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Competence
and Competence
Development

Competence and Competence Development

Study Guides in Adult Education

edited by
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Contents

Preface

In recent decades, the term competence has become a keyword in the international discussion about education. This international discussion was accompanied by several national discussions, which mostly had a different emphasis compared to the international context. Especially in the European Union, competences became the central term in discussions about learning outcomes. Here, competences emerged as a counter-concept to the idea of qualifications – which are strictly bound to (national) educational systems. As the European Union, in the Maastricht Treaty, has agreed not to harmonise the educational systems of its member states, national differences tend to become more pronounced; thus qualifications cannot bring transparency and comparability to European education. Competence, in contrast, is a concept that can be used to compare people's knowledge and skills across national education and training systems.

To look at competences rather than qualifications means to shift the focus from educational input (length of a learning experience, type of institution, etc.) to the outcomes of learning processes. Competences as learning outcomes have nowadays been defined in almost all educational programmes. Furthermore, referring to competences highlights the fact that they can also be developed outside of educational programmes. Therefore, a variety of contexts became relevant that enable or constrain competence development. These contexts include the workplace, social class, family, and friends, for example. As a consequence, the validation – that is, the evaluation, recognition, and certification – of competences acquired outside of educational systems became relevant. To address this issue, a variety of methods and instruments were developed throughout Europe. On this basis, competences can support transparency and comparability in education and lifelong learning in Europe.

What is more, the term *competence* also serves to introduce a new didactic approach to adult education. The competence discussion helps strengthen

individuals' self-responsibility and self-efficacy as they engage in their learning processes. In other words, it is up to the learners to decide whether, where, when, and how they learn or not. Adult education programmes can merely provide contexts to facilitate learning processes and stimulate motivation. This is especially relevant in the education of adults, since adults are much more independent than children in their decisions about what and when to learn.

In this study guide, Valérie Cohen-Scali, Alain Kokosowski, Thierry Piot, and Richard Wittorski introduce the topic of competence development with a special focus on the working context. They give an insight into the Western backgrounds of the competence discussion and show the consequences of this discussion with respect to professionalisation and competence development in adult education. Furthermore, they present a variety of instruments for validating and evaluating competences. Finally, they raise the issue of competence management in adult education and highlight some of the changes in vocational education and training brought on by the competence discussion.

All of the authors are French researchers with special expertise in the area of competences. The study guide, therefore, gives an insight both into the European discussion and into the French discussion about competences. Valérie Cohen-Scali developed this study guide during her guest professorship at the University of Duisburg-Essen. By bringing on board her French colleagues, she created an interdisciplinary team of experts from psychology, human resource management, and education. As a result, the study guide provides an interdisciplinary perspective on the topic. Thanks go to Valérie Cohen-Scali for coordinating this study guide and to all the authors for their contributions to this volume.

Regina Egetenmeyer

1. Introduction

Valérie Cohen-Scali

Since the 1980s, questions around people in the workplace have been addressed more from the point of view of competences than the time match between an individual and a particular role. Approaching work through competences appears to be at odds with a tradition which conceives of work as the association between an individual and a task. This traditional conception of people at work emerged with the development of industrialisation in Europe and the United States in the nineteenth century. It was profoundly influenced by the principles of Scientific Management developed by Frederick Taylor, an engineer, who was invited into factories in the United States in order to help them introduce a more rational way of organising their work. Taylor's primary preoccupation was with the best way of doing a particular job, what an appropriate workload would be, and what fair payment was, with the aim of increasing workers' efficiency and performance. He carried out numerous studies (Kanigel, 1997) of the work stations of manual workers and made recommendations in order to provide workers with the most appropriate tools for the way they worked.

This conception of work as an activity was strengthened in the twentieth century with the advent of the Second World War, which prompted an acceleration in the development of occupational psychology. Military activities led, on the one hand, to the development of psychological evaluation tools to be used on soldiers, and on the other, to the creation of military equipment which was easier to handle and better suited to the morphology and cognitive abilities of its users. Later, social conditions at work came under intense scrutiny, addressing questions such as motivation, job satisfaction and supervision. Nonetheless, work as an activity continued to be perceived in terms of the relationship between the individual and the task.

This may have seemed relatively well suited to a context of stable industrial production, a booming socio-economic environment, and homogeneous demand. The 1970s are associated with the first world economic crisis linked to an increase in the price of fossil fuels. This was accompanied by a harshening of the socio-economic environment and an increase in unemploy-

ment in Western societies. Businesses needed to be more vigilant about the changes occurring in a more uncertain and complex environment. They also needed to prove that they could be more responsive and more flexible. Many national governments focused on vocational training to tackle the changes taking place. This meant training employees with inadequate skills and qualifications to carry out increasingly varied and changing activities, which often required a more extensive range of cognitive abilities.

From this point onwards, the traditional conception of work as a relationship between an individual and a relatively simple task no longer seemed appropriate. Researchers in sociology, psychology, and training reflected on other paradigms which might be better suited to defining the new reality. The term *competences* gradually came into common use. It was initially used by Chomsky in 1960 in relation to linguistics, as a document published by the European Centre for the Development of Vocational Training (Cedefop) explains:

The use of the term 'competence' goes back to Noam Chomsky and was related to his creation of the theory of generative grammar as well as being part of his contributions to linguistics and cognitive psychology ... Chomsky distinguishes between linguistic competence as the speaker/hearer's knowledge of his language on the one hand and linguistic performance as 'the actual use of language in concrete situations' on the other hand. (Cedefop, 2009b, p. 108)

The term *competences* is used to describe the actual use of a particular aptitude in a given context. In the working environment, the term *competences* emphasises on the one hand, the role of the specific context of a particular activity as a determinant of the way a worker will approach a given task, and on the other, highlights the fact that work is essentially an individual and/or collective process of problem solving. According to Weinert, implementing competences in the workplace relies on the use of several processes: 'ability, knowledge, understanding, skill, action, experience, motivation' (Winterton, Delamare-Le Deist, & Stringfellow, 2006, p. 34).

Two terms are now commonly used in adult education: competence and competency. According to Eraut, there is a subtle difference between the two:

There is a distinction mostly in the American literature between the term 'competence' which is given a generic or holistic meaning and refers to a person's overall capacity, and the term 'competency', which refers to specific capabilities. However even the word competency can be used either in a direct performance-related sense: a competency is an element of vocational competence, a performance capability needed by workers in a specified occupational area or simply to describe any piece of knowledge or skill that might be construed as relevant. (Eraut, 1996, p. 179)

Other, more specific shades of meaning are also found in the literature. For example, instead of generic competences, there are references to key competences:

Key competences are context-independent, applicable and effective across different institutional settings, occupations and tasks. These typically include basal competences, such as literacy, numeracy, general education; methodological competences, like problem solving, IT skills, communication skills, including writing and presentation skills; and judgement competences, such as critical thinking. (Winterton, Delamare-Le Deist, Stringfellow, 2006, p. 33)

A series of other terms used in the literature on competences are defined in the box below.

Keywords: Knowledge, understanding, and capacities

Wittorski (see Chapter 3) defines a number of concepts similar to competences: knowledge (theoretical, action, and professional), understanding, and capacities.

A piece of knowledge can be defined as a socially validated and communicable statement. It is therefore a descriptive or explanatory statement about a given reality. Knowledge can be differentiated in a number of ways:

- Knowledge is described as theoretical when it is established and recognised by a given academic and cultural community at a given time (certain laws of fundamental physics, for example) as a dominant phenomenon, based on a *truth criterion*. Knowledge of this kind is disseminated through encyclopedias, textbooks, and specialist publications in the place and at the time concerned (in the form of slate tablets, papyrus or parchment rolls, papers or books, or files).
- Knowledge can be described as 'action' knowledge when a social community (made up of people who engage in the same activity) decide to validate a statement describing a sequence of actions judged, as a dominant phenomenon, to be 'effective' (*the criterion here is its effectiveness for action*, whilst the challenge is to organise effective local practices and produce a *social identity*).
- Knowledge can be described as 'professional' when an actual or prospective professional community decides to validate a statement describing a sequence of actions judged, as a dominant phenomenon, to be 'distinctive and legitimate' in order to have it acknowledged and recognised in the social arena (the criterion here is that of legitimacy and better recognition in the selected arena, whilst the challenge lies in social intelligibility and the production

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of a *professional identity*). Knowledge therefore has a very strong social dimension, combined with an identified or codified process of formalisation.

The judgement or validation criteria mentioned here are not exclusive, but are dominant criteria for each type of knowledge (some theoretical knowledge, for example, may also be validated according to an effectiveness criterion).

Understanding, however, is a social construct which refers both to the process of internalisation and assimilation (transformation) by the individual of the knowledge and/or information passed on to them or which they contribute to producing, and the result of this process. From this point of view, understanding is on the one hand, the process (and the product) of comprehension and memory (i.e. what the individual retains in qualitative and quantitative terms of the knowledge passed on to them), and on the other, the process (and the product) of drawing conclusions from their actions by the individual, which constitute the value they derive from their experience. In this last case, experience, in the sense of 'known' experience, lies more in the subject identifying their modalities of action and the results they produce. Experience is therefore constructed primarily by a process which consists of deriving understanding from one's actions. Understanding therefore has a much stronger subjective dimension.

In the same way that there is a close link between competence and identity, there is a close relationship between understanding, knowledge, and identity. Effectively, knowledge and understanding constitute a communicative situation about or for actions and people, and act to some degree as 'markers' and 'foils' for identity.

Capacities are social constructs which describe a relatively transversal ability to take action. Capacities represent an acquired potential to take action: they are not in use at the point at which they are described but are nonetheless available to be brought into play when needed.

Whilst the notion of competence and research into competences is now widespread, particularly in the context of studies carried out by the European Union (published by Cedefop) in the area of Vocational Education and Training (VET), it must be said that guides to this area aimed particularly at students are rare. The aim of this study guide is to provide European students with an overview of competences and their development, as far as possible from a European perspective. Its objective is therefore both to describe the main theoretical developments in relation to the concept of competences, and to underline the way in which the European Union deals with the question of

competences at both a reflective and practical level in order to support the development of qualifications. The guide has been written by a number of French authors specialised in adult education and training, and tackles the question of competences from a number of different and complementary points of view, with an emphasis on VET professionals and activities.

Chapter 2 describes recent changes in the working environment that explain why competence-based approaches now appear to be particularly relevant in adult education.

Chapter 3 addresses competences from a theoretical perspective, given the imperatives of professionalisation for individuals and the continuous emergence of new activities.

Chapter 4 addresses the question of the transmission of competences and learning in the workplace, with a presentation of professional didactics.

Chapter 5 discusses options for evaluating and validating competences, identifying the evaluation methodologies and validation practices currently in use in various European countries.

Chapter 6 outlines the main features of management practices in relation to competences, which are currently emerging as a recent but major concern in major European businesses.

Chapter 7 focuses on changes in employment in adult education and training and the consequences of these changes on the competences of professionals.

The guide is designed to enable students to work independently or as a group, both inside or outside the classroom, by referring to the suggested exercises and tasks at the end of each chapter. The bibliography lists a large number of English publications and documents to help students gain a more detailed understanding of the theoretical aspects or explore practical illustrations and examples implemented in a number of European countries.

2. Changes in Work and Competences

Alain Kokosowski

This introductory chapter is in three sections, and will discuss the main changes that have affected the world of work over the past 50 years, and their consequences on organisations, activities, and the competences of employees.

2.1 Main changes in the workplace

In less than 40 years, the world of work has undergone a profound upheaval, which has had significant consequences on the work of individuals on a day-to-day basis.

2.1.1 The end of a model

The first oil crisis in 1974 sparked a fundamental change in the whole of the Western world about the nature of crises, resulting in a radical and long-lasting transformation of the world of work and employment. Prior to this point, work had been characterised by

- protected employment
- organisation centred on production constraints
- segmented and sequential organisation.

The first oil crisis threw this balance into doubt, with the new order heralding a greater focus on customers and shareholders. This was a fundamental shift away from the traditional relationship between a firm and its employees, particularly its executives. Five major consequences emerged:

- Work needed to be done more quickly and in a more extensive way.
- More work was done by people working together, which involved dependency and confrontation.
- Performance reviews became more common and pay was individualised.

- Relocation became more widespread.
- Organisations, groups, and individuals in the workplace became more vulnerable.

What were the consequences of this situation on day-to-day work?

2.1.2 Fundamental changes in the relationship between people and their work

Over the last 20 years, institutions and organisations have become less important in favour of collective forms of working and networks of varying degrees of density, based on people working together for different periods of time. Organisations today increasingly operate as networks, that is, as groups of businesses of various sizes linked by a particular relationship. Networks of this kind throw up new problems by driving the emergence of new values and social and psychological tensions. In this type of situation, managers of each unit have an interest in maintaining a degree of autonomy and a certain lack of transparency about what they do. This can then result in there being less effective synergies, and a decline in innovation. Individuals are forced to respond continuously to numerous calls on their attention, which necessarily leads to the development of procedures and standards to facilitate interactions.

In addition, work has become increasingly intellectualised, and it has distanced itself significantly from industrial or agricultural-type production. We are witnessing the growth of the written word and more generally, a formalisation of work through rules and procedures. Work consists less of physical objects and stable, repetitive processes and more of human relationships and managing information. It is carried out using processes that involve groups and cutting-edge techniques. These changes have been supported by new information and communications technologies, which often serve to strengthen controls and translate activity into measurable indicators. Increasingly, employees rarely have a direct relationship with all the activities of the business, as the majority of their work consists of using screens and representational tools which tend to distance them from reality.

In addition, more and more activities, including individual ones, now incorporate a 'service' dimension, which creates increasingly dense relationships with other productive organisations, as well as with customers. The direct consequence is the creation of small units, which are close to their markets, and which sooner or later question the continued coherence of the system or network. Another consequence is the development of non-standard

employment patterns (particularly amongst young people): 10 per cent of employees work at night, 50 per cent work on Saturdays, and 30 per cent work on Sundays.

It is interesting to note, in general terms, the contradiction between increasingly formalised work on the one hand, increasingly complex work requiring higher levels of expertise on the other, and finally, the significant impoverishment of work in certain sectors, for example in telephony services. Similarly, it is interesting to note that managers are increasingly being told to review their employees' performance but that at the same time, they have fewer and fewer tangible evaluation criteria for the work actually done available to them. As De Gaulejac (2011, p.191) notes: 'The benchmark then becomes what is prescribed rather than the reality. The ideal becomes the standard by which everyone's results are measured.'

2.1.3 The consequences on individuals

These changes have transformed managerial practices. It seems that we have entered into an era of 'management by chaos', by continual action, and without respite, as underlined by De Gaulejac (2011). Organisations are characterised by permanent instability, disorder, tension, and a lack of meaning, and they give rise to a 'paradoxical situation in which the individual's attempts to combat incoherence, "resolve" contradictions, re-imbue situations with meaning, and rationalise behaviour, in fact result in increasing complexity, in which antagonistic and contradictory "approaches" win out over complementarity and synergies' (p. 235). The author identifies seven paradoxes with which individuals are confronted at work:

1. The paradox of urgency: the more time one saves, the less one has, and urgency becomes the norm.
2. The paradox of long-term excellence: always excelling and pushing everyone to be exceptional results in the disappearance of those things which are common to everyone, and which link individuals to each other.
3. The paradox of controlled autonomy: people at work today have to prove that they can be responsive, adaptable and creative whilst at the same time obeying the instructions and rules imposed by the organisation.
4. The paradox of willing compliance: the business expects every employee to comply spontaneously with its values, principles, and beliefs but also expects everyone to make their choices willingly.
5. The paradox of impediments to work: employees are expected to prove their commitment but there is no or little recognition or consideration.

Management fails to play its role as a facilitator to groups of employees, despite the importance of this in addressing problems and emergency situations on the one hand, and driving innovation on the other. Employees do everything they can to ensure their activities are successful, in spite of a lack of organisation, contradictory instructions, and inappropriate standards.

6. The paradox of implied desubjectivation: the development of artificial intelligence and information and communications technologies demand intense mental and cognitive effort whilst at the same time requiring the implementation of rigid, standardised procedures.

7. The paradox of cooperation: the organisation is a cooperative system which prevents people from working together. Numerous organisational systems prevent cooperation, because they are based on individual performance, continuous reorganisations of work, and internal competition.

The work situations individuals are currently encountering make significant demands on them at both a cognitive and emotional level. These trends tend to run through all organisations to varying degrees.

These underlying tendencies, however, should not mask the diversity of organisational structures and working conditions.

2.2 Continued existence of a wide variety of work situations

The major transformations of recent years have contributed to accentuating the diversity of systems of work. A European survey (Lorenz & Valeyre, 2005) on working conditions draws a number of conclusions. On the one hand, the way work is organised varies significantly from one business sector to another. On the other hand, different ways of organising work co-exist in Europe. Finally, the ways work is organised are associated with different types of human resources management. In this survey, 15 variables are used to describe the organisation of work in Europe:

- a team-working variable
- a task rotation variable
- two variables relating to autonomous working: autonomy in working methods and autonomy in the pace or speed of work
- two variables characterising quality management methods: compliance with specific quality standards and self-assessment of the quality of work

- three variables linked to the cognitive content of the work: solutions for addressing unforeseen problems, learning new things as part of the job, and the complexity of tasks
- a task monotony variable
- four variables associated with constraints linked to the pace of work: 'automatic' constraints associated with the automatic speed of a machine or movement of a product; constraints linked to quantitative production standards; 'hierarchical' constraints linked to direct management control and 'horizontal' constraints linked to dependency on the work done by colleagues
- a task repetitiveness variable. (Lorenz & Valejre, 2005)

A statistical analysis of the survey results highlights the fact that the variables may be divided along two axes.

The first axis shows opposition between:

Taylorian organisation	vs.	**Post-Taylorian organisation**
• monotony (simplicity of tasks) • the pace of work constraint • the production standards constraint		• autonomy • learning • problem solving • complexity of tasks
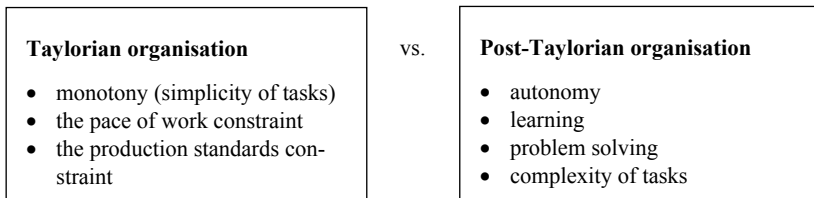
The second axis shows opposition between:

Constraints and simple procedures	vs.	**Freedom and collective working**
• quality constraints • specific quality standards • control of the pace of work		• lean production • group working • task rotation
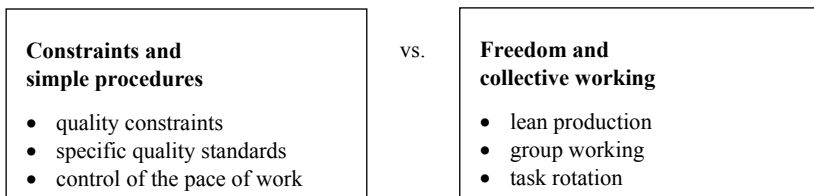
The following graph shows the position of various European countries in relation to these two axes:

Figure 1: Types of organisations in European countries

2nd axis   • **Simple organisation**

Germany

Sweden

Italy

Portugal

• **Learning organisation**   Belgium   Greece

Netherlands

Austria   Luxembourg   • **Taylorian organisation**

1st axis ←   Denmark   France

Finland   Spain

Ireland

United Kingdom

• **Lean production**
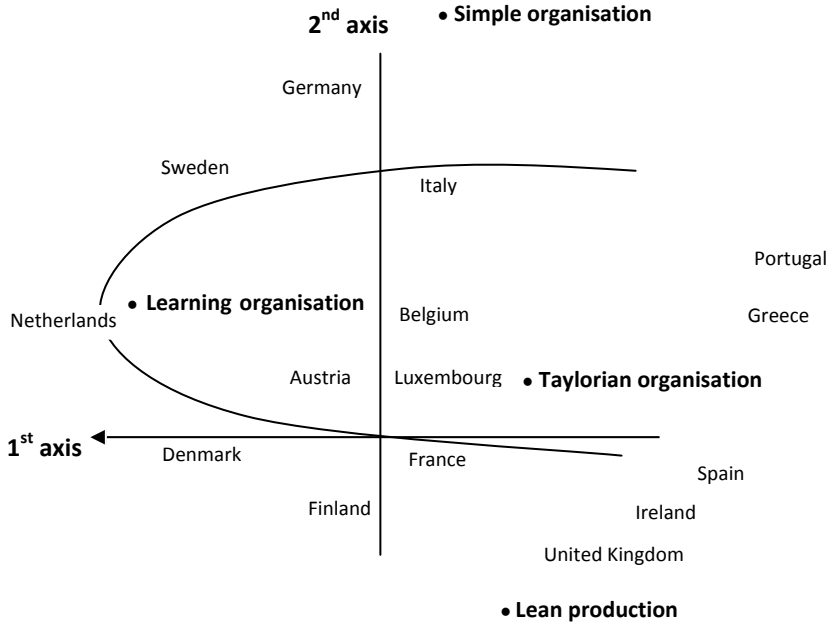
Source: Lorenz & Valejre, 2005, p. 99

Four types of organisation can be identified based on these initial analyses.

1. **Learning organisations** (39% of employees in Europe). Employees in these organisations carry out complex, relatively non-repetitive tasks. They are autonomous, monitor the quality of their work themselves, and are able to resolve any unforeseen problems they encounter. This way of working can be seen in sectors as varied as banking, insurance and business services, generally amongst executives and intermediate occupations.

2. **Lean production organisations** (28%). This type of organisation is influenced by the Japanese model and focuses on team working, task rotation, adherence to quality standards, and quality control. The level of autonomy is lower than in the previous example, whilst constraints around the pace of work and fulfilment of quantitative targets are higher. This way of working essentially involves industrial workers in transport equipment manufacturing, electrical and electronics manufacturing, etc.

3. **Taylorian organisations** (14%) continue to combine work with low cognitive content, repetitive tasks, and constraints on the pace of work. This traditional form of organisation is still found in the food processing and textile industries, and in call centres.
4. **Simple organisations** (19%). These share a number of common features: limited employee autonomy, few concerns over quality, the low cognitive content of the work, limited formalisation of procedures, control through direct supervision, etc. The main employees concerned are shop assistants and unskilled workers (particularly in the transport sector, and in personal services).

The proportion of these forms of organisation varies by country. Northern European countries (Denmark, Sweden, and the Netherlands) have more learning organisations, whilst Greece, Portugal, and Italy have the most Taylorian organisations. Elsewhere, in France and the United Kingdom, for example, the breakdown is slightly more even, but with a preference for lean production.

The main differences between these forms of organisation are summarised in the table below.

Table 1: Main differences between types of organisations regarding ways of working

Type of organisation of work	Learning (%)	Lean production (%)	Taylorian (%)	Simple (%)	Overall (%)
Autonomy in working methods	89.1	51.8	17.3	46.5	61.7
Learning new things	93.9	81.7	42.0	29.7	71.4
Complexity of tasks	79.8	64.7	23.8	19.2	56.7
Team working	64.3	84.2	70.1	33.4	64.2
Task rotation	44.0	70.5	53.2	27.5	48.9
Monotony of tasks	19.5	65.8	65.6	43.9	42.4
Hierarchical constraints on pace of work	19.6	64.4	66.5	26.7	38.9
Quantitative production standards constraints on pace of work	21.2	75.5	56.3	14.7	38.7

Source: Summarised from Lorenz & Valejre, 2005

The conclusion reached by the authors of the study on the organisation of work in Europe is as follows. The types of ways in which the work of employees in the European Union is organised shows that dividing these simply into Taylorian and post-Taylorian forms is inadequate in terms of characteris-

ing the variety of configuration observed. New forms of organisation are not based on a single model in contrast with the Taylorian model. They are divided, in fact, into two quite distinct categories: learning organisations and lean-production organisations. Whilst learning organisations display a range of characteristics which distinguish them from the Taylorian model, lean-production organisations, conversely, still share many of its features, which means they cannot, in fact, be classed as post-Taylorian. In addition, simple organisations are still numerous, and constitute a category which stands outside the dichotomy between Taylorian and post-Taylorian organisations (Lorenz & Valeyre, 2005).

Learning organisations tend to offer better working conditions, more training, and a more stable working environment. They also tend to foster the development of competences. Individual competences are highly sought after in this context. Individuals need to develop new competences throughout their lives to adapt to constant change.

Professional competences emerge as central in all current European research on changes in the workplace. The emphasis placed on competences is justified by the increased pace of change in the content of jobs, associated primarily with the increasingly widespread use of information and communications technologies and continual reorganisations. Individuals therefore need to be proficient in a wide range of technical, methodological, and organisational competences. They need to improve their ability to communicate and learn on a continuous basis. They need to address the contradictory demands of the employment market, with employers seeking individuals who are both highly adaptable (i.e. generalists) and can be operational immediately (i.e. specialists).

As Bunk (1994) emphasises, current working environments imply the use of complex competences:

Simple technical competence is now no longer enough. Methodological, social and so-called 'contributional' competence (the ability to coordinate, organise, make decisions, and accept responsibility for one's own work and for one's professional environment) are also now essential. It is not enough, however, to examine these or transmit them in isolation. What matters is to try to incorporate all of these competences in overall operational professional competence. (Bunk, 1994, p. 14)

2.3 The question of competences in the new working environment

This new context therefore raises questions both about the continued development of knowledge and competences and the professionalisation of those involved. New theoretical models have been developed over the last ten years to provide a means of reflecting on the way in which professionals must now prepare to address the working environment. These oblige us to go beyond microscopic behavioural analyses, which resulted in long and generally unusable competence frameworks, in favour of a more comprehensive approach, where professionals interact with other people to manage different kinds of situations.

2.3.1 The professionalisation of key players

Professionalisation emphasises the notion of individual and collective professional identities in a more or less explicit way. The organisation develops representations of what is expected and what is not acceptable from a 'professional' and thus creates a model of identity which individuals can choose to embrace. This includes providing role models, which individuals can then emulate. Professional bodies and trade unions can also provide information on possible other ways of playing one's role as a professional. As they engage further in their activities, individuals develop their own specific professional identity, based on role models and their own representations, projects, interests, and previous experience. The organisation, for its part, sets up negotiating bodies that play a role in the professionalisation of individuals and the construction of their identity, for example through interviews with their immediate managers to discuss pay increases and training needs.

All key players in the business are encouraged to contribute to the professionalisation of their activity so that it is organised and becomes recognised. They must also engage in a process of professional development and work on building their competences throughout their working lives.

Keyword: Professionalisation

The term *professionalisation* refers to three types of activities and important elements of identity (Sorel & Wittorski, 2005).

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1. Professionalising activities and even particular jobs refers to the ways in which a profession is created: the development of rules for exercising the profession, social recognition that these rules are useful, and the development of training programmes for the activities concerned.
2. Professionalising key players refers to instilling the knowledge and producing the competences required to exercise the profession.
3. Professionalising organisations means developing systems of expertise within firms, which enable them to perform more effectively.

2.3.2 The importance of 'acting competently' in a work situation

What types of competences do individuals need today? Research into competences shows that these are acquired exclusively in a professional context – that is, through engaging in a set of tasks, functions, interpersonal, technical, and organisational activities in conjunction with other professionals.

Keyword: Acting competently

According to Le Boterf (2003), being competent means being able to mobilise a combination of competences deliberately in order to address a set of professional situations.

A comprehensive approach to competences should be taken. 'Acting competently' has replaced 'having competences'. For Le Boterf (2003), acting competently means a continuous combination of 'knowing how to act', 'wanting to act', and 'the possibility of acting'.

'Knowing how to act' implies using and developing resources, organising work situations in ways which foster professionalisation, providing support and organising opportunities to share practices. It also makes use of practical intelligence in a situational context.

'Wanting to act' means assigning meaning to one's action, providing constructive feedback on the work carried out, highlighting development opportunities, demonstrating consideration, and contributing to the quality of working life. Wanting to act is associated with taking the initiative and accepting responsibility.

The 'possibility of acting' refers to various actions such as time management, delegating, making resources available on time, creating positive working conditions, and mobilising networks of key players.

In this new working environment, the attitudes and behaviours of individuals, namely the way in which an individual approaches their environment in a 'situational' context and the way they behave, are particularly important. This is what some authors, such as Zarifian (1999), refer to as social competence.

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Keyword: Social competence

Social competence refers to the behaviours manifested in three areas (Zarifian, 1999):

- autonomy
- acceptance of responsibility
- communication.

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Autonomy, acceptance of responsibility, and communication form an integral part of professional competences. It seems today that what are sometimes described as 'social competences', which refer to the ways in which an individual approaches their working environment, are becoming essential in addressing the complexity of current professional situations.

Any professional must rely on both their knowledge and their previous practices but also be capable of adapting and inventing new solutions. The situation, knowledge, and competence therefore work together as a system, with each element continuously feeding into the others.

2.3.3 Training schemes that facilitate problem solving in a range of situations

Resolving complex problems has become a dominant activity in the new contexts in which work is performed. Nonetheless, it is essential for work situations to provide more support than they currently do for the development of problem-solving processes, in particular by emphasising the importance of reflection and analysis in work situations. The principle of alternating between theory and practice should be more widespread. In practice, resolving problems relies both on identifying the actions and procedures associated with a particular work situation and constructing an interpretation of the situation, which must be consistent with implementing the relevant know-how. It may also be beneficial to alternate between real professional situations in context and simulated professional situations (case studies, games, role plays, etc.) and to use online resources to acquire theoretical knowledge. In these

contexts, individuals should be offered training schemes which alternate between real work situations and simulated situations (Ledru, 2004). These schemes are useful in facilitating the identification of the cognitive processes at work in problem-solving processes and transferring these procedures to similar situations. They can also facilitate the transformation of mental representations during group discussions. Finally, they should enable the trainee to make sense of the potential contribution made by theory, by encouraging them to develop a targeted approach to research. This approach can be developed based on problems relating to the work activity, identified with the help of a tutor and the individual's fellow trainees. Once the research has been completed, a comparative analysis can be carried out between field data and theoretical data, thus enhancing the individual's representations of the situations and problems encountered (Ledru, 2004).

To conclude, we should emphasise that it therefore seems essential for new forms of support for professionals to be created to help them develop their competences on an ongoing basis. These new ways of providing support for acquiring competences in a particular situation imply changes in the profile of adult trainers. In particular, this means a shift away from the traditional idea of the training situation, which is often limited to face-to-face sessions between teacher and students. More specifically, Ledru (2004) emphasises that trainers must develop their

- relationship to knowledge: trainers must be able to demonstrate subject-matter expertise and their abilities in facilitating and working with groups.
- relationship with their trainees, which implies an ability to listen effectively and provide specific support in line with individual needs.
- relationship with the group, because the trainer needs to be able to work with groups of different kinds (from forums to virtual classrooms) and in varied contexts (video conferences, company training courses, etc.).
- relationship with the organisation, since trainers need to be able to adapt to a varied range of demands and contexts.

Exercises and tasks

Exercise 1

Re-read the seven paradoxes identified by V. De Gaulejac described in this chapter. Write two pages summarising the principal consequences of these paradoxes.

Exercise 2

The following text is taken from P.E. Tixier (2010), *Ressources Humaines pour Sortie de Crise*. Paris: Les presses de Sciences politiques.

1. We should remember, however, some operational implications which the social sciences, as applied to management, put forward in terms of organisational development. A group is more competent than the sum of its individual competences as soon as it has to address a collective task, but on one condition: that it is a socially constituted group.
2. Research carried out by psycho-sociologist Jacob Moreno on the performance of squadrons of American pilots going to bomb Germany during the Second World War showed that the crews which suffered fewest losses in flight were not those whose members were the most intelligent or the best trained, but those who had been able to create a relationship based on implicit communication and common knowledge, in other words collective social and cognitive capital.
3. The famous Hawthorne studies carried out by Elton Mayo and his team at Harvard University provided ample proof that behaviours in terms of individual productivity depend first and foremost on two key factors: the feeling operational staff have that the business is interested in them through its tangible actions and that it recognises them as people, and a management style amongst immediate supervisory staff which prioritises the quality of human relationships at a group level. (Tixier, 2010, p. 16)

Write a one-page summary of the contribution made by groups to the organisations.

Task 1

Read the the following report by Lorenz and Valeyre:

Lorenz, E., & Valejre, A. (2004). *Organisational change in Europe: National models or the diffusion of a new one best way?* DRUID Working Paper, 04–04. Available from http://www.druid.dk/wp/pdf_files/04_04.pdf.

Try to identify the main reasons why certain types of organisation are more common in certain countries. Discuss these in your group.

Task 2

Arrange an interview with an adult training provider and identify the main paradoxes they face in their work, referring to those identified by V. De Gaulejac (2011) and discussed in this chapter.

3. Professionalisation and the Development of Competences in Education and Training

Richard Wittorski[1]

The word *competence* in relation to training and working practices appears to be closely associated with the word *professionalisation*. Why has this association come about? The main reason is probably to do with the fact that adult education is supposed to prepare people as effectively as possible for employment, a return to employment, or a change of career. Its main focus is therefore on professional 'traits' which can be used directly and effectively to manage a particular professional situation. As a result, it is hardly surprising that there is a close association between competence and professionalisation. The word *competence* also carries positive connotations of operational effectiveness and efficiency in relation to action. European and international texts increasingly emphasise the need to professionalise the provision of adult education in conjunction with the promotion of competence frameworks (for example, the European framework of basic competences), which are used to define learning objectives more clearly. The fact that competence frameworks have 'come back with a vengeance' is linked to this approach. Furthermore, as soon as any reference is made to professionalisation, increasing importance is immediately placed on the work situation or, in a broader sense, on the activity, in relation to the development of competences. According to what is now a well-established conception, competences cannot be taught but are developed by engaging in the activity as closely as possible.

The aim of this chapter is therefore to help readers gain a better understanding, initially, of the meanings of the word *professionalisation* and those which link it particularly to the term *competence*, and secondly, to present what is known about the ways in which competences are developed through engaging in a particular activity. Thirdly, we will explore the idea that if professionalisation and the development of competences are closely linked, the

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[1] This chapter focuses on professionalisation and refers to numerous French publications, given the extensive research carried out in this area in France. It draws heavily on two previous publications by the same author: Wittorski, R. (2007). Professionnalisation et développement professionnel. Paris: L'Harmattan, and Wittorski, R. (2008). La professionnalisation: Note de synthèse. Revue Savoirs, 17, 11–39.

individual but also the collective challenge must above all be one of identity, in the sense of recognising where one stands within systems of professional activity.

3.1 Professionalisation: A polysemous word

The word *professionalisation* has appeared in a number of places at different times (in social groups from the end of the nineteenth century inwards, and businesses and the education world for a few decades), and for a variety of intentions, from groups of individuals performing the same activity who want to organise themselves on a free market, to organisations and institutions which want to 'shift' employees towards supporting increasingly flexible working patterns, and individuals who want to contribute to the development of their own competences through training, whilst at the same time increasing the effectiveness of the training process.

3.1.1 Professionalisation and the professions

The word *professionalisation* comes from American functionalist sociology (in particular the research by Parsons) (Gerhardt, 2002) and refers, in its primary sense, to the process by which an activity becomes an independent profession driven by a service-oriented ideal. The word *profession* appears in a free-market context, where economic players feel the need to develop a rhetoric concerning their contribution to the market to establish and enhance their place in it. This is probably where we should situate the appearance of the word *profession* in English-speaking countries in the early twentieth century, when it was also associated with the image of the independent professions. In some European countries (such as France), it appears in a different context, characterised by a hierarchical state: in this case, the idea of a *profession* is based not so much on the model of the independent profession but more on a central government model. The issue then was therefore to ensure one's position was recognised in order to obtain a better position in the state hierarchy.

The word *competence* has no real place in this primary meaning.

3.1.2 Professionalisation and efficiency at work

The various uses of the word *professionalisation* in working environments, in particular by businesses that produce goods and services in highly competitive markets, and tasked with changing the way their activities are organised, lead us to another meaning.

The issues faced by these organisations are obviously not concerned with the development of professions in the social arena, but with the professionalisation of employees, understood as an intention to *develop competences likely to support flexible working* (through continuously modifying competences linked to changing work situations). In conjunction with the above, the fact that businesses talk about professionalisation is a recent phenomenon and reflects a number of changes which are closely connected to each other, such as:

• the shift from an approach to production driven by supply (work is planned by the business) to an approach to production driven by demand (employees are invited to be 'key players and drivers of change')
• the shift to a results-oriented approach
• the move from a centrally controlled system to a degree of decentralisation of responsibilities.

This second meaning of the word associates it very closely with the word *competence*, emphasising not only competences associated with the exercise of a particular profession, but also competences which are directly useful for the needs of the work immediately at hand. This then prompts the emergence of interest in so-called *transversal competences*, which may come into conflict with specific professional competences. The search for more transversal competences goes hand-in-hand with a trend towards the institutionalisation of work (in the sense of its more local definition, in particular organisational contexts, independently of the activity markers defined by professional groups).

3.1.3 Professionalisation and adult education

Training environments have also seized on the word *professionalisation*: which training actions today do not claim a professionalising aim? Professionalisation clearly has 'the wind in its sails', driven by national and European guidelines on the organisation of initial and continuing education and advocated by the private sector.

What are the reasons for this and how does it manifest itself? On the one hand, we are seeing a change in the issues related to the training process in working environments. As a result, we are seeing experimental schemes based on an attempt to link training more closely to the work itself; it is no longer a question of deductive transmission of practical and theoretical content or, conversely, of learning on the job (informal training) but of bringing together action in the workplace, an analysis of professional practice, and experimenting with new ways of working. Approaches to the use of training are therefore changing: they are no longer based so much on helping the workforce to adapt to change but more on implementing and supporting organisational change. This means anchoring training programmes more firmly in actual work situations. This is resulting, for example, in more partnership-based training schemes, which are more complex and involve a variety of players. The issue then becomes one of questioning and connecting three things which are usually separate: the act of 'active production' (working in the business), the act of reflecting on and/or researching the conditions needed to change working practices, and the act of training itself.

Furthermore, training environments highlight the professionalising nature of the training provided in order to increase the perceived efficacy (as experienced by clients) of training schemes and improve the status and legitimacy of training practices. From this point of view, professionalisation constitutes an important issue of identity for training environments (often in conjunction with the introduction of quality procedures).

As we have seen, the aim of professionalisation thus becomes part of a system of social regulation. We can conclude that the word *professionalisation*, which is highly polysemous, because it reflects a variety of issues and therefore has different meanings depending on who is using it, has at least three senses: the constitution of an autonomous social group ('professionalisation and the profession'), support for flexible working ('professionalisation and efficiency at work'), and the process of 'constructing' a professional through training ('professionalisation and adult education'). These meanings, far from being interconnected, are opposed to each other and therefore drive social debate.

The second two of the three ('professionalisation and efficiency at work' and 'professionalisation and adult education') form part of a particular social context marked by converging changes in work and training, which are introducing a new conception of the professional (autonomous, responsible, adaptable, a reflective practitioner) and which, at the same time, place particular emphasis on the necessity of developing competences which can form the basis of greater professional effectiveness for individuals in the work-

place. The question is now to determine what we know about the ways in which professional competences are developed.

3.2. The development of competences: Varied processes

If it is accepted that competences cannot be taught but must develop within a professional situation, it then becomes necessary to understand more clearly how they are developed through work: this is the idea behind professionalisation through action.

Several research projects, in different theoretical fields, are thus particularly interested in the ways in which organisations (the notion of 'qualifying' and learning organisations), the presence of a third party (the notion of support), or finally investment in a professional activity can facilitate learning and professional development (see box below).

Keyword: Professionalisation vs. professional development

These two terms are frequently used synonymously, even though there is a fairly distinct difference in the main research projects conducted on them. *Professionalisation* is often seen as being linked to social expectations and the training actions offered by firms to support the development of competences amongst individuals. *Professional development* is more about the way in which an individual learns from the situations they encounter and how they develop their competences.

3.2.1 The development of competences within the organisation: 'Qualifying' and 'learning' organisations

The term *organisation qualifiante* ('qualifying organisation') was introduced in 1987 by a French business leader, Antoine Riboud (Chairman and Managing Director of BSN). According to one of his supporters, Zarifian (1992, p. 16), its principles are as follows:

- A qualifying organisation is an organisation which reveals an events-based approach to industrial activity, in an economic environment characterised by uncertainty.
- The qualifying organisation presupposes a reorganisation of industrial activity based communications.

- By principle of communication, we mean the principle that people agree on both common objectives ... and on the interaction between their activities necessitated by the practical realisation of those objectives.
- A qualifying organisation is one which allows its members to re-write the objectives of their work activities.

Overall, 'an organisation only becomes a qualifying organisation from the point at which there are choices to be made, proposals to be produced and a position to be taken to guide professional activities' (ibid.).

In tangible terms, qualifying organisations can be recognised on the basis, for example, of collective working, training through action, project-based working, and group participation (developing an ability to analyse one's own performance in the workplace). According to supporters of these forms of working, they are organisations which foster the development of competences and therefore the professionalisation of individuals.

The notion of *organisational learning* comes from work done by English-speaking researchers (notably Argyris & Schön, 1989). It is based on the idea that the organisation itself can have the ability to learn (and can develop collective competences) by remembering processes which have been implemented and have proved useful.

The notion of a learning organisation has thus been developed primarily to structure the process of transforming an organisation when managing *ad hoc* events (for example, a motor manufacturer installing a new production line or a breakdown occurring in a workshop). The new rules and standards produced as a result of managing these situations create organisational learning opportunities if competences are capitalised. The process of capitalisation is often based on defining new procedures. Argyris and Schön (1989), inspired by the work of the Palo Alto school of communication (especially Bateson and Watzlawick), identify three distinct types of organisational learning (see box below). They describe the process of organisational learning as follows:

For organisational learning to take place, it is important for learners' discoveries, inventions and evaluations to become part of the organisational memory. These need to be encoded in the organisation's shared images and cognitive maps of 'theories in use', which staff will continue to use as the basis for their actions. Otherwise, the individual will have learnt but the organisation will not. (Argyris & Schön, 1989, p. 125)

Keyword: Three types of learning according to Argyris and Schön:

Single loop learning consists of making simple adaptations to existing knowledge without fundamentally challenging them.
Double loop learning involves challenging an existing organisational standard or rule, fundamentally transforming one or several items of shared knowledge.
Deutero learning refers to the resources with which the organisation equips itself to manage the two previous learning methods (the organisation 'learns to learn').

3.2.2 The development of competences through a third party: Support

So-called 'support' schemes seem to be increasingly common today and are closely associated with competence development approaches, and therefore with professionalisation: they can be offered in the form of work-based learning schemes (tutoring, for example) or as part of an induction process (often referred to as sponsorship). Their primary function is often to help employees settle into the workplace in order to improve efficiency.

According to Boutinet (2002), the emergence of support situations characterises a change in society around 1970–80, when

the major integrationist structures of the family, school, religion, and professional life began to malfunction in a significant extent. Providing support then became a way of managing borderline situations, crisis situations, and problematic decision points ... for adults questioning their personal and professional future.

The provision of support

expresses the overlaying of a new existential paradigm on one that is beginning to be worn out as a way of addressing the nagging concern that social integration has represented for a generation. In being superimposed on the project, the new paradigm of support suggests the idea of an endless and insecure career path, in which we wander from transition to transition both as young people and in our adult lives. (Boutinet, 2002, p. 7)

Practices in this area fluctuate. They include coaching and the idea of training, counseling and the idea of offering advice, tutoring, and learning or socialisation (tutors today have more of a role as facilitators), as well as mentoring and the idea of education. The mentor – a role originally created in the United States, 'is one of the figures who provides support, whose role is justified by the fact that an individual cannot develop solely by being in contact with their peers: they need to be in touch with people who are older than themselves' (Paul, 2002, p. 48). Further support practices include apprentice-

ships and the idea of transmission, sponsoring and the idea of sponsorship, and mediation (the introduction of a 'third-party trainer': experiences of self-guided learning and cognitive remediation practices). One of the questions raised here is therefore how to acquire a better understanding of how professional development operates in the process of providing support.

3.2.3 The development of competences in and through work activity

Another area of research is specifically interested in how an individual's activity can support learning and even professional development. As Champy-Remoussenard (2005, p. 37) says, 'the fact that work activity prompts continuous learning and produces new knowledge is a major element for those who work in training and from the point of view of professionalising key players.'

We should first draw a distinction between *learning* and *development*. We would argue that learning is essentially local in temporal and spatial terms, insofar as it is linked to a particular place and time, whilst development works over a more extended time frame, constructing the subject over the long term.

Intuitively, people often distinguish between a number of different ways of learning: through action (by doing), or through the acquisition and/or construction of knowledge. This relates to some extent to the distinction between formal and informal learning. The next section provides a quick overview of the six main theses that seem to be particularly influential in current research.

There is a variety of situations that have a positive impact on an individual's competence development.

According to Le Boterf (2007), professionalisation, in the sense of the development of competences, stands at the crossroads of the subject (their history and socialisation), the professional situations they have encountered, and the training and educational situations and paths they have experienced. According to him, an individual's progress towards professionalisation (based on a 'professional navigation' approach) reflects their experience of varied situations (in addition to just 'face-to-face' training), which all represent opportunities for the subject to engage in an activity with a positive impact on their development: examples include supported self-guided training, simulations of work situations, supported work situations, opportunities to provide feedback on their experience, shared practice situations, study trips, drafting memos, and business meetings.

Competences are developed through the increasing inclusion of action-based competences and their hierarchical organisation.

As far as learning in the workplace is concerned, one of the dominant conceptions of workplace analysis proposes that people first learn 'built-in competences', either through impregnation, or through action, or in a controlled way (Leplat, 2001). Built-in competences enable the acquisition of broader competences, because they 'provide rapidly available units of action for higher-level activities, based on knowledge' (Leplat, 2001, p. 42). Professional development thus relies on increasingly incorporating action-based competences and a gradual process of selection and prioritisation of these competences.

The development of competences is closely linked to the constitution of experience.

Several conceptions (see Argyris & Schön, 1989; Dewey, 1967; Kolb, 1984) can be identified in research on the construction of experience. They are united by the fact that they view experience as a subjective construction based on the actions carried out by the individual, and therefore the competences they develop. They vary in the importance they attribute to the subject's awareness of the learning taking place.

> **Keyword: Experience**
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> Experience is knowledge linked to a particular activity and mode of acquisition. It operates on two levels: doing and knowing. There is an ongoing debate between those who think that built-in practices constitute experience in the same way as those of which individuals are able to 'become aware'. In relation to this, Ricoeur (1977) differentiates between idem identity (experience as a repertoire of memories and knowledge) and ipse experience (experience as an active transformation of previously constructed resources for action in the future).

Competences develop through contact with oneself, with others, and with things.

Trends in informal learning (which include, but are not limited to, the question of learning in conjunction with participating in professional practice) and self-guided learning emphasise the fact that we learn through contact with ourselves, with other people, and with our physical environment, but that

learning is not automatic: it depends on self-efficacy,[2] on our ability to manage ourselves, and on self-monitoring.

Moisan (Carré, Moisan, & Poisson, 1997), on the other hand, argues that a work situation prompts more self-guided learning the more it exists within a professional bureaucracy-type organisation (referring to work by Mintzberg), where the non-routine nature of the work makes it impossible to define procedures for it (prescription therefore decreases). The development of competences is therefore fostered, in particular, by the indeterminate nature of the work situation and the necessity of reflecting on one's actions.

Carré and Charbonnier (2003), in their work on informal learning in the workplace, based on a vast ethnographic-type field survey, show that this type of learning takes place not only when problems arise or when there is a break between two activities, but also when there is an opportunity for dialogue between older and younger staff (inter-generational relationships), in 'third times' or 'third spaces' (transitional situations), at the point at which someone starts a new job (the idea of testing and being put to the test), and so on. Informal learning in the workplace is fostered both by a harmonious relationship between the culture of the business and the motivation of individuals to learn, and by a favourable attitude to formal or informal learning, which the authors describe as *apprenance* or 'a proactive relationship to knowledge' (p.25).

In more general terms, everyday situations, depending on the work involved, may be conducive to learning: examples include do-it-yourself, gardening, and the like. The art of do-it-yourself and the ability to 'make do and mend' reflect, for the authors, the *metis*, which is a form of practical intelligence with a focus on efficiency; it produces many forms of knowledge which are useful in life (such as the artisan's dexterity, resourcefulness, the ability to seize opportunities, and so on (the *kairos*).

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2   The sense of self-efficacy has been studied in particular in the context of the theory of social learning, by Bandura (1997). According to this theory, a person finds it more or less easy to engage in a particular activity based on the system of expectations and self-images they have constructed for themselves previously. Bandura distinguishes between expectations relating to the sense of competence (a person's degree of conviction about their ability to execute a given behaviour successfully) and expectations relating to the results of the action (the conviction that this behaviour will make it possible to achieve the desired results). Self-knowledge (interests, aversions, abilities) and self-esteem (the individual's perception of themselves and the values they attribute to themselves) together form the basis of an individual's representation of themselves.

The development of competences supports a co-determination and co-transformation of activities and actors.

The theses examined here have in common the fact that they consider it to be essential to study the action in conjunction with the situation to understand the mechanisms by which competences are developed.

According to constructivist and social-constructivist theories[3], the development of competences is conceived as a co-construction and co-transformation of the subject and their environment: 'the agent, the activity, and the world each play a reciprocal part in the construction of the other' (Lave & Wenger, 1993, p. 33).

The approach of professional didactics (examined in Chapter 3 of this book) sees the development of competences as a process of developing schemas, operational invariants, and concepts of organising action.

According to cognitive ergonomics and cognitive anthropology/sociology (e.g. Hutchins, 1988; Theureau, 2000), professional development also relies on the communications produced as part of the activity: these have the status of transactions and a role in coordinating the actions of individuals (situations such as exchanging information within work teams, for example in an aircraft crew). Savoyant (1974) picks up the notion of task interdependence proposed by Weick (1965). The author distinguishes between three forms of task interdependence:

Cumulative interdependence: what is produced by one individual becomes the input for another individual; *disjunctive interdependence*: there is a disjunction when, in accomplishing a task, it is sufficient for a single member of the group to give the right answer, and subjects can therefore work independently; and *conjunctive interdependence*: in this situation, all the members of the group have to give a specific response for the group to succeed. (Savoyant, 1974, p. 228, emphasis added)

This third level seems to relate to interactive situations seen as problem resolution situations in which new forms of coordination between individuals appear. Woods and Roth (1988), for their part, speak of a 'shared cognitive system', which can be used to trace the movement of information and describe the cognitive processes at work in an interactive situation. This notion is also close to that of 'socially distributed cognition', introduced by Hutchins (1988) in cognitive anthropology.

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3   For Piaget and those who followed him, particularly, learning consists of modifying one's schemas based on interactions with the environment, a mental activity of reorganising data, or developing a representation. Some research projects following on from Piaget created the social-constructivist trend, in particular the work of Doise and Mugny (1981), which showed that learning also takes place in a context of cooperation and interaction.

Individuals develop a meta-competence and become reflective practitioners.

The model of the 'reflective practitioner' (referring to the work of Argyris and Schön, 1989), seems increasingly omnipresent whenever one hears professionals and researchers in adult education speak of professionalisation and the development of competences in individuals. According to this model, professionalising an individual means ensuring that they are able to step back from their own actions and that they develop competences geared to an analysis of their own actions.

The use of reflection by individuals in relation to their professional practices is growing. Programmes are often based on the intention of transforming an individual into a professional who is capable of developing a view of their practices so that they can adapt more quickly to changing working environments. From this point of view, the challenge of such schemes probably lies in the 'flexibilisation' of people in order to support flexibility in the workplace.

As a result, practice analysis processes are appearing in fields as varied as social work, education, and industry. Formalising this process either orally (in a practice analysis group) or in writing (through writing about practice) is comparable to the production of statements, sometimes referred to as action knowledge (Barbier & Galatanu, 2004).

As we have seen, there are various models in relation to the development of competences. Sometimes, they rely on an analysis of the contribution made by the organisation (via the resources it offers: primarily the notions of the qualifying and learning organisation) or a third party (support, whether it is referred to as coaching, tutoring, or mentoring) to the development of competences; sometimes they rely on an analysis of the joint development processes of the work activity and competences (construction of experience, ability to reflect, etc.) in a professional context.

At the end of the day, however, what is the main issue in the development of competences and professionalisation? It certainly involves developing effective means of action in individuals but the main challenge, viewed from the point of view of the aim of efficiency, is that of attributing a place (being recognised as a competent professional by the firm), which presupposes a transaction with the environment (between the aspects of themselves the individual wants to have recognised and what the environment expects of them via the competences they are assumed to have). Taking the issue of identity into account results in a certain conception of the word competence, which has less to do with an individual characteristic than a social attribution in relation to quality.

3.3 The development of competences and professionalisation: A question of identity

Finally, the development of competences comes down to the close interplay between what the individual shows of themselves in a work situation (primarily through the competences they use, what the environment expects (the task, in the sense of work psychology) and recognises about them based on effectiveness criteria (the attribution of a competence to a subject based on what they do) or according to legitimacy criteria (the attribution of the qualifier 'professional' to the actions carried out by the individual).

3.3.1 The attribution of competences to individuals based on the action processes they are engaged in

The term *competence* is a word taken from social discourse but also the product of an inference based on observing the activities of an individual; moreover, it is often difficult to define the content of competences (because they are always complex and liable to change in a given situation), but at the same time it is valuable and useful to understand how the activity has developed. Taking into account the fact that the word *competence* has appeared relatively recently in educational and working environments, often as a substitute for the word *qualification*, and that the reality it describes already existed, despite being referred to in different terms, we have chosen, in line with a constructivist epistemology (see box) to reserve the word *competence* to describe the view the environment has of what the individual does (the social attribution of 'qualities' by the environment to an individual who acts in a way which is considered to be effective). We will therefore later use the term *action process* to describe what the individual does in a particular situation and the word *competence* to characterise the social attribution of a quality to the individual by their environment based on a judgement of their effectiveness.

> **Keyword: Constructivist epistemology**
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> Epistemology is both the study of the methods by which fields of knowledge are constituted and developed and the way in which each of us conceives of reality or produces knowledge about ourselves. We thus all have an epistemology. It is in this second sense that the word is used here.

In brief, there are two contrasting epistemological options:

- a so-called 'ontological' option, which considers that what sur-rounds us constitutes a reality, an 'order of things', which predates human beings and imposes itself on them as something which was 'already there' without human intervention
- a so-called 'constructivist' option, which considers that reality does not exist independently of the people who construct it, particularly in relation to social concepts (one therefore uses the term 'social construct').

Two 'levels' can be distinguished:

- At a micro level, action processes (giving rise to an attribution of compe-tences) can to some extent be seen as the operating methods and ways of working of individuals and are in this way impossible to dissociate from their behaviours. Ergonomics and occupational psychology provide use-ful frameworks in relation to this.
- At a macro level, the attribution of competences (to subjects whose ac-tion processes are recognised as effective) sits at the intersection of the production and educational systems which use, shape, quantify, describe, and classify competences. Sociology provides some interesting frame-works in this area.

Our intention is not so much to characterise the content of an action process (what it is) but the way it is constructed using the combination of resources the individual has available to them (in themselves and in their environment). From this point of view, we believe it is important, in order to understand the development of an action process, to comprehend the configuration in and through which it is constructed ('configuration' here is defined as the inse-parable combination of the individual, the context, and other actors, including anticipating and gambling on the judgement made by society).

Action processes (which give rise to the social attribution of compe-tences) are constructed in configurations which constitute particular forms of connection between five components in three spaces (Wittorski, 2007):

- the cognitive, cultural, affective, social (these last two components are particularly relevant to identity), and 'operational' components
- the space occupied by the individual or group which produces or creates the action process (the 'micro' space), the space occupied by the imme-diate social environment (the 'meso or social' space, which is the level of socialisation, group membership, work communities, and service), and

the space occupied by the organisation of which the individual is a part (the 'macro or societal' space). The meso and macro arenas will attribute the status of competence to certain action processes based on specific criteria (often related to the effectiveness of the action).

Let us explain each of these elements in detail.

- The **cognitive component** (which includes knowledge, understanding, capacities, and ways of viewing and thinking about situations), is part of the microsocial space (the individual or group which creates the competence). It is made up of two elements: on the one hand, cognitive representations (knowledge and understanding acquired through training but also through experience), the action schemas which can be brought to situations (capacities) and implicit theories; and on the other, the representation the subject creates about the situation in which he/she finds himself/herself, that is, the active construction by the actor of the meaning of the situation (the image they create for themselves of the context and environment, based on Lave's 'setting' (1988)). This second element appears to play an essential role in the production of an action process.
- The **affective component** is one of the drivers of the action process. It combines three elements: on the one hand, the *affective relationship to self-image* (does one see oneself as capable of acting or not? What is our relationship with self-image?); on the other hand, our *affective investment* in the action (i.e. whether we enjoy or simply tolerate what we do), and finally *commitment* (i.e. motivation). This affective component, which characterises the space occupied by the individual or group which creates the action process, is primarily influenced by the space occupied by the immediate environment (the meso or social space). Effectively, when the working environment (the department or team) makes a positive or negative judgement on the action process implemented by the individual, this will have a corresponding positive or negative effect on motivation, and influence the affective relationship with the individual's self-image. Some action processes may therefore be eliminated or, conversely, strengthened, as a result of the affective conditions in which they are produced.
- The **social component** of an action process sits at the intersection of the three spaces mentioned (the individual, colleagues, and the organisation). This social component includes, on the one hand, the choice the individual (or the group) makes to implement and therefore seek recognition for a particular action process, primarily based on what they know of their own capacity for action and their place in the organisation, and depend-

ing on the gamble they have taken with regard to future recognition of their action by the environment or organisation. The production of an action process is then located in this anticipation of the nature of the social evaluation of the action process. It includes, on the one hand, an act of formulation and description by a third party, which consists of qualifying and recognising (according to specific effectiveness and relevance criteria) the action process as soon as it is implemented successfully (in the eyes of the third party). This equates to the attribution of a competence (the action process is described in terms of competence). This means that competences (in the sense of a social evaluation of action processes) form part of a dynamic of negotiating identity with the environment, and are one of the key elements which enable a social affirmation of identity (action processes are also produced according to what one wants to show of oneself to others). From this point of view, there is a strong link between the two notions of identity and competence.

- The **cultural component** of the action process relates to the way in which the organisational culture (the rules and values it conveys) and/or the professional group to which the individual belongs will prompt them to act in accordance with the expectations expressed: for example, an organisation which conveys a strong culture of autonomy and responsibility at work, or recognition by peers of status as a 'true professional' as soon as someone has mastered a particular knack, even though the same work could be accomplished in different ways. It is clear that this cultural component, which functions as a model of identity ('be autonomous and responsible', for example) comes from the influence of the macro space (the organisation) on the meso (team) and especially the micro space (the individual taking action). The criteria used to attribute competence to the subject are obviously influenced or even determined by this cultural dimension.

- The **'operational' component** of an action process, for its part, relates to the level of the individual taking action (the micro space) and to the activity, that is, the work carried out (based here on the distinction between task and activity introduced by occupational psychology). The activity is made up of several operations in which the action processes implemented by the individual each play a part.

These five components appear to be inextricably linked. They are closely connected to the three spaces mentioned. For the sake of simplicity, we could say that the organisation (the macro space) and teams/departments (meso space) attribute the quality of competence to a subject based on a judgement

46

of effectiveness applied to a certain number of action processes implemented by the individual. The organisation thus often has the task of evaluating, codifying, and creating a hierarchical structure for the attribution of competences used to define levels of responsibility and levels of compensation. What social actors designate as competence therefore becomes the subject of negotiation and a question of recognition between actors.

The word *competence* is therefore a useful designation for the social attribution of a quality to an individual, based on observation of the success of their action.

3.3.2 Professionalisation and the development of competences in identity negotiation

Socially, what we call identity characterises the 'interplay' (in the strategic and dynamic sense of the term) between on the one hand, the subject's affects and representations of their place and that of its action in the environment (past, present, and future) and, on the other hand, the social recognition of the subject by this same environment. From the individual's point of view, the interplay resides in the development of a strategy of self-recognition and, from a social perspective, of a set of situations which will allow, for example, the attribution of competences to action processes that prove successful (this is one of the main tools used to recognise identity in current work systems). In the context of professionalisation, we can add that a scheme offered to an individual constitutes a model of identity (an 'injunction' to comply with the expectations expressed by the organisation), which may be congruent or conflict with the plan the individual is pursuing for themselves. Training actions designed to further professionalisation and the development of competences may then lead to tensions around the question of identity, which give rise, as Kaddouri says, to the development of identity strategies, 'as the role of all acts and discourse is to reduce, maintain, or prevent the development of discrepancies between one's identity for oneself and one's identity for other people, and between inherited identity and desired identity' (Kaddouri, 2005, p. 109).

Kaddouri (2002) adds that,

in constructing their own identity, the subject is (in our view), faced with two kinds of tension. The first arises from the confrontation between two identity orientations. The first is that of the subject themselves, who, in an interpersonal struggle with the other, fights to self-design. The second is the attempt to impose on them what they should be in order to

comply with the other's person's plan for them. The second type of tension is a consequence of the first: it is fueled by socio-affective relationships of interdependences and the power struggle between the subject and the other in the battle for the authenticity of the construct concerned. This is a question of determining the place and role the subject assumes in defining the outline and direction of the process of constructing their self. These tensions and struggle are necessary in order for the subject to construct their own identity, seen here as an indivisible whole in spite of its multiplicity of components. (p. 31)

As soon as one begins to think about identity in terms of transactions, as a dynamic process rather than a state, it becomes a process of managing discrepancies and tensions rather than a stable condition.

Identity, however, is not only a matter of social negotiation (the social and cultural components of competence: identity for the other is negotiated and is for the other person) but also of action (the cognitive, affective, and operational components of competence: identity is for oneself). The development of competences is therefore both about action and a dynamic process of identity construction at the same time, with the two elements appearing to be inseparable.

The following table shows professionalisation and the development of competences as a process of identity negotiation between the subject and their environment (organisation or professional group), based largely on a process of social construction (social recognition) of competences.

Table 2: Conceptual relationships between competence and identity

		Professionalisation and the development of competences as a process of identity negotiation.				
		subject-environment				
		5 related components				
		Cognitive	Affective	Social	Cultural	Operational
3 S	'Micro' space (the individual or group which creates the competence) Space in which identity seeks recognition	Availability of knowledge, understanding, and capacities; meaning assigned to the situation by the individual taking action	Affective relationship to self-image, affective investment, motivation	Identity for oneself; identity strategy (related to an identity plan)	The action process is geared to the expectations of colleagues and organisational or professional injunctions	The action process takes place during a work operation which forms part of the current activity
P A C	'Meso' space (work colleagues (as observers), situation) Space in which identity is negotiated	The particular dynamic of the teams defines the shape of the work situation experienced by the subject	The views of colleagues have a positive or negative influence on the affects felt by the individual taking action	Identity for others and, in the end, recognition of identity (attribution of competence to the subject based on a judgement being made of the effectiveness of the action process implemented)	Expectations of colleagues about ways of working	The activity depends on the activity system in use within the service or department
E S	'Macro' space (organisation / professional group) Space in which identity is modelled and given recognition	The organisation defines work situations and the requisite knowledge and understanding	The organisation defines work situations and the requisite knowledge and understanding		Injunctions from the organisation or the professional group to which the subject belongs	It also depends on the choices made in respect of the organisation of work and the tasks prescribed.
	Facets of identity	Identity is 'known'	Identity is 'felt'	Identity is 'negotiated'	Identity is 'assigned'	Identity is 'enacted'
	Role of experience	Draw on available experience to act				Experience is constructed 'in action'

Source: Adapted from Wittorski, 2007

A number of comments should be made on the table. The three spaces (individual, work colleagues, and organisation) in which action processes are implemented play different roles in relation to identity. The micro space (the individual taking action) is, as we have seen, the space in which identity seeks recognition (seeking, in particular, for action processes to be recognised as competences); the meso space (the department or team) is the space in which identity is negotiated (on a daily basis, in the working environment); and the macro space (the organisation) is the space in which identity is modelled (through the assignments given) and also in which identity is recognised (for example, through the employee's performance review, carried out by their line manager).

The aspect of identity which is 'worked on' (from the individual's point of view) varies across the different components of the action process. It is sometimes anchored in cognitive dimensions with a practical application in terms of action ('known' identity), sometimes in the affective dimension related to the action ('felt' identity), sometimes in implementing a negotiation strategy with peers in a professional situation ('negotiated' identity), sometimes in the acceptance (or not) of an identity assigned by the organisation or professional group ('assigned' identity), and sometimes, finally, in the action process implemented ('enacted' identity). This can be used to highlight the various aspects, each closely linked to the others, which comprise the identity process in play in the activity.

As far as experience is concerned, it has two supposed functions in the production of action processes. On the one hand, it constitutes an 'asset' (as described by Schwartz) on which the individual draws in order to act (the cognitive component); and on the other, one which evolves according to the new action processes implemented (the operational component).

In the end, professionalisation and the development of competences are therefore not only linked to a social intention (coming from an organisation) finalised by the quest for ever-greater efficiency of people at work, but are also based on a game of identity or transaction between a 'recognition of selfhood' (from the individual's point of view, through the actions produced) and actual recognition by the environment (thus attributing 'qualities' of competence and professionalism to a subject).

This chapter has highlighted the close relationship between professionalisation and the development of competences by outlining the main models available to help acquire a better understanding of the process of developing competences. In the end, the development of competences is first and foremost a development of action processes, which may or may not be socially qualified by the term *competence*.

Exercises and tasks

Exercise 1

Based on your reading of this chapter, what importance would you attach to the work situation in the development of competences? Outline your argument on two pages.

Exercise 2

Work with another student. Each find an example of a situation to illustrate the fact that the development of competence involves an issue of identity. Discuss the examples you have found and justify your argument.

Task 1

Refer to Argyris & Schön (1989), *Theory in practice: Increasing professional effectiveness.* San Francisco: Jossey Bass (available in your university library), and define the main steps involved in the *reflective practitioner* approach. Take an example extracted from your own experience of work, and apply this approach to this experience. Try to identify, with the help of this approach, the main competences you acquired during this particular experience.

Task 2

Have a look at Kolb's model of experiential learning (see Kolb, 1984). Then imagine a training situation in which trainees can be confronted with the four phases of learning defined in this model. Discuss your training situation with another student and try to improve it.

4. The Role of Professional Didactics in Skills Development for Training and Education Professionals

Thierry Piot

4.1 Introduction: From quality of service to the development of professional skills

The development of professional skills in training adults is seen as a central issue in the business and services sector. This situation stems, in part, from the Lisbon Strategy (2000), which aims to achieve economic growth in Europe driven primarily by innovation, based on the economic theories of J.A. Schumpeter (Karklins-Marchay, 2004). Innovation should be manifested primarily in the commercial services sector and be distinguished by the high quality of services produced, in line with the principle of the Deming Cycle (Shewhart, 1989).

Figure 2: The Deming Cycle
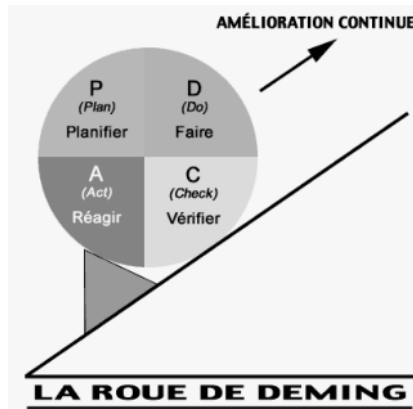
[THE DEMING CYCLE: CONTINUOUS IMPROVEMENT]

Source: Shewart, 1989[4]

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4   Available at www.manager-go.com/pdca.htm

Achieving economic development is only possible if it is accompanied by specific efforts to educate and train not only young people but also adults, based on the principle of lifelong learning. The development of professional skills has therefore become a key issue in economic competition. Professional didactics provides a theoretical framework to help understand how skills are acquired and developed in adults; in practical terms, it can be used to lay the foundations for structuring adult training courses. The time when a basic education and initial vocational training were sufficient to work effectively in a particular job throughout one's working life has now gone: the rapid changes seen in the second age of modernity (Giddens, 1991) show that the individual must become a reflective practitioner (Schön, 1983), who is capable of analysing the various situations in which they operate.

In the first part of this chapter, we examine the notion of professional didactics, a theoretical framework designed to help formalise the problems of skills development in training adults. In the second part, we look in detail at the notion of activity, which constitutes the core of adult training. Thirdly, we look at professional activities aimed at other people, such as the work of the adult trainer.

4.2 Professional didactics: Objectives and theoretical foundations

This section explains the origins of professional didactics. First, it sets out its objectives in both theoretical and practical terms. It then outlines its theoretical foundations, which are based primarily on psychology and ergonomics.

> **Keyword: Professional didactics**
>
> Professional didactics is a research trend (Pastré, 2011) in adult education. In theoretical terms, it borrows from psychology and ergonomics. It aims to understand how adult learning develops in a work situation.

4.2.1 Origins of professional didactics

Professional didactics is a recent theoretical formalisation of adult learning, the origins of which can be found in a context of economic and social crisis, which has seen the decline of the industrial society and the emergence of a

service-oriented society over the last 30 years. Adapting large numbers of adult workers to new jobs raised the question of their training head-on. The knowledge acquired in the world of teaching and initial vocational training was not sufficient to respond to the challenges encountered. The experience acquired by adults, either in their professional environment or in their private lives (for example, through community commitments, responsibilities, and practices) their personal and social paths, and the fact that training often took place in the workplace, are all elements which indicate the importance of understanding how professional learning is constructed in a context of rapid economic and social transformation.

4.2.2 The objectives of professional didactics

The aim of professional didactics is to explain the genesis and development of professional competences.

> **Keyword: Competence**
>
> The notion of competence has been examined in numerous pieces of research in adult education. It can be defined as the functional, contextualised, and assessable action-knowledge of a person or group of people (collective competence).

The notion of *action-knowledge* refers to an actor who analyses their particular work situation in order to give it meaning, take decisions, and act in order to transform it. It is therefore more appropriate than the notion of know-how, which has more to do with executing a piece of work and implementing stable procedures, in which the possibility of using one's initiative is somewhat limited, as with Taylorian situations, which require a low level of skills.

The term *functional* refers to the relationship between the competence and the activity. Competence is not simply a capacity or a potential aptitude. In tangible terms, capacity is confirmed by the completion of a particular activity in a given context, which can be clearly described. Competence is functional in the sense that it is not virtual. It is not declared but can be deduced from performance. A useful point of reference can be found in the notion of linguistic competence as defined by Chomsky (1965): a young child becomes competent in terms of language when they produce previously unheard and pertinent statements in the communicative situation in which they find themselves, even if these statements are not strictly correct in terms of syntax.

Competences are therefore an effective resource, available to an – individual or collective – actor to perform a particular action, that is to say, an assessable result, through their professional activity.

The term *contextualised* refers to the ecological, situated dimension of any work activity. On the one hand, it refers in broad terms to the working environment through resources and constraints, whether these are technological, instrumental, regulatory, or human. On the other, it refers to the organisation of work, based on two important aspects analysed by Mintzberg (1978). The first is the approach to the division of labour within the organisation prescribing the work, whether this is horizontal, concerning the division of a single work activity, or vertical. The second is the coordination of working activities within the organisation, between peers, employees, and various partners. Finally, it concerns the working situation itself, which, most frequently – and particularly for the work of the trainer – comprises generic, relatively invariable, and stable elements, which combine to produce more dynamic, changing, and somewhat unusual elements. In training, for example, a programme may be the same for different groups of trainees, distinguished based on characteristics such as the level of previous training, involvement in training, the determination to progress, the meaning assigned to the training activity in their professional career by the trainees, and the resources, contexts, and objectives of the training.

The term *assessable* refers to the fact that action-knowledge based on competence helps to produce a result which can be assessed, compared, and measured over the long term. In this case, the notion of assessment takes into account the possibility of ranking (as in the case of a recruitment competition, for example) or certification (this is the case of the ISO standards approach at an international level). Action-knowledge is not only about achieving a result – it is difficult, for example, to demand that a doctor systematically cure a patient, particularly when it is a serious illness or one which they do not know how to treat – but may also refer to a more or less precise process, which may itself be subject to specific standards. To continue with the example of the doctor, the quality of their diagnosis and prescriptions can be assessed in the light of medical practices, technological options, and scientific knowledge at a particular moment and in a given context.

The practical objective of professional didactics is to contribute to educational engineering, which enables the effective development of professional competences amongst adults, whilst at the same time enabling the development of a professional identity within organisations and via fulfilling, instructive work situations.

4.2.3 The theoretical foundations of professional didactics

The main hypothesis in professional didactics is that human activity is orga-
nised into a network of basic organisational units, both cognitive (i.e. they are
linked to the processing of information) and pragmatic, that is, geared to the
success of the activity at the best possible cost for the individual, who is
deemed to be 'relatively rational' in their choices. These organisational enti-
ties are in fact psychological entities, similar to the notion of the *schema* first
created by Piaget (1974) and developed by Vergnaud (1985).

   The theoretical framework for professional didactics can be seen as bor-
rowing from three current theories: its general background is derived from
ergonomic psychology, whilst at its core lies developmental psychology; fi-
nally, didactics in relation to the subjects taught in schools provides an in-
sight into the relationship between knowledge and subject.

Ergonomic psychology

Ergonomics is the rational study of work. In the early twentieth century, the
American Frederick Taylor used ergonomic principles in order to improve
the efficiency and fluidity of industrial assembly lines. Until the 1970s, ergo-
nomics focused mainly on the interface between people and machines, its
primary concern being to improve productivity in the industrial field whilst
catering to the needs of human operators. The prevailing approach was a be-
haviourist one.

   During the second half of the twentieth century, ergonomics became
more complex, drawing a distinction between the *prescribed task* (i.e. what
has to be done) and the *activity*, which is what the worker actually does in or-
der to complete the task. This is a useful distinction in terms of carrying out a
more detailed analysis of work, when it consists not of transforming stable,
repetitive situations but of resolving problems of varying degrees of signifi-
cance in non-standard situations. In the 1980s, activity was analysed as a
complex situation, of which behavioural aspects were seen as the result. At
the heart of this complexity lay the cognitive dimension of the activity: what
information does the individual carrying out the activity select in a work situa-
tion, how do they organise the information in order to make it meaningful,
how do they interpret and process information, how do they decide between
different possible solutions and how do they make decisions prior to acting?
The cognitive dimension of the activity can then be seen as underpinning be-
haviour, but is itself invisible. It obviously exists in certain sectors such as
journalism, scientific work, care services, teaching and adult education, but it

is also found in less skilled tasks. When cleaning an office, for example, workers say that they take account of how clean the office is already, how tidy or untidy it is, how much time they have available, how tired they are, how much work they estimate they have to complete before the end of their working day, the condition of the tools they have to work with, and so on.

The notion of the *operative image* developed by Ochanine (1978) makes an important contribution to ergonomic psychology and the way in which professional resources are constructed, between the organised capitalisation of experience, the construction of automatic professional instincts and gestures, and professional resources. Ochanine compared the professional expertise of novice and experienced doctors concerning the diagnosis of hyperthyroidism (at a time, in the 1950s, when medical imaging was practically nonexistent). He noted that recently qualified young doctors had a good theoretical knowledge of the condition, and that they knew how to describe its origins and development from the point of view of the hormonal imbalance thought to be the cause of the disease. In other words, the *cognitive function* of their mental representations was satisfactory from the point of view of their formal knowledge, whilst experienced doctors struggled to provide the correct answers in this respect. Where the latter performed significantly better than their younger colleagues, however, was in the *operative function* of their representation, which governs practice: most of the time their diagnoses on a panel of patients were correct, and in any case more accurate than those of the younger doctors. An individual's operative image relates to knowledge in action and is constructed through action and for action. It enables them to carry out the action in an appropriate way based on their accumulation of experience and its organisation. For the subject, it equates to the dynamic structure of the action/situation. Ochanine outlined the following four principles:

- **Selectivity:** only information which is seen by the subject as relevant to the success of the action will be taken into account.
- **Functional distortion**: certain pieces of information are focused on and accentuated in relation to the end goal.
- **Purpose:** the operative image depends on the subject's actual end goal.
- **Pragmatism:** the main priority is the effectiveness of the action at an acceptable price for the subject.

Ergonomic psychology creates a link between the work situation, the subject's cognition, and the activity, and takes account of knowledge in action, built up over time through experience, which enables the subject to carry out the activity provided it belongs to a type of situation which is familiar to them.

Developmental psychology

There were two main contributions to developmental psychology in the twentieth century. Although the names of Piaget and Vygotsky are usually presented as competing with each other, we will treat their respective contributions here as complementary, insofar as they both emphasise the importance of interactions as a decisive factor in the development of individuals.

The theory of understanding developed by Piaget (1974) places particular importance on the interactions between the subject and the objects or situations with which they are confronted, through a combination of accommodation and assimilation. From the point of view of Piaget's constructivist theory, the subject, by resolving problems, gradually develops a network of schemas which act as ways of organising action for a given category of situation. Each schema provides a way of ensuring functional coordination between aim and means.

For Vygotsky (1986), learning is the result of a historical and cultural approach in which social and linguistic interactions act as drivers. His work was to be expanded and continued by the American psychologist Bruner (1996). They both emphasise the notion of a supervisory interaction in linguistic mediations between the expert and the novice and in what is known as the zone of proximal development. This zone speeds up the desired learning based on appropriate adjustments made by the tutor. All of these contributions help us to gain a better understanding of the potential role in learning of simulations, role play, and mediation between peers, and between the trainee and the tutor. They shed light on the operation of the systems used for analysing practices in adult education but never minimise the importance of theoretical contributions, instead restoring them to their proper place in their dynamic relationship with field-based approaches. For, as the German philosopher Kant (1790/1995) observes, 'Practice without theory is blind. Theory without practice is fruitless.'

Disciplinary didactics

Disciplinary didactics studies the questions raised by the teaching and acquisition of knowledge in various school disciplines (mathematics, biology, geography, physical education, etc.). In particular, it examines the didactic transposition in relation to knowledge, from what is already known to what needs to be taught and finally to what is actually taught in practice. It is distinct from pedagogy because of the central role played by content specific to the particular discipline concerned and by its epistemological dimension, that

is, the nature and organisation of the knowledge to be taught. Let us now examine the two following key notions from the theoretical framework.

The *didactic situation* refers to professional situations the subject can use as the basis for constructing new knowledge. The work situation is didactic insofar as it represents a complex whole, on the basis of which it is possible to develop situational intelligence. Most vocational training courses rely on emblematic or characteristic work situations – that is, those which are often encountered by subjects in the course of their professional experiences or during field placements. The didactic situation combines four interconnected stages:

- acting on the situation and constructing a question
- formulating hypotheses on the logical connections between the interacting elements
- validating the nature and organisation of these relationships through logical experiment
- formulating added value in terms of knowledge and/or rules for action.

The *didactic contract* relates to the communications framework of the teaching and learning situation, and asks both trainers and learners a question which, in our view, is too often forgotten or seen as meaningless: what do people talk about together in a training situation? And what objective are people trying to achieve? Although it is most often only implicit, the didactic contract actually underpins and organises the training situation. If there is no explicit contract between the parties, there is a risk that the training will be meaningless for the person receiving it, leading to a lack of attention in cognitive terms and a lack of involvement or motivation in affective terms.

Professional didactics is a key discipline in adult education. It is concerned with the construction of knowledge in action, developed in and through work situations. The next section outlines a number of methodologies and tools used to analyse work as an activity.

4.3 Analysing activity: A tool for understanding and action

4.3.1 A few preliminary remarks on activity

Acting at a professional level – that is, carrying out an activity to complete a prescribed task – not only becomes a complex but also an obscure process, displaying varying degrees of rationality, as soon as one takes into account not only people's behaviour but also their cognitive activity.

Any human activity must be understood as an interweaving of motives, possibilities, understanding, conceptualisations, experiences, and instinctive behaviours, all pulling in different directions, none of which are ever entirely visible either to the observer or to the subject themselves. We can identify three components that, together, constitute the generic framework for any activity (Piot, 2006):

The knowledge to act refers on the one hand to a body of academic knowledge, most frequently learned during initial training, which can be used in order to act; and on the other, more pragmatic forms of action knowledge geared to the success of the action. These result in an effective solution in a given type of situation.

Wanting to act refers to motivation and the commitment of the professional, which are linked to the perceived meaningfulness of the activity, what they consider to be their actual capacity to act effectively in a work situation, and the value they attribute to their activity. Motivation, which is central to the desire to act, has a dimension which is internal to the subject and concerns the motive of the activity, that is, their desire to act. It also has an external dimension, which relates to purpose: for the subject, these are the reasons they give themselves to act or which oblige them to act.

The *possibility of acting* refers to the context of the subject's activity and the interactive elements which open the field of possibilities to a greater or lesser extent for the activity concerned. In any work situation, in fact, there are possible and impossible actions and rational or irrational examples of resistance, which encourage, make possible, or prevent the activity, even if one wants and knows how to carry it out. The context is made up of objective elements (technologies, tools, and instruments), the way work is organised (including defined standards and procedures), a working community (with its habits, relationship to line management, and dominant practices), and an individual level.

Figure 3: The three components of an activity
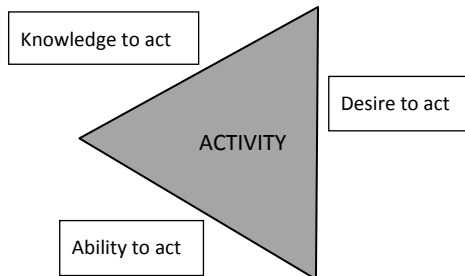
Source: Adapted from Piot, 2006

An activity is therefore a complex entity connecting a set of heterogeneous interactive elements. In adult education situations, it is the responsibility of the trainer, who constructs and conducts learning situations and evaluates the results of learning, to be vigilant and not reduce training to the use of tools, frameworks, or technical procedures.

> **Keyword: Activity**
>
> An activity is what an individual does in a work situation to achieve the results required by their employer. An activity is made up of two heterogeneous and complementary aspects: behaviour is the visible part of the activity, whilst information processing (perception, interpretation, and decision-making) is the invisible part.

4.3.2 What is the appropriate methodology for identifying an activity?

Professional didactics focuses on analysing activities in order to characterise the resources needed for the development of professional competences and therefore construct an effective structure for adult education. It is important to challenge the representations individuals have of a professional activity from the outset.

Observing visible activity

The first phase consists of formally *observing* professional activity in order to understand how a professional transforms their work situation, noting basic actions, the frequency, and duration of the activity, or the actions which make up the activity, the tools required, and examples of cooperation and interaction with other people, such as line management, colleagues, users or customers, and partners. These observations are used to gather objective information, which can then be organised. Increasingly, digital video recordings are used to confirm and reconstruct people's behaviour more reliably as they go about their professional activity.

Verbalising invisible cognitive activity

The second phase complements the first, because in many jobs, behaviour is only the visible and final manifestation of the activity. *Linguistic mediation* is used, and the professional is asked to comment on their actions as they work,

in order to understand the origins and real aims of their behaviour. Whilst commenting on actions as they take place may provide some degree of insight as a supplement to the observation of behaviour, it is not always enough, as comments are sometimes superficial and do not give the subject providing the commentary the opportunity to explain the resources they are using or the operative images on which they are relying. More detailed information can be obtained by using self-confrontation: the professional is shown a video recording of their own activity and is asked to provide a commentary, stopping on particular images or answering questions from a researcher. Self-confrontation, which is also a possible method for analysing training practices, provides an opportunity to question the professional once they have finished their activity and, based on what they say, access the hidden *cognitive dimension* of the activity. The comments the professional provides on their work are a means of identifying which kinds of information they use and which they ignore. It provides a way for the worker to explain what they do and this explanation can then be used to determine the actual goals they have set for themselves (which may not systematically tally with their prescribed goals), how they organise their work, the operative images they use, the checks they carry out, the knowledge and explanatory approaches they rely on to analyse the parameters they recall from their work situation, and so on. All these elements constitute *the cognitive structure of the activity*, which seems to be an important resource in terms of anticipating, orienting, carrying out, and regulating their activity.

4.4 Activities 'aimed at other people'

This final section focuses on a particular type of activity: activities aimed at other people, including adult education and training. We will describe the specific characteristics of these types of activity and then compare them with industrial activities. Finally, we will examine ways of learning and developing competences in these activities, where interpersonal aspects are essential.

4.4.1 Characteristics of activities aimed at other people

Professional service activities aimed at other people are jobs involving human interaction. The aim of the work is to bring about a change in the other person, as is the case in teaching, care and services which provide support,

assistance, integration, facilitation, advice, and the like, as well as adult education. Other examples include services for elderly or dependent people, which are developing rapidly and which, behind a service *for* another person (domestic help), hide a service *aimed at* another person, namely providing company and reducing isolation, offering reassurance, helping to organise a living space, and providing a reference point to help structure the other person's day.

Most of the time, these activities are carried out in heterogeneous work communities, in an institutional environment and organisational context which may sometimes be paradoxical, combining high and low levels of rationality at the same time. The first is expressed in norms, rules, and generic prescriptions, generally dominated by a bureaucratic approach; the low level of rationality reveals the possibility of investing in working environments where the professional is able to analyse the specific nature of certain situations in which they are required to act and implement the methods and resources they have available to them without strict controls.

These activities are carried out by coordinating two kinds of competences: competences and expertise about the object of the service (the school curriculum for teachers, care procedures for care providers, legal knowledge in social work, etc.) and communications and interpersonal competences. In all instances, the beneficiary is a key player and their cooperation and involvement are essential in ensuring that the professional can carry out their activity. Linguistic exchanges are a common thread in a shared interactive activity involving both the professional and the beneficiary but to different degrees.

Keyword: Jobs aimed at other people

Jobs aimed at other people are activities where the person working serves the needs of another person (such as a user or customer) in order to effect some kind of change in them. They include training, education, caring, social work, facilitation, social integration, and the like. The person carrying out the work uses primarily interpersonal and communications competences in order to win the trust and cooperation of the person in whom they are trying to bring about a change. They are also sometimes described as activities involving human interaction.

4.4.2 Comparison between traditional industrial work and work aimed at other people or human interactions

This section aims to characterise 'work aimed at other people', which is still sometimes described as 'work based on human interaction' by contrast with industrial work, based on six areas: (1) aim, (2) nature of work, (3) working relationships, (4) result of the work, (5) knowledge and technology, and (6) relationship to time.

Table 3: Traditional industrial work vs. work based on human interactions

Aim of the work	
Traditional industrial work	**Work based on human interactions**
The aim is clear, unequivocal, and immediate. *Example: producing a piece using a stamping press*	Aims may sometimes appear vague and ambiguous: *Example: the aim of education and socialisation fulfilled by compulsory schooling*

Nature of the work	
Traditional industrial work	**Work based on human interactions**
Procedural and algorithmic functional aspects take priority. *Example: producing a brioche in an industrial bakery*	Heuristic and identity-related aspects take priority. *Example: a social and professional integration course for the long-term unemployed in adult education*

Working relationships	
Traditional industrial work	**Work based on human interactions**
The operator has direct, instrumental, specific, and total relationships (quality standards, operational standards). *Example: fixing an engine block onto a chassis in the automobile industry*	The professional takes account of the irreducible opacity of the beneficiary as a person; there is space for the unexpected and multi-dimensional (cognitive, affective, moral, and social) *Example: treating pain in a hospital department*

Result of the work	
Traditional industrial work	**Work based on human interactions**
The result of the work is immediately observable, can be fully controlled and may generate waste. *Example: rejection of boxes of cereal where the final check has identified a nutritional quality defect outside the tolerance levels of the brand*	The result may be partly invisible and intangible, and failures will need to be managed. *Example: the situation of a young adult, consuming hard drugs after years of treatment by a preventive education team working on addiction in their neighbourhood*

Knowledge and technology	
Traditional industrial work	Work based on human interactions
Involves knowledge derived from the hard sciences (mathematics), which are capitalised and transmissible, and the presence of physical technologies and complex instruments. *Example: a digital robot producing ultra-precise welds in the aeronautical industry*	Relatively disparate, informal knowledge; practical knowledge and importance of symbolic interactions *Example: a facilitator gains the commitment of a group of young teenagers by drawing them into an imaginary world to launch a large community game*

Relationship to time	
Traditional industrial work	Work based on human interactions
Reversible temporality	Implied historicity
Example: reorganisation of the ergonomics of a toothpaste production line to include a new product formulation	Example: a secondary school teacher comes up against a class which is hostile to them because of an unfair attitude he had at the beginning of the year, for which he has not apologised.

Source: Adapted from Piot, 2008

This comparison draws attention to three distinct but related aspects of work aimed at other people or based on human interaction: the ecological dimension, the hermeneutic dimension, and the operative dimension.

The *ecological dimension* concerns the fact that work aimed at another person always takes place in a context of singularity, because of the uniqueness of the individuals involved. More specifically, there is a tension between the generic elements of the situation (for example, taking a blood sample to measure the proportion of white blood cells) and elements which are specific to a particular situation: depending on whether it involves a newborn, an adult haemophiliac, or an elderly person, the actual care situation will not be the same. The professional will make a connection to an operative image and type of situation with which they are familiar and which they will draw on as a resource to carry out the activity. Furthermore, detailed observation indicates that strategic information is only available as the activity is actually being carried out: the professional has to compare the actual situation they are faced with and the operative image on which they base their activity on an ongoing basis: for example, if an adult trainee interrupts a trainer who is demonstrating and explaining a technical manoeuvre, saying 'I don't understand why you have to do it like that,' then the trainer will have to deal with this as an unforeseen event, repeat their explanation, and engage in a conversation with the trainee in order to manage the learning situation they are leading. Finally, an activity in a situational context is a specific shared activity

which needs to be adjusted constantly, alternating between the professional and the beneficiary.

The *hermeneutic dimension*. The term *hermeneutic* means that the professional has to interpret the meaning of the situation, which is not given to them directly: they will have to make inferences about it, based on their experience and interpretive schemas, which are not necessarily based on a rational approach, but sometimes on what the professional believes to be fair, equitable, or effective in a given situation. For example, a trainer may need to decide between responding to a question from an adult who is expressing a difficulty and finishing an important explanation for the whole of the group when they only have a few minutes of their session left. Interpretation also concerns the trainer in terms of the critical interpretation they make of generic prescriptions, which are sometimes at odds with the reality of the group they are working with. It then becomes important, for example, to determine which elements of the training programme are essential, and how to start from the actual level of competences of the trainees, which may not be the same as what was expected.

The *operative dimension* concerns the functional dimension of the activity and the notion of success. It presupposes, as we have already indicated, a minimum level of collaboration and cooperation, and a relationship of trust, which may sometimes be difficult to instil in a way which ensures that the sometimes heterogeneous aims of the training are achieved: these may include aims identified in a job framework, intersubjective aims concerning the quality of the interpersonal and communicative relationship with the beneficiaries, and the subjective aims of the professional, for whom the sense of self-efficacy is an important resource, insofar as activities aimed at other people implicitly require that the professional engage at an individual, personal level in order to build a relationship of trust. Linguistic interactions include an element of interpersonal and cognitive adjustment to the other person, to ensure conversations take place against a common background, that both parties share the same objective, and to avoid the misunderstandings and things which are left unsaid which can undermine or even ruin the relationship of trust, or the quality of service provided to the other person.

4.4.3 Learning from activities in work 'aimed at other people'

We have already noted that in work aimed at other people, academic learning, though an essential resource, is not sufficient in order to act. The experience built up over the course of dealing with professional situations in prac-

tice can serve as a basis for new learning, which will enhance the personal resources of the professional. This critical and reflective approach, advocated first by Socrates and more recently by Dewey (1938) and Schön (1983) is a problem-based approach: how should we think about professional situations aimed at other people and how should we conceptualise our professional activity? How can work situations be made more intelligible for professionals working in jobs aimed at other people? This is an important issue, insofar as it relates to professional development, that is, the consolidation of both professional identity and professional competences. Based on the knowledge they have acquired and the experience they have accumulated, the professional is practically obliged, in order to remain 'alert', to successfully mobilise and reorganise their resources in order to resolve both new and recurrent problems in, through, and for action. Learning from work situations requires effort in two ways:

- constructing a plot to elucidate the question of what the professional's activity means and clarify the professional's subjective and intersubjective relationship to the activity, which relates to the construction of professional identity
- carrying out a rational investigation to problematise the work situation based on what is already known (the epistemic approach) through study or experience (the pragmatic approach), because most of the time, relatively automatic, generic routines make it difficult to act in a non-standard situation.

From the point of view of professional didactics, it involves creating a denser network of schemas, which constitute cognitive and pragmatic units used to organise a particular action.

Each of these units is made up of four functional components, which relate to four complementary functions: (1) an aim to give purpose to the action; (2) a stable category of situation to make it possible to anticipate the action; (3) an operative schema which makes it possible to carry out and regulate the action; (4) logical connections with other units which link the units to form a whole (holistic dimension) and enable it to be managed at an overall level.

The units used to organise the action are developed at the interface between two main approaches – operationalisation and formalisation – as illustrated in Figure 4 below.

Figure 4: Cognitive and pragmatic units in connection between operationalisation and formalisation

Operationa-lise academic knowledge so that it can be used for action

Cognitive and prag-matic unit used for organising activity

Formalise past experi-ence so that it can be dis-cussed and transformed into a re-source for action

4 components
1. Class of situation to anticipate
2. Aim to give purpose
3. Operative schema to carry out action
4. Logical connections with other units to manage action
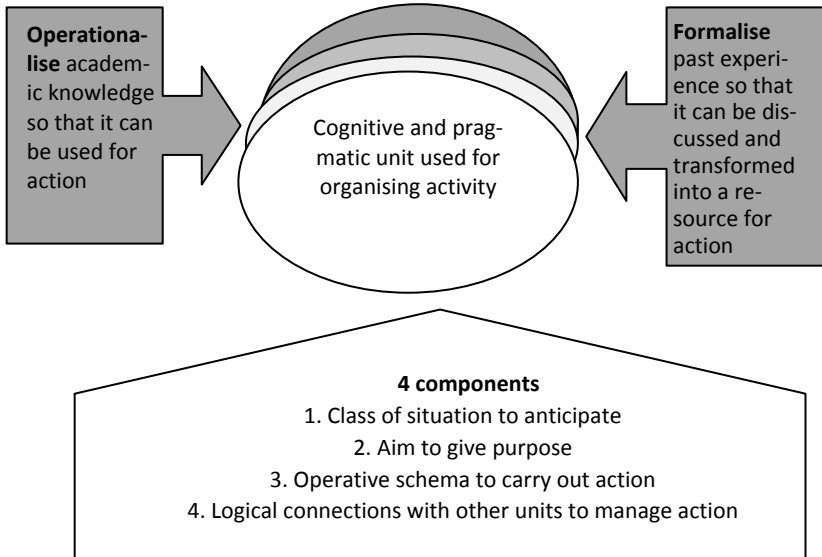
Source: Adapted from Piot, 2006

According to Samurçay and Rabardel (2004), professional didactics provides an important distinction for problematising an activity, that is, to help the professional to think through their activity. The authors draw a distinction be-tween productive and constructive activity: the first consists of transforming a work situation in tangible terms, taking account of the prescriptions asso-ciated with the task through activity based on mobilising all one's resources. Constructive activity consists of constructing new resources in order to act as a conscious actor during or after the productive activity. This is an intentional process, which makes it possible to enhance (the quantitative dimension), reorganise (the qualitative dimension), and put to the test, on an ongoing ba-sis, the real professional problems faced by the professional (the dynamic and operative dimension) in order to make the actions of the professional adult trainer fluid and relevant. It is an approach based on an analysis of practice, which aligns well both with a process of continuous improvement of the quality of service rendered (the Deming Cycle approach) and with a reflec-tive and critical process which relates to the limitations of training: the in-strumentalisation of those involved and the dilution of the meaning of the ac-

tivity, discomfort at work, and feeling a sense of lack of capability or uselessness.

Adult trainers are therefore involved in two ways: on the one hand, this distinction may help them to develop attractive and effective training courses based on the experience acquired by their trainees. On the other hand, it may affect them because they will need to develop their competences on the basis of their activity.

Frameworks are symbolic instruments that enable the trainer to assign a purpose to, implement, and assess their activity: examples include activity frameworks, competence frameworks, training frameworks, and certification frameworks. Their main benefit is that they offer trainees, trainers, and training advocates a shared and transparent tool, which allows everyone involved to accept their responsibilities in the training process, which remains an interactive process. Like every other tool, however, the framework has a number of weaknesses; although it can present competences in an objective and analytical manner, it is not designed to take account of subjective and identity-related aspects, particularly in occupations aimed at other people (such as training, teaching, care, support, and facilitation), nor to mechanically guarantee access for the trainee to a global understanding of work situations. Training frameworks of this kind must be used with other, more personalised tools, such as the portfolio.

4.5 Conclusion

Professional didactics allows adult trainers to analyse their professional activity and provides a robust, open theoretical framework, which offers a coherent response to key questions, such as: What is learning? and: How do we learn? The five key concepts of the work situation, activity, competences, reflectiveness, and linguistic mediation provide a structure for this theoretical framework and offer the adult trainer a frame of reference for carrying out their role and furthering their own professional development.

Exercises and tasks

Exercise 1

Describe the professional activity of the trainer. Describe your professional activity based on the distinction between industrial activity and work in jobs based on human interaction (Section 4 of this chapter).

Exercise 2

Group activity: Formalise a reflective analysis process from productive activity to constructive activity.

1) Identify a new professional problem you have encountered. Describe the main elements of the professional situation in which the problem occurred (context, objectives, key players, etc.).
2) Describe how you developed and implemented a satisfactory solution to solve this problem.
3) What did you learn? Which competences did you develop in constructing this solution?
4) Indicate how you have used these new competences in other professional situations.

Task 1

Based on Piot (2008), develop an analysis of the activity of an adult trainer to construct a contextualised activity framework. Then try to identify the different dimensions of an adult trainer's professional activity, particularly the actual activity and the hidden activity.

Task 2

Download the following report, entitled *Competence Framework for VET Professions*, from

www.cedefop.europa.eu/EN/Files/111332_Competence_framework_for_VET_p rofessions.pdf.

This handbook for practitioners is based on the results of two Cedefop TTnet (Training of Trainers Network) projects. Read Chapter 2, which is focused on teachers, and answer the questions:

- What are the main changes in the working context of VET teachers?
- What are the main consequences of these changes on the teachers' competences?

5. Competence Evaluation Processes in Adult Education

Valérie Cohen-Scali

Professionals in the adult education field regularly have to deal with evaluating the competences of diverse populations at various stages in their work process: first when analysing people's needs, next when designing training programmes to meet these needs (translating competence needs into training needs), and finally when assessing whether the training helped individuals acquire the expected competences. Moreover, adult education professionals are more and more involved in the process of validating competences. Although the process of evaluating competences shares a number of points with that of evaluating knowledge (which is a more common activity for adult education specialists), however, it implies being more concerned with the characteristics of the situations and experiences through which learning takes place. It may be work situations or more general social experiences which provide a source of new competences. Evaluating competences therefore obliges the training professional to take greater account of the particular characteristics of the situations encountered by individuals. As a result, this activity complements the process of evaluating knowledge, but requires an entirely new set of approaches, tools, and methodologies. The tools used must be able to bring out knowledge that is not directly identifiable. Evaluation has close links with the recognition and later the validation of competences.

This chapter will examine a number of aspects of the process of competence evaluation. First, it will outline various elements to help identify the origins and subsequent development of competence evaluation activities. Secondly, it will explain the conceptual and practical difficulties associated with evaluating competences, describing the most commonly used tools and methods. Finally, we will look at how competences are evaluated in various European countries, concluding with a number of examples of schemes currently in use.

5.1 What is involved in evaluating competences?

Evaluating competences emerged in two contexts in the 1990s. On the one
hand, in the context of international comparisons of school systems in differ-
ent areas, such as the *Third International Mathematics and Science Study*
(TIMSS) or the *Programme for International Student Assessment* (PISA)
(Straka, 2004). On the other, it relates to research carried out first in the Unit-
ed States and later in Europe, into new approaches to evaluation, marking a
move away from traditional psychometric approaches based on capacities be-
lieved to be innate and fixed. These new approaches were supposed to take
more account of aspects such as learning and the development of knowledge
within individuals. They gave rise to various types of tools for evaluating and
recognising competences, which we will examine later.

Finally, there was another development which tended to accentuate the
process of identifying new forms of evaluating knowledge in action. This was
the Lisbon process in 2000, during which the European Commission defined
lifelong learning as a priority. This new emphasis led to an increasing ac-
knowledgement of non-formal and informal learning, that is, learning which
takes place outside of educational institutions. As Straka (2004) points out,
definitions of competences reflect these new concerns. In 2001, the European
Commission defined competence as 'the capacity to use effectively experi-
ence and qualifications' (European Commission, 2001, p.31 cited by Straka,
2004, p. 275). The Cedefop defined competence as 'the proven/demonstrated
– and individual – capacity to use know-how, skills, qualifications or knowl-
edge in order to meet usual – and changing – occupational situations and re-
quirements' (Straka, 2004, p. 275).

The question of competence evaluation quickly became associated with
the issue of validation. For individuals, the purpose of evaluation is often to
have their competences recognised within an institutional or company setting

and then to have them validated, that is, to ensure that evaluation enables them to be awarded some or all of a certificate or diploma. Evaluation now seems to be an essential stage in the competence validation process. The Cedefop (2008a) report entitled *Validation of Non-formal and Informal Learning in Europe* thus distinguishes between three main phases of the validation process: 'identification, assessment and recognition of non-formal and informal learning.'

This distinction reflects that even where validation results in a formal certificate or qualification, the identification and assessment stages preceding the formal recognition are critical to the overall process. The quality of the validation process very much depends on how the initial identification and assessment of the – frequently tacit – learning is handled. The distinction between identification and assessment and recognition is frequently referred to as that between *formative* and *summative* approaches to validation. The primary purpose of summative assessments is to generate a concluding statement about learning achieved to date and is explicitly about the formalization and certification of learning outcomes. . . . The primary purpose of formative assessment is to enable learners to broaden and deepen their learning. Formative approaches to assessment provide feedback to the learning process or learning career, indicating strengths and weaknesses and providing a basis for personal or organisational improvement. (Cedefop, 2008a, pp.13–14)

Both of these dimensions are present in all competence evaluation schemes. Another distinction also needs to be drawn. When evaluating competences, it is always important to think of tools which can cover both the observable and non-observable aspects of competences at the same time. Indeed, whilst it is possible to base a judgement on behaviours, the completion of tasks, and what the person produces, it not so easy to identify the knowledge, motivation, and capacities associated with a particular performance situation. Evaluation schemes must therefore always include some elements based on direct observation, and others which provide evidence of activities which cannot be observed directly. As one might predict, evaluating competences is a complex process, partly linked to the instability of the concept of competences itself, as well as to the fact that the psychological and social processes which need to be considered are constantly changing.

5.2 Competences: A difficult object to evaluate

Several factors contribute to making competences difficult to evaluate. The first relates to the variety of points of view and the instability of representations of competences. The second has to do with the complexity of the

processes driven by competences. The third is linked more to the difficulties involved in the process of evaluating people.

5.2.1 Evaluation must be able to accommodate a range of conceptions of competences

Attempts to come up with a definition of competence are always faced with the difficulty caused by the multiplicity of approaches which rely on this notion. Not only is the notion of competences not stable, but competences refer to conceptions and representations used by individuals in different firms on a daily basis. Research conducted by Bandura (1997) and Levy and Dweck (1998), for example, pointed to the mechanisms by which conceptions of competences intervene in the regulation of behaviours. People who believe that competences are acquired through experience or learning seek out situations which enable them to increase their knowledge and competences. They see mistakes as a source of learning and progress. People who see their competences as an expression of their innate qualities tend to be particularly positive about situations where they perform well and to avoid situations likely to lead to failure, because this would suggest a lack of capability. Research by François (2004) confirmed that both these conceptions are present to varying degrees in different professional communities, organizations, and groups. The author concludes that competence equates to a 'thema' as defined in Moscovici's theory of social representations.

> **Keyword: Thema**
>
> Themas are defined as source ideas: primary conceptions which are rooted in the collective memory and used to organise social representations. As far as competence is concerned, these source ideas could be beliefs about the malleability of human capacities (see Moscovici & Vignaux, 1994).

We can conclude that it is difficult to evaluate competences because points of view and attitudes vary, depending on the conceptions of evaluation professionals.

5.2.2 Evaluation relates to a multi-faceted object

Evaluating competences is also difficult because of the protean aspect of the object. The fact that there are different types of competences implies a need for different forms of evaluation. Zarifian (2005), for example, distinguishes competences by type. He draws a distinction between:

- technical competences, which are specific competences and can rarely be transferred to another area of work
- generic competences, which are common to multiple sectors and include the ability to be flexible, cooperation and problem management. He identifies four families of generic competences:
  - anticipation and organisation: these relate to the ability to project oneself into the future and plan one's activities.
  - communication: relates to the ability to provide and interpret information and build relationships with partners.
  - management: the ability to influence, lead, and argue
  - control: the ability to bring an idea or project to fruition and bring together resources and means.

Finally, social competences are manifested in three areas: autonomy, acceptance of responsibility, and communication.

Research has also been conducted in the area of key competences (Rychen & Salganik, 2003; Houssemand & Meyers, 2006). These are general competences in relation to professional situations. They are likely to be able to be implemented in a variety of different contexts. They are transferable and may, once they have been learned in a particular situation, be reused in other professional situations. They should be a prerequisite to the acquisition of technical competences in a given field.

Finally, competence can be characterised according to three dimensions (Pastré, 2005):

- Being competent is about knowing how to resolve professional problems.
- Being competent is about knowing how to adapt to a variety of new situations.
- Competence is not an absolute value: it is always manifested in a 'task category'.

As we have seen, competence can only be understood in professional contexts. It can be accessed through a particular 'situation'. Traditional evaluation situations therefore seem to be inappropriate.

5.2.3 Evaluation must include the individual being assessed

Another peculiarity of competence analysis concerns the role of the individual being assessed. In order to access their own competences, the operator must become aware of them. They must become, as Pastré (2005) emphasises, 'the historian of their own activity' (p. 77). Individuals necessarily play an active role in evaluating their own competences. The process of reflecting on their activity, which can be developed in training and debriefing situations, for example, seems to play a fundamental role in analysing and developing competences. In his study of learning how to run a nuclear power station using a simulator, Pastré showed that replaying critical situations on the simulator had only a limited effect on the development of new competences. Conversely, when two sessions on the simulator were interspersed with a debriefing session to analyse what happened, operators acted in a significantly more effective way. Similarly, for Zarifian (2005), although the development of competences is based in part on managing unforeseen events and difficulties at work, the training aspect of work is primarily associated with the opportunities for reflection it offers the operator.

Although the individual whose competences are being evaluated plays a central role in the process, the person conducting the evaluation is also an essential player. Although there are many systems for self-evaluation of competences and behaviours available, the purpose of any evaluation is for competences to be recognised by society. This implies the involvement of a third party, the person carrying out the evaluation, who must, as far as possible, remain objective in order to analyse the situation presented to them. Numerous psychosociological studies have shown, however, that maintaining objectivity is extremely difficult, given the confrontation of social interactions, standards, and representations.

5.3 Psychosocial bias in competence evaluation

In looking at evaluation, it is useful to refer on the one hand, to the concept of social norms, given that evaluation activities are inevitably associated with confronting these, and on the other, the psychological processes that underpin the formation of impressions.

Traditionally, norms are split into two categories. Some are descriptive. The norm then becomes an almost statistical summary of the way members of a given social community, group or profession behave or make judge-

ments. Other norms define social optimality. These indicate the way in which behaviours or judgements are valued by society. This means that in order to be valued, it is in an individual's interest to behave in line with the norm. Moreover, what is optimal for one group may be descriptive for another. Production standards in a factory, for example, are often only a description of an average level of production (here, we take 120 phone calls a day) prior to their becoming indicative of optimality for the group and new recruits to the team.

These norms contribute to the formation of judgements, on the one hand, by prompting explanations of behaviours and on the other, by making it easier to predict what behaviours will be.

5.3.1 The norm of internality

This norm enables the person carrying out the evaluation to identify explanations for the behaviours observed.

The initial research by Jellison and Green (1981) on the norm of internality prompted numerous studies on bias in the evaluation of individuals, their performance, and their competences. Two types of explanation have been put forward. Explanations which attribute the cause of behaviours to individuals are called internal norms. Those which attribute the cause of behaviours to contexts and situations are called external norms. Some authors also refer to internal and external loci of control.

> **Keyword: The norm of internality**
>
> The norm of internality has been defined as 'the social valorisation of explanations of behaviours and outcomes which emphasise the causal role of the actor' (Beauvois & Dubois, 1988, p. 312).

Studies carried out on the norm of internality show that individuals who attribute the causes of their behaviour to themselves (their character, personality, experience, and motivation) rather than to the context (random chance, or how events pan out) appear more credible and score more highly with those evaluating them). This has been confirmed in numerous experimental and ecological situations, independently of the profiles of the individuals being evaluated (e.g. a job applicant being evaluated by an HR expert, a child in a class being evaluated by their teacher, an executive being evaluated by their line manager, etc.) (Hewstone, 1989). Numerous research studies have shown

that internal explanations were socially more desirable and that they tended to be expressed by social groups in more privileged positions. It also seems that the ability to adopt a socially desirable attitude and convey a positive image of oneself to other people in line with the goals one has set for oneself is related to an interpersonal competence which can be acquired through training.

5.3.2 The norm of consistency

The norm of consistency relates to a very common conception of humans as coherent and rational beings. This is an idea postulated by psychosocial theories of cognitive consistency. According to theories developed by Heider (1958), people seek cognitive consonance and a coherent relationship between their attitudes, beliefs, and conduct. A situation of cognitive dissonance (Festinger, 1957) would oblige the individual to modify either their beliefs or their behaviours in order to re-establish overall consistency. This tendency is based on a social norm. Individuals show stronger cognitive consistency when they are instructed to convey a positive image of themselves (social approval instruction) than when they are instructed to convey a negative image (social disapproval instruction). Moreover, it has been observed that consistency has a higher social value than inconsistency, and that this in turn has an influence on evaluation practices. The more an individual is known for expressing consistency, the better they are judged.

> **Keyword: The norm of consistency**
>
> 'The norm of consistency is defined by the social valorisation of the expression of behaviours and/or consistent beliefs, which make it possible to attribute perceptions to the individual which are constant and therefore predictable over time.' (Louche, Pansu, & Papet, 2001, p. 370)

These norms of judgement are deemed to be one of the links in our liberal societies and culture of individualism, which promote the model of a human being as 'responsible' and 'autonomous' (Beauvois & Joule, 1996). Normativity appears to be a decisive factor in social selection processes. Society selects and recruits normative people and helps them to develop. It is important that people carrying out an evaluation are aware of the normative biases to which they are subject. It is therefore also important to reduce the impact of such biases on their judgement. It may also be possible to train those who are being evaluated to present themselves in normative ways. Most people do

this spontaneously. Some training courses offered to job seekers emphasise the importance of conveying a consistent internal image of oneself. Whatever the circumstances, people conducting evaluations and those being evaluated benefit from being aware of such social norms and their influence on judgement.

Another psychosociological process also deserves to be mentioned, since it plays an essential role in evaluation and governs the formation of impressions.

5.3.3 The formation of impressions

In any evaluation, the person conducting the evaluation must form an impression and make a judgement about the person being evaluated based on the observations and information available to them. This impression is then translated into evaluation criteria, which will be more or less well defined within the organisation. Evaluations can range from a fairly general, overall assessment of the person to more specific assessments of certain fairly well-defined aspects of their performance, possibly based on evaluation scales or questionnaires. In spite of any precautions taken, the impression formed is rarely an objective one. Part of the formation of impressions is a process of categorisation. This helps to simplify the way information is coded in a person's memory. The person conducting the evaluation will then rank those being evaluated in particular categories. These are formed on the basis, for example, of physical appearance, gender, and culture. These categories tend to bias our impressions at the point at which we recall information, when we tend to be better at remembering the characteristics of the category rather than those of the individual being evaluated. Finally, it seems that the person carrying out the evaluation is limited to retaining only the characteristics of the category at the point of the evaluation. This effect becomes more marked where there is a longer period of time between observation and recall.

Other phenomena associated with the formation of impressions often encountered by recruitment professionals will play a role in recalling observations at the point of an evaluation. The halo effect, for example, is a form of contamination by the information present in the context. An individual who struggles to express themselves clearly, for example, could be seen as stupid, whilst an individual who follows someone mediocre could be seen as outstanding. The guinea pig effect is another of these phenomena. This refers to the fact that an individual who feels they are being judged or evaluated will change their behaviour to reflect what they think is expected of them. It is

then difficult to know whether a particular behaviour genuinely reflects the individual or whether they are simply acting.

The expression of these forms of bias, which are characteristic of recruitment situations, can be limited through the use of certain scientifically based evaluation tools.

5.4 Competence evaluation tools

This section examines the importance of the metrical characteristics of competence evaluation tools and provides a brief overview of some of those in common use in Europe.

5.4.1 Characteristics of competence evaluation tools

A variety of methods are available for evaluating individuals and predicting their performance in future work situations, from psychological tests to systematic observations of behaviour and other tools (Guillevic & Vautier, 1998). The value of each method is relative, insofar as it depends on the situation, the problem to be addressed and the population concerned. Certain scientific criteria can nonetheless be defined.

More specifically, methods or tools need to be selected on the basis of three parameters:

- reliability
- discrimination or sensitivity
- validity.

Reliability

Reliability must be the main criterion for any method or tool. This refers to the method's ability to produce the same results at different times and in different places. This characteristic is important, because if several different measurements produce different results, it must be possible to determine whether the tool itself is poor, whether the tool is being used incorrectly, or whether the person has changed. It is therefore essential to be certain that the tool being used is reliable, and to be confident that the results will be consistent, regardless of who is using it. For a tool to be reliable, it is important to ensure that one of the two following methods has been used: the test-retest

method or the use of parallel forms. The test-retest method consists of using the same technique on two consecutive occasions, under identical conditions, on the same group of subjects. This is cumbersome and assumes that subjects will not try to remember how they responded the first time, and thus relies on their goodwill. A correlation between the two sets of results then has to be calculated (and must be strong). Using parallel forms consists of developing two equivalent versions of the same tool, which are comparable in terms of form and difficulty. It is then easier to use the two forms on two occasions with the same individuals. Again, the two sets of results need to be correlated. It can then be said that the tool displays strong internal coherence.

Discrimination

The tool used must be capable of differentiating between candidates. If the tool offers responses on a scale of 1 to 5 and all the subjects questioned answer 3, it does not discriminate effectively and is therefore of limited use. A tool can be classed as discriminating if the responses can be distributed in line with normal (Gaussian) distribution. A test should not be so difficult that everyone fails and not so easy that everyone passes.

Validity

Finally, it is important that the tool used can provide useful information for the decision to be taken. The tool needs to evaluate the elements required, not something else.

The validity of a tool can be evaluated through reading up on its theoretical basis, examining the behaviours it studies, conducting work analyses and statistical techniques. There are two types of validity: validity of content and validity of construction. To ensure validity of content, the tool has to be capable of fulfilling the objectives set for it: if one is looking, for example, to evaluate the communications abilities of candidates for a particular job, it is first necessary to identify what is meant by 'communications abilities' and whether the tools being used are able to measure these. As far as validity of construction is concerned, this involves verifying whether the tool really measures the phenomenon it is supposed to measure. This in turn means ensuring that the tool is based on recognised theories or models which are pertinent to the aspects being examined.

Individuals carrying out evaluations rarely have to construct their own evaluation tools. Most of the time, they use tools which have already been developed, and which they then have to learn to use. Nonetheless, they have

to be confident of their scientific quality, based on the information supplied with the tool or by contacting the designer.

5.4.2 *Categories of evaluation tools used in Europe*

This section outlines the main competence evaluation tools used in Europe based on the analysis carried out in the 2005 *European Inventory on Validation of Non-Formal and Informal Learning* (Souto Otero, McCoshan, & Junge, 2005). This document gave an overview of the different methods and approaches to identification, documentation, and assessment of competences across the 30 European countries studied; furthermore, it identified the principal methodologies used in most of them.

Tests and examinations are methods used for identifying and validating informal and non-formal learning through or with the help of examinations in the formal system. These processes formalize an individual's skills as an end result, generally a recognized diploma or a certificate. This type of examination can be a mix of written and practical, as well as psychological tests. Several types of psychological tests can be useful. Generally speaking, five categories of tests can be distinguished. Most of them involve having a diploma in psychology to be able to use and interpret these tests.

- *Knowledge tests* assess what people know. They resemble classic examinations. They allow for the evaluation of theoretical knowledge in connection with a specific work or training situation. The main advantages are that they have a high level of validity, are easy to submit, and easy to interpret.
- *Cognitive ability tests* assess cognitive and intellectual capacities. They may also be called intelligence tests. They allow for the evaluation of learning capacities, problem-solving abilities, understanding, and intelligence quotient.
- *Aptitude tests* evaluate the practical intelligence level. They can evaluate aptitudes in mathematics, mechanics, physics, and so on, but are often criticised for being out of touch with real work situations.
- *Personality tests* evaluate characters traits or personality. They help us understand how people think, feel, or act in a certain situation. There are a great number of such tests on the market, and they vary in their definitions of personality.

Declarative methods are 'based on individuals' own identification and recording of their competences, normally signed by a third party, in order to

verify the self-assessment' (Cedefop, 2008a, p. 22). These methods are focused on the individual's own recording of experiences. They are based on different interviewing techniques. For example, the 'elicitation interview', developed by the French psychologist Vermersch (2010), consists of asking the interviewee for a very detailed description of a specific work activity. Using a precise procedure, the interviewer helps the interviewee imagine himself or herself performing this specific task. The semi-structured interview appears to be the method which needs to be mastered by the evaluator. The individual generally needs the support of a third party to identify and then evaluate situations where competences have to be developed, and to record their competences. These methods are more reliable than the others and tend to be the most formative.

Portfolio methods are a very popular methodology used in several European countries. They are used both in the public and the private sectors. They consist of using 'a mix of methods and instruments employed in consecutive stages to produce a coherent set of documents or work samples showing an individual's skills and competences in different ways' (Cedefop, 2008a, p. 22). The portfolio method combines a variety of tools, as well as methods of internal self-assessment and external assessment. They seem to be formative approaches.

Observation means 'extracting evidence of competence from an individual while performing everyday tasks at work' (Cedefop, 2008a, p. 22). This extraction of evidence is made by a third party concerning the competence level acquired. Often, observation is used in combination with other assessment methods. It involves asking the person to perform practical activities carried out at the workplace. It can be useful in this kind of situation for the evaluator to build a grid for supporting their observations by using categories of behaviour. For example, Bales (1950) created an observation grid for analysing the evolution of group members' relational and communicative behaviour during a meeting.

Simulation and evidence extracted from work are methods which relate to situations where individuals are placed in a situation 'that fulfils all the criteria of the real-life scenario to have their competences assessed. To extract evidence from work, the candidates collect physical or intellectual evidence of learning outcomes. This may relate to work situations, voluntary activities, family or other settings' (Cedefop, 2008a, p. 22). This method involves the creation of fictitious situations allowing the candidates to be in contact with samples of professional activities.

5.4.3 Specific features of evaluating collective competences

Evaluating collective competences consists of identifying the degree and quality of cooperation between the members of a group. As Le Boterf (2010, p. 205) observes, 'collective competence ... results from the quality of cooperation between individual competences.' Real cooperation can only operate if it is voluntary, rather than obligatory. In practice, several degrees of cooperation can be identified:

- imposed cooperation – driven by line management
- cooperation resulting from a desire to share information because of the limitations imposed by tasks being divided into different silos
- cooperation based on the ability of the key players involved to take the initiative in terms of cooperation.

These three levels of cooperation can be used as benchmarks for evaluation. In this author's view, it is necessary to define cooperation indicators which recognise that the members of a group are cooperating and to identify the degree of cooperation (for example, if they develop shared representations of the problems they encounter and the resources they use to resolve them). Shared representations of this kind develop gradually through collective action. Several markers can be used to identify the level of cooperation in a work group. These are not always observable from the outside (for example, what the author calls the common cognitive framework, the synchronisation of arguments, the level of attention to detail, etc.). Others can be evaluated based on long-term observations of work situations, semi-structured group interviews, and analyses of documents produced by the group. Although more easily observable, these markers are not necessarily easy to evaluate. An example might be identifying whether the members of the group develop cooperative behaviours, whether they share out the workload fairly, and whether they make decisions on the basis of consultation.

Ad hoc tools are often the most appropriate for evaluating collective competences, as they must be closely linked to the specific collective activity carried out by the group being evaluated. Tools used to evaluate competences often involve adaptations to the social and/or professional contexts familiar to the individuals being evaluated and the countries concerned (in relation to language, culture, etc.). In fact, the question of evaluating competences has been a preoccupation in all European countries since 2002.

5.5 Evaluating competences in Europe

Within the European Union, the Copenhagen Declaration of 2002 established the importance of defining a series of common principles in relation to the validation of formal and informal learning in order to ensure greater compatibility between the approaches in different countries and at different levels (Straka, 2004). The various countries in the European Union have gradually taken action to set up schemes and establish practices for group evaluation and validation.

5.5.1 Competence evaluation and validation systems in European countries

All European countries are engaged in a process of developing schemes to evaluate, recognise, and validate learning acquired in a variety of social and professional contexts. Nevertheless, the development of validation in Europe is a multi-speed process. Countries are at different stages of practical implementation and overall acceptance. In summary, at the end of 2007, countries had reached three main levels of development regarding competence evaluation and validation (Souto Otero, Hawley, & Nevala, 2007). Souto Otero et al. distinguished countries where validation has become or is close to becoming a reality for individuals, is emerging as a practical reality, and is at an initial stage of development.

- *Countries where validation is a practical reality for individuals:* Countries in this group 'have validation policies and practices enabling individuals to see their learning outcomes identified, validated, or both on a systematic basis. Validation has moved from the level of general policy statements to tangible practices. Countries like Belgium, Denmark, Estonia, Finland, France, Ireland, Netherlands, Norway, Portugal, Slovenia, Romania, Spain and the UK belong in this category. In these countries there is a high degree of acceptance of validation as an instrument supporting lifelong learning. Most countries have legal structures supporting validation methods, together with a strong policy framework.' (Cedefop, 2008a, pp. 23-24) These validation practices concern both the public and the private sector.
- *Countries where validation is emerging:* This second set includes countries that 'have still to put in place practices making it possible for individual citizens to have their learning outcomes identified and/or validated

on a systematic basis. The level of activity varies considerably in this group. Countries like Austria, the Czech Republic, Iceland, Italy, Germany, Hungary, Lithuania, Luxembourg, Malta, Poland, and Sweden can be said to belong in this category. This group of countries have either recently set up a legal or policy framework for validation.They are currently starting to implement it or have had experience of piloting a variety of different methodologies. . . . Validation of informal and non-formal learning will play a greater role in the coming years.' (Cedefop, 2008a, p. 27)

- *Countries with a low level of activity of competence evaluation and validation:* Countries in this group 'frequently describe validation as a new theme and something yet to influence the overall education, training and employment agenda. In some countries, validation is a controversial theme, sometimes triggering resistance from national stakeholders, including in education and training. This group includes countries like Bulgaria, Croatia, Cyprus, Greece, Latvia, Lichtenstein, the Slovak Republic and Turkey.' (Cedefop, 2008a, p. 31). In these countries, there is little in terms of policy or practice to facilitate informal and non formal learning validation.

5.5.2 Examples of competence evaluation schemes in Europe

The last part of this chapter presents three examples of competence assessment practices in different European countries. The aim is to illustrate the diversity of approaches with regard to competence assessment and validation, which takes place in very different contexts. The first approach, the French *bilan de competences,* is a national public procedure open to a large public. The second one, from Norway, reflects a procedure developed in a professional sector whose goal is to match business skills needs to workers aspirations and competences. The third one, an example from Finland, aims to help young adults get recognition for competences acquired in recreational activities.

France: The *bilan de competences*: A muti-method competence approach

The French *bilan de competences*, sometimes called *Competencies Elicitation Career Counseling (CECC)* intervention, can be given as an example of the assessment of informal and non-formal learning that has been used widely and very successfully.

The CECC intervention is based on law and several statutory orders initiated by public authorities, unions, and management.

It enables employed and unemployed persons to analyse their abilities, skills and motivations to build a career plan. It must be undertaken with the person's consent, who is also the only recipient of the results. The person is entitled to a 24-hour leave from work to undertake it with no loss of salary. The expenses are covered by his or her firm or a continuing education fund, and it must take place in one of the 900 official centers.

This approach is composed of three steps: a) a preliminary phase, which aims at reinforcing the involvement of the persons, clarifying their needs, and acquainting them with procedures; b) an investigating phase to analyse the person's motives, competencies, professional and personal abilities through self-report measures and interviews, and to determine different possibilities in career development with the improvement of some kind of skills; and c) a final phase during which the results are observed, the different projects are reviewed, and the steps of the selected project are defined. Since its creation in 1991, an average of 60,000 employees per year have gone through this process.

Despite this general process, a wide variety of tools like psychological tests, work analysis methods, collective activities are used, reflecting both the existence of different theoretical backgrounds and the heterogeneous profiles of the counselors. (Cohen-Scali, Guichard, & Gaudron, 2009, p. 333)

To ascertain the validity and effectiveness of this procedure, research has been performed. For instance, a longitudinal and experimental study analysed the effects of the CECC intervention on several criteria such as participants' self-esteem, self-analysis, self-concept, and situation (work, training, or unemployment) (Bernaud, Gaudron, & Lemoine, 2006). Compared to a control group and *measured* at three time periods (pre- and post-intervention, and at 6 months) the positive effects of the intervention were significant.

The two following examples have been selected as 'good practices' from the 2005 European Inventory (Souto Otero et al., 2005).

Norway: Assessing the competences of workers in electro-technology companies

We present a summary of this project here. The reader could have a look at the original document to get more information.

The lead organisation, ELBUS, is the National Centre for Electro technical vocational post [a not-for-profit organisation]. ELBUS together with other partners from Norway and 4 other countries developed a methodology to map key competences and skills in electrotechnology companies in order to be able to better match the business development strategies with professional competences, skills and aspirations of employees and potential employees. (Souto Otero et al., 2005, p. 324)

This project was motivated by the difficult situation of the sector, the high rate of staff turnover, the need for professional development opportunities for electricians, and the need for skills improvement. 'A fundamental element of this methodology was development of a process to identify, document and assess professional and social skills of employees and potential employees.' (ibid.) This aim involved increasing the visibility of learning occuring outside of the formal training and education system. The project target groups are employees and human resource managers in the electro-technical industry. The assessment process consists of several steps:

The first part of the assessment is focussed on gathering information about skills, knowledge, expertise, competences and other attributes that employee/potential employee possess that can be of value in their work. A three-part CV is used to record this information in a systematic manner. The CV covers information on personal details, professional skills and more general skills.

The final step of the process for employees is a discussion with their employer about future, development, training and aspirations. To aid the development of dialogue with employer and employee, the project has developed an 'Ability to take action' questionnaire. The questionnaire refers to issues such as ability and motivation to learn and train further, career aspirations, team working and analytical skills and communication capabilities.

Finally a discussion with an employer will be held, based on what the individual has recorded about him/herself on the CV and Ability to take action – questionnaire. The discussion follows defined guidelines and is strictly confidential between individual and employer. Discussion will lead to a personal development plan for each individual employee and different personal development measures (such as in-house or formal training courses) are discussed. Skills gap analysis can be carried out after the skills and competences of employees are recorded on the system.

The key benefit for employees is creation of personal development plan that improves employees' training and career progression opportunities. [For the company,] identification and recognition of informal and non-formal learning has improved effectiveness of companies' human resource policies and management. (pp. 326–327)

Finland: Evaluating the competences young people acquire in recreational activities

The aim of this validation procedure is to take into account young people's participation in voluntary and leisure activities. After all, these activities can offer valuable life skills such as co-operation and team skills, communication skills, goal orientation, and problem-solving skills. These are skills that may also benefit young people as they enter further education or working life.

Evaluating or measuring informal learning is particularly difficult because the learning outcomes are very difficult to place in a specific context,

time, or place. In Finland, a system called 'Recreational Activity Study Book' has been in place since 1996.

The study book is a non-formal and informal learning CV for young people. They can collect entries from all learning experiences in voluntary and leisure activities. [In 2004,] there [were] over 70,000 study book owners in Finland. The book serves young people as a tool for making all the experiences and learning – self-development, growth etc. – outside school visible. It is also an instrument for identifying and crediting nonformal learning when applying for a job or further education. ...

The Finnish study book system focuses strongly on the development of the individual learner – young people. Therefore, there are neither any criteria for the measurement of learning outcomes or performance, nor any public examinations held to assess the competencies supposedly acquired. The Recreational Activity Study Book system is feasible for the documentation – and recognition – of both qualifications and competencies acquired by participating in youth voluntary and leisure activities. ...

In the study book, more emphasis is put on the development of each young person's personality rather than the actual qualifications of the skills required in particular job requirements. (Souto Otero et al., 2005, p. 346)

Young people fill in the part 'Self-assessment of the learning'; then, an adult who is either responsible or well aware of the particular activity will record these different activities and the skills that young people think they have developed. 'The idea is to focus more on what and how things have been learned rather than what has only been done. The person undersigning the entry in the system adds his/her contact information, in case someone wants to check whether the young person actually has participated in the activity or not.' (p. 349) So this evaluation process is mainly a formative process, and competences are identified through self-evaluation and confirmation provided by a third party. For more information about this experiment, see Souto Otero et al. (2005).

A wide variety of conceptions and procedures exists in relation to competence evaluation. These depend on the objectives of the process (such as recognition or validation), the population concerned (e.g. employees or young people) and the degree to which businesses are involved.

5.6 Conclusion

Adult education specialists are required to be involved in the process of evaluating competences in both young people and adults. Evaluation may involve learning that has taken place in a variety of contexts, such as training,

work, social experiences, or leisure. Tools are essential to limit the influence of representations and biased judgements. Individuals conducting evaluations should be encouraged to broaden their knowledge of existing tools and the context in which they are used. In practice, tools are generally developed within specific frameworks and aimed at specific populations. It is therefore not always possible to transfer them. Insofar as the tools used are closely associated with the characteristics of the populations being evaluated and the types of competences studied, it is often necessary to develop *ad hoc* tools. In this case, it is important to take precautions to ensure they are scientifically based and in particular to verify their validity. All European countries are currently in the process of developing competence evaluation procedures which should help to foster lifelong learning, and recognise and value knowledge acquired in a variety of contexts. The various schemes identified demonstrate the creativity of those involved in the field of competence validation.

Exercises and tasks

Exercise 1

Build a training programme. This task deals with the main bias we often encounter in the context of evaluating individuals. Go back in this chapter to the section on bias in the evaluation of competences and reflect, as a group, on ways to counter the effects of this type of bias. Then plan a training programme designed to train competence evaluation specialists to become more aware of their errors of judgement and to adopt new forms of behaviour in relation to the individuals they are evaluating. Use the following questions to help you develop your programme:

- What are the main competence needs of the evaluators?
- How will you analyse the representations and bias of each evaluator?
- Do you think it could be useful for them to confront their point of view?
- How will you formalise this information?
- What will be the criteria for you to know whether the training has been successful?

Exercise 2

Imagine a procedure that would allow you to evaluate the competences of adult trainers. What kind of approach would you choose: interviewing or observing? Moreover, what kind of tool would you create? Imagine an interview guideline or an observation grid to identify these competences.

Task 1

Explore the 2005 European Inventory (see link below). It provides an overview of all the procedures for assessing and validating competences assessment that have been developed in Europe. Identify those that are more focused on young people's skills. Compare these different programmes and try to complete them, considering your own experience as a student. What kind of procedures could be imagined to validate and evaluate young people's work experience? Make a list of these new procedures and then ask your colleagues what they think of them.

Souto Otero, M., McCoshan, A., & Junge, K. (2005). *European inventory on validation of non-formal and informal learning*. Final report. DG Education and Culture of the European Commission. Luxembourg: Publications Office of the European Union. Available at www.ecotec.com/europeaninventory/publications/inventory/european_inventory_2005_final_report.pdf

Task 2

International competences: In their article, Schomburg and Teichler (2009) summarise the main results of a survey about the international competences of university students. This survey, which was conducted a few years after graduation, retrospectively examines respondents' educational and life paths, suggesting an impressive degree of border-crossing mobility. The study shows that persons who have gained international experience prior to or shortly after graduation are clearly more likely to be internationally mobile and to take over jobs that require international competences. This confirms a strong 'horizontal' link between international learning and experience on the one hand and international work on the other hand.

Schomburg, H., & Teichler, U. (2009). International mobility of students and early career. In U. Teichler, *Higher education and the world of work* (pp. 269–283). Rotterdam: Sense Publishers. A summary of the article is available at http://www.cereq.fr/pdf/fe103.pdf.

Discuss the findings from this report in small groups, using the following three questions as guidelines:

•   Based on what has been presented in this chapter, how would you categorise these types of competences?
•   How would you define 'international competences'?
•   What are the main criteria that could allow us to identify these international competences?

6. Competence Management and Adult Education

Valérie Cohen-Scali

Competence management has emerged as a key concept in contemporary organisations development. According to Gilbert (2003), it has become a very widespread notion but is difficult to define precisely. Several other expressions are also used with the same meaning: competence-based logic, management by competences, competence-based management, and so on. Nevertheless, competence management can be defined by the following characteristics:

- A set of professionals (managers, human resource executives, consultants, training staff, etc.) make their management-related decisions based on competence considerations.
- A variety of management-specific tools and methods (skills referential, portfolios, etc.) are used.
- Individual-focused norms of behaviour, individual responsibility, and the autonomy of the employee are valued.
- A set of human resource management practices (projected occupations and competences management, competences assessment, etc.) exist.

Competence management emerged as a new way of organising work in a more effective way, allowing firms to better face new constraints from the environment than was possible with the stiff traditional approach related to the adequacy of worker-task. Issues involving the production process thus can no longer be settled in Taylorian terms, according to which there would only be one way of realising a task. This approach would mobilise only a few, very well-mastered skills. Competence management corresponds to a more global conception of a worker capable of limitless learning in the workplace, a source of collective skills, and of organisational development.

In this chapter, competence management is approached through two developments. On the one hand, we will explore the main factors involved in current management practices, and on the other hand, we will look at some examples of practices implemented to support organisational or individual evolution.

6.1 The main determinants of competence management

Four main factors have an influence on individual and collective competence management in most of today's European firms:

- European directives
- national policies related to training
- firms' strategies to face the evolution of the economic market
- the individual and the new attitudes they have to adopt in such a work context.

6.1.1 The European framework

As described in the EU activities assessment report (2002–2010) on vocational education and training (VET) (Cedefop, 2010), a set of instruments and principles have been developed under the Copenhagen process, which began in 2002:

- The **European Qualifications Framework** (EQF) has been designed 'to compare qualifications throughout Europe to support lifelong learning and educational and job mobility' (Cedefop, 2010, p. 25). A process of competence recognition and validation organised at the European level is implemented in order to allow learners to move from one qualification to another. The process covers all levels and types of qualifications. EQF offers the possibility to individuals and enterprises to know precisely what skills are needed regarding one qualification.
- The **European credit system for VET** (ECVET) 'helps validate, recognize and accumulate work-related skills and knowledge acquired during a stay in another country or in different situations, so that these experi-

ences contribute to vocational qualifications. This process favors mobility of students and workers.' (Cedefop, 2010, p. 25)

- The **European quality assurance framework** allows countries to develop, improve, guide, and assess the quality of their VET systems and develop quality management practices.
- **Europass** is a 'portfolio of documents to support job and geographical mobility to enable people to present their qualifications and skills using a standard format understandable to employers throughout Europe. Europass documents are the Europass CV, language passport, Europass mobility, diploma supplement, and certificate supplement. The Europass must favor employees' mobility among European countries.' (Cedefop, 2010, p. 25)

These instruments have been implemented in most European countries today. Moreover, two main principles are becoming central, emerging as important factors for modernising education and training systems and for helping individuals become more efficient in managing their competences. **Lifelong guidance and counselling** are strengthened in order to support European policies of education, training, and employment. It addresses four priority areas: career management skills, access to services, quality of guidance provision, and policy cooperation. Furthermore, the development of common **principles to high non-formal and informal learning** quality is designed to provide trustworthy approaches and systems to identify and validate non-formal and informal competences.

One of the EU objectives is to increase the skills of its workforce. Principles are defined and studies are made in the different countries in order to implement these principles. By doing so, the European Union provides a framework of strong strategies for the management of competence at the national level. But supplying general principles is not the Union's only way of intervening. Another way is to supply instruments for the development of future skills. For example, the European Union conducts forward-looking studies which allow researchers to identify the evolution of skills needs during the next decade within the framework of the *Skillsnet* (Cedefop, 2009a).

Keyword: Skillsnet

In 2004, the European Cedefop agency created the skillsnet network. This network aims to identify new needs in skills early enough to be able to react to this information and to strengthen international cooperation and information exchange. The activities of the network are

based on research data: researchers analyse skills needs in the Euro-pean labour markets and look for analogies between the various coun-tries and professional sectors to reveal common evolutions and to ex-amine the needs of particular groups (low-qualified persons, small firms, immigrants, etc.). (Cedefop, 2009)

6.1.2 Vocational training systems and lifelong learning national strategies

Qualifications systems vary from country to country because they are em-bedded in national histories, values, and policies. At the national level, three sets of factors play a role in competence management (Louart, 2003):

- **The impact of liberalism**: According to liberal ideology, which is based on individual responsibility, it is mainly up to the employee to increase their competences. The impact of liberalism is very important in the United Kingdom, for example, where individual autonomy is strongly valued.
- **The major role of the educational system** and the government's in-volvement in economic markets are another key point. France, for exam-ple, is often considered as the country most concerned about diplomas and educational levels.
- **The weight of professional corporatism:** This factor is very high in Germany, for example.

Louart (2003), in response to the analyses of Slomp (2000), provides a typol-ogy of three major models by comparing the European systems of labour re-lations. The qualification system structure can relate to sectors, national qua-lifications registers, or education and training systems, and there is no stan-dardised model of 'qualification systems'. We focus on the situation in three countries that exemplify the three models identified by Louart. In each case, the specific national context provides constraints as well as opportunities for enterprises and individuals. The national context thus emerges as a frame for the implementation of competence management in these countries.

United Kingdom

The British model provides firms with substantial leeway for negotiation. Based on this situation, the UK government has set priorities for lifelong learning (Cuddy & Leney, 2005):

- developing skills and knowledge for a productive workforce through fostering creativity, innovative thinking, and enterprise
- increasing and widening participation in learning including basic skills
- raising standards in teaching and learning.

Training policies are left to employers, but the government has identified weaknesses in terms of leadership and management skills in small and medium-sized enterprises (SMEs), particularly at the middle management level. For Mudler (2007), 'VET development [in England] is driven by objectives of productivity improvement. [A] sector skills development strategy is followed. Competencies are embedded in national occupational standards, in which five levels of competence are distinguished, and national vocational qualifications.' (p. 12) Use of the competence concept is linked to evaluation and the ability to demonstrate skills and abilities. The link between competence and performance is also not always very clear and evident.

Germany

The German model gives a central role to the negotiation with professional sectors. In Germany, the VET system is characterised by openness, flexibility, and permanent transformation. VET is strongly connected with the dual system, which is characterised by theoretical and practical parts, in which workplace learning plays an important role. The VET system is based on co-operation between government and industry, with the government's role focused on regulation and organisation (Hippach-Schneider, Krause, & Woll, 2007). Training directives guarantee a uniform national standard. Training courses are evaluated with tests created by an independent organisation. These evaluations are designed to increase quality and transparency in the German VET system (Bousquet, 2007). Today, the emphasis is on general competencies, key qualifications, with a higher level of abstraction and better transfer potential. Competence development is aimed at work activity, or knowledge of work processes.

France

In the French model, the government plays a major role in organising labour relations. In France, the continuing vocational training system is more focused on individuals. One of the major challenges for vocational policies is to help people achieve career security. Different instruments are implemented (notably the *bilan de competences* and the validation of non-formal and information learning system (VAE)), allowing people to manage their compe-

tence analysis and development themselves. In France, for example, the continuing vocational and training system depends on a number of partners: the national government, the regions, firms, and social partners. Firms cover the main costs of continuing vocational training for their employees; funding provided by the government and the regions comes second. Nevertheless, firms do not manage the financing of the vocational training directly (Cedefop, 2008b): intermediate organisations intervene to distribute funds according to individual needs and labour market trends.

Table 4 provides some examples of the instruments utilised in France at the national, regional, and professional levels to plan the skills needs for the future.

Table 4:   Skill needs anticipation by public employment services, involvement of relevant stakeholders in France

Level	Initiator	Main focus	Example of initiative
National	Prime Minister, Ministries of Employment and Education.	Recruitment, sector development	Prospective study contracts; state of sectors
Regional	Employment and training observatory	Analysis, forecast for school training, continuing training and training in enterprises	Regional employment and training observatories, periodical analysis of sector activities and professions
Professional	Industry branch joint observatory; set-up of professions and qualifications forecast observatory	Forecast on development of branch professions at regional levels	Observatory of automobile trades

Source: Cedefop, 2010, p. 62

In spite of the European Union's strategic orientations and activities, skills management approaches in these three countries vary widely. In some cases, firms enjoy considerable freedom proposing certain types of training, whereas individuals are very constrained. In others, individuals can use training or self-evaluation tools to help themselves to find a new career path (France). In some countries, government-industry relations are very close (Germany), whereas in others, these relations are more distended (France).

6.1.3 Competence management at the workplace

The third factor that has an influence on competence management relates to managing competences at the workplace. One of the challenges that firms have to face is managing their employees' competences. Managing competences, from the firms' point of view, means continuously adapting their workforce, in quantitative as well as qualitative terms, to the new challenges they meet because of the evolution of their work environment. Indeed, firms have to adapt to diverse trends (Citeau, 2002):

- the decreasing relevance of certain activities
- the necessity of developing a more participative type of management
- the development of new skills in the future
- the evolution of work organisation in connection with the development of new technologies
- the consideration of firm demographics.

To face these trends, firms have to define strategies, and then actions, regarding skills management. However, a look at firm practices reveals a strong degree of diversity regarding their definitions and utilizations of competence (Aubret, Gilbert, & Pigeyre, 2002). Even though all firms are now concerned with competence management, some of them have implemented important changes in their practices, whereas others simply changed their vocabulary without changing their practices. The notion of competence can be central to a firm's philosophy, in which case the entire human resource management system will be designed to promote competence development. In other cases, the notion of competence is only connected to specific firm domains.

The emergence of the competence notion in firms and the question of competence management are associated with the idea of the learning organisation. This concept refers to an organisation in which employees have opportunities of learning and of transferring what they have learnt.

Keyword: A learning company

For Burgoyne, Pedler, and Boydell (1994), a 'learning company' is associated with specific characteristics in line with organisational practices of learning. The main characteristics of a learning company in direct relation with competences management are:

- mechanisms and employee relationships which encourage and support self-development

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Source: Burgoyne, Pedler, and Boydell (1994, p. 4)

As Eraut said, 'Learning opportunities for work-based learning are crucially dependent on the way in which work is organized and allocated; and that in turn is dependent on prevailing assumptions about the competence of the people involved.' (1996, p.168) Numerous big firms have committed themselves to competence management practices. Competence management has given birth to a range of software applications, for example, some of which are designed to help identifiy a firm's competence; others allow firms to realise graphic representations of their skill sets, whereas others aim at facilitating the projected competence management process. However, large portions of the economic sector, especially small firms, have yet to catch up with these trends.

6.1.4 Competence management and new individual attitudes

Competence management aims to stimulate individual employees to engage in the collective performance of their organisation. It seeks to improve cooperation and adaptation at work, which have taken on a new importance. The competence of individuals is not an end in itself. It must be made to serve a collective mobilisation of resources regarding efficiency, results, and adaptation to change (Monchatre, 2005). Competence management introduces major flexibility into the definition of work and its attributions. It aims to produce real competence at the organisational level. The organisation of work tends to provide personal initiatives. These initiatives drive the creation of spaces of autonomy and initiatives for pooling the knowledge that has been mobilised in a dynamics of innovation and enrichment at the workplace. The search for increased organisational efficiency has to deal with the implementation of standardised routines. Careers become more dependent on the progress of the individual's skills. But these evolutions tend to encounter numerous difficulties connected to the economic market, the organisation of work, and management.

According to Zarifian (1999), competence management involves a new way of managing individuals with the main objective of improving performance. The issue relates to the best way of reconciling this recognition of individuality with the collective character of work and lifestyles. In this context, individuals have to mobilise resources in an intense way: they have to become more autonomous, and they have to engage in training. They have to get involved in work while remaining under the control of the group. Individual commitment appears as the precondition for a successful and efficient organisation (Lozier, 2006).

In the framework of competence management, the individual becomes a subject and a player at the same time (Zarifian, 1999). Indeed, the individuals are asked to be more subjectively committed to their jobs, to be more motivated, and to give meaning to their activities. They must know up to which point they can involve themselves and control their commitment. Intense involvement can lead to unbearable stress, pathologies, and the impossibility to reconcile family and professional life.

In order to meet these new work requirements, individuals have to develop two keys skills, according to Zarifian (1999): initiative and autonomy. Initiative means beginning something new, taking action based on a personal decision. The main aspect of modern work life is making decisions and taking the initiative to successfully face any event arising in professional life, or even giving rise to it. Autonomy refers to defining one's own rules of action. It means acting by oneself, self-managing. Individuals have to acquire more freedom in their working life and work activities. This possibility also includes the risk of failure, requiring individuals to be very self-confident when putting themselves in situations that may threaten their identity.

6.2 Competence based on individual identity

Today, employees have to develop new competences that allow them to internalise this new competence-based management logic, and to manage their professional life independently. This change calls for involving more counseling professionals to provide mentoring and psychosocial support, because individuals have to face more complex personal situations and more frequent professional breaks.

6.2.1 Individuals facing numerous career transitions

Whereas, up until the 1980s, individuals used to go through traditional organisational careers, staying with the same company for many years, experiencing upward mobility, and receiving regular pay rises, they are nowadays more and more often confronted with periods of transition. According to Louis (1980), transitions are events punctuating career development – periods, that is, in which individuals change roles. This change of roles can be objective (inter-role transitions) or associated with a subjective change (intra-role transition). Nicholson (1984) defines transition as any change arising in the work context. It includes temporary changes and changes of status (leaving for retirement).

According to Schlossberg, Waters, and Goodman (1995), any transition can be characterised by several aspects:

- The more or less predictable nature of the events triggering the change allows for distinguishing between anticipated transitions, non-anticipated transitions, and non-event transitions (those transitions that should occur but finally don't).
- The relationships between the person and the framework in which the transition occurs correspond to the transition context.
- The extent of the transition relates to the impact that it could have on the person's life.

For Schlossberg, each transition has specific characteristics and is managed by individuals with varied psychological and social resources. These resources appear as a set of strong and weak points when it comes to facing changes, and they concern the context of the transition (e.g. psychological pressure, duration of the event generating the transition, etc.), the individual self (e.g. abilities to control one's stress, self-knowledge, etc.), or the adjustment strategies that individuals pursue, as well as the social support they benefit from. The events initiating a transition in professional life are more numerous today than they were 20 years ago. They generate pressure in connection with the key role of work for the individual. Every situation of transition has several specific features:

- its character of discontinuity and break
- its crisis aspect, linked to the emergence of contradictions and incompatible elements
- putting adaptive strategies or behaviours to the test.

Adult education professionals often work with individuals facing a period of transition in their careers. They are often called on to support these individuals in the various changes that occur at different life stages. Their role is to help them to identify their strengths and weaknesses, develop scenarios for the future, and develop their ability to face uncertainty.

In some cases, individuals not only have to face periodic transitions in the course of their career, but also find themselves in new professional situations, which are far removed from the traditional career model.

6.2.2 The emergence of 'boundaryless careers'

Upheavals in organisational structures have led researchers to question the model of the traditional organisational career (Arthur & Rousseau, 1996). New forms of career are appearing, in particular as new forms of organisation (such as networked organisations) accentuate the role of the individual in managing their own career. The gradual weakening of the large corporate model and new forms of organisation have led to the erosion of prerequisites for an organisational career and opened the way to non-standard ways of working, such as temporary work and self-employment. Some researchers, such as Inkson (1995), suggest an incompatibility between the traditional career and current conditions in the working environment. Whilst we do not suggest that traditional forms of organisation have entirely disappeared, various economic and social changes are leading to the creation of new types of businesses, implying new views of career management.

> **Keyword: Career**
>
> Career can be seen as an overarching construct that gives meaning to the individual's life. It is a superordinate construct that allows people to construct connections among actions, to account for effort, plans, goals, and consequences, to frame internal cognitions and emotions, and to use feed back and feed-forward processes (Young & Collin, 2000, p. 5).

Most businesses can no longer offer a stable, lifelong career, but rather career opportunities, with the responsibility for their career development falling to individuals. We have also seen the emergence of the concept of the 'boundaryless career' (Arthur & Rousseau, 1996). This concept is based on the idea that careers are no longer constrained by the boundaries imposed by businesses and instead are made up of a series of job opportunities, which goes beyond the boundaries of a single workplace.

Several principles are embodied in this new career model.

The first promotes *learning* in all its forms, on the basis that this is an essential condition of adapting to new professional situations. In addition, the individual is not necessarily aware of the knowledge they have acquired through their various experiences and needs to go through a process of formulating what they have learned and exploring the contexts in which they can be transferred or valued. This accumulation of learning or competences constitutes an individual's 'career capital'. These may be broken down into sub-groups, including 'knowing how' (transferable know-how), 'knowing why' (the ability to ascribe meaning to one's experiences), and 'knowing who', which refers to one's social network, that is, familiarity with a network of contacts on whom one can rely for work and for emotional support.

The second principle relates to the individual's *career capital*, that is, their accumulated competences. This relates to potential resources they can develop by choosing certain activities or jobs likely to lead to the acquisition of new competences. The individual is thus continuously faced with the choice of continuing in their previous position or changing it in order to focus on more profitable investments.

The third principle relates to *employment arenas*, which can be defined as collective competences based in particular areas or in certain professional sectors. The accumulation of competences in individuals paves the way to a rise in collective competences and expertise in a particular sector, and fosters innovation.

The final principle refers to the idea of a career as a series of professional *experiences* over time. Every experience is a situation considered as a potential learning opportunity. Depending on the individual's previous learning and the way they experience the situation, they will be more or less exposed to new learning. It is suggested that a boundaryless career provides greater exposure to learning than an organisational career.

These four principles need to interact constantly in the context of new forms of career, and this can be achieved by creating a sense of meaning in one's professional career. Individuals need to seek a coherent relationship between their experiences on an ongoing basis. Careers therefore become less and less a matter of choice, but individuals, guided by their own success criteria, try to give them meaning and make them part of their own particular path. Individuals need to develop specific competences to manage their own careers independently.

6.3 Competence management practices and tools

As emphasised by Defélix, Klarsfeld, and Oiry (2006), competence management is never simply the sum of various instruments, but a process involving both organisations and individuals. Practices associated with competence management in firms and individuals are not determined once and for all, but are flexible and evolutive in order to try to adapt to unexpected socio-economic changes. Competence management is a process, and it is important to specify its boundaries, dynamics and effects on each separate occasion.

There are thus numerous practices aimed at making competence management for individuals easier. Some of these practices are used by firms and result in improvements to the way employees' competences are managed within the company in order to improve the overall performance of the business. One example is known as Strategic Workforce Planning. Other tools are used more at the instigation of European guidelines or by national governments and are designed to facilitate the development and management of their competences by individuals themselves, such as the portfolio or Europass, or by innovative groups of researchers.

6.3.1 Strategic Workforce Planning (SWP)

SWP is a management tool which is designed to help firms to assess the impact of policy decisions on employees' jobs and competences. The need to anticipate is the main motivation which prompts certain businesses to adopt an approach of this kind. It enables individuals to plan possible developments of their competences on the basis of a likely future context. SWP therefore set out a framework, which can be used as the basis for organising various human resources management activities. According to Citeau (2002), this approach to SWP consists of a series of steps:

1. *Define development projects.* The first step is to analyse the firm's internal and external environment in technological, economic, and social terms in order to identify what is possible and what is desirable. Comparing internal capacities and external opportunities should help the firms to define its strategic choices.
2. *Break down objectives in terms of jobs and the competences required for projects.* It will be essential to define needs for jobs and competences according to the ways in which work is organised, identify key factors in job changes, and list key positions to be filled for the development of

certain activities, those which will change in terms of substance, and those where the number of employees will fall.

3. *List existing human resources and assess how these will change over time*. In addition to identifying needs, it is important to draw up an inventory of the jobs and competences currently available and the movements of people in different jobs (departure levels, staff turnover, etc.).

4. *Analyse any discrepancies between the existing situation and future needs and create possible scenarios*. Most of the time there will be gaps between the existing situation and what is desirable. It is therefore important to think about the resources needed to regulate the business's internal market. Scenarios should form part of this process.

5. *Define and implement action plans*. A set of action plans is agreed, specifying a timetable, the entities and key players concerned, and monitoring and evaluation methods.

SWP therefore consists of carrying out an analysis of the current state of competences within the business, thinking about what competences will be needed in the future and implementing strategies to move the situation in the desired direction. It is therefore an organisational practice which involves some or all of the workforce and aims to develop competences across the board. Another common practice today is vocational training, which seems to be a possible way of increasing the level of competences at both an individual and organisational level.

6.3.2 Continuing vocational training in firms

Several European surveys help us analyse the role that vocational training plays in European firms (e.g. Cedefop, 2009, 2011). The Eurostat continuing monitoring survey helps monitor some basic trends in EU firms' training provision. The survey, conducted in 2005, shows that 60 per cent of all enterprises in the EU–27 countries provides training (Cedefop, 2009). Half of all firms (53% in 1999, 49% in 2005) provided continuing vocational training courses in different forms (job rotation, learning circles, quality circles, self-directed learning, and attendance at conferences, workshops, seminars, lectures, or trade fairs). Nevertheless, training at work and attendance at conferences, workshops, lectures, and seminars were the most frequent. 89 per cent of the firms used external courses, whereas 54 per cent used internal courses. 36 per cent provided continued vocational training in work situations; 36 per cent offered continued training at conferences, workshops, lectures, and

seminars; 12 per cent used job rotation, exchanges, or secondments; 15 per cent used learning and quality circles; and 15 per cent promoted self-learning.

Firm-based training tends to be strongly focused on the daily functioning of their employees in the workplace rather than on the acquisition of competences that can be transferred across different environments (Cedefop, 2011). Nevertheless, it has been shown that firm-based training opportunities are usually most likely to be offered to employees in higher status jobs who are often those with the highest levels of education and training achievement.

Low-skilled employees receive measurably less training, as do employees in small firms and in a number of sectors of the economy. Expecting high returns for investment in training, enterprises tend to concentrate on employees who are already highly qualified or those who may assume a technical or a supervisory role in the enterprise; at the same time, they neglect low-qualified, older employees and part-time or in temporary contracts workers. (Cedefop, 2011, p. 30)

Subsidies and exhortations to train more may not be sufficient to increase the share of enterprises providing training. Lack of awareness on training needs is at present a fundamental barrier to skill development in enterprises which will need to be counteracted by appropriate policy measures.

In such a context, trainers in on-the job learning situations may help transform the working organisation into one in which workers can develop their competences further while working, and in which opportunities for learning are embedded in working tasks and work organisations. The primary role of the trainers is no longer to convey vocational knowledge but to support workers in their learning and to stimulate their learning capacities.

What is the impact of training on firms? Several studies reported by Cedefop (2009) show that three main effects have been identified:

• Training appears to boost staff knowledge, and skills are a factor of innovation in processes and products.
• Training may improve economic growth.
• Training improves firms' productivity.

Another practice is becoming common in response to the increasingly chaotic situations encountered by individuals, namely a new form of career counselling focused on the development of individual competences.

6.3.3 Career counselling and the life designing new paradigm

An international research group looking into how people construct their lives, with researchers from Belgium, France, Italy, Portugal, Switzerland, the

Netherlands, and the United States met for three years, starting in 2007, to reflect on new ways of supporting individual changes brought about by new contexts in the world of work (Savickas et al., 2009).

The starting point for the research was the observation that the career counselling tools and theories currently in use were developed in a context of stable work situations, which no longer reflects reality. New models based on flexibility, adaptation, malleability, and lifelong learning needed to be developed. Today, we need to think in terms of a 'life path' over which individuals plan their lives. Everyone, not just teenagers, is now faced with the question, 'What am I going to do with my life?' Individuals are now obliged to reflect on what is most important to them, insofar as they feel dispossessed and isolated in a world with no psychological support and a low level of security. It is therefore essential to take not only work but one's whole range of activities in different areas of life into consideration. Individuals therefore have to engage regularly in reflecting on themselves and their environment and imagine a number of possible selves. The notion of selfhood now needs to be reconstructed on an ongoing basis. Proposals for work with individuals are based on the epistemology of social constructionism, which recognises that

- identity is the product of psychosocial processes, which take place in a context of interactions and negotiations between individuals and groups.
- individuals give meaning to reality in a social, historical, and cultural context through the mediation of discourse and dialogue.

Work with individuals must contribute to the development of four competences: their adaptability, narrativity, activity, and intentionality.

Professional adaptability

Support activities must seek to enhance the five 'Cs' of the career construction theory defined by Savickas et al. (2009):

- *concern* about one's career path: considering life from an optimistic angle and as a series of opportunities
- *control*: being convinced that it is necessary to adapt to environments but also believing in one's ability to influence these environments.
- *curiosity*: being prepared to explore different possible selves
- *confidence*: the ability to maintain one's aspirations and objectives in spite of obstacles.
- *commitment*: to one's life plans. Indecision in respect of career choices is not necessarily something to be fought, since it can be a source of new possibilities, allowing individuals to be active even in uncertain situations.

Narrativity

The authors suggest that support work should be focused on a detailed dialogue between the counsellor and their client. This should allow the individual to identify the most important aspects of their lives, their professional personality, and their resources more accurately. The support professional should help their client to explain how they see themselves in different areas of their lives. Support work should help individuals to identify the different roles they play in their lives, and their relationships, and to reflect on both areas.

Activity

Activities in every area of life are fundamental. Actions are a major element in changing in individual's discourse about their life. By engaging in various activities, individuals discover what abilities and interests they want to use. Through their activities, they construct new aspects of self-representation and feelings of personal effectiveness. They also interact with others, who provide them with feedback.

Intentionality

The intentional process is essential to the process of 'life designing'. Support should consist of articulating intentions and expectations in relation to possible selves in the future. Career paths are interpretive constructions developed by the worker. Support professionals need to focus on the way the individual confers meaning on their activities by using intentional processes in constructing their life.

Support methods for individuals should result in greater reliance on narratives and activities than scores in psychotechnical tests. A method based on a six-stage interview is put forward to enable the individual to gradually develop new competences to manage unforeseen situations in their lives.

6.4 Conclusion

Competence management reflects a new type of relationship between the individual and their work. Individuals are expected to take control of their working lives and play their own role, rather than one which is prescribed for them. They need to demonstrate independence and initiative in a working en-

vironment which is changing rapidly. These new attitudes also generate more stress amongst employees. Although businesses want individuals to take their work more seriously, they are increasingly less able to offer their employees long-term career development and upward mobility. Individuals should therefore expect to have to develop new forms of activity (portfolio careers, self-employment, etc.). In these new types of career, individuals are responsible for managing their own competences and career paths. They need to develop specific competences to enable them to manage new work situations. Adult education professionals are seen as special mediators who can facilitate the relationship between an ever-more restrictive working environment and ever-more sought-after individuals.

Exercises and tasks

Exercise 1

After reading this chapter, make a list of the various new competences that adult education professionals have to develop with respect to this context. Compare your list with that of one of your fellow students. Then discuss the consequences of developing such competences with a group of students, and what they may mean for your future activity in adult education and training.

Exercise 2

Write a paper summarising the main trends in the field of competence management in organisations.

Task 1

Using what you have learnt in this chapter concerning competence management in enterprises, analyse the situation in the company CIGER below and answer the question.

(This case study is taken from Citeau, 2002)[5]

The CIGER firm is specialised in the production of electronic and electro-technics equipment. Acquired in 1990 by the IEC group (International Electronic Components) after having filed for bankruptcy, this company today has 760 employees. Since its repurchase, it has seen strong growth, with production increases during this period from 150,000 units per year to 450,000 units in 2002. This exceptional growth, due to the penetration on overseas markets, required a doubling of staff between 1991 and 1995. In 2002, however, the period of boosted growth seems practically over, and the sourness of the competition on the international market obliges CIGER leaders to bend their rate of progress and to rethink seriously the management of their staff. Besides, CIGER, on one hand, plans to make decisive investments at the level of production to realise substantial productivity gains, and on the other hand, plans to focus its efforts on the quality of product maintenance in order consolidate the distribution equipment.

The planned activity is summarised in the table below:

Year	2002	2003	2004	2005	2006
Units that have to be produced (x1000)	450	460	470	485	500
Productivity earnings		+ 6%	+8%	+ 10%	+ 7%

The productivity earnings are evaluated regarding blue-collar staff.

For 2002, the company staff becomes established as follows:

- *615 workers*
- *58 first level managers*
- *72 technicians and employees*
- *15 executives*

Besides, they plan:

- *a departure rate of 5 per cent each year of the blue-collar staff*
- *a departure rate of 3 per cent each year of the other staff (except executives)*

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5   Copyright Armand Colin Edition, Paris. Reprinted by permission.

- *the retirement of one executive in 2004 and of two others in 2005*
- *1 per cent of blue collar staff able to become first level managers.*

Finally, the human resources manager wishes to avoid any drift of the payroll by keeping constant the ratio between blue-collar staff and other workers.

Work with other students to analyse the situation, to elaborate a complete plan of staff evolution (needs, resources, promotions, relocations, recruitments, and layoffs) for the next four years and for every category of staff. What data or analysis should be used to complete this plan?

Task 2

Read the 2009 Cedefop document listed below and identify the main trends in workforce and skills needs up to 2020. What can you conclude concerning the evolution of training needs?

Cedefop. (2009). *Future skills supply in Europe: Medium term forecast up to 2020. Synthesis report*. Luxembourg: Publications Office of the European Union. Availabe online at www.cedefop.europa.eu/EN/Files/8016_en.pdf

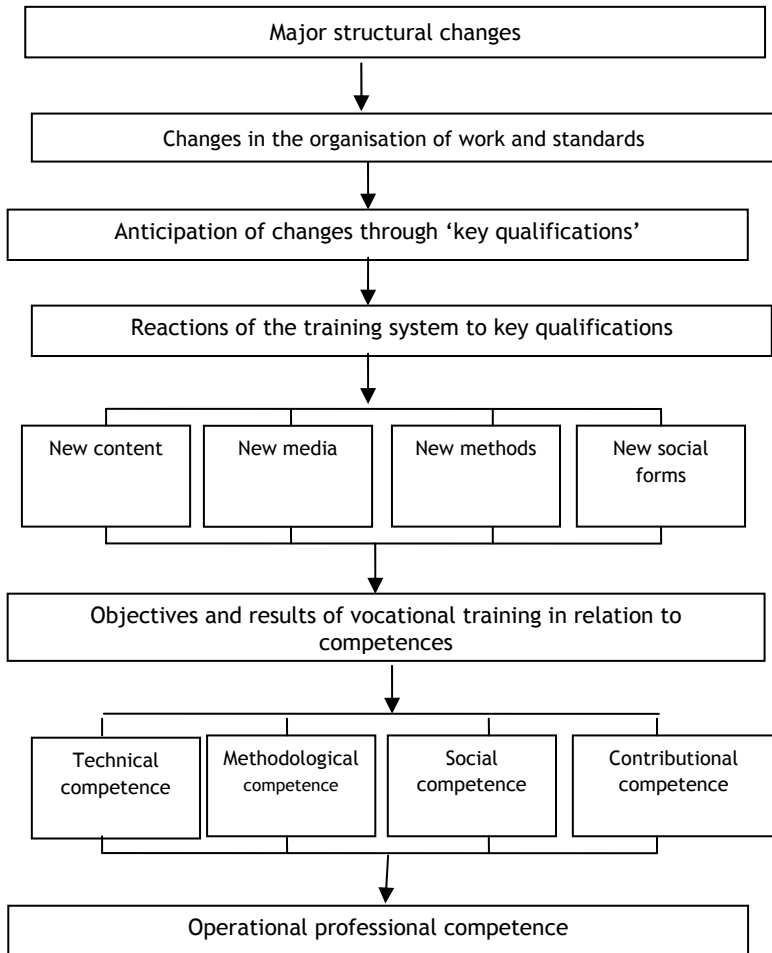# 7. Changes in Vocational Training and New Models of Competences for Individuals

Alain Kokosowski

National and European policies have gradually defined a new frame of reference for training strategies, structures, systems, and content. This new frame of reference implies that vocational training is increasingly distinct from the type of teaching dispensed in secondary schools and training organisations. One of the objectives is to gradually incorporate the strategies and practices used in human resources management in the business world, into training. This idea will be examined further in this chapter, which consists of three sections: Section 1 addresses the main changes which have taken place in the training sector. These relate to training structures, technologies, and models. Section 2 emphasises the increasingly important role of work in different kinds of vocational training, and the gradually closer relationship between the competences of individuals working in the human resources function and those of trainers and teachers. Section 3 describes the changing roles of the two groups of key players in vocational training: trainers and teachers.

7.1 New structures and new paradigms

Vocational training interacts with socio-economic changes. As a result, it is experiencing large-scale change on an ongoing basis. Bunk (1994) sets out an explanatory diagram which links all of these changes at the macro, meso, and micro-social levels involved in vocational training. A simplified version is shown below.

Figure 5:   Main effects of social and economic changes on professional competences

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┌─────────────────────────────────────────────────────────┐
│                  Major structural changes                │
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                             │
                             ▼
┌─────────────────────────────────────────────────────────┐
│       Changes in the organisation of work and standards  │
└─────────────────────────────────────────────────────────┘
                             │
                             ▼
┌─────────────────────────────────────────────────────────┐
│      Anticipation of changes through 'key qualifications'│
└─────────────────────────────────────────────────────────┘
                             │
                             ▼
┌─────────────────────────────────────────────────────────┐
│     Reactions of the training system to key qualifications│
└─────────────────────────────────────────────────────────┘
                             │
        ┌─────────────┬──────┴──────┬─────────────┐
        ▼             ▼             ▼             ▼
┌──────────────┐ ┌──────────┐ ┌──────────┐ ┌──────────────┐
│ New content  │ │New media │ │New methods│ │ New social   │
│              │ │          │ │          │ │ forms        │
└──────────────┘ └──────────┘ └──────────┘ └──────────────┘
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┌─────────────────────────────────────────────────────────┐
│  Objectives and results of vocational training in relation│
│                     to competences                       │
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        ▼             ▼             ▼             ▼
┌──────────────┐ ┌──────────────┐ ┌──────────┐ ┌──────────────┐
│ Technical    │ │Methodological│ │ Social   │ │Contributional│
│ competence   │ │ competence   │ │competence│ │ competence   │
└──────────────┘ └──────────────┘ └──────────┘ └──────────────┘
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┌─────────────────────────────────────────────────────────┐
│            Operational professional competence           │
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Source: Adapted from Bunk, 1994

The diagram illustrates the relationship between the different transformation processes which link economic changes to the new professional competences expected. Changes in businesses are ongoing and affect working methods and tools on the one hand, and the organisation and content of work on the other.

Transformations in the organisation and content of work in turn affect the key qualifications expected at both a technical and behavioural level. Training systems are gradually being forced to change at all levels, from content and methodologies on the one hand, to the variety of modes of transmission on the other. They are thus able to contribute to the development of new competences amongst different groups of trainees. As a result, the responsiveness of training systems emerges as a fundamental condition of support for structural changes in the economy. This responsiveness then helps to equip key players in the new structures with the competences expected. Several European research projects are seeking to identify new trends in the structure of the education system and the vocational training system. Others are focusing on new training paradigms and the fundamental role played by information and communications technologies.

7.1.1 Changes in vocational training organisations

Changes in work (outlined in Chapter 2) have led to an increase in the attractiveness and flexibility of vocational training and to a strengthening of the relationship between the various sub-systems which comprise it. These gradual changes are underpinned by the European strategy on lifelong learning.

Four types of links have been created over recent years within European training systems in order to increase the coherence and flexibility of the training sector:

- horizontal links between different areas of training in order to support professional mobility
- vertical links between initial and continuing training to foster professional development
- links between employment policy and training policy to facilitate career transitions
- links between training systems and productive systems to facilitate professional integration on the one hand, and engage businesses in structured training policies on the other.

The increase in links between different aspects of training is fundamental insofar as it enables:

- a better understanding of the sector by all key players involved in training and groups of trainees. This has a direct impact on the quality of career guidance processes.
- ongoing reflection on the coherence of structures and programmes

- a simpler conception of individualised training courses
- increased mobility amongst different audiences, who are able to embark on training courses more rapidly, thanks to recognition of their professional knowledge and experience.

7.1.2 Changes in teaching paradigms

Alongside these organisational changes, new frames of reference and new paradigms have emerged in terms of pedagogy:

- Training takes place within a spatio-temporal continuum.
- Individual subjects are at the centre of this process.
- Knowledge is now mobilised in and through action.

Other shared developments attest to a change of paradigm in pedagogy:

- a shift towards transferring the function of transmitting knowledge to training media
- strengthening of the design and management stages of training, guidance, and support processes, valid across all training functions.

The adoption of this new paradigm necessitates a redefinition of training functions within businesses, training institutions, and schools. In effect, until recently, the emphasis was on teaching, demonstrating, and explaining. In these new learning contexts, the focus is on offering advice and organising processes.

We are therefore moving from what could be described as an instructivist paradigm to a constructivist one. Table 5 summarises this change in paradigm.

Table 5: Instructivist and constructivist principles of teaching and learning

Teaching and learning from an instructivist point of view	Teaching and learning from a constructivist point of view
Learning is passive (the individual is receptive), and largely linear and systematic.	Learning is an active/constructive, self-directed process, based on situations, the results of which are not foreseeable.
The teacher teaches, demonstrates, and explains; the student copies and absorbs.	The learner plays an active role, which is largely self-determined. The teacher becomes an adviser, who helps to structure the learning process.
Learning content is seen as a closed system of knowledge and information.	Learning content and knowledge are not defined in isolation, but seen as dependent on individual and social contexts.

Source: Cedefop, 2002, p.117.

Alongside the reorganisation of processes and activities in the education and training sphere, thinking about the content of training, and particularly vocational training, has developed around the following questions (Cedefop, 2000):

- Should vocational training emphasise content or focus on acquiring an ability to learn? In light of the debate around employability, lifelong learning, and generic competences, it would seem preferable to dispense general teaching, which would provide competences which (seem to be) usable throughout someone's life.
- Should content be broad, or detailed and selective? It is important to resist the temptation to broaden the range of subjects taught: this is not an achievable objective given the increasing quantity of knowledge required and the acceleration of technological progress. It is better to focus on acquiring detailed knowledge of specific areas (rather than superficial knowledge of a large number of subjects) combined with the acquisition of transferable competences.

Thinking about content is difficult insofar as the recent history of training programmes shows that this lies at the heart of the strategic challenges faced by three groups of players. On the one hand, *teachers and trainers* often adopt defensive postures when it comes to changing the duration of courses and specialist topics in their disciplines. On the other hand, *professionals* working in business environments are particularly sensitive to the short-term employability of groups coming out of various training programmes. Finally, *researchers and academics* generally redesign their programmes based on recent developments in their disciplines. Any programme changes therefore depend on numerous negotiations between these groups of players and the quality of experiments and evaluations which could demonstrate a significant improvement in learning.

7.1.3 The impact of information and communications technologies

The impact of information and communications technologies in vocational training and education on the development of trainers' competences is significant. Information technologies have had an enormous influence on production activities as well as on education and training. In doing so, they have created a connection between learning models and production models (Cedefop, 2001).

Three major consequences can be identified in terms of the competences of key players in vocational training:

On the one hand, the core of the activity is now made up of educational and training engineering. Effectively, the trainer is responsible for choosing an educational model which organises knowledge and content in relation to theoretical models, training situations, and the implementation of evaluation models. They are also responsible for the quality of the relationship between themselves and their learners, and between learners themselves (Cedefop, 2001).

On the other hand, new competences specific to the use of new technologies need to be developed. It is thus essential to master on-screen modes of communication, particularly hyperlinks, ergonomic standards for reading on-screen, designing scenarios, and audiovisual techniques for trainers designing multimedia tools (CD-ROMs or online training). Adult trainers, however, also need to provide methodological support to the learner so that they can select, organize, and prioritise resources (Cedefop, 2001).

Finally, like any professional, the trainer must have transverse competences in relation to project management, designing training paths, team leadership, and interaction with learners.

Training professionals, alongside professionals in all economic sectors, therefore face a radically new context both in terms of the issues involved and in terms of actors and resources.

7.2 The central role of work in vocational training

Paradigm shifts and changes in operating methods have contributed to ongoing changes in vocational training. It is also important to take account of the increasing degree to which work situations are incorporated in training. This is a significant break with the past, and is set to gradually reshape the entire training process.

7.2.1 Incorporating work in vocational training

Incorporating work in training programmes is often designed to achieve a number of objectives:

- making content more relevant
- enabling the development of competences which can be more easily applied to the workplace
- facilitating career guidance

- increasing trainees' motivation and involvement
- strengthening the relationship between knowledge and its practical application.

All of these objectives have a profound impact on training actions and content, and on learning. Teaching that is incorporated into the modern work process is very different from teaching organised from a purely pedagogical point of view. New forms of work generally equate to new forms of learning (Cedefop, 2002).

Table 6 below shows that there are several ways of incorporating work into training, and that these can contribute in different ways to professionalisation processes.

Table 6: The main learning models associated with work

Fundamental learning models associated with work	Description	Examples of concepts, systems, and forms of learning
1) Learning through working, as part of a real production process (linked to work)	The workplace is a place of learning. The main objective of training is to adapt competences to the activities of the firm.	Training in craftsmanship, traditional learning, on-the-job learning, learning groups, some training programmes, and the dual system.
2) Learning through systematic instruction at the workplace (linked to work)	This refers to systematic instruction during initial training or during access to a job or when taking up a new position.	In-house training, the four-phase method (preparation, demonstration, reproduction and implementation in practice), certain training programmes, and the dual system.
3) Learning through informal or deliberate integration (linked or connected to work)	This involves a combination of learning through experience and formal training.	Quality circles, learning islands, learning through managing customer requests, learning, coaching, and interactive learning.
4) Learning through exploration and practical training (linked or connected to work)	A course in which practical experience in the business is incorporated into initial or ongoing training centres.	A complement to classroom-based training, designed to develop professional competences (professional training in a training centre).
5) Learning in work situations or through simulated production processes (geared towards work)	Learning situations which reflect professional realities as closely as possible.	Production schools in response to clients in training centres.

Source: Cedefop, 2002, p. 146.

Professional activities of this kind result in numerous experiential learning opportunities, which are increasingly being evaluated and recognised by European professional training systems. Experiential learning comprises two elements. On the one hand, it refers to learning based on experience (which is

characterised by a process of reflecting on events), and on the other, to implicit learning (which tends to take place unconsciously or without reflection – for example, learning to ride a bicycle without being aware of the underlying laws of physics) (Cedefop, 2002).

The primary characteristics of experiential learning are as follows:

- It mainly comes to the fore in situations or problems encountered in professional practice.
- It is not accompanied by a system of formal support.
- It is well remembered and enables a process of reflection.

Nonetheless, many authors emphasise the fact that informal learning must be supplemented by the learner engaging in reflective analysis and through more formal support (Cedefop, 2002).

7.2.2 New roles for teachers and trainers

The importance of the role played by work in new professional training schemes is also reinforced by the research carried out on learning organisations. The ever-closer relationship between trainers and human resources staff further highlights the role of work and the business. Early research has helped to identify the impact of the learning organisation on the training system and on professionals.

Learning organisations

The development of learning organisations has four main consequences for training professionals:

1. It implies the need to develop support functions in conjunction with work-based and training approaches.
2. It tends to foster the emergence of new combined profiles (trainer-tutor, occasional trainer) and the inclusion of the 'training' function in professional competences (for executives).
3. It obliges people to accept the value of non-formal learning in the workplace and the practices it arises from, and to establish a relationship between this type of learning and more formal ones.
4. It contributes to a gradual breakdown in the segmentation of tasks and to the establishment of learning organisations (in teaching and learning institutions) (European Commission, 1995).

Source: European Commission, 1995

The strengthening of the links between training and work modifies the conditions under which the trainer operates and the methods they use. The trainer must act simultaneously as team leader, project manager, trial coordinator, and quality assessor. Other research goes further, classifying training professionals as similar to HR professionals.

Training professionals and HR professionals

The increasingly close relationship between training and human resources professionals can be justified by the emergence of new practices in the field of adult education. These practices incorporate work in training activities to a greater extent than they did previously and encourage individuals and businesses to manage learning and competences. These new practices are as follows:

- participation in defining production objectives
- experimentation with other solutions
- support for autonomous handling of increasingly complex professional tasks
- ongoing evaluation of activities
- analysis of results compared with objectives and activities.

The closer relationship between the two is supported by new processes in the training function being developed by HR managers and summarised in Table 7 below:

Table 7: New practices of the professionals in charge of human resources

Traditional training situation	Process being developed
Instruction and training	Participation and learning
Individual training	Learning in teams and networks
Professional training	Learning about professional development
Functional training	Organisational learning
Technical training	Sociotechnical learning
Profile of qualifications	Dynamism of qualifications

Source: Synthesis of a table in European Commission, 1995.

The Eurotechnet project, for example, highlighted the significant number of training specialists working in the HR function and the convergence of their activities. Several avenues have been suggested to support the emergence of a community of HR and training practitioners (European Commission, 1995):

• develop common elements in terms of initial professional training (level, methodology, and content) and new functions (research and links between HR departments and vocational training)
• increase cooperation with the world of work and social partners
• implement training programmes centred on the learner and learning environments with a wide range of opportunities.

Nonetheless, in order to move beyond simply building a closer relationship between these two groups of professionals, it is important to incorporate the competences of training professionals more systematically in those of HR professionals (European Commission, 1995).

European research has therefore clearly identified the changes in initial and continuing vocational training over the last 20 years and a few of its principal consequences on the development of careers in this sector. Research is currently ongoing in order to refine the analysis of the roles and competences of the key players involved in vocational training. (Nuissl & Lattke, 2008). The following section describes some of the original findings of research into changes in initial and ongoing training.

7.3 Principal changes in the teaching and training professions

Before describing the changes in the roles of trainers and their competences, it seems important to clarify their respective positions in the wider field of those involved in technical teaching, vocational training, and professionalisation. In effect, there is a wide range of different statuses and competences amongst the key players in these areas. Research carried out by Cedefop (2002) suggests that a there is a differentiation in all countries between the categories of full-time teacher/trainer and part-time trainer. Teachers in general fields, therefore, are more often trained in higher education than those in professional disciplines. From their point of view, teachers in professional disciplines need to justify several years of experience in the industry, in addition to their qualifications, except in Italy and the United Kingdom, which do not have any kind of regulated vocational training system for this type of personnel. Teachers and trainers involved in vocational training tend to belong to two professional categories, one related to their specific area of expertise and the other as an educator.

The following three sub-sections describe on the one hand, the main changes training organisations have encountered and on the other, the changes in the professional roles of two significant professional groups: trainers and teachers working in technical education. Finally, we examine the situation of other groups of training professionals and the relationship between them.

7.3.1 An organisational approach to professional roles

Training organisations face numerous administrative and organisational constraints, but at the same time have access to new growth opportunities associated with the long-term effects of the economic, social, and cultural crisis affecting the most developed countries. This paradoxical situation requires organisations to be highly innovative and highly responsive, which in turn implies consistent deployment of the competences of training professionals.

Taking the time to analyse the situation of training organisations is essential to identify the changes in their professional roles trainers are faced with. Any professional activity, indeed, needs to be studied in its environmental and organisational context, which means taking account of:

- the position of the organisation in the social and economic arena and the quality of its relationships with other organisations
- changes in the organisation's aims and goals
- the focus of the organisation's management and decision-making bodies
- the vertical and horizontal division of the work
- the methods used for internal control and defining standards of work
- the number of staff who are hired and leave, and internal mobility processes
- the roles and ways of working of different groups of professionals
- the action methodologies, approaches, and techniques deployed in different types of intervention.

Once this diagnostic phase is complete, the content of the activity systems of each professional group needs to be analysed along with which existing competences are required to access them and which can be acquired during the course of the activity, through experience or training.

This direct relationship between the direction of the organisation and the content of the activities of individual professionals must not be allowed to mask the importance of collective working, which is increasing in organisations. Alongside an analysis of individual activities, there must therefore also be an analysis of how the various teams function collectively. A professional's behaviour in their job therefore depends on the representations they create of their role and place amongst numerous groups of professionals, these representations being constructed through formal and informal learning and their experience of life in the workplace.

Researchers and consultants at the National Centre for Vocational Education Research (NCVER, 2005) in Australia carried out a very significant study in 2005 on the changing professional roles of teachers and trainers working in the training sector. Firstly, the authors emphasise the emergence of a new economic context. In practice, vocational training organisations are experiencing fundamental changes in the way they are managed, their system of activities and in the ways in which they deploy teachers and trainers. These changes are the result of changes both in their immediate environment (changes in national training policies, increasing competition between organisations, and the emergence of new practices and new training tools) and in the wider environment, with activities being relocated at an international level, the appearance of new fields of knowledge, the development of new technologies, and new patterns of consumer behaviour.

Two main consequences are highlighted, namely:

- greater difficulties in cooperating with businesses, with which relationships are becoming increasingly formalised
- greater competition between training organisations, calling local and other forms of cooperation into question.

Trainers who find themselves confronted with these new situations find it difficult to understand the reforms underway and to access information, and are critical of the relevance of new developments, which they see as obstacles to their own professional development.

7.3.2 Broadening and diversification of the roles of training professionals

There are reasons behind the broadening and diversification of the roles of teachers in technical education and adult trainers. According to the NCVER study (2005), practitioners in these areas are expected to:

- work in different contexts, and to take a much greater interest in their external environment
- achieve professional results, the direct consequence of which is to develop their ability to advise individuals on their professional careers and helping them in looking for jobs
- devote equal amounts of time and energy to management functions
- assist, train, and advise new staff
- shift from delivering training content to developing learning competences to support learners' independence
- work in a variety of locations, first and foremost in firms, although working in conjunction with the business in this way can be a source of difficulties, insofar as the two groups think and act on the basis of different priorities
- make more frequent use of information and communications technologies.

The extent to which roles have been diversified is a source of imbalance and tension. In practice, the change in responsibilities at work is transforming the balance of roles for professionals involved in vocational training. Tensions can then arise as a consequence of changing or divergent attitudes concerning the roles of teachers and trainers.

Training professionals will encounter a number of difficulties in reestablishing the balance of their professional roles. The first of these relates to the very marked development of evaluation processes. These are often a

source of pressure for those involved in training and tension with the various partners who contribute to the process. The second difficulty is to do with the existence of 'turnkey' modules designed by other people, which oblige trainers and teachers not only to master their content, but also to understand theories of learning and educational engineering in more detail. The third difficulty lies in the changing characteristics of learners. Learners are positioning themselves as consumers and demanding clients, looking for the best quality/price ratio. They also have increasingly complex lives, and as a consequence a wide variety of factors affect their ability to study and learn. Finally, the number of learners has increased, as have the demands they make of teachers, which have also diversified. They expect, for example, to understand the way their competences will be evaluated (NCVER, 2005).

An approach in terms of roles is interesting but in our view only a precursor to understanding the recomposition of activities, changing competences, and the emergence of new identities. It also implies having access to a detailed map of the various groups of professionals involved and the relationships between them. The French example we have studied is examined below to illustrate the point.

7.3.3 Positioning of key players in vocational training: The French example

Figure 6 shows the relationships between different groups of professionals involved in the initial and continuing vocational training system in France.

Figure 6: Positioning of key players in vocational training in France
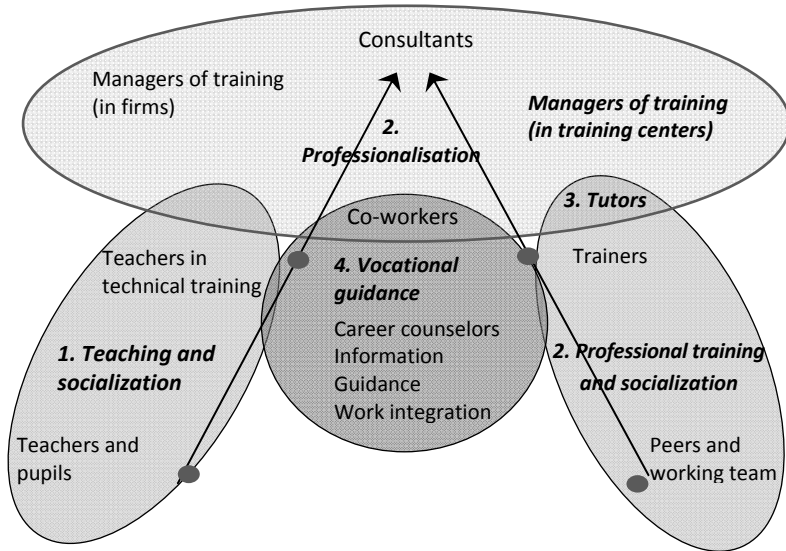
The first group of players (left-hand oval) consists of teachers of general and professional subjects. These groups are involved in initial vocational training, which aims to teach general and technical knowledge on the one hand, and professional competences and practices on the other, often through work-based learning programmes (apprenticeships or internships). Some teachers involved in initial training may also be asked to deliver training to job seekers or employees, or young unemployed people with no basic education. At this level, transmitting formal content still plays a very important role, but some experts feel that periods of training are not sufficiently closely integrated with periods of professional activity.

The second group of players (right-hand oval) works in the field of continuing vocational training, which is aimed at helping young or poorly qualified adults or employees who are being redeployed to acquire new professional competences, which can increase their chances either of accessing employment, or enhancing their professional mobility. The relationship between training and work situations is stronger, particularly when businesses appoint certain employees to act as tutors or occasional trainers. We should also em-

phasise the importance of the role in transferring competences played by peers in work situations.

The third group of players (the oval at the top) is more directly involved in professionalisation and is mainly made up of course designers and managers on the one hand, and consultants on the other. This group contributes to course strategy and design by trying to make the connection between organisational learning, collective learning, and individual learning in order to modify competences and professional representations.

The fourth group of players (in the central circle at the bottom) works in the area of information, guidance, and workplace integration. This group covers a wide range of activities, from providing information to evaluating abilities and competences, guiding decision-making, offering advice, and helping with access to employment. In recent years these activities have changed in three ways:

• Individuals play an increasingly active role in the process.
• Career guidance is increasingly designed and organised as an ongoing process throughout the course of training and people's working lives.
• A more open professional model is being established, in which traditional professional organisations, with highly qualified staff, exist alongside organisations with professionals with a wide range of experience.

Each group of players has a more or less clear identity, more or less diversified competences, and more or less well-established practices, which can build on or contradict the changes envisaged. As a result, when speaking about vocational training, it is important to specify which players are involved and the intensity and quality of their interactions over the period in which training schemes are designed and implemented.

Keyword: The content of operational competences

All competences are made up of four components:

• a technical competence, characterised by continuity, which can be defined in terms of knowledge, know-how, and aptitudes
• a methodological competence, characterised by flexibility, which can be defined by methods
• a social competence, characterised by sociability, which can be defined by behaviours
• a contributional competence, characterised by social participation, which can be defined by various types of scenario.

Source: Bunk, 1994

7.4 Conclusion

The various developments in this chapter demonstrate that vocational training has entered a new phase over the last 20 years. This is the result of the adoption of a multidisciplinary approach. It is also linked to the increasingly common inclusion of vocational training in approaches to human resources management both at the level of theoretical analyses and in relation to organisational practices.

This twofold integration helps to explain why, behind the proliferation of initiatives and innovations, a profound restructuring is underway:

- Training organisations and professionals are being asked to be more efficient and perform better, but many training processes are managed by people who are not prepared for it; it will therefore become increasingly necessary to develop programmes which alternate between experts, professionals, and volunteers.
- Work situations occupy an increasingly central place in vocational training but reflexive approaches to work and the process of formalising these experiences into qualifying processes have not yet stabilised.
- Whilst numerous schemes attempt to develop autonomous working and a willingness to take the initiative by alternating individualisation and socialisation phases, they do not take sufficient account of the processes of constructing and modifying identity which accompany careers characterised by major shifts, changes of direction, and new projects.

These various paradoxes and contradictions could, perhaps, be overcome by integrated approaches combining ergonomics, social psychology, and cognitive psychology. These disciplines will therefore play a central role in analysing the processes at work in adult education. It will also be important to incorporate the sociology of work and organisations, and human resources management. The analyses offered by these disciplines will help us to understand the constant changes in organisations and work and the anticipation and adaptation policies directed at employees.

Finally, educational engineering and professional didactics lie at the heart of training course design and implementation. The content of both these disciplines will need to be understood in depth by both training managers and trainers themselves.

Finally, only knowledge that has been reconfigured in some way will be able to tackle the new challenges we have attempted to identify.

Exercises and tasks

Exercise 1

Using Figure 6, 'Positioning of key players in vocational training in France', can you explain:

- who the main groups of players participating in professional activities are in your country
- what their main area of activity is (guidance, training, socialisation, etc.)?

Exercise 2

Taking as a starting point that part of vocational training is related to human resources practices in business, write a page explaining what this relationship is and provide examples of professional practices illustrating how the two areas have moved closer together.

Task 1

Get a copy of the 2002 Cedefop document listed below. Read the first chapter, 'Lifelong learning and competence: Challenges and reforms', which deals with several themes expressing main changes concerning vocational education and training strategies and contents. Write a short essay synthesising these themes.

Cedefop. (2002). *Training and learning for competence: Second report on vocational training research in Europe*. Luxembourg: Publications Office of the European Union. Available in 11 languages at www.cedefop.europa.eu/EN/publications/13275.aspx

Task 2

Read the article by E.A Peres Fonseca in the 2000 Cedefop report listed below. The author focuses on the question of new competences for trainers in the area of multimedia technologies. Compare these competences with those outlined in this chapter.

Peres Fonseca, E. A. (2000). Traing the trainers in a changing socioeconomic context. In Cedefop (Ed.), *Trends in the development of training and the role of innovation as transferable practice* (pp. 17-31). Luxembourg: Publications Office of the European Union. Available at www.cedefop.europa.eu/EN/Files/3009x_en.pdf

8. Conclusion

Valérie Cohen-Scali

Competences represent an important twofold challenge in the adult education and training sector. The first relates to research. There has been a proliferation of publications on the topic of competences, suggesting an intense amount of research effort. Research in this area seeks to identify the ways in which individual competences are developed, describe the ways in which professionals cooperate and develop collective competences, identify the links between the processes of producing individual, group and organisational competences and analyse the relationship between, for example, the development of competences and the construction of identity. The issue of developing an understanding of competences implies the involvement of several disciplines, such as social and cognitive psychology, professional didactics, and management and education sciences. Research of this kind is essential in the development of all the practices currently emerging in training centres and firms, concerning adult training and education professionals. The other issue relates to the practices prompted by the new approaches to work referred to throughout this book, which emphasise the fact that organisations need to develop more flexible and more individualised tools to support professional development. At the same time, organisational structures are adopting new forms, such as networks, consisting of multiple units with different branches, operating on the basis of different production models. These new forms of organisation make it essential to address the professional development of an ever-increasing number of professionals. They also involve qualitative adjustments in relation to employees, in particular changes to their individual and collective competences.

Thinking about people at work in terms of competences means looking at both the intraindividual psychological level and the macrosocial or even geopolitical level. Effectively, a competences-based approach means taking into account and analysing cognitive dimensions (such as how individuals process information at their workstation) and the emotional aspects of work (such as how individuals manage stress, and what is important to them). It is also important, however, to identify the changes taking place in organisations, their develop-

ment strategies, and new ways of managing the workforce, particularly in relation to relocations and their consequences on employment in Europe.

The question of competences is therefore central to any adult education and training professional. The aim of this study guide is to provide professionals and future professionals in the sector with a number of points of reference to help them to identify the main issues they are facing more clearly. It seemed important to explain the main changes that have taken place in work and people's relationship to work in light of current economic changes from a primarily sociological perspective. We then explored theoretical approaches and models in relation to competences. These models were developed in response to social needs for the professionalisation of individuals and activities, and the development of collective competences. As soon as the question of competences is raised, it becomes important to identify tools which can be used to identify and analyse them. As we have emphasised, professional didactics seems to be a useful discipline for identifying the ways in which individuals at work resolve complex problems and are able to identify their competences. In addition, evaluating competences has now become a major issue, insofar as individuals need to develop their competences and have them recognised through certification frameworks or qualifications developed at a national or European level. Competence management is an essential process, which, as we have seen, relies on a number of different decision-making centres at a European, national, organizational, and individual level, and therefore involves numerous players with varied profiles, as examined in Chapter 6.

Whilst the issue of competence development concerns all workers, people working in the field of adult education and training are particularly affected by it. This study guide has made repeated references to the competences of these professionals and the changes that have affected them (particularly in the final chapter), because they have a key role to play in supporting other employees and helping them to adapt to economic and organisational change. We have also made regular references to the strategy of the European Union. As we have emphasised at several points in this book, the European Union is developing a very active policy designed to identify and value the competences of European citizens, particularly those who are less well qualified, using a range of tools such as:

- the Europass
- the European Qualifications Framework
- the European Credit in Vocational Education and Training.

The topics addressed in this study guide, however, do not constitute an exhaustive view of the problems and practices covered in current work on com-

petences. The question of competences engineering, for example, that is, the explicit development of links between the needs for particular competences and the training required to produce them, has not been explicitly covered. Similarly, most of the competences we have described fall within the category of generic competences. There is scope for looking in more detail at the families of competences used in particular professional situations. Similarly, the question of the role of social contexts in which competences are used (e.g. the role of cultural contexts), could also have been included, insofar as particular contexts may either foster or inhibit the development of competences.

The subject of competences is therefore vast and students are invited to use this study guide as a basic documentary resource, which should then be supplemented by reading the articles, publications, and online reports cited in the bibliography. Understanding this area in all its complexity means alternating regularly between conceptualisations and models of competences and observations and analyses in the field. We can therefore only advise students to take as many opportunities as they can to look at a wide range of work situations and note the variety of ways in which competences are developed and put into practice.

List of Abbreviations

CCEC: Competences Elicitation Career Counseling
ECVET: European Credit for Vocational Education and Training
EQF: European Qualifications Framework
HR: Human Resources
NCVER: National Centre for Vocational Education Research
PISA: Programme for International Student Assessment
SMEs: Small and Medium Sized Enterprises
TIMSS: Third International Mathematics ans Science Study
TTnet: Training of Trainers Network
VET: Vocational Education and Training

Annotated Bibliography

Bandura, A. (1997). *Self-efficacy: The exercice of control.* New York: Freeman
A key book by Albert Bandura, one of the world's leading researchers in social psychology working in the field of social learning and self-efficacy. This book develops the theory that forms the basis of the self-efficacy concept – that is, social cognitive theory – and summarises a set of convincing research results on different topics.It shows the impact of self-efficacy beliefs on the daily life of individuals. Self-efficacy emerges as a key psychological mechanism governing a variety of human activities. This approach suggests that it is possible in certain conditions to question social determinism.

Collin, A, & Young, R. A. (Eds.). (2000). *The future of career*. Cambridge: Cambridge University Press.
The fragmented nature of modern working life has led to fundamental changes in our understanding of the term *career*. Few people now expect to have a lifetime of continuous employment, regardless of their qualifications or the sector they work in. This book presents a kaleidoscopic view of the concept of career, reviewing its past and considering its future. The chapters are wide-ranging, exploring topics such as the changing issues of career, individual career experiences, multicultural issues, women's careers, and the implications for practice and policy-making.

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., Van Vianen, A. E. M. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behavior*, 3, 239–250.
At the beginning of the twenty-first century, a new social arrangement of work poses a series of questions and challenges to scholars who aim to help people develop their competences and working lives. In this article, the authors formulate potentially innovative responses in a kind of international forum. It presents a career counseling model: the life designing model for career interventions. The article offers an overview of different approaches of career counseling models and develops a framework for new methods and tools in career counseling.

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Index

Learning and Teaching

Learning is a key issue in education. Being familiar with contemporary learning theory, therefore, is an essential prerequisite for education scholars and practitioners alike.

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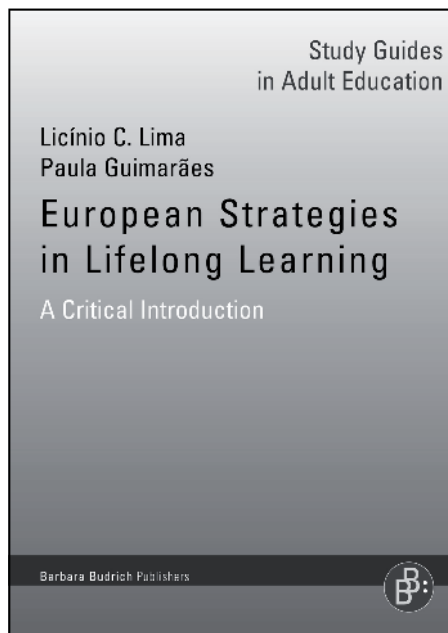
Lifelong Learning

Licínio C. Lima
Paula Guimarães
European Strategies
in Lifelong Learning

A Critical Introduction

Study Guides in Adult Education
edited by Regina Egetenmeyer

Lifelong learning and education is a key concept for the development of adult education as an area of practice and theoretical consideration. In recent decades, meanwhile, the idea of lifelong education and learning has been central to the guidance of various international organisations of many countries.