

Learning, Work and Competence Development

Knud Illeris

The Danish University of Education

Why learning in working life?

During the 1990s “learning in working life”, “workplace learning”, “work-based learning” and the like became popular slogans in the context of vocationally oriented education and personnel development. Considerable interest has arisen on many sides –in practice, in theory, in politics, locally, nationally and internationally – for placing rising emphasis on the vocationally oriented learning and development that take place directly at the workplace, because such learning and development meet a number of current challenges to the qualification of the staff perhaps better than learning at courses and in educational institutions.

This situation is fundamentally paradoxical, because as a point of departure learning in working life has precisely been the general and obvious form of vocationally oriented learning and qualification ever since a distinction began to be made between working life and the rest of life. Historically there has been a clear tendency for increasingly larger parts of qualification being transferred from working life to formalised types of school, education and course activity, as working life and the rest of society gradually have become more and more complex. And there have, of course, been important reasons for this. Expensive school and educational systems are not established and developed if they would make no difference.

This development got under way first and foremost with the breakthrough and spread of industrialisation and capitalism up through the 19th century, and it has been proved time and again that the decisive dynamism in this development lay in the need for fundamental and gradually more and more differentiated socialisation and qualification for the requirements of wage labour (cf. for example Huisken 1972, Masuch 1972). On a basic level, this requires a certain attitude that is not inborn: selling oneself as labour and loyally performing work determined by others within certain time frames.

Ever since wage labour became the general type of work relation, the requirements concerning wage labourers’ qualifications, practical as well as personal, have grown and grown. They have become increasingly differentiated and it has become increasingly more difficult for workplaces to undertake up-to-date training.

Originally, apprenticeships in Denmark lasted for seven years and periods at school were not included. In time, the apprenticeship was cut to 3-4 years and evening schools provided a supplement. Starting in 1956, one weekly school day was introduced, and since 1972 lengthy periods of schooling have been built into all types of apprenticeships, while the time at the workplace has been reduced. Today we must reckon with the need for both vocational basic training courses and workplace training having to be brought up to date to a considerable extent with supplementary training or direct retraining outside the workplace.

The development trend has been absolutely clear: more and more schooling and less and less educational training at the workplaces. How can it then be that it is precisely now that a significant counter trend has arisen that wishes to “return” as much learning as possible to working life? The cause of all of this should primarily be sought in the extensive and profound developments and changes in the structures of society that have been described as the transition to late modernity, post modernity, cultural liberation, the knowledge society, the information society and the like, and which encompass the breakthrough of market management, globalisation and new technologies (cf. e.g. Giddens 1990, Beck 1992, Bauman 1998).

This process of change has meant two key development trends in the area of learning and education. In the first place, there has been a shift away from the notion that education and qualification were something that essentially belonged to childhood and youth, something that could be finished when a certain vocational competence had been acquired upon which one could base one’s activity for a 40-50 year career, if necessary with occasional updating. This notion was well matched by a school and educational system that could deliver such vocational competences and could be expanded and differentiated in step with developments.

But it is clear that this situation no longer prevails. Everyone must be prepared for their working functions changing constantly and radically during the whole of their working lives. Therefore, what is needed today is what is typically called *lifelong, lifewide and lifedeeep learning* (cf. e.g. EU Commission 2000, Illeris 2004), and the extent and the way it best takes place and the role the school and the educational system can play in this context are open questions.

Secondly, “what is to be learned” has changed in nature. At one time the learning targets of the school and education programmes were referred to in categories such as knowledge, skills, attitudes, or more generally, qualifications. All of this is, naturally, still necessary. But at the same time it must necessarily be updated, developed, reorganised and recreated constantly to fit new situations, so that it quickly and flexibly can be used in changed contexts that are not known at present but which we know with certainty will come. This is the essence of the current concepts of *competences* and *competence development* (cf. for example Beckett & Hager 2002, Illeris 2004).

And it is undeniably a challenge to the school and education system to supply competences for the solution of problems and situations that are unknown at time of learning. How is this to be done?

It is first and foremost on the basis of these matters that the new ideas about learning in working life have emerged and have gained ground. Would it not be easier, less expensive and more efficient if such development and constant adaptation of competences were to take place there where the competences are to be utilised and where there is always first hand knowledge of what is new? In the case of vocationally-oriented competences, this would, after all, be directly in working life, in the workplaces, or in networks and organisations where the workplaces are partners that can ensure that the processes are always up to date.

And would this not also be more democratic? After all, in this way those who are who are directly affected can always know what is going on and play a part in deciding what is to take place and how. This is at any rate the basic idea behind the philosophy about “work that develops” developed by the trade union movement in Denmark. Is there not a broad interest on the part of society at one and the same time to ensure in this way an up-to-date competence development and co-decision for ordinary people, which can be far more wide-ranging and direct than when learning takes place in schools and institutions that have their own agenda and modes of functioning?

There would seem to be many good arguments for the idea of learning in working life from the point of view of learning theory, efficiency and democracy. This is why it also has obtained many strong adherents. Interest has not least been expressed in the supranational expert organisations such as the OECD, the EU and the World Bank as a key element in the lifelong learning that at one and the same time can lead to economic growth, personal development for the individual and increased social balance, nationally and internationally (cf. e.g. OECD 2000, 2001). But other interests are also at stake that cannot be disregarded if a full perception of the new trend is to be obtained.

In the first place, it is clear that the steadily growing education requirements are expensive, and the state has, therefore, an obvious interest in some of the burden being moved out of the institutions – but not all of it, because the state also has overall responsibility for the level of education and training of the workforce as an important prerequisite for economic growth and global competitiveness. If vocationally-oriented training is left completely to the labour market, the qualification could easily become too short-sighted and narrow. Therefore the state will quite generally aim for interaction between institutionalised vocationally-oriented education and learning in working life and seek to get the business sector and the participants to undertake as great a part of the financing as possible.

The enterprises/employers will naturally be reluctant to undertake this. In Denmark, at any

rate, they are used to education being something that is publicly financed unless it is significantly personal or enterprise specific in nature. But on the other hand, learning in working life would give the enterprises more influence over what is learned and how, and a lot of general education in which the individual enterprise can see no direct interest could be reduced in step with learning taking place directly in working life. Here also the attitude would in principle be dual, but would very largely tend to welcome more learning in working life, especially if it were linked with some or other type of financial compensation.

The workers and their organisations would also be largely positive. It would be necessary to a lesser degree for the workers to “go back to school”: on the individual level the great majority think that they learn better in informal contexts and at their work than in institutionalised education (cf. e.g. CEDEFOP 2003). And the trade unions would also find it easier to influence the way in which it takes place. On the other hand, it is obvious that formalised education is in general better at ensuring the workforce a good, well-documented level of education, and the unions can perhaps exert more influence when the representatives of the state play a part in decision making than they can achieve in direct interaction with the employers.

Finally, it should not be forgotten that the institutions and the teachers have a strong self-interest in the maintenance of the formalised study programmes. Even though there are at present some experiments involving teachers coming out to the enterprises and taking part in organising interactively oriented courses, this can hardly make up for the safe incomes ensured by permanent courses at the schools.

There are thus many and very different interests at play when it comes to learning in working life, and it is also part of late modern market society that one should not believe all one hears. Today goods, ideas and attitudes are marketed professionally on the basis of interests that are not always immediately visible.

But there are also some quite fundamental problems in connection with learning in working life that are not very much in focus right now. First and foremost, the overall aim of the workplaces is to produce goods and services and not to produce learning. And even though in many cases it would make good economic sense to invest in upgrading the employees' qualifications, there is an unmistakable tendency that when a pressed situation arises – and this seems to frequently be the case in late modern market society – learning measures will often be downgraded in prioritisation in relation to current short-term needs.

This is why there is so much focus on the learning that can take place more or less “by chance” in direct connection with the performance of the work and which thus in principle neither costs anything nor must be prioritised – the learning that in a manner of speaking comes “by itself”

(cf. Marsick & Watkins 1990, Garrick 1998). The problem is, however, that precisely this kind of learning, to a far greater extent than learning in working life that is structured and planned, tends to be narrow and lacking in theory. When it takes place in direct connection with the work, one can easily focus on what can create improvements here and now, while the broad lines and the wider contexts are omitted and with them the possibility of the learning having a wider application value in new situations and in connection with a more general understanding and an overview, which is decisive for what we call competence (cf. Billett 2001, Beckett & Hager 2002, Illeris et al. 2004 for a broader discussion of these matters).

The great current interest in learning in working life is thus not as unambiguous as it often purports to be. But on the other hand there are clearly also some current matters pulling the picture in this direction, and there is good reason to expect learning in working life to play a greater role in the educational scene in the future. I shall therefore in the following first try to develop a more structured conception of the main features of such learning. Next, I shall discuss learning in working life in relation to different theoretical approaches and point out some basic features that must be considered. Finally, I shall relate learning in working life to the concept of competence development, which seems to be the kind of learning that is especially intended or hoped for in this connection.

Some basic issues and concepts on learning

The most fundamental condition of human learning is that all learning includes two essentially different types of process: an external interaction process between the learner and his or her social, cultural and material environment, and an internal psychological process of elaboration and acquisition in which new impulses are connected with the results of prior learning.

The criteria of the interaction process are of a social and societal character, i.e. they are determined by time and place. The individual is in interaction with an environment that includes other people, a specific culture, technology and so on, which are characterized by their time and society. In the late modern globalised world, this is all mixed up in a giant and rapidly changing hotchpotch that offers unlimited, and to a great extent also unstructured, possibilities for learning. Hence, the often formulated need for learning to learn, i.e. creating a personal structure or a value system to sort out what is worth learning from what is not. This is also the background for understandings such as those of the social constructionists, focusing on the needs, difficulties and prevalence of this interaction process in late modernity (e.g. Gergen 1994).

But no matter how dominant and imperative the interaction process has become, in learning there is also always a process of individual acquisition in which the impulses from the interaction are incorporated. As discussed by such scholars as Piaget (e.g. 1952) and Ausubel (1968), the core of this process is that the new impressions are connected with the results of prior learning in a way that influences both. Thus, the outcome of the individual acquisition process is always dependent on what has already been acquired, and ultimately the criteria of this process are of a biological nature and determined by the extensive, but not infinite, possibilities of the human brain and central nervous system to cope with, structure, retain and create meaning out of impressions as perceived by our senses.

However, learning, thinking, remembering, understanding and similar functions are not just cognitive or content matters, although they have generally been conceived of as such by traditional learning psychology. Whether the frame of reference is common sense, Freudian psychology, modern management or brand new results of brain research, there is lots of imperative evidence that all such functions are also inseparably connected with emotions and motivation. The Austrian-American psychologist Hans Furth (1987), by combining the findings and theories of Piaget and Freud, has unravelled how cognition and emotions during the preschool years gradually separate as distinctive but never isolated functions, and the Portuguese-American neurologist Antonio Damasio (1994) has explained how this works in our brain and what disastrous consequences it has when the connections between the two are cut by damage to the brain, even when neither of the functions in themselves have been affected. Thus the acquisition process also necessarily always has both a cognitive and an emotional side, or more broadly spoken: a *content* and an *incentive* side.

Consequently all learning always includes three dimensions which must always be considered if an understanding or analysis of a learning situation is to be adequate: the content dimension of knowledge, understandings, skills, abilities, attitudes and the like, the incentive dimension of emotion, feelings, motivation and volition, and the social dimension of interaction, communication and cooperation – all of which are embedded in a societally situated context. The learning processes and dimensions may be illustrated by the following figure:

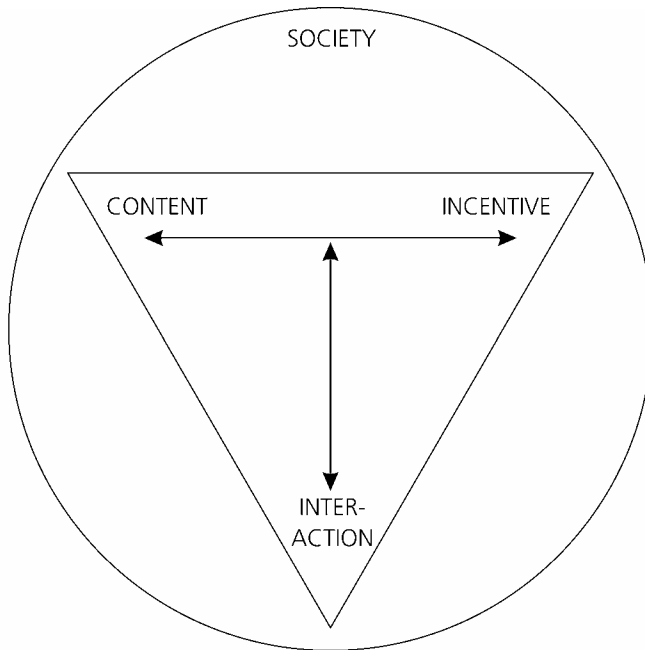


Figure 1: The basic processes and dimensions of learning

A model of learning in working life

When it comes to the issue of learning in working life the point of departure should be taken in what characterizes workplaces and working life as a space for learning. If this is seen in relation to the learning triangle it is obvious that it has mainly to do with the interaction dimension. In itself learning life is a special kind of environment – but just as the model of learning must include the environment, learning life in this connection must also include the learners and their subjective positions and relations to the workplace and working life in general. From this point of view a triangle depicting working life as a learning space and matching the learning triangle can be drawn in the following way (Jørgensen & Warring 2003, Illeris et al. 2004):

Parallely to the division of the acquisition process of learning the working life environ also contains two fundamentally different elements which can be termed the technical-organisational learning environment and the social-cultural learning environment. The technical-organisational learning environment is about matters such as work content and division of labour, the opportunities for autonomy and using qualifications, the possibilities of social interaction, and the extent to which the work is a strain on the employees. The social-cultural learning environment concerns social groupings and processes at the workplace and matters such as traditions, norms and values and covers communities of work, cultural communities and political communities.

The third dimension of the learning environment is about the interaction between the environment as a whole and the learners. It is, so to say, the same interaction process as the one which is involved in the learning triangle, but seen as part of the learning life and not as part of the learners as individuals. It involves in general such elements as the workers' or employees' social and cultural backgrounds, their actual life situations, and their future perspectives, and specifically in relation to the single learner such elements as their family background and school and work experience.

In the book entitled "Learning in Working Life" (Illeris et al. 2004), these dimensions are merged with the learning triangle into what was termed "a double perspective on learning in working life", and the "holistic model" below:

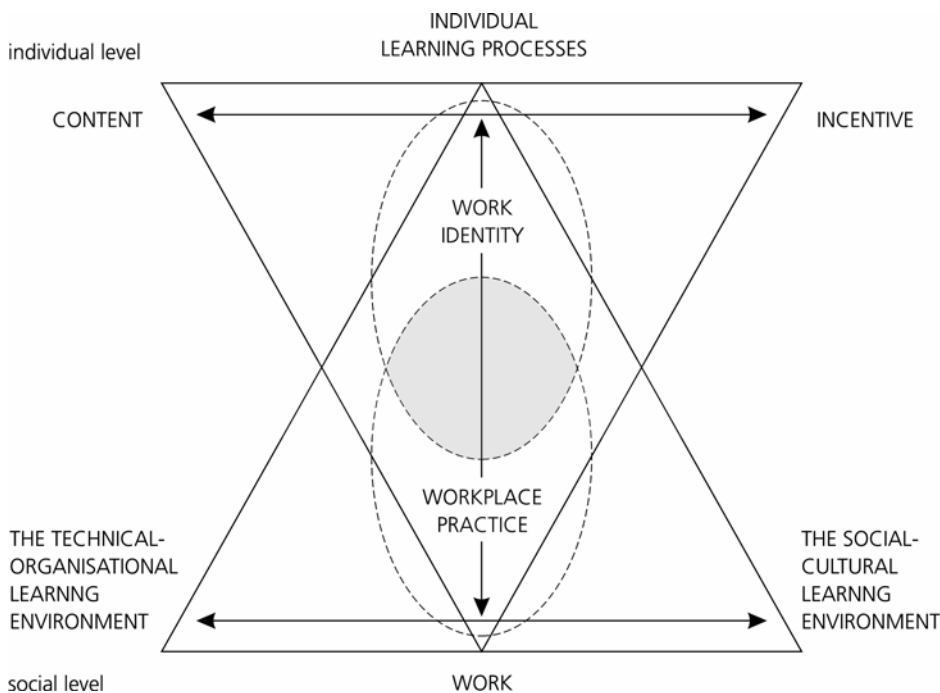


Figure 2: Learning in working life (after Illeris et al. 2004, p. 69).

It should be noted that in addition to the dimensions of the two triangles each of them here also includes a central focus area round the meeting point of the double arrows. In the learning triangle this focus area is the learner's personal *identity*, which psychologically is where all that is learnt sums up into the individual experience of "who I am" and "how I experience to experienced by others" (Illeris 2003, 2007) and especially the parts of the identity, which comprises the personal relations to working life and therefore constitute the "work identity" (Andersen et al. 1994). In the workplace environment triangle the central focus area is the *workplace practice*, which is

comprised by the work activities including all the tools and artefacts, the work patterns and personal and social relations, positions, power conditions etc.

In this way the model shows that the essential general learning in working life takes place in the interaction between workplace practice and the learner's work identity – and it is also this learning which takes on the character of competence development (to which I shall return later). But there is also in the model space for less essential learning processes that more or less circumvent these core fields, such as the acquisition of certain technical skills that can take place in a more limited interaction anchored between the workplace's technical-organisational learning environment and mainly the content dimension of the learner's acquisition, but naturally also can be related to the model's other elements to a greater or lesser extent.

Different approaches to learning in working life

On the more concrete level, there are a number of approaches to what is central in connection with the understanding of the learning that takes place in working life. In line with a classic learning understanding, most of these approaches place the main emphasis on the individual acquisition process, corresponding to the horizontal double arrow at the top of the model in figure 2. This applies, in the first place, to the so-called industrial sociological approach, which in particular has interested itself in the qualification requirements the work has of the employees and how the qualifications are developed, now also including to a high degree what have been termed the "process independent" or later the "general qualifications" (cf. e.g. Braverman 1974, Andersen et al. 1994, 1996).

Next, it applies as point of reference to the management-anchored approach also, which is termed "organizational learning". Americans Chris Argyris and Donald Schön have been key figures here for a generation, and they have emphasised, inter alia, that the employees' learning is crucial to the development of the enterprises and that a distinction must be made between single-loop learning, which remains within, and double-loop learning, which exceeds the existing frames of understanding (cf. Argyris & Schön 1978, 1996, Argyris 1992).

Finally, it also refers to the approach that has roots in general adult education, mostly to individual learning when it, typically on a humanistic basis, interests itself in the employees' experience and interest in learning (cf. e.g. Weil & McGill 1889, Marsick & Watkins 1990, Boud & Garrick 1999, Billett 2001, Ellström 2001, Evans et al. 2002, Rainbird et al. 2004).

In contrast are the approaches that very largely focus on the workplace as learning environment and the development or "learning" of the workplace, i.e. on the bottom horizontal double arrow in figure 2. This primarily concerns the approach that goes under the name of "the learning organisation". This is really a branching out of the organizational understanding of learning, but with the decisive difference that here the focus is on what is understood as the organisation's "learning" that is made independent as something different and more than the sum of the employees' learning. A key work here is Peter Senge's book about "the fifth discipline" (Senge 1990). It must be clear, however, that with the learning concept which has been introduced here one cannot say that the organisation can learn – and much of what is marketed under the term "the learning organisation" in my opinion has more to do with management and sometimes smart formulations than with learning.

Also the approach that was launched with the book by Jean Lave and Etienne Wenger on "Situated Learning" (Lave & Wenger 1991) and later continued by Wenger in "Communities of Practice" (Wenger 1998), must also be said to mainly be oriented towards the workplace as the focal point of learning. This is the case despite the fact that to a large extent it has its roots in the Russian cultural-historical tradition and Vygotsky's understanding of learning, which is quite classically oriented towards the individual acquisition process. In Lave and Wenger it seems almost to be the case that when the individual first has entered the community of practice, by means of a learning process he or she will automatically move from "legitimate peripheral participation" towards a more central and competent position. A more individual oriented formulation of Vygotsky's approach can, however, be found in Finnish Yrjö Engeström, who, though he may work with learning in organisations, does so with a high degree of focus on the individuals (cf. e.g. Engeström 2009).

I am thus on the way towards the third major approach to learning in working life, namely the approach that primarily focuses on the interaction between the social and the individual level, i.e. on the vertical double arrow in the middle of the model in figure 3. Here there is reason to note the approach that has its roots in the "critical theory" of the German-American so-called Frankfurt School. The best known representative of this school is the German sociologist and philosopher Jürgen Habermas (1984-87) – but in relation to workplace learning other names are more important (although they have generally only published in German). They have mainly focused on the social conditions and their significance for the consciousness formation of the individual, in particular with Oskar Negt's work concerning "Sociological Imagination and Exemplary Learning" (Negt 1968, cf. Illeris 2007). But an important contribution is also to be found in the work of Ute Volmerg

concerning the significance of the employees' opportunities for organising their own work, for communication with others at work and for applying the qualifications they have acquired as the three decisive focal points for their learning possibilities in working life (Volmerg 1976). Finally there should be mention of Birgit Volmerg et al.'s study of "The Life World of Private Enterprises", i.e. the way in which the employees seek and utilise the possibilities of the workplace for a free space to set their own agenda (Volmerg et al. 1986, Leithäuser 2000).

It is basically also this type of approach I have followed in my work although I simultaneously include the individual acquisition process to a high degree (Andersen et al. 1994, 1996, Illeris et al. 2004, Illeris 2005, 2007, 2009).

General features of workplace learning

If one tries to cut across all these approaches, it is possible in general to extract a number of possibilities and problems that especially characterise the learning that takes place in working life. Quite fundamentally, a huge amount of learning takes place in direct connection with the performance of the work, and as mentioned earlier the employees typically experience that this learning is of greater importance for them than learning in institutionalised education (CEDEFOP 2003). Viewed from the outside it must, however, be maintained that fundamentally this learning is accidental in nature and that it is usually narrow and without theoretical foundation.

However, by systematically building up a learning-oriented environment this learning can be strengthened considerably – this is the main idea behind the approaches called "organisational learning" and "the learning organisation", although they do not agree when it comes to the relation between the individual and the organisation. Nonetheless the risk will still remain of the learning obtaining a certain accidental flavour and an inadequate structure and systematics. Moreover, there is a tendency for the employees who are already best qualified to profit more from this procedure. But it is also possible to try to counteract this by introducing such types of activities as self-directed groups, projects or action learning programmes for all employees (cf. Illeris et al. 2004, chapter 8).

Another possibility – which can very well be combined with organisational learning – is to aim at targeted learning measures in close connection with the work. This can take place by means of personal backing for the individual employee in the form of instruction, pedagogic mentoring, partner guidance, mentor schemes or coaching, through broadly based support from so-called "ambassadors", "super users" or "gardeners", who are especially used in the ICT field, or through

access to consultant assistance, and it can take place through teaching activities in close connection with the work. All of this can be backed up by means of regular staff development interviews or the like (cf. Illeris et al. 2004, chapters 6 and 7).

Finally, there can be emphasis on more general measures such as internal or external networks and experience groups or job exchange and job rotation schemes where there also is a possibility for involving all staff organisationally (cf. Illeris et al. 2004, chapters 6 and 8).

Under all circumstances there are three important issues that exist to one extent or another. The first is that learning in working life, to an even higher degree than learning by means of institutionalised education, has a tendency to especially favour those who already have the best education (the so-called "Matthew effect": "For whoever has to him shall be given and he shall be caused to be in abundance", Matthew 13:12). The second is that the necessary work will always receive higher priority than learning-oriented measures. The third is that learning measures can have a disturbing effect on the targeted work which is the purpose of the workplace.

These issues can be dealt with to a certain degree by learning in working life being combined with courses and education programmes, for example such as those that take place in the so-called alternating education programmes in the apprentice and professional fields where there is alternation between school and work experience periods.

Learning as competence development

In relation to learning in working life I find it important to discuss how such learning in theory and practice can obtain the qualities of what is termed "competence development" as this to a great extent seems to be what could be a main advantage of learning in more or less direct connection to the workplace. I shall start this discussion by examining, in slightly more detail, some general matters to do with each of the three learning dimensions, namely what we generally – consciously or unconsciously – aim at achieving within each of the three dimensions when we learn something, and what the overall result could be.

As already mentioned, the content dimension is about what we learn. In this dimension the learner's *knowledge, understanding, skills* and generally his/her ways of dealing with life are developed and through this we attempt to generate *meaning*, i.e. a coherent understanding of the different matters in existence (cf. e.g. Bruner 1990, Mezirow 1990,1991, Wenger 1998), and also to develop *abilities* that enable us to tackle the practical challenges of life. To the extent that we succeed in this endeavour, we develop out *functionality* as a whole, i.e. our capacity to function

appropriately in the various contexts in which we are involved. This appropriateness is directly linked to our placing and interests in the current situation in relation to our qualifications and future perspectives, but as quite general, just as learning as a whole is related to the survival possibilities of the individual and the species.

As mentioned before, it is very largely the content dimension that learning research traditionally has concerned itself with, and it is also this dimension that is in direct focus when one speaks about learning in everyday language. But the learning triangle points to other matters being at stake in connection with learning.

Acquisition has also an incentive dimension covering the motivational, the emotional and the volitional – or what can be summed up as the motive forces or engagement of learning. This dimension is concerned with mobilisation of the mental energy required by learning, and we fundamentally engage ourselves in this mobilisation in order to constantly maintain our *mental and bodily balance*. In so doing, through this dimension we simultaneously develop our *sensitivity* in relation to ourselves and our environment.

These two dimensions are activated simultaneously and in an integrated fashion by impulses from the interactive process between the individual and the environment. The content that is learned is therefore, as previously mentioned, always marked or "obsessed" by the nature of the mental engagement that has mobilised the mental energy necessary for the learning process to take place. On the other hand, the incentive basis is also always influenced by the content with which the learning is concerned. For instance, a new understanding or an improved skill alters our emotional and motivational and also perhaps our volitional patterns.

Learning psychology has traditionally studied the acquisition of content independent of the incentive dimension – but there have also been learning researchers who have strongly emphasised the connection, for example Lev Vygotsky (1986 [1934]) and Hans Furth (1987), and this has later been conclusively supported by brain research, e.g. Antonio Damasio (1994).

Finally, there is the interaction dimension of learning, which is concerned with the individual's interaction with his/her social and material environment on two levels: one the one hand the close, social level in which the interactive situation is placed, for example in a classroom or a working group, and on the other hand the general societal level that establishes the premises for the interaction.

This dimension promotes the individual's *integration* in relevant social contexts and communities and by this contributes to the development of the learner's *sociality*, i.e. ability to become engaged and function appropriately in various forms of social interaction between people. The development itself of sociality, however, takes place through the two dimensions of the

acquisition process and is thereby marked by what concerns the interactive process and the nature of our relationship to it.

It is now possible to elaborate the learning triangle in figure 1 a bit further by entering the signal words used to qualify the nature of each of the three dimensions, and outside each of the angles to place the key words for what we aim at (upright) and what we generate (italics). What then emerges is that in our learning as a whole we attempt to develop meaning, skills, mental and bodily balance and social and societal integration, and in this way we simultaneously develop our functionality, sensitivity and sociality.

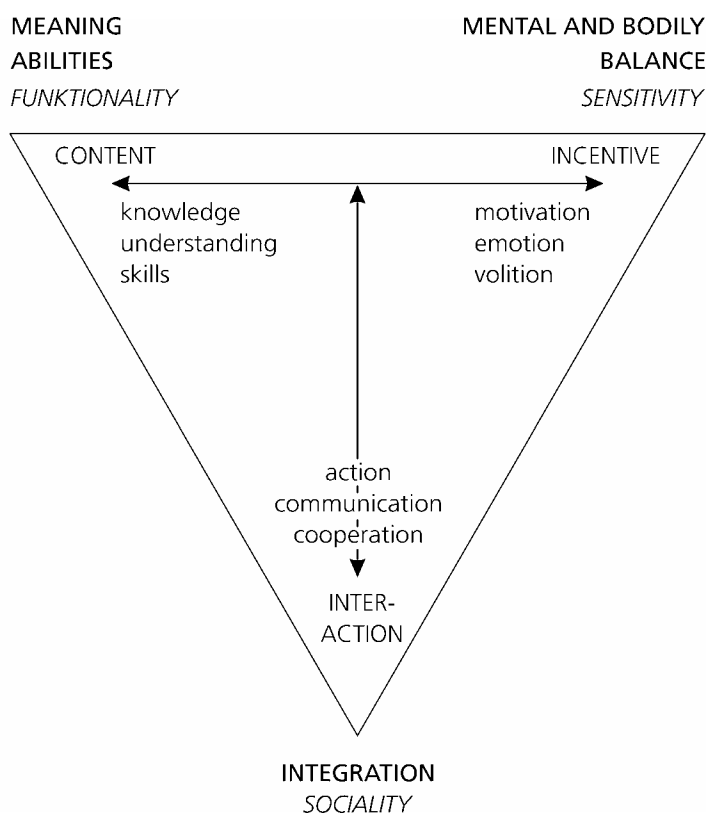


Figure 3: Learning as competence development

Such a general characterisation means that learning as a whole can promote the development of what in modern parlance is called the learner's *competence*. Or the other way around: that if learning is to be in the nature of competence development, it must contribute to the generation of relevant functionality, sensitivity and sociality which are the main general characteristics of competences. The widespread popularity of this concept is precisely due to its embracing the total scope of the learning dimensions – in contrast to the more limited focus on the content dimension of traditional educational thinking.

Workplace learning and competence development

It is not so very many years ago that competence was mainly a formal and legal matter, something that gave a person a legal right to make decisions in a certain area, especially in the public administration. However, over the last two decades the use of the word has permeated the educational area, working life, management and politics as a modern expression for what a person is actually able to do or achieve.

Thus, in recent years the concept of competences has taken a central position and more or less displaced the concept of qualifications – and this is not merely a chance or indifferent linguistic innovation. On the contrary, it could be said that this linguistic change has pointed to some features which are significant for contemporary learning demand. A very useful definition of the concept, which draws attention precisely to how it surpasses terms as abilities, skills and qualifications has been given by a Danish social psychologist and member of the former “Danish Competence Council”:

“The concept of competence refers [...] to a person’s being qualified in a broader sense. It is not merely that a person masters a professional area, but also that the person can apply this professional knowledge – and more than that, apply it in relation to the requirements inherent in a situation which perhaps in addition is uncertain and unpredictable. Thus competence also includes the person’s assessments and attitudes, and ability to draw on a considerable part of his/her more personal qualifications.” (Jørgensen 1999, p. 4).

Competence is thus a unifying concept that integrates everything it takes in order to perform in a given situation or context. The concrete qualifications are incorporated in the competence rooted in the personality – or to me more accurate: the work identity – and one may generally also talk of the competence of organisations and nations, including the pattern of personal competences and how they work together.

Where the concept of qualifications historically has its point of departure in requirements for specific knowledge and skills, and to an increasing degree has been used for pointing out that this knowledge and these skills have underlying links and roots in personality, the perception in the concept of competence has, so to speak, been turned upside down. In this concept, the point of departure lies at the personal level in relation to certain contexts, and the more specific qualifications are something that can be drawn in and contribute to realisation of the competence. So the concept of qualifications took its point of departure in the individual elements, the individual

qualifications, and gradually developed towards a more unified perception, the concept of competence starts with a unity, e.g. the type of person or organisation it takes to solve a task or fulfil a job, and on the basis of this points out any possible different qualifications necessary.

It is characteristic that the concept of competence does not, like the concept of qualifications, have its roots in industrial sociology (cf. Braverman 1974), but in organisational psychology and modern management thinking. This has made it more adequate in relation to modern working life, but it has also given it a dimension of “smartness” which makes it easier to “sell” politically and tend toward a superficiality which in this context seems to characterise large parts of the management orientation (cf. Argyris 2000). Some problems have also developed because a number of national and supranational bodies have taken over the concept and sought to implement it as a tool to govern educational institutions. Wide-ranging work has been initiated to define a number of competences that the various education programmes should aim at and to make these measurable in order to make it possible to judge whether the efforts succeed (cf. Illeris 2004).

However, at the same time it is difficult to deny that the concept of competence captures something central in the current situation of learning and qualification. It is ultimately concerned with how a person, an organisation or a nation is able to handle a relevant, but often unforeseen and unpredictable problematic situation, because we know with certainty that late modern development constantly generates new and unknown problems, and the ability to respond openly and in an appropriate way to new problematic situations is crucial in determining who will manage in the globalised market society.

So I find it very important to maintain a broad and holistic understanding of competence both on the general level and vis-à-vis a technocratic understanding which is rapidly becoming the horse dragging a carriage of narrow economically oriented control interests that empty the concept of the liberating potential springing from the place of the competences as relevant contemporary mediators between the societal challenges and individual ways of managing them.

The concept of competence can thus be used as a point of departure for a more nuanced understanding of what learning efforts today are about – with a view of reaching a theoretically based and practically tested proposal concerning how up-to-date competence development can be realised for different people in accordance with their possibilities and needs, both within and outside of institutionalised education programmes. Such an approach has, in my opinion, far better and more well founded possibilities for contributing to real competence development, at the individual level as well as the societal level, than the measuring and comparing approach that has been mentioned above. However, it will to a much higher degree be oriented towards experiments and initiatives at practice level than the top-down control approach inherent in the measuring

models.

Quite concretely it is about the fact that competence development may be promoted in environments where learning takes place in connection with a (retrospective) actualisation of relevant experience and contexts, that (at the same time) interplay between relevant activities and interpretation of these activities in a theoretical conceptual framework, and a (prospective) reflection and perspective, i.e. a pervasive perspective in relation to the participants' life or biography, linked with a meaning and conception-oriented reflection and a steady alternation between the individual and the social levels within the framework of a community (cf. Illeris 2004).

It is precisely these qualities that make competences so important and attractive in the modern ever-changing world, and at the same time constitutes an immense challenge to education and training of any kind. How can people be educated or trained to function appropriately in situations that are unknown at the time of the acquisition?

This is actually a question that undermines a lot of traditional educational thinking which starts by formulating precise objectives and then tries to deduce educational measures from this. Fundamentally, it must be realized that competences are not something that can be produced like commodities, but precisely something that must be *developed* in and by the person, hence the concept of "competence development".

In general it is obvious that the concept of competences captures something that is essential in relation to education and training today, precisely because it relates to how a person, an organisation or a nation is able to manage in the constantly changing globalised market society. Thus, the societal changes that fostered this concept and other linked concepts such as "the learning society", "the learning organisation" and "lifelong learning" imply a new conception of the relation between learning and education/training with increased focus on informal learning possibilities outside the educational institutions in daily life and in working life especially.

But to capture the impact of this change of perspective it is not enough just to refer to "practice learning" or "learning in working life" as has often been the case. It is obvious that the school and education system will still be the "State Apparatus" which is constructed to be the fundamental public means of providing the competences demanded. Moreover, it will inevitably – also in the future – be in the practical and economic interests of both the private and the public sector that as many competences as possible should be developed outside working life and without placing a strain on the economy and daily work conditions of companies and organisations.

Therefore competence development cannot be a means of ensuring savings on public education budgets, which some politicians seem to imagine. On the contrary, it is a challenge demanding increased co-operation between education and training institutions and private as well as

public workplaces. In all likelihood this will lead to increased costs for both parties if the promises of adequate and up-to-date competence development are to be met – which is regarded as a key factor in future competitiveness.

Finally, it must also be stressed that a decisive factor in all this will be that competence development programmes are set up in accordance and co-operation with the persons and groupings that are to implement the competences. Whereas qualifications to some extent could be understood and dealt with as "objective" qualities, it is inherent in competences that they include personal and collective motivations, emotions and engagement, and their practical value to a great extent is dependent on a positive interest and attitude. From this point of view competence development could be an important democratising factor in working life and society in general. But this is by no means always the case.

So, it is a persistent question whether the great commitment to the idea of competence development will be able to meet the positive prospects that it most certainly implies. Like other key words from the same vocabulary, the concept of competence development seems to have a double impact and to demonstrate tension between a very promising and useful interpretation of significant demands of modern societies and a buzzword, which, behind the tempting surface, hides new smart means of human and economic exploitation of labour (Illeris 2009b).

References

Andersen, Vibeke – Illeris, Knud – Kjærsgaard, Christian – Larsen, Kirsten – Olesen, Henning Salling – Ulriksen, Lars (1994): *Qualifications and Living People*. Roskilde: The Adult Education Research Group, Roskilde University.

Andersen, Vibeke – Illeris, Knud – Kjærsgaard, Christian – Larsen, Kirsten – Olesen, Henning Salling – Ulriksen, Lars (1996): *General Qualification*. Roskilde: The Adult Education Research Group, Roskilde University.

Argyris, Chris (1992): *On Organizational Learning*. Cambridge MA: Blackwell.

Argyris, Chris (2000): *The Next Challenge in Organizational learning: Leadership and Change*. Paper presented at the Learning Lab Denmark Opening Conference, Copenhagen, November 6.

Argyris, Chris – Schön, Donald (1978): *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.

Argyris, Chris – Schön, Donald (1996): *Organizational learning II – Theory, Method, Practice*. Reading, MA: Addison-Wesley.

Ausubel, David P. (1968): *Educational Psychology: A Cognitive View*. New York: Holt, Rinehart and Winston.

- Bauman, Zygmunt (1998): *Globalization: The Human Consequences*. Cambridge, UK: Polity Press.
- Beck, Ulrich (1992 [1986]): *Risk Society: Towards a New Modernity*. London: Sage.
- Beckett, David – Hager, Paul (2002): *Life, Work and learning: Practice in Postmodernity*. London: Routledge.
- Billett, Stephen (2001): *Learning in the Workplace: Strategies for Effective Practice*. Crows Nest, NSW: Allen & Unwin.
- Boud, David – Garrick, John (eds.) (1999): *Understanding Learning at Work*. London: Routledge.
- Braverman, Harry (1974): *Labor and Monopoly Capital*. New York: Monthly Review Press.
- Bruner, Jerome (1990): *Acts of Meaning*. Cambridge, MA: Harvard University Press.
- CEDEFOP (European Centre for the Development of Vocational Training) (2003): *Lifelong Learning: Citizens' Views*. Luxembourg: Office for Official Publications of the EU.
- Damasio, Antonio R. (1994): *Descartes' Error: Emotion, reason and the Human Brain*. New York: Grosset/Putnam.
- Ellström, Per-Erik (2001): Integrating Learning and Work: Conceptual Issues and Critical Conditions. *Human Resource Development Quarterly*, 4, pp. 421-436.
- Engeström, Yrjö (2009): Expansive Learning: Toward an Activity-Theoretical Reconceptualization. In Knud Illeris (ed.): *Contemporary Theories of Learning*. London: Routledge.
- EU Commission (2000): *Memorandum on Lifelong Learning*. Brussels: EU.
- Evans, Karen – Hodkinson, Phil – Unwin, Lorna (eds.) (2002): *Working to Learn – Transforming Learning in the Workplace*. London: Kogan Page.
- Furth, Hans G. (1987): *Knowledge As Desire*. New York: Columbia University Press.
- Garrick, John (1998): *Informal Learning in the Workplace: Unmasking Human Resource Development*. London: Routledge.
- Gergen, Kenneth J. (1994): *Realities and Relationships*. Cambridge, MA: Howard University Press.
- Giddens, Anthony (1990): *The Consequences of Modernity*. Stanford, CA: Stanford University Press.
- Habermas, Jürgen (1984-87 [1981]): *The Theory of Communicative Action*. Cambridge, UK: Polity Press.
- Huisken, Freerk (1972): *Zur Kritik bürgerlicher Didaktik und Bildungsökonomie*. München: Paul List Verlag. [Critique of Bourgeois Didactics and Economy of Education].

- Illeris, Knud (2003): Learning, Identity and Self orientation in Youth. *Young – Nordic Journal of Youth Research*, 4 (11), pp. 357-376.
- Illeris, Knud (2004): *Adult Education and Adult Learning*. Copenhagen: Roskilde University Press/Malabar, FL: Krieger Publishing.
- Illeris, Knud (2005): A Model for Learning in Working Life. *Journal of Workplace Learning*, 8 (16), pp. 431-441.
- Illeris, Knud (2007): *How We Learn: Learning and Non-Learning in School and Beyond*. London: Routledge.
- Illeris, Knud (ed.) (2009): *International Perspectives on Competence Development*. London: Routledge.
- Illeris, Knud – and Associates (2004): *Learning in Working Life*. Copenhagen: Roskilde University Press.
- Jørgensen, Christian Helms – Warring, Niels (2003): Learning in the Workplace: The Interplay Between Learning Environments and Biographical learning Trajectories. In Christian Helms Jørgensen & Niels Warring (eds.): *Adult Education and the Labour Market VII B*. Copenhagen: Roskilde University Press.
- Jørgensen, Per Schultz (1999): Hvad er Kompetence? *Uddannelse*, 9, pp. 4-13. [What is Competence?].
- Leithäuser, Thomas (2000): Subjectivity, Life World and Work Organization. In Knud Illeris (ed.): *Adult Education in the Perspective of the Learners*. Copenhagen: Roskilde University Press.
- Marsick, Victoria J. – Watkins, Karen E. (1990): *Informal and Incidental Learning in the Workplace*. London: Routledge.
- Masuch, Michael (1972): *Politische Ökonomie der Ausbildung*. Reinbek: Rowohlt. [The Political Economy of Education].
- Mezirow, Jack (1990): How Critical Reflection Triggers Transformative Learning. In Jack Mezirow and Associates (eds.): *Fostering Critical reflection in Adulthood*. San Francisco, CA: Jossey-Bass.
- Mezirow, Jack (1991): *Transformative Dimensions of Adult Learning*. San Francisco, CA: Jossey-Bass.
- Negt, Oskar (1968): *Soziologisches Phantasie und exemplarisches Lernen*. Frankfurt a.M.: Europäische Verlagsanstalt. [Sociological Imagination and Exemplary Learning].
- OECD (2000): *Knowledge management in the Learning Society*. Paris: OECD. Centre for Educational Research and Innovation.
- OECD (2001): *Cities and Regions in the New Learning Economy*. Paris: OECD. Centre for Educational Research and Innovation.

Piaget, Jean (1952 [1936]): *The Origin of Intelligence in Children*. New York: International Universities Press.

Rainbird, Helen – Fuller, Alison – Munro, Anne (eds.) (2004): *Workplace Learning in Context*. London: Routledge.

Senge, Peter (1990): *The Fifth Discipline: The Art and Practice of the Learning Organization*. New York: Doubleday.

Volmerg, Birgit – Senghaas-Knobloch, Eva – Leithäuser, Thomas (1986): *Betriebliche Lebenswelt: Einer Sozialpsychologie industrieller Arbeitsverhältnisse*. Opladen: Westdeutscher Verlag. [Life World at Work: A Social Psychology of Work Conditions in Industry].

Volmerg, Ute (1976): Zur Verhältnis von Produktion und Sozialisation am Beispiel industrieller Lohnarbeit. In Thomas Leithäuser and Walter Heinz (eds.): *Produktion, Arbeit, Sozialisation*. Frankfurt a.M.: Suhrkamp. [Conditions of Production and Socialisation in Industrial Wage Labour].

Vygotsky, Lev (1986 [1934]): *Thought and Language*. Cambridge, MA: MIT Press.

Weil, Susan Warner – McGill, Ian (eds.) (1989): *Making Sense of Experiential Learning: Diversity in Theory and Practice*. Buckingham: Open University Press.

Wenger, Etienne (1998): *Communities of Practice: Learning, Meaning and Identity*. Cambridge MA: Cambridge University Press.