the beginning of the 1980s an epistemology has gained importance which breaks with the generally assumed dichotomy between the perceiving subject and the perceived object. Instead, it emphasises the active subject-related process of knowledge construction: constructivism. Constructivism embodies both moderate and more radical branches. What we believe to perceive as reality is – according to constructivism – no absolute reality which exists beyond our experience, but our own construction.

Constructivism is not a homogenous theory, but is rather an interdisciplinary discourse. Its most prominent spokesmen are the Chilean neurobiologists Humberto Maturana und Francisco Varela (1987), Gerhard Roth (1996, 1997), the cybernetic expert and physicist Heinz von Foerster (1997), the philosopher and psychologist Ernst von Glasersfeld (1984, 1998, 2001) as well as the psychologist and family therapist Paul Watzlawick (1984), to mention just a few protagonists. Although different – in some respects even divergent – views are subsumed under the label ‘constructivism’, some basic assumptions can be identified which are held by most of the approaches.

Basic assumptions of constructivist approaches

- Non-perceptibility of reality:
  The external reality is according to constructivism inaccessible for us; only experiential reality is accessible. In this sense, the brain is seen as an operationally closed, autopoietic system, i.e. an autonomous system which refers only to itself and not to an external world. Even if it interacts with the environment, it creates its cognitive reality autonomously (see Siebert 2002, pp. 27).

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11 This idea reflects a realistic position according to which the reality exists separately and independently of the knower. In this objectivist tradition perception, knowledge and learning are seen as an internalization of an ontological reality. See for example von Glasersfeld in: http://www.umass.edu/sri/vonGlasersfeld/onlinePapers/html/082.html (March 2005), pp. 4 ff.
12 Contrary to the objectivist tradition constructivists argue that reality is not discovered but is rather constructed instinctively and continuously, i.e. without the knower being aware of his act of construction. See for example Watzlawick 1998, pp. 9.
13 Strictly speaking you cannot talk about constructivism as such, since the different branches establish specific priorities. In the presentation below we will refer to those approaches which can be assigned to the more ‘radical’ variation, even if we will apply the notion constructivism for the sake of simplicity.
14 Both natural-scientific subjects and humanities as well as socio-scientific subjects have gone through a constructivist turn during the last decades. The different subjects provide from their specific starting points contributions to a new view on perception, cognition and learning. For extensive treatment see Schmidt 1996, pp. 11-89.
15 See for example the anthology of Siegfried J. Schmidt (1996) which contains introductions to key concepts of the above-mentioned spokesmen.
16 Operationally closed is not meant in the sense that it is isolated from the environment. It only means that a direct influence from the ‘outside’ is impossible.
17 Maturana und Varela coined the term autopoietic organization as a feature of the living system. This kind of organization acts circular, self-referential and operationally closed. Autopoiesis (greek: autos = self; poiein = creation, production) means that living systems create themselves constantly and define their boundaries on their own. See Maturana/Varela 1987, pp. 39 ff.
• **Construction of reality vs. representation or image of reality:**
  Thus, we do not perceive the reality as such, rather construct unconsciously and continuously subjective realities. This does not mean that the existence of an absolute reality is denied; however, constructivists doubt that it can be perceived ‘objectively’.

  Radical constructivism, thus, is *radical* because it breaks with convention and develops a theory of knowledge in which knowledge does not reflect an "objective" ontological reality, but exclusively an ordering and organization of a world constituted by our experience.’ (von Glasersfeld (March 2005, pp11 [http://www.umass.edu/srrri/vonGlasersfeld/onlinePapers/html/082.html](http://www.umass.edu/srrri/vonGlasersfeld/onlinePapers/html/082.html))

• **Biographical/personal dimension:**
  Constructions of reality are affected by life experience, requirements and expectations, namely the individual structure. It determines what we are able to observe, how we interpret the observed and finally how we deal with it (Alheit & Dausien 2000). Or to put it in another way: information from the environment is perceived and transformed self-referential, i.e. on the basis of the internal structure (see Maturana/Varela 1987, pp. 27, 84 ff).

• **Social dimension:**
  Moreover, the specific life experience of the individual reflects its historical, social, cultural and personal background. That is to say, the way we are constructing reality depends considerably on the socialization process. In the course of this process, we learn what reality is according to our reference group and how it should be constructed: We learn binding points of views, truths, values, social rules, etc. In this way we participate in cultural patterns of interpretation (see Schmidt 1998, pp. 69).

  • Both cultural patterns of interpretation and individual experience form the horizon of interpretation. Thus, the human brain operates self-directed; yet it acts not arbitrarily or independent of the external world. Individual constructions of reality correspond to and are constraint by the surrounding society and its predominant patterns of interpretation.

• **Creation of binding social reality:**
  Social realities which are binding (regarded as truth) are created via communication; at the same time communication enables the individual to reveal different constructions of reality through the experience of otherness. Thus, communication represents both a connecting link between individual realities and a corrective.

• **Yardstick of cognition:**
  There is a paradigm shift from objectivity to the so-called viability. Given the assumption that reality is created by an observer, these constructions don’t have to be true or to match an ontological reality ‘one to one’, however, they have to prove themselves in the face of different experiences.

• **Structural coupling:**
  The individual is – through her/his interactions – structurally coupled with the continuously changing environment, i.e. they affect each other mutually. Changes of the environment – so-called *perturbations* – just trigger the changes of the internal structure and vice versa.

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18 Viability means fitting or working, i.e. the successful fitting of a human being with relation to the conditions and objectives it is confronted with by the surrounding environment. See for more extensive treatment [http://www.umass.edu/srrri/vonGlasersfeld/onlinePapers/html/082.html](http://www.umass.edu/srrri/vonGlasersfeld/onlinePapers/html/082.html) (March 2005)

19 Maturana and Varela apply the term perturbation in the sense of indirect effect.
Whether they lead to modifications is determined by the individual logic of the system that differs from the logic of the stimulus (see Maturana/Varela 1987, pp. 27, 84 ff).

**Implications of constructivism for teaching and learning**

*Some perspectives of a constructivist didactic*

Constructivist thinking – genuinely stimulated by discourses on biology of cognition and cybernetics – has also been transferred into discourses on didactics. Given the assumptions outlined above, new perspectives on teaching and learning as well as didactic concepts have been derived: The emphasis has shifted from teaching and the lecturer to learning and the learner. Some of the protagonists of constructivism themselves have discussed the implications for education, namely Heinz von Foerster (1998) as well as Ernst von Glasersfeld, who – following Jean Piaget’s genetic epistemology – raised questions around learning and knowledge. Among the educators and psychologists who have written about constructivist approaches to education within the German discourse are for example Rolf Arnold (1997), Horst Siebert (1995, 1997) and Ortfried Schäffter (1995) (concerning the area of Higher Education) and with regard to general didactic questions Siebert (2002), Kersten Reich (1996, 1999, 2003) and Kösel (1999).

Given the concept of the active, self-referential nature of perception, learning and knowledge, proponents of constructivism break with the idea of instruction according to which teaching and learning bear a causal input-output relation. They claim that knowledge cannot be transferred directly from one person to another, but has to be actively built up by the individual. Thus, learning can rather be described as the realisation of inputs. Accordingly, the role of the lecturer has to be re-shaped: he is no longer seen as an instructor, but as a facilitator of the learning processes of his/her students instead.

In the following we focus on the theoretical foundation of a constructivist didactic according to Kersten Reich. He introduces the closely interrelated perspectives of construction, reconstruction and deconstruction as analytical categories to describe learning and as requirements which should be met in learning contexts (see Reich 2002, pp. 141 ff).

- **Perspective of construction**: „We are the inventors of our own realities.“ (Reich 1996, pp. 119).
  Learning takes place on the basis of previous experiences and individual relevance that have been organized, re-organized and modified throughout the learner’s biography in an individual way. This very structure determines – as mentioned above – if and how new experiences are interpreted and integrated (see Arnold & Siebert 1997, pp. 89f., 113). Furthermore, the interests, motivations and affections of the individual are relevant to its learning as well as the interactions learning is embedded in.
  
  Neubert (2003, pp. 14) states in this context: “Thus learning is not only a subjective endeavour, but a discursive process as well. As an activity, it involves interaction; as a construction, it relies on constructions within a community of learners; as a self-determined process, it presupposes communication and coordination within a social environment.”
  
  Within the framework of a constructivist didactic, it is not intended to convey ‘true’ knowledge, but rather to enable the learner to build up, modify and widen knowledge structures self-reliantly.

- **Perspective of reconstruction**: „We are the discoverers of our realities.“ (Reich 1996, pp. 119).
The perspective of reconstruction refers to the existence of previously established constructions and their acquisition. The learner can rely on various reality constructions that have been accomplished by others and are available as symbolic resources of a given society. Reconstruction in the learning process means to re-discover these very reality constructions, but in a way that constructions and reconstructions are related to one another. Reconstruction of symbolic resources should not be an unconsidered appropriation for its own sake, but a “construction through reconstruction” (Neubert, 2003, pp. 15), i.e. it should “become the starting point for the student’s own constructions” (ibid.). Thus, a perspective overemphasising reconstruction in the one-sided sense of reproduction is rejected.

The interplay of reconstruction and construction should be realized through the uncovering of the observer’s position, i.e. lecturers should not only present facts as such, but rather emphasise that in the course of time people have been approaching a given question or problem – according to their specific observer’s position – differently, maybe even controversial. In this context the motives for different approaches to problems are of interest (Reich in: Voss1999, pp. 84 ff).

- Perspective of deconstruction: „It could be different! We are the ‘uncoverer’ of our realities! “ (Reich 1996, pp. 121). Reality constructions are necessarily selective and incomplete versions that exclude systematically other possible perspectives. The notion of deconstruction emphasises that our taken-for-granted understandings of the world could be seen differently. Thus, it intends to “perturb the supposed certainty of our perspective” (Reich 1996, pp.140). Questions concerning omissions, simplifications, possible additions, alternative perspectives, etc. enable the learner to be-strange familiar points of views, if necessary to de-construct his/her constructions and to reorganize them critically. In this way the attitude of deconstruction serves as a means to trigger learning processes (see Neubert 2003, pp. 15f.).

**Practical implications**

Given the idea of education as a cycle of constructions, reconstructions and deconstructions, what does it mean concretely for teaching-learning-processes?

In the table below the three perspectives of construction, reconstruction and deconstruction are referred in more detail to different dimensions of learning-teaching-processes.

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20 The observer is a central notion within the constructivist discourse; it serves as a metaphor for the subject-relatedness of cognition. Maturana and Varela for example centre their “tree of knowledge” on the core aphorism: “Everything said is said by an observer.” (1987, pp. 32).
### Table: Perspectives and dimensions of a constructivist approach (Reich 2002, slightly modified)

<table>
<thead>
<tr>
<th>Perspectives</th>
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<th>Reconstruction</th>
<th>Deconstruction</th>
</tr>
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<tbody>
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<td></td>
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</tr>
<tr>
<td><strong>Learning</strong></td>
<td>Learning by doing: as much as possible</td>
<td>Reproduction of knowledge: as much as necessary</td>
<td>Recognizing half-life of knowledge</td>
</tr>
<tr>
<td><strong>Learning conditions</strong></td>
<td>Self-directed learning: highly self-reliant</td>
<td>Reconstructing “successful” learning processes</td>
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</tr>
<tr>
<td><strong>Role of the lecturer</strong></td>
<td>Moderator or facilitator who sees himself as a learner</td>
<td>“know-more” but no know-all</td>
<td>Recognizing the power of manipulation</td>
</tr>
<tr>
<td><strong>Role of the learner</strong></td>
<td>Free constructor</td>
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<td>Resistance / rejection is possible</td>
</tr>
<tr>
<td><strong>Planning and methods / media</strong></td>
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</tr>
<tr>
<td><strong>Participative teaching and learning</strong></td>
<td>Common invention of meaning and rules / procedures</td>
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</tr>
<tr>
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<td>Developing the learning process in teams as well as the institutional settings further</td>
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As an additional idea to the perspectives of construction, reconstruction and deconstruction, Reich – following theories of communication - emphasises the importance of the dialogic principle in the context of teaching and learning. Learning, though individual, is at the same time a social process. Furthermore, the level of interactions and relationships in learning is seen as more relevant than the level of contents. Thus, it is important to develop and cultivate a pedagogical relationship and a learning atmosphere that are characterized by mutual respect, by openness towards and appreciation of unusual deconstructive ideas and by participation. The creation of such a learning environment requires the active cooperation of lecturers and learners, and the existence of familiar procedures (see Werning 1998, pp. 41, Neubert, pp. 7 ff.).

Learning processes cannot follow a clearly defined structure or pathway, even if it has been tested in a different context and proved itself helpful. Neubert (2003, pp. 13) claims:
“There is no best and final observer perspective as to what we should learn and how we should learn together; we ultimately have to keep experimenting with the contents and relationships of learning.”

Taking account of the learning biographies, affective constitutions, relationships and viabilities of the learners – that determine the acquisition or rejection of contents – a variety of learning approaches (rather than a single approach) should be provided which enables the learners to select those, regarded as appropriate. Reich recommends the realization of the following principles: variety of methods, interdependency of methods, and participation of both the lecturer and the learner (see Werning 1998, pp. 41).

Methods that seem to be appropriate for a constructivist-orientated teaching should translate three additional aspects into practice, namely self-reflection and self-directedness of the learners and the design of a challenging and thus stimulating learning environment.

Encouraging reflection on ones learning:
Lecturers should encourage students to reflect on and talk about their individual learning, e.g. their motivations, expectations, barriers or resistance to learning, catalysts that facilitate their learning, their improvements, etc. By exploring, questioning and assessing continuously their strategies and attitudes and how these help them to or prevent them from gaining a further understanding, students obtain a comprehension of their own observer position and its premises.

At this point a method called portfolio shall be introduced briefly as an example. Portfolio means a systematic collection of students’ work – including both drafts or intermediate stages and final products – by the students within a previously defined period of time. This collection could include different media, such as papers, web-sites, videos, etc. It follows criteria which have been developed commonly by lecturers and students. The students are expected, not only to compile their papers or whatever, but to analyse their learning. By focussing on improvements and accomplishments, portfolios serve as a means for critical self-reflection and raise confidence and personal responsibility for the own learning process (see Reich 2003).

Encouraging self-directedness:
As described above, learners should be actively involved in their learning, i.e. they should be encouraged to question taken-for-granted beliefs, experiment with ideas, refer and pool different concepts, connect them to their own experience, draw conclusions and share and develop knowledge with others.

One didactic setting that could prompt such learning processes is for instance the ‘research workshop’ (“Forschungs-Werkstatt”) which serves to translate qualitative research methods into practice. The students work in heterogeneous groups; heterogeneous in the sense that the participants come from different subject-related backgrounds and are to a different extent experienced in this matter (experienced researchers and newcomers). They either deal with a problem co-operatively – in which the aims and objectives of their learning as well as the methods are negotiated commonly – or exchange experiences of current projects. This process is guided by a lecturer who serves as a supervisor. The practical essentials are – besides the common interpretation of material – the co-operative reflections on and critical discussions of theory and practice which involves the students actively. The research workshop as a didactic framework centres on the assumption that all the participants are learning and training skills through the specific act of co-operative research practice. Here, the multiple perspectives, experiences and skills brought in by the participants are an integral part, since the clash of different views holds the potential of innovation. Thus, the experience of difference serves as a means of enriching the learning process (Paulußen, 2004; Schütze 200, pp. 205 ff).
Development and cultivation of a stimulating learning environment:
Learning environment refers to the overall climate and culture of classrooms. This includes on the one hand communicative patterns allowing co-operative learning from and with each other (see above), and on the other hand it refers to the organization of the physical space. Some constructivists recommend – in relation to teaching in school – an orientation towards ‘open spaces’ through the abolition of traditional classrooms\(^{21}\) or through leaving the familiar environment on project days (see Reich 1998, S.45).

The notion of a stimulating learning environment refers to two dialectical principles: perturbation or challenge on the one hand and reconciliation on the other hand, i.e. learning environments should provide experiences that do not fit completely into the familiar pathways of construction and thus “cannot be easily integrated” (Neubert/Reich cited according to Neubert 2003, pp. 10). In this way they move the learner to modify his/her reality constructions (reframing). But at the same time the experience should be sufficiently close or familiar to engage him/her; otherwise he/she could possibly discard the new experience as irrelevant or alien. In sum, a challenging learning environment should provide stimuli which the learners are willing and able to take up (see Arnold/Siebert 1997, pp. 89f., 113; Neubert 2003, pp. 10f.).

Within the constructivist didactic, methods cannot be seen as strict guidelines or techniques that lead in all situations to the sought success. On the contrary, it is important to take account of the participative and democratic demands of both the lecturers and the learners. The learning-teaching-process as a shared and co-operative endeavour should be organized due to the resources, aims and needs of all the persons involved. (see Reich, 2003).

In this context, a specific competence concerning the familiarity with different methods and their application is important on the part of the lecturers, just as the willingness to develop and experiment with new techniques which are geared individually to the participants.

References


\(^{21}\) In a school project in Bielefeld for example, physical space is organized as follows: Instead of classrooms there is a single open-plan that is differentiated by different levels, staircases, furniture, etc. and shows only a few walls.


2b Expansive learning

Basic assumptions and theoretical starting points
The basis of the expansive learning theory lies in cultural-historical activity theory. The theory emphasises object orientation, the notion of the object of activity is most central in the activity theory. Vygotsky was among the first to show, through empirical studies, that development and learning are social in nature, happening in and through collaboration as well as by means of signs and tools. Vygotsky (1978) defined the *zone of proximal development* as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. The zone referred to the potential for development in a child’s maturation process: functions that will mature tomorrow but are currently in an embryonic state. The concept of the ZPD has become one of the cornerstones of activity theory, extending from child development and peer interaction to collaborative activities of adults.

Engeström (1987) pointed out that the notion of the ZPD is valid, not only regarding individual development, but also with regard to new historical forms of societal activity that can be collectively generated as a solution to contradictions manifesting in everyday actions.

The activity-theoretical approach makes a distinction between collective *activity*, individual *actions* and routinized *operations*. In that framework, routines and knowledge repositories would belong to operations representing the lowest level of learning. The motives driving people to carry out operations cannot be grasped without making reference to the actions and the collective activity which operations are meant to sustain and reproduce. There are constant transitions between activity, actions and operations. As actions are routinized, they become operations, and, as new forms of activity break through, operations are exposed to reflection, and turned into actions constructing the emerging activity.

According to the expansive learning theory learning is related to reflecting the motive of a given concrete activity to the motive of a wider activity. To gain mastery of the whole work activity means to move from actions to activity. The expansive form of this transition implies that the actions themselves are objectively transformed. The subjects must become aware of the contradictory nature of their present work activity and relate it to a future form of work activity that realizes a broader more general life relation that includes the given concrete activity meaning that the given form of work is not eliminated or replaced at once.

Learning is seen as a movement between individual actions and the collective activity. There are two requirements for learning: movement between actions and activity and encountering the internal contradictions of the learning tasks. Engeström gives two keys for learning: reflection and objective transformation of actions. Objects of activities can grasp the process of learning as actual or potential change in action. Actions cannot be understood without activities that give them context.

Expansive learning circle is a representation of a learning process that is long-lasting and developmental and contains both internalization and externalization. The direction of development needs to be decided and negotiated locally. The concept of the zone of proximal development is reinterpreted and used to describe open but not arbitrary field of uncertainty and intensive search while the zone of proximal development is the distance between present actions and historically new form of activity that can be collectively generated as a solution to contradictions manifested in everyday actions.

Expansion always includes social and material dimensions. Since expansion is a qualitative
transformation and reorganization of an object, expansive learning does not only mean awareness of available choices but also construction or reformulation of new choices, activities or practices.

Figure 1. Expansive learning circle.

CONTRACTIONS:
Primary contradiction: Inner conflict between use value and exchange value within each element of activity
Secondary contradiction: appearing between the elements of activity (e.g. between new object and old tools of activity)
Tertiary contradiction: appearing between a culturally more advanced form of the activity in question and the dominant form of activity
Quaternary contradiction: emerging between the central activity and its neighboring activity systems in their interaction

TENSIONS are empirical manifestations of contradictions, marked with lightning-shaped arrow

(Engeström, 1987; 1999)
Practical implications of expansive learning

Development processes based on the expansive learning theory start from discussions and negotiations with participants and their reality as well as from the needs for change. The starting point is to reshape the concrete work and practices in the context of everyday life and work. The process of development is seen as a research project and the researchers will be the same persons as workers/practitioners. In workplace interventions the framework engages practitioners in an expansive reforging of the objects of their work.

The main viewpoints or the level of analysis for development processes are the object of the work, the subject and tools. It has been suggested that the minimum unit of analysis of activity and learning would consist of two activity systems orienting towards a partially shared object. Only when specific learning actions and operations are situated in the emerging activity systems can we gain an understanding of the broader context or level. This means that the identification of levels themselves becomes a research task; levels are not predetermined or given. Neither are they causal in nature, but interrelated in a tension-laden way, as zones for learning and boundary crossing.

Figure 2. The unit of analysis in studies of collaboration and learning

Networks and networking presents a collaborative challenge for learning in different settings.

References


3. **CRITICAL LEARNING**

### Critical theory

In today’s Information Society, education has become an essential tool for guaranteeing access to the labour market and due to the dialogic turn more people are deciding to gain access to some kind of education and, or training (Flecha et al. 2003). The dialogic society implies more reflection concerning personal and collective projects, and it is in this context that higher education represents a real possibility for people who are in a position to start studying. This historic moment also demands the updating of people's skills and knowledge. The process of social dualisation, in these fields is becoming more acute; this means that the higher the educational levels, the greater are the possibilities for labour and social success, the lower the educational levels are only exclusion is generated. In this context, different post-modern trends centred on education have argued that education / training is a source of inequality, in this way allowing for knowledge to be frequently monopolised by experts. In response to social dualisation, critical pedagogy, which starts from a transformative concept of education and the basis that it is capable of helping to overcome barriers that generate inequalities, revises the concept of education. Some critical authors like Freire, Willis and Bernstein have highlighted the relevance of dialogue and intersubjectivity in education and how this issue can contribute to social transformation. Through this revision, the critical pedagogical perspective moves beyond concepts that understand education only as a tool for reproducing social inequalities, demonstrating that it can be a tool for change, emphasising the capacity and transformative role of the subject.

The Frankfurt School is the first trend of knowledge that thoroughly elaborates a critical theory on the social processes from the analysis of modernity and the creation of a philosophy of emancipation through a dialectical process. Their analysis is first contextualised in the industrial society and later in post-industrial society. One of their most notable critiques concerns the processes of inequality and alienation provoked by the rise of the consumption society and the capitalist model (Aubert et al., 2004). The most significant member of the Frankfurt School is the philosopher Jürgen Habermas, whose *Theory of Communicative Action* has become a work of great significance in the world of social sciences. The book expresses a dual theory that views social reality from the analysis of the relationship between life world and systems (Habermas, 1987). From this perspective, individuals capable of language and action, have an important role because they are considered to be active agents of transformation.

Other contemporary authors in the field of pedagogy and the social sciences have developed critical theories on educational practice placing dialogue as their main focus. Freire (1997) is one of the main advocates of this perspective. His perception of education has as its basic principle the participation of the community. According to Freire, it is inappropriate to reduce education to only professional and scientific training; he contends that hope is also necessary: *Education, in truth, needs technical, scientific and professional training as well as dreams and utopia* (Freire, 1997: 34). In his theory of dialogic action, educational leadership is not held by the dominant elite nor by the traditionally dominated majority, but through intersubjectivity in a *teaching-learning* relationship of educational equality. Freire argues that empowering all educational agents is one of the priorities that progressive pedagogy must consider.

In the same vain, Flecha (1999) considers it crucial for everyone to have access to education, and argues that cultural differences must not be barriers to this aim. Flecha refers to the concept of the *equality of differences* (Flecha, 1999; 2000), defined as the right of all people to be different and, at the same time, have access to an education that takes these differences into account.

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22 [La educación, en verdad, necesita tanto de formación técnica, científica y profesional como de sueños y de utopía] (Authors’ translation)
consideration. In this way, Flecha separates himself from the post-modern perspectives of education and ensures that a good way of preventing inequality is the redistribution of material and human resources. This author has developed a dialogic concept of education that places dialogue among teachers, students, families and community as a key element to overcoming inequalities. He contributes theoretical and practical alternatives for moving beyond inequalities, one of which is the concept of dialogic learning and learning communities for all the participants that are involved in education.

Giroux (1997, 1999, 2001) also emphasises the need for critical education through and from a “public university”. A University education that is attainable for everybody and that includes civic participation, democratic struggle, freedom, justice and equality as key elements for them to run. He emphasises the importance of teachers as public intellectuals, promoters of the aforementioned principles so that students can be taught not only to be consumers but also to be critical individuals.

The construction of a democratic curriculum, expounded by Apple and Beane (1997) is another area in which critical pedagogy is deeply engaged. Thus, knowledge is built jointly because it starts from the interests and needs of all the people involved. It is a construction process based on solidarity, which includes the voices of everyone and aims to promote quality education. In this way, people learn the importance of being critical and to act in the presence of situations of injustice: *In a democratic curriculum, young people learn to be critical interpreters of their society.*

Also relevant is the contribution of Chomsky (1988) about the universal linguistic capacity of everyone, overcoming elitist positions of differences between capacities of persons from different social class, or cultures, etc. In the same line, Bernstein (1990) contributed the theoretical position of considering elaborated linguistic codes different from other kinds of linguistic codes, not superior or inferior, just different. It is important to include the recognition of these different codes in the society, at the same time that everyone can master different languages codes in order to be freer in the use of language. Universal critical capacity is also a relevant contribution, taking account that anyone has the capacity to think about any issue critically. Depending on the model education will promote or not a major critical reflection.

Linking feminism struggled in women education with critical approaches in education. Critical pedagogy has traditionally studied social inequalities and thus among others inequalities suffered by women:
- Consciousness,
- Make visible their voices,
- Equality of differences,
- Creation of meaning.

**Feminist approaches to adult learning**

Historically there has been a strong link between feminism, the women’s movement and adult education. Women’s studies or women’s education, particularly in the UK, emerged in response to the domination of men in adult and continuing education as men were overwhelmingly in positions of authority with their male stream voices and ideas being heard. In 1983 Jane Thompson published an article entitled The Personal Implications of Subordination in her book, ‘Learning Liberation: Women’s Responses to Men’s Education. She urged women working in adult and continuing education, in the article, to take up a feminist stance and made a link between the purposes of adult education and women’s struggles in the women’s movement. Thompson and others were rooted within the radical adult education tradition and the literature

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23 [En un currículum democrático, los jóvenes aprenden a ser intérpretes críticos de su sociedad] Authors’ translation.
on women’s education called for the need for women to understand their experiences through consciousness raising in order to transform their lives through social change. This approach relates education to political action. Women’s studies courses, for women only and aimed largely at working class women, expanded through the 1980s. These were community based approaches to working with women and looking at women’s issues. Jane Thompson with her students recorded their experiences of a Women’s Education Centre in a disadvantaged area of Southampton (resourced by the University of Southampton) in an article called ‘Doing it for Ourselves’ by the Taking Liberties Collective (1989). Marj Mayo is another UK adult educator who was writing from a similar perspective to Thompson from the 1980s onwards on women, adult education and feminism. During these period women’s studies, and later, gender studies, were being established as fields of study in universities.

Since the 1980s there has been an increasing focus on women and their experiences of learning in adult education research which have highlighted the issues of struggling to study because of juggling roles, the impact of private lives on studying, and how studying can raise women’s consciousness and empower them to change their lives and identity (Edwards 1993, Benn et al 1998, Merrill, 1999). The interest in women and adult education was also reflected by the increasing number of UK and European conference papers in this field and conferences devoted to gender issues.

In 1993 an ESREA Gender Network was set up by Ollagnier, Bron and Merrill and a book was published – Challenging Gender in Lifelong Learning, 2003, edited by Ollagnier and Dybbroe – of papers relating to three network conferences.

Feminist work in adult education was also developed by CREA at the University of Barcelona as work was and is undertaken with working class women, Romany women and women from minority ethnic groups. Lidia Puigvert has developed the concept of the ‘other women’ to highlight how academic feminism today has become highly abstract and theoretical and as a result fails to take account of the everyday struggles of working class and marginal groups of women (Puigvert, 2000, Las Otres Mujeres). In critiquing postmodernist feminism Puigvert has developed the idea of dialogical feminism.

Jean Barr (1999) in her book ‘Liberating Knowledge: research, feminism and adult education’ challenges traditional knowledge and research methodology in adult education. and argues for the importance of taking into account knowledge from below. Anne Ryan’s book ‘Feminist Ways of Knowing’ places feminist subjectivity as central to the process of knowledge construction by drawing on feminist poststructuralism and psychodynamic thought.

Feminism now encompasses a range of perspectives such as poststructuralism, postmodernism, radical feminism, Marxist feminism and this diversity in approaches is also present in adult education. However, much of the work and literature has been concerned with giving voice to women learners and developing education for liberation rather than concern with abstract theoretical writing.

In relation to teaching, feminist adult educators have developed distinctive approaches. Women’s studies as mentioned above focused on raising awareness through looking at gender inequalities. Using the experiences of women’s lives and giving them a voice in the classroom was central to the teaching approach. Such courses were women only and taught by women teachers. Interaction in the classroom encouraged dialogue and equality between students and the teacher. The emphasis is on learning from each other.

**Socio-cultural approach**
An important contribution in the field of psychology is developed within the socio-cultural paradigm, whose main exponent and driving force is Lev Vygotsky. The social context is an essential pillar in this paradigm, and it does not understand cognitive development without the cultural and social components that have a bearing on people’s lives. Individual experiences, social class, and historical context, are all aspects that directly affect learning processes.

Vygotsky (1979) analyses and explains the relationship that exists between cognitive reference points and social context. He views transformations of the environment or within the environment as fundamental elements in the process of cognitive change. In the concept of the Zone of Proximal Development (ZPD), Vygotsky identifies the importance of dialogic action between the child and the adult as a way of developing the individual’s initial ability for problem solving. This concept also includes influencing the level of potential development and introduces cooperative problem solving as a way of learning based on interaction between people and the social environment where a problem needs to be solved.

Adapting the curriculum to the context is refuted by Vygotsky’s theory. In fact, saying that this is an application of his theory would be an inadequate interpretation of his work, apart from the fact that his contribution arises from a different goal. According to him, learning generates internal processes of cognitive development that function when the child is interacting with adults or with his or her peers (Vygotsky, 1979). This point makes reference to what Vygotsky also presented in his work, the idea that it is possible to transform contextual conditions and to subsequently reinforce learning through interaction (Elboj et al., 2002).

There are other authors who talk about the relevance of children's interactions with their peers and adult people. On the one hand, Jerome Bruner (1997) considers that promoting interaction and help between students is important in education centres, this implies that students work together and solve problems taking into account their own skills. Bruner calls this concept “a network of mutual expectations”. This approach does not imply that the role of the teacher disappears, it only signifies that he or she does not have the monopoly on the running of the class.

On the other hand, Barbara Rogoff (1994, 2003) argues that learning is a collective process in which all the educational community can participate. She makes this participation stand out and establishes the principle of guided participation. This concept refers to the intersubjectivity: student share the interests and the aims of their learning with their peers which instigates their improvement.

Scribner (1988) elaborated a key contribution: informal learning provides the same capacities as formal learning. These capacities take the form of different abilities in several contexts. This is a very important step in the recognition of the learning of non traditional students.

**Cooperative learning**

One of the educational approaches that also places importance on dialogue and interaction is cooperative learning (Johnson & R Johnson, 1994). This kind of learning is based on the joint work of students with the aim of carrying out a task, solving a problem or making a product. It is a pedagogical perspective with a social basis whose foundation is interpersonal communication. Learning is in fact produced through this educational approach.
Roger T. Johnson and David W. Johnson, both professors at the University of Minnesota, are directors of Cooperative Learning Centre\textsuperscript{24}, which is focused on cooperative learning. These authors argue that in this form of learning it is essential for students to start from a common objective. If the class is organised in a cooperative way, it has to be made up of small groups where mutual help exists between all the students and as a result individual learning is achieved (Johnson & R Johnson, 1994).

Johnson & R. Johnson (1994) also define some elements which characterise cooperative learning:

- **Existence of positive interdependence.** Positive interdependence is established when students are conscious that individual learning does not exist if there is not also collective learning.

- **Development of face-to-face interaction.** Reinforcement of the interaction between students with the aim of joining efforts, developing tasks and gathering the objectives stated by the group.

- **Individual responsibility for reaching collective objectives.** The commitment to reaching common objectives reinforces individual responsibility.

- **Frequent use of interpersonal and group abilities.** Included among the abilities used frequently are: 1) knowledge of the group, 2) precise communication, 3) collective effort, 4) constructive conflict resolution.

- **Revision of how the group is working to look for improvement.** It is important to revise the development of the group in order to clarify and improve the effectiveness of students for attaining the objectives of the group.

In light of this cooperative learning is important to point out the concept of Dialogical Action that was developed by Freire (1980). This approach highlights the relevance of intersubjectivity in educational processes, that is to say, how dialogue should centre on the interactions between teachers and students and also try to resolve the power claims that exist among them. The process of teaching and learning is based on equality, it is important to negate the idea that the person who teaches is in a higher position than the person who learns. For Freire this cooperative way of learning is the mechanism that allows the cultural transformation that dialogical action is based on.

**Dialogic Learning**

Dialogic learning collects the contributions of previous perspectives and introduces new contributions to improve the learning process. Dialogic learning is a concept that has been researched and developed by CREA (Flecha, 2000; Elboj et al., 2002), is based on the interpretation of different theoretical contributions in education and social sciences, and has received recognition at a national and international level\textsuperscript{25}.

This pedagogical approach begins with contributions from the daily life experiences of the participants, that is to say, from reflections established through daily practice in democratic

\textsuperscript{24} http://www.co-operation.org/

\textsuperscript{25} Verneda-Sant Martí School for Adults (http://www.edaverneda.org), Learning Communities (http://www.comunidadesdeaprendizaje.net), Federación de Asociaciones Culturales y Educativas de Personas Adultas, Federation of Cultural and Educational Associations (http://www.facepa.org).
spaces that are characterised by creating opportunities. Some authors who have already demonstrated the importance of these aspects (Habermas, 1987; Beck, Giddens & Lash, 1994; Freire, 1997) also point out the need to foster solidarity and dialogue in social and educational contexts. Habermas (1987) highlights the human ability of language and action and how these two elements make social transformation possible. In the field of training practice, Freire (1997) looks at dialogue in greater detail, as an essential tool in education as well as in daily life: *Dialogicity is an exigency of human nature and also a demand in favour of the democratic option of the educator*26 (Freire, 1997: 100).

Dialogic learning is a communicative concept of education; this means that subjects are learned through dialogue. The interactions between people is the key to learning, this implies an intersubjectivity that consists of a communicative relationship where the main aim is to reach an understanding without the imposition of any point of view. Habermas (1987) argues that in order for this understanding to be successful, the undertaking of a communicative act has to be accepted by the listener. In this sense, Mead (1962), one of the exponents of the symbolic interactionism, argues that the interrelation between the “I” and the “me” defines the identity of a person. Thanks to this interaction, people start to construct symbols that help them to construct their personality.

Dialogic learning is based on seven principles that define its practice. (Flecha, 2000; Elboj et al., 2002).

**Egalitarian dialogue**
Dialogue is egalitarian if the contributions of the people that establish a communicative process start from the validity of the arguments. This means that the individuals’ intentions are expressed without power claims and that intersubjectivity generates knowledge and science. In educational practice, egalitarian dialogue makes it possible for all the agents involved able to participate in the processes of dialogue related to the working / running of the institution and the training / education that is carried out there. One of the premises of these processes is to consider the value of all the contributions.

*In egalitarian dialogue both students and teachers learn, since they all construct interpretations based on the contributions made. Nothing can be taken as definitively concluded, as assertion will always be subject to future analysis* (Flecha, 2000: 2)

**Cultural intelligence**
Cultural intelligence is based on the interaction that is established between individuals and it is the instrument through which a mutual understanding is reached. This kind of intelligence in the area of learning is the basis of egalitarian dialogue because it involves the recognition of students’ cultural abilities –making prejudices disappear- through interpersonal communication. This is the way individual skills and cognitive mechanisms are reinforced and how greater progress in education is attained.

The contribution of students’ cultural knowledge is incorporated in the daily educational practice and it is reinforced thanks to the interactivity established in the classroom. The resulting intelligence includes three different themes: academic, practical and communicative.

**Transformation**
There are different pedagogical lines of thought that state that education is a tool for adaptation to the context. Dialogic learning is opposed to this statement and starts from the premise that

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26 [La dialogicidad es una exigencia de la naturaleza humana y también una reclamación a favor de la opción democrática del educador.] (Authors’ translation)
education is a source of transformation. Above all, it is based on the idea that everyone has the ability to change our environment thanks to education. In this way, dialogic learning turns to the principle that Freire argues in his work with respect to people’s transformative nature. The involvement of the whole community in an educational centre is a source of change. Through the dialogue established, new normative reference points can be generated and solidarity is increased.

**Equality of differences**
The existence of different identities cannot be perceived as a barrier in education if we start from the importance of an egalitarian education for everyone. The basis of this principle is egalitarian dialogue through which joint agreements are reached, always respecting cultural differences. Dialogic learning emphasises equality without a standardising objective in regard to culture.

**Creation of meaning**
Today’s context of the Information Society is characterised by several changes in values and socialisation processes. The disappearance of the patriarchal family model, changes in access to the labour market and other examples demonstrate that there is a loss of meaning in the course of people’s lives, as emphasised by Weber. Dialogic learning is based on the idea that education is a source of meaning creation, that is to say, that thanks to dialogic learning and participation in an educational centre it is possible to bring meaning to people’s lives.

**Instrumental dimension**
Education has to incorporate the learning of values as well as content. This is the case, even if, frequently and especially in disadvantaged contexts, the curriculum implemented has tended to be based on the affective domain, ignoring instrumental learning. Taking into account the competitiveness in current society it is necessary to reinforce the instrumental dimension of education because it is what is required in the field of labour.

> The ability to select and process information is the cognitive tool that best enables someone to function confidently in today’s society. Dialogue and reflection encourage the development of that ability (Flecha, 2000: 16)

**Solidarity**
Educational experiences that have egalitarian education as an objective must be based on solidarity; in fact it has to be an essential objective of the project and some of the principles upon which its daily practice is based. Some examples of this practice are high expectations and equality of results. A high expectation refers to the belief in students’ potential. Equality of results means that everyone can achieve the same academic levels, if they want to.

The theoretical approaches that have been presented here show different ways to consider learning. All of them emphasise the relevance of dialogue and reflection as a mechanism to reinforce knowledge and skills acquisition. Another characteristic of this kind of approach is the importance granted to interaction and co-operation. Both are basic aspects in order to assure quality education, that is, solidarity manifested between people and an increase of instrumental skills. All these elements are necessary to develop independent and reflexive learning; dialogic learning promotes at the same time the independent learning of everyone, sharing the knowledge every person acquires a major global vision of their own learning and perspective.

**A critical approach to learning for Widening Participation**
A critical approach to learning for widening participation in HE involves dialogic learning involving the seven defining principles identified above: egalitarian dialogue, cultural intelligence, transformation, equality of differences, creation of meaning instrumental
dimension and solidarity (Flecha 2000). A key factor here is to give proper ‘voice’ to non-traditional adult students. This means facilitating the appropriate pre-conditions and fostering sufficient space, infrastructure and confidence for new learners in HE to speak. In this process, the nature, use and ownership of language is a vital consideration for those who have been silenced in the past.

The above approach to critical dialogic learning, primarily within the institution, can also be complemented by more externally-focused wider critical approaches as universities across Europe embark on Widening Participation policies. As part of their move to widen participation, many HE institutions across Europe are becoming increasingly involved in a range of outward-looking learning: work-based learning, gaining experience of the real world through community service and mentoring initiatives, widening experience within the curriculum through action learning and group problem-solving approaches, developing transferable skills, fostering independent learning and trying to create reflective practitioners. This pedagogical engagement with vocational and experiential knowledge complements traditional academic concerns with disciplinary knowledge and it needs to have a critical dimension. In this context, Barnett makes the point that the wider world is looking for three things from its universities: a continuing flow of new stories; a critical interrogation, and even rebuttal, of existing ideas; and the development of human capacities to live both at ease and purposively amid such uncertainty (Barnett 2000).

What is particularly important for a critical approach to widening participation in HE is Barnett’s second dimension: “a critical interrogation, and even rebuttal, of existing ideas”. Such an approach can complement critical dialogue within the classroom by ensuring that students, staff and HE institutions embark on a genuine two-way relationship with the outside world, where students are encouraged not merely to be adaptive in their approach but to be critically, actively and creatively engaged with the world of work and industry and with wider cultural knowledge and experience.

This can be further complemented by a wider and more critical enhancement of the civic mission of universities. Many HE institutions across Europe are already involved in a range of local, regional and national developments, indeed some specifically linked to issues like social inclusion. However an important issue is the role and attitude of Higher Education within civil society. Here Byrne makes the point that:

> Social science has been, rightly, accused of adopting a posture of palms up to the rich for the receipt of funding and eyes down to the poor as part of the surveillance necessary for their control. Here the eyes are definitely looking up (Byrne, 1999: 5).

With this in mind, HE staff with a commitment to widening participation in its broadest form, need to ask themselves, as Becker puts it ‘whose side are we on’? For example, in research and regional projects, HE practitioners need not be implicated in the discourse of disadvantage and deficit that so often underpins wider social policy. Through developing collaborative and participatory research with community groups and social movements within civil society (and involving students where appropriate), HE practitioners and researchers can share institutional research expertise and resources in a way that gives credibility and greater legitimacy to groups fighting for a more powerful voice in the decision-making, that enhances social inclusion and gives a boost to widening participation in its broadest conception (see Coare and Johnston 2003: 213-221). In this way, HE can engage actively and critically with local issues and become a central part of the development and extension of a critical democracy and a pro-active force for a re-invigoration of ‘the public sphere’ (Habermas 1984, Welton 1997). Aspects of this wider critical university engagement might take the form of a reciprocal partnership with a range of partners in the region or community where critical learning can be directly connected to action in civil society; making a more explicit and deliberate contribution to economic, social and
cultural regeneration

**Widening Participation, critical learning and biographical approaches**

A focus on biography can also play a role in promoting a critical approach to Widening Participation in Higher Education. At one level, it emphasises the importance of identities as sources of meaning for actors, in this case, students or prospective students. Here, Manuel Castells (1998: 6-7) makes an important distinction between ‘role’ and ‘identity’, the former being primarily defined by norms structured by the institutions and organizations of society while the latter is much more an active and productive source of personal and collective meaning and action. This opens the way for Widening Participation students to begin consciously to construct their own educational careers rather than just fit in to HE and other norms they have traditionally been expected to adapt to. Indeed, this possibility accords with the approaches and findings of Archer and Leathwood in the UK who argue both that:

notions of identity impact upon the educational routes that working-class people may perceive to be accessible, worthwhile and desirable, and identity assumptions on the behalf of middle-class professionals may underpin the forms of advice and guidance made available to working-class groups. (Archer and Leathwood 2003: 175)

A growing number of academics (see Alheit and Dausein 2002, Antikainen et al 1996, Merrill 2001) are using biographical research methods to uncover the key influences on students’ learning careers and so make greater practical sense out of the pervasive influences of past (and future) barriers associated with, most notably, social class and gender. Such biographical studies and focuses on different constructions of identity can help to illuminate the common barriers that students face in accessing HE as well as the different strategies they adopt in coming to terms with it. For example, Penny Burke (2002), in her in-depth study of 23 Access students in the UK, makes use of student voices in identifying the intimidation felt by mature students returning to study, the different ways that it is possible to reconstruct the self through educational participation and the shifting and contradictory subjectivities that can develop through this process. In similar vein and drawing on the work of Goffman (1961) and Becker and Strauss (1970), Barbara Merrill (2001) in her reflections on work with mature students at Warwick University, identifies the idea of a ‘student career’ involving different stages of ‘learning the (HE) ropes’ and then ‘manipulating the system’ adjustment, while wider European work (TSER 2002), has used Bourdieu’s ideas on capital and *habitus* to construct different biographical profiles of mature students i.e. the patchwork type, the education climber, the integration type and the emancipation type.

The above work with mature students is complemented on a wider canvas by that of Archer and Leathwood who show that in the process of widening participation:

Many students, and various non-participants, took up and subverted notions of ‘changing identities’ by constructing particular fractured spaces within higher education, (such as particular institutions, courses, modes of study) as ‘working-class’ where people ‘like us’ can participate without damaging or changing valued working-class identities. (2003:178)

These studies not only highlight the different experiences of Widening Participation students but also point to different ways that this can be taken account of in developing pedagogical and organisational approaches that recognise, validate and interrogate the experience of learners in HE.
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Spanish
Chapter 4: Transformative theory of adults learning


The theory of transformative learning was developed by Jack Mezirow (1978, 1990, 1991, 2000, 2003), who stresses that making meaning is nothing else than making sense of an experience. We interpret it and we use the interpretation, i.e. we are making meaning to guide our decision making or action, and thus we learn. Usually learning can be of two kinds. There is a difference between learning to perform and learning to understand what adults communicate to each other. Following this logic, and based on thorough research, Mezirow distinguishes two types of learning: instrumental and communicative.

**Instrumental learning** means that an individual is occupied with task-oriented problems. For this kind of learning s/he needs different skills or techniques to exercise, for example by simply learning how to walk or in a more complicated way, learning how to build a spacecraft. For the latter, one needs complex and advanced mathematics, and engineering skills and abilities. It means to work with advanced theoretical, scientific and technical models and thinking to solve practical problems like building bridges, controlling and diagnosing illness, designing complex electronic products, investing economic assets, or being able to fill teeth (Mezirow, 2003). It is a process in which humans are involved in controlling and manipulating the environment (nature) or other people (culture, society). People simply use the cause-effect relationship between things to improve performance or exercising a more effective control over the milieu. In instrumental learning they employ the hypothetic-deductive approach while solving the problems, i.e. from a logical and rational presumption they attempt to collect facts (also by experimenting) to be able to test their own hypotheses. This is happening both in scientific as well as everyday life practice, and Mezirow is closely related to both Dewey (1938) and Mead (1938) in this matter.

**Communicative learning** means looking for cohesion in what others are saying or trying to get a balance between what we see and understand. In communicative learning the approach is interpretative, i.e. we want to understand what is meant through speech, writing, drama, art, or dance by others, as Mezirow (1991) puts it. In this type of learning adults seldom test hypotheses; rather they are searching, often intuitively, for metaphors and themes which could help them to find perspective in a meaning, a place for the unfamiliar. In this way interpretation is context and situation bound. Communicative learning includes values, ideals, feelings, moral decisions as well as abstract concepts like freedom, justice, love, work, autonomy, duties and democracy. To be able to understand these concepts humans need the common language, culture and pre-understanding to which they socialize when they are small. Socialisation continues in different groups, communities and situations. It is through this type of learning that one can get coherence which is necessary to be able to function as a human being in a social environment. This learning gives us opportunities to get an understanding and to be understood, to get a context and to function within it.

Adults’ learning of both an instrumental and communicative nature is characterised by a reflective way of thinking, according to Mezirow (1990). It is in the concept of reflection that he sees as a typical way of human thinking, and he is not alone in that (see e.g. Dewey 1938, Mead 1938, Giddens 1991). Through involvement in a discourse our prior judgements can be suspended, and through a critical review of our arguments and evidence, through justification and determination we are able to look at the phenomenon under discussion from a new perspective. In this way the meaning is challenged and acquires a new connotation, sometimes far away from the original meaning. Mezirow compares this personal learning dynamics with Kuhn's (1970) process of paradigm shift in science and finds a resemblance. Once again
learning is compared to scientific work, or solving everyday life problems to those in science. A reflective way of thinking includes two processes: critical reflection and critical self-reflection. Critical reflection is not involved in the how or the how-to of action but in the why issue. In other words it has to do with the reason for and consequences of what we do and believe in. However, critical reflection cannot be seen as an integrated part of an immediate action process, i.e. when it is habitual. It can only occur where there is a hiatus and we need to question again our own meaning perspectives, and change them if necessary. Critical reflection helps to reassess our meaning perspectives and even to transform them. This leads to the next stage i.e. an ability of critical self-reflection over presumptions. This includes judging over the methods that one applied to recognise the problems and over one’s own framework of reference. Reflection is most visible in the context in which problems have to be solved. It is about the premises we have chosen, i.e. epistemological, socio-cultural and psychological, and involves a critical review of distorted presuppositions. Through reflection the meaning schemata and our perspectives change or transform. Of course this involves time, as well as moving within different contexts and situations. Only then transformative learning can be possible.

In other words, to be in the process of perspective transformation means to become critically aware of two questions. Firstly, how our presuppositions have influenced our way of perceiving, understanding, and feeling about our world. And secondly, why has this happened. Such a change of perspective Mezirow (1990, p. 18) calls transformative learning. It involves a particular function of reflection: reassessing the presuppositions on which our beliefs are based on and acting on insights derived from the transformed meaning perspective that results from such reassessments. The process of transformative learning can be illustrated in the following model:

Figure 1. Model of Mezirow’s theory of transformative learning

<table>
<thead>
<tr>
<th>Two basic types of learning</th>
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</thead>
<tbody>
<tr>
<td>Communicative learning</td>
</tr>
<tr>
<td>Critical thinking/reflection</td>
</tr>
<tr>
<td>Critical self reflection</td>
</tr>
<tr>
<td>Instrumental learning</td>
</tr>
<tr>
<td>Transformative learning</td>
</tr>
</tbody>
</table>

Mezirow calls his theory an emerging transformation theory of adult learning in which the construing of meanings is of central importance. In addition he introduces the concept of meaning perspective and meaning order to describe how an individual's experiences together make a selective framework from which interpretation is possible. It is through this framework
that our perception or observation filters and new knowledge or experience get significance.\(^1\) Transformative learning may occur in the domains of either instrumental or communicative learning, and both ways of learning are common and significant for adults. Moreover they both can lead to transformation, i.e. change.

Brookfield (2000) attempted to develop Mezirow's theory and challenged his assumptions that learning connotes something which is desirable. Brookfield points to certain problems, mostly emotional, that transformation can lead to. The question of how to cope with emotional problems, while being 'out of track' or experiencing personal or social crises has been his contribution to understanding adults' learning processes. In other words Brookfield goes a step further in his theory, developing and improving Mezirow’s initial theory.

Humans' tendency to look for the balance, and avoid too much change as well as too much stability can be seen as a factor for initiating a change of perspective. Mezirow's contribution to understanding learning processes of adults is interesting. The emphasis on critical reflection and thinking, in particular, as well as on self-reflection can add to explanation of these processes. Although Mezirow’s theory can be generally applied, his empirical base consisted of mature women returning to higher education. Only later did his focus widen to include all mature students. His theory is well and widely used by adult educationists and educators not only in the USA and has been theoretically supported by Mead, Piaget, Habermas and Freire's writings.

**References**

\(^1\) In later publications, Mezirow uses 'habits of mind' and 'points of view', as new analytical concepts to understand the process of transformation.
5. Conclusion: From ‘Reflective Independent Learning’ to ‘Critical Autonomous Reflective Learning’ in Higher Education

As a result of this initial literature review and parallel developments within the project, the project team identified, first, a need to clarify its view of the key concepts emerging from the literature review, and second, that the term ‘Critical Autonomous Reflective Learning, was a more appropriate central concept than the original idea of ‘Reflective Independent Learning’.

5.1 Key concepts reviewed

The notion of Critical Autonomous Reflective Learning (CARL) consists of several concepts which need clarification. To do that, however, we first need to explore some other concepts. Their different combinations help us understand the complexity of CARL. We begin with the concepts: critical reflective thinking and reflexivity. Next we explain the relationship between: 1. independent/autonomous – dependent; 2. individual – social; 3. instrumental – discursive. Sometimes the relationship between these concepts is seen as dichotomous. Yet, we want to challenge this understanding. Finally, we concentrate on the last concept which is reflective biographical learning.

Critical reflective thinking and reflexivity

The role of higher education is to facilitate or assist students in the process of knowledge acquisition and knowledge making by developing critical reflection and self-reflection. Critical reflection means approaching scientific concepts and theories by using different points of departure, i.e. different perspectives. We engage in critical reflection when examining relationship between facts and ideas, when we test them and retest them against theories, when we look for alternative ways of understanding.

Critical reflection is not involved in the how or the how-to of action but in the why issue. In other words it has to do with the reason for and consequences of what we do and believe in. However, critical reflection cannot be seen as an integral part of an immediate action process. It can only occur where there is a hiatus and we need to question again our own understanding, and change it accordingly. Critical reflection helps to reassess and transform our understanding. On the other hand, the ability of critical self-reflection over presumptions, which might be called reflexivity, helps us evaluate our own attitude towards the chosen perspectives and our role when involved in a process of understanding and meaning. Once reflexivity starts it becomes a continuous and all-pervasive process over the self. According to Giddens (1991, p76) we regularly make such self-observations and ask ourselves questions such as: What is happening right now, what am I thinking, what am I doing and what am I feeling?

Reflection is most visible in the context in which problems have to be solved. It is about the premises we have chosen, i.e. epistemological, socio-cultural and psychological, and involves a critical review of distorted presuppositions. Through reflection, our perspectives change, of course this involves time, as well as moving within different contexts and situations.

Independent /autonomous – dependent

The most important aspect of critical reflective thinking is that the learner becomes an independent or autonomous person who can evaluate, estimate or make judgements about knowledge. In other words it concerns attitudes to facts and ideas as well as connections between them. But there is a problem with the concept independent. When we asked students
about the meaning of being independent they interpreted it as self-reliance and individual activity or positions. To them, independent means seeing themselves as unique and individual learners, not dependent on the group. At the same time, however, they feel part of a group and they experience the group as a resource for their learning in higher education. Thus we see independence as a double edged phenomenon with dependency as a part of it. In other words to be independent one is also partly dependent. There is no possibility to be totally independent as we are social individuals. Being an independent learner might mean being isolated from the community of other learners which is never the case while learning. In reality we are dependent on colleagues, friends, families, teachers, society, culture and time etc. and at the same time we are autonomous through seeking uniqueness, self-independence and integrity. We can never be free from this tension. We are both autonomous and dependent at the same time and we strive all the time to be the both. There might be, for example, ethical dilemmas regarding humankind or loyalty dilemmas regarding family or friends. Students can experience, for example, a dilemma when teachers expect them to become independent learners and yet demand that they reproduce knowledge on teachers’ own terms.

*Individual – social*

Individualism is a typical characteristic of the Western thinking which is prevalent today. Yet the notion of individualism is paradoxical. At the same time as being situated in a world filled with stimuli and new opportunities, we may often feel isolated and lonely. Although our lives are constructed around individuality and uniqueness, we also like to be like others. In addition, the world becomes smaller because of globalisation processes and all the advancements of new technology. Individualism itself is not only a historical idea well rooted in liberalism and modernity, but also a contemporary one, emerging from post-modern thinking where an individual is put on a pedestal and looked upon as having full potential.

Here we challenge the prevailing view in the contemporary higher education ideology that each learner, because of their uniqueness and individuality, learns differently, i.e. in a specific and unique way without being affected by others. We will, however go beyond a dichotomous approach to collective versus individual learning and discuss the idea that learning, even from the very beginning, is characteristically a social process, neither essentially individualistic nor collective.

In education, whether at a lower or higher level, individualism is stressed and demanded more than ever. This has to do with two factors: first, with the ideology of post-modernity or late modernity, and second, with the concept of learning taking precedence over the notion of education (Biesta, 2005). Even research is constructed in this way. Some educationists, who proceed from Piaget's cognitive psychology, also follow the line of individualism. At the same time there is a debate among social scientists which suggests going beyond the Cartesian split of mind and body, structure and subjectivity, individuality and society, and instead taking an inter-subjective approach.

Inter-subjectivity and the self are important concepts to point out, because sociality or intersubjectivity is not just an opposition to individuality. Unlike some educationists who use the pair of concepts individual versus collective, there is rather a combination or a close relationship between both, where inter-subjectivity is a condition and a framework for an individual to develop and change. Sociality does not lie beyond individuals or is made by particular individuals or even placed over an individual, but can be understood as conduct or action which is commonly coordinated. We can get support from Dewey (1938) for whom all human experience is ultimately social. What he means literally is that it involves contact and communication.
**Instrumental – discursive**

In some theories learning can be of two different kinds. They differentiate between learning to *perform* and learning to *understand* what adults communicate to each other. Following this logic, and based on thorough research, Mezirow distinguishes two types of learning: instrumental and communicative. Habermas in his work includes, among others, instrumental and discursive conduct which can of course be related to learning, if we see learning as a process of action.

*Instrumental learning* is about know-how about the world around us. We learn to manipulate and control reality, e.g. we learn to swim or to build complex instruments. This kind of learning is characteristic of both everyday life practices as well as formal learning it helps us to solve practical problems as well as scientific, technological problems. In instrumental learning they employ the hypothetic-deductive approach while solving the problems, i.e. from a logical and rational presumption, they attempt to collect facts (also by experimenting) to be able to test their own hypotheses. The purpose of this learning is being able to explain nature and to deal with it by adopting it to human conditions.

We are involved in communicative/discursive learning when we want to understand what is going on, and what others communicate to us. This kind of learning involves most of all language, but also other ways of expression like dance and art. Here intuition, feeling and emotions are important but also experience of meeting others and being involved in interaction. It is through interaction that meaning is discovered and adopted.

Students practise both types of learning and neither of them is better than the other. Moreover, they use these types of learning when they study different disciplines. It is not a matter of either... or. Rather, both types of learning are important for the acquisition and construction of knowledge. Adults’ learning, both instrumental and communicative, is characterised by a reflective way of thinking (Mezirow, 1990). The concept of reflection includes all the pairs of concepts and their dimensions that have been discussed so far, that is i.e. autonomous/dependent, individual/social and instrumental/discursive. Reflection is a typical way of human thinking (see e.g. Dewey 1938, Mead 1938, Giddens 1991).

**Reflective biographical learning**

There are many theories that try to comprehend adults learning. In the PRILHE project we further develop the concept of reflective biographical learning of non-traditional students in higher education. Reflective biographical learning is a wide and inclusive concept that, amongst others things, takes into account experiential learning theories and, by definition, understands learning as a continuous and lifelong process. Learning gives us prospects and opportunities in our lives. In this way learning becomes transitional and helps us to understand how to deal with new information and new knowledge. For Alheit (1995) there is no new knowledge other than transitional knowledge, i.e. depending on the life situation which is constantly changing. That is why knowledge can only be genuinely transitional if it is biographical knowledge. Biographical learning tends to describe learning as a process in which reflection and self-reflection is a crucial point of departure. Learning is seen not only as occurring in formal and non-formal settings but also taking place informally. In fact, the theory of biographical learning does not differentiate between these settings.

Biographical learning contributes to our knowledge about ourselves, our individuality and autonomy to act in a continuously changing world, as well as our social skills to act together with others for some better and higher societal causes. Moreover, it contributes to the reflection over one’s own life; and opens up the possibility to change, both as an individual and within a group, and be able to understand these transitions, while mediating and transferring one's roles
and identities (Bron, 2001). Personal, emotional and cognitive changes have deep consequences for the way we live our lives and deal with new challenges. Thus biographical learning is not only a cognitive development but very often combines emotions. According to Giddens (1991) the reflexivity of the self generates self-knowledge which reduces dependency in close relationship. Biographical learning thus seems to be needed to become a critical autonomous reflective learner.

References

5.2 Understanding Critical Autonomous Reflective Learning (CARL)
(see over)
5.2 Understanding Critical Autonomous Reflective Learning (CARL)

For the project team, the CARL concept ‘bridges’ three different aspects of the learning process:

- The **aspect of reflectivity** focuses on the learner him- or herself. A reflective learner is a person who is able to look from a certain distance at his/her own learning process, who knows how to learn, who has realised his/her own problems, his/her own limits, but also his/her own capacities. A reflective learner keeps a **meta-cognitive** perspective on his/her learning process.

- The **aspect of autonomy** refers to the fact that learning is always a biographical process. That means it is an interactive bargaining process between ‘self’ and ‘society’. The autonomous learner has built up a certain personal and social identity. This does include the awareness of the social and personal limits of learning processes. Thus, autonomous learning is far from being identical with ‘independent’ learning. The autonomous learner knows about his/her dependencies and creates a reflective distance from these limits.

- The **aspect of critical learning** concentrates on the social conditions of learning. The critical learner is extremely aware of the odds of learning conditions. He/she looks for power structures within learning settings. He/she is interested in changing obstacles for learning in general and for special target groups (such as women, ethnic minorities, people with working class backgrounds) in particular. The critical learner is skeptical about conventions and traditions. He/she is looking for learning as a basic human right and fighting against unquestioned privileges and strategies of exclusion.

**Critical autonomous reflective learning** thus links individual and social learning, seeing it as a transformative process which has the potential to change both individuals and social structures. This understanding seems to be particularly appropriate for the learning practices of non-traditional adult students in HE.