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Competence and Competence Development

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Study Guides in Adult Education

edited by
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Valerie Cohen-Scali (ed.)

Competence and
Competence Development

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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.

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
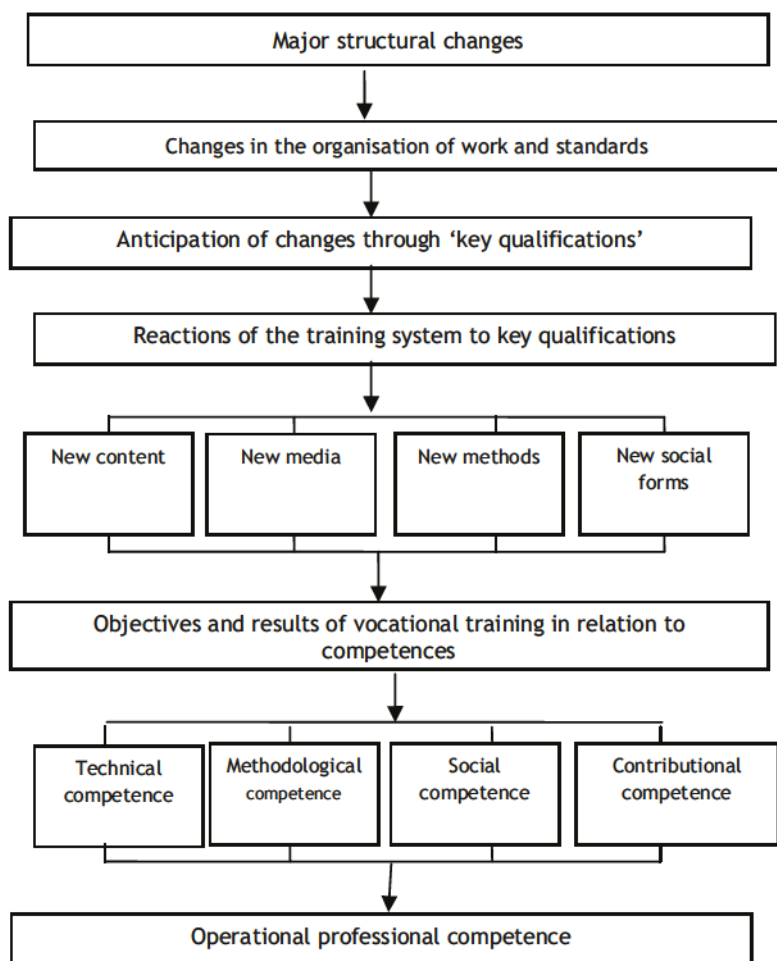
Source: Adapted from Bunk, 1994

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 re-establishing 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
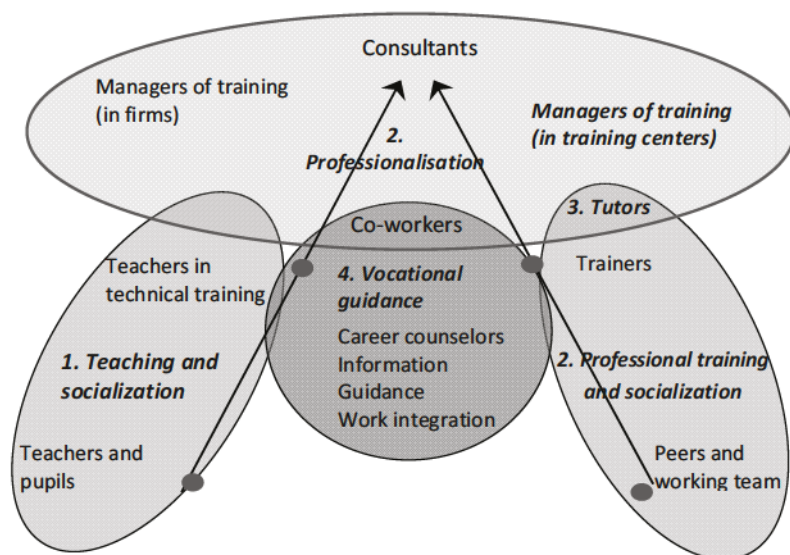
Source: Kokosowski, from his Human Ressource Management course in an MBA programme, University of Versailles – Saint Quentin, France, 2005.

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

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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