

Hébrard, Pierre

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Schloßstr. 29, D-60486 Frankfurt am Main
E-Mail: pedocs@dipf.de
Internet: www.pedocs.de

Ambiguities and paradoxes in a competence-based approach to vocational education and training in France

Pierre Hébrard

Université de Montpellier (pierhebrard@orange.fr)

Abstract

This article aims to show the effects of the prevalence of the competence regime within several sectors of vocational education and training in France. The first part of the article outlines the origin of the concept of competence and the evolution of its meaning. Later, the underlying theoretical and epistemological foundations are examined and two different paradigms are distinguished. The second part of the article focuses on ambiguities and paradoxes of effect of competence approaches, in specific educational programmes in the healthcare professions and social work in France. This study is based on the analysis of a corpus of documents concerning French vocational education and training that use a competence-based approach.

Keywords: vocational education and training; competence-based model; professional training; behaviourism; social constructivism

Introduction

This article aims to outline the effects of the prevalent competence regime within several sectors of vocational education and training (VET) in France (Ropé & Tanguy, 1994; Zarifian, 2001). In particular, it presents research results about the evolution of VET within both the healthcare and social services sectors. These changes, which have taken place recently in the 2000s, are the result of numerous reforms based on the competence-based approach implemented in these sectors (Hébrard, 2004, 2011, 2013). The first part of the article examines the origins of the notion of competence and the evolution of its meaning from the legal field, through the linguistic field and to the area of training design (Tremblay, 1990; Hébrard, 2005). The endless debates over definitions given in the latter context should be analyzed but cannot be clarified without

explaining the theoretical and epistemological foundations of the underlying paradigms (Schön, 1996; Dolz & Ollagnier, 2002; Crahay, 2006; Montchatre, 2008).

Two main paradigms will be distinguished and examined. The first, and currently the most prevalent, is based on a narrow view of pragmatism, a behaviorist idea of learning and an analytical and reductionist approach to competences. The second refers to socio-constructivist theories of learning and leans toward an approach that takes into account the complexity of the situation, the context and activities, as well as the meaning that professionals give to their work (Jonnaert, 2002; Clenet & Poisson, 2005; Hébrard, 2013). This first part is primarily conceptually based even though the inquiry is not only based on previous scholarly work, but also on the analysis of speeches and documents that circulates between practitioners.

The second part of the article aims to cast light on the ambiguities and the paradoxes that emerge from how the competence-based approach is implemented in the aforementioned areas of study. We analyze a corpus of documents: reference lists of competences (référentiel), evaluations tools, training programs within French vocational education and training programs that have been recently reformed according to the competence-based approach.

The notion of competence

From the legal field to education and training via the field of linguistics

I will first outline the origin of the concept of competence. Historically it came from the legal field and was applied primarily to legal proceedings: one court would have jurisdiction over or was competent in judging certain types of conflicts, offences or crimes in a certain geographical area. But from the end of the 17th century this term referred to ‘la capacité d’une personne due au savoir, à l’expérience’ (abilities from knowledge and experience) (Rey, 1998, p. 823). In the mid-20th century, the linguist Chomsky, gave it a specific meaning by contrasting linguistic competence with actual performance. For him, linguistic competence is a thing no amount of learning can teach’ (Chomsky, 2003, 2010, pp. 31-53). He argues that we genetically inherit a ‘language organ’, that grows like any other bodily organ, and that this linguistic competence which is implanted in our brains, underlies the notion of universal grammar. In direct contrast to this linguistic competence, we have performance, which consists of the sentences we speak in the language that we have learned – sentences that make use of the rules of the universal grammar. Regardless of the debate concerning which part of language is innate and which part is acquired, the differentiation between competence and performance helps define this conceptual area. Allal (2002, p. 78) points out that the distinction between ‘les structures ou fonction mentales qui expliquent l’action du sujet (les compétences) et les comportements observables qui en résultent (les performances) - (structures or mental functions that explain the subject’s action [the competences] and the observable behaviors that result from it [performance]) - is an old concept that comes from the fields of psychology and ergonomics. We must keep in mind that competences are not directly observable- it is only through observing performance that we can infer the existence of competences.

Returning to our area of interest, it has only been recently in the past 20 years, that the use of the term “competence” has become widespread in the area of education and training. At the same time, this concept has had growing success in the fields of human resource management and sociology of work. However, contrary to what is often

claimed, we know that “competency-based pedagogy” actually comes from the educational field. Tremblay (1990), like Jonnaert (2002), reminds us that “competency-based education” appeared in the United States in the 1960s or the early 1970s, and therefore we see that this occurred before the competence-based model in the business field which proliferated at the end of the 1980s (Ropé et al., 1994; Zarifian, 2001).

Competence-based education and behavioral objectives

Tremblay (1990) defines the main characteristic of this pedagogical trend as its base in competences: objectives are phrased in an operational manner, in terms of know-how, with procedures for assessment and certification for each objective obtained on the basis of performance (observable behaviors) in controlled test situations. This is a first competence model in educational discourse. It is clearly founded on a behaviorist approach of learning, being analytical and reductionist with regard to the notion of competences. In the book *Philosophical Foundations of Adult Education* (1980), translated into French in 1983 under the title, *Penser l'éducation des adultes*, Elias and Merriam examine “competency-based education” in their chapter on the behaviorism. They specifically note that this approach is characterized by a program which, in behaviorist terms, specifies the objectives to obtain, the learning experiences to engage in and the evaluation mode of predetermined goals. They add that competency-based education presupposes that measurable skills can be clearly itemized for all knowledge areas (Elias & Merriam, 1983). Later they describe the method for designing a program for ‘professional-technical education based on competences’. It begins with a detailed job description, and this serves as a foundation for a thorough analysis of the tasks, a process that divides the work base into smaller and smaller components (Elias & Merriam, 1983, p. 97).

However, the authors note some limitations or difficulties in this approach. For example, when trying to apply this idea to teacher training, a problem was encountered due to ‘a weak consensus concerning the skills required for an individual to earn a diploma in teaching’. The authors specify that, some of the skills necessary for certain tasks could be difficult to identify and they conclude that, ‘critics accuse competency-based education as having a certain dehumanizing characteristic’. They find that this approach puts little emphasis on the student and it stifles creativity. Additionally it is blamed for shaping all students in the same mold and fragmenting programs, ignoring what is important (Elias & Merriam, 1983, p. 98).

If I spend time rehearsing competency-based approaches to adult learning in this paper, it is because I find it useful to place this movement in its history, a history which is very often forgotten by those who refer to it. Indeed, my goal is not to take a position for or against the competency-based approach, but rather to put it back in the context of the different schools of thought and the practices in the field of training design. From this point of view, the approach clearly belongs to the field of behaviorism from the start. In this respect, it opposes the humanistic approaches, whether classical humanism or its modern versions – the Rogerian trend or approaches based on pragmatism and the new trend named ‘progressive’ by Elias and Merriam (1983, p. 47), whose main inspiration is John Dewey. In looking at the most recent work in the Francophone area, we see that it differs from ‘vocational didactics’ (la didactique professionnelle), which integrates notions from the fields of ergonomics, psychology of work and the socio constructivist movement regarding learning and professional development (Pastré, Mayen & Vergnaud, 2006, pp. 145-198).

In French speaking countries, especially in Europe, it seems that this approach first became prevalent in the area of VET. The competence-based approach has particularly contributed to the development of methods and tools used in the design and the evaluation of vocational training (dividing training into modules or sequences where each one centers on a specific objective, lists of competences, evaluation tools based on performance criteria).

In this context, competence is clearly a notion that is more closely related to the know-how than theory, because reference to the behaviorist theory of learning is rarely explicit. And the objectives typology used often combines input from various sources, including cognitivism. From this point of view, criticism from Crahay (2006, p. 27) is fully justified when he writes, ‘la notion de compétence n’est selon nous pas étayée par une théorie scientifiquement fondée’ (the notion of competence is not supported by a scientifically based theory) and he notes that various paradigms of cognitive psychology are sometimes called upon by those who desire to spread this notion, without any coherence.

Other criticisms of the notion of competence are often made, which I will not specify here, but notably from Stroobants, (1993, 1998); Brochier (2002); Dolz and Ollagnier (2002). These criticisms refer to use of this notion in initial education as well as in continuing education and training.

One difficulty in defining the concept of competence

One frequent criticism addresses the difficulty of creating a clear definition or the many attempts at creating a definition where no consensus has been reached. A review of the wealth of literature on this subject, however, reveals that some elements common to most definitions could be conserved (Baudoin, 2002). I will first highlight the most prominent features that distinguish competence from other concepts such as knowledge and qualification.

The first aspect that allows us to define the notion of competence is the focus on know-how rather than on knowledge, or the ability of an individual to complete a task, to prove his know-how in a real work situation. Therefore, it seems to me that the concept of operationality appears to define competence. But this assumes that the context and the situation where the know-how is put into action are clearly defined. In general, we find this in professional situations, where the objectives and limitations are clearly defined and the tasks are precisely outlined. This notion could also be applied to social situations in every-day life, outside of the realm of workplace- more specifically in the case of training meant to place the individual into a social context instead of adapting him/her to a specific job. We can summarize this idea under the term of contextualization.

It should be mentioned that some research challenges the idea that all competences are specific, and highlights the existence of what are called, general competences (Tremblay, 1990), transversal competences (Rey, 1996) or social competences like those relating to logic, problem solving, communication skills and cooperation with others – the latter sometimes referred to attitudes or personality traits. I would consider that it is preferable to limit the usage of the term “competences” to the operational skills that we find in certain contexts or types of situations. This is, in fact, what differentiates competences from knowledge: the latter organized by academic discipline or scientific field, is abstract, theoretical and decontextualized (Barbier, 1996).

On the other hand, competences combine and integrate a set of cognitive resources (declarative knowledge and procedural knowledge), socio-affective (attitudes)

Ambiguities and paradoxes in a competence-based approach to vocational education and training [115] and sometimes sensory-motor skills, which allow the individual to face certain situations or handle defined tasks.

Most of these elements are present in the definition proposed by AFNOR (Association Française pour la Normalisation): ‘Compétences: capacité éprouvée à mettre en œuvre des connaissances, savoir-faire et comportements en situation d’action, dans un contexte donné’ (competences: proven capacity to implement knowledge, know-how and behaviors in a real-life situation, in a given context) (AFNOR, 2004, p. 6). We find again the key features of competence(s): the operationality (implementation in real-life situations), the contextualization (within a given context), the composite character (knowledge, skills, behaviors) and finally the need to prove. Other definitions also include recognition and validation in a professional context.

Furthermore, competences should be distinguished from qualifications, which are often tied to diplomas. These qualifications, which are only acquired once, are socially and conventionally recognized and validated. Competences are specific to an individual and a situation or a type of professional situation. They are not generally recognized by collective agreements or definitively acquired, and therefore must be continually developed, adapting to changing work situations and environments.

A second model of competence

Taking these factors from the definition into account, can we develop a model of competence that is different from the behaviorist model discussed above (§ 1.2)? This is a socio-constructivist model, proposed by Jonnaert (2002, p. 9), in his book *Compétences et socioconstructivisme*. After reviewing various definitions of the ‘concept’ of competence and the role it plays in some areas of social sciences (Chomsky’s linguistics, developmental psychology, the science of work), the author focuses on the uses of the term “competence” by various authors within the field of education. He concludes that, in this field, the notion of competence refers to a set of abilities or resources that the subject can put into action to successfully address a situation. Moreover, he suggests that in order to break with the concept of behaviorism, it is necessary to do without the notion of performance and look instead at the distinction between ‘virtual competences’ and ‘actual competences’ (Jonnaert, 2002, p. 39). I believe this particular point merits discussion.

In the last chapter of his book, Jonnaert contrasts the constructivist paradigm with what he calls the ontological hypothesis that connects to positivism. What characterizes this socio-constructivist model is the central role given to the subject who constructs meaning and creates ‘schemes’ through activities, interactions with objects, situations, and tasks with others, as well as through reflexive activity (or metacognitive activity) (Jonnaert, 2002, p. 63). Globally speaking, if we share this idea of socio-constructivism for the development of competences in the educational field, the competence structure that he proposes, seems to be debatable.

Some clarifications to Jonnaert’s model

Let me return to some questions that deserve attention. My first argument is against Jonnaert’s use of the notion of virtual competences, as being opposed to the notion of performance as it is used in linguistic field. His table (2002, p. 11), which is meant to differentiate the two concepts, is too simplistic and therefore raises questions. It states, for example, that linguistic competence ‘fait référence à la parole’ (makes reference to speech acts) and that performance ‘fait référence à la langue’ (makes reference to language) and therefore linguistic competence is ‘virtual in nature’. However, it seems

to me that linguistic competences are real or concrete precisely because they occur through performance (the sentences understood and pronounced by the subject). Linguistic competence also refers to language because you are competent or incompetent with regard to the use of grammatical, lexical or semantic rules of one or many languages. But looking at linguistic competence in that light means taking some distance from Chomsky's linguistic theory, created in the 1950s, and considering the contributions of more recent linguists who articulate the classic concepts of language and speech and connect them to those of competence and linguistic performance.

More generally, with regard to the contrasting terms of "virtual" and "real", Jonnaert seems to confuse two different ideas:

- a) The idea that all human beings are born with a potential ability (biologically based) to speak, that is to say, the ability, during his/her development, to acquire linguistic competence. This does not mean that this competence is innate, but that the neurologic equipment of all healthy children permits acquisition to take place by learning through their interaction with adults (for this reason the definition of the term 'competence' that Chomsky proposed is not relevant in the field of education and should be disregarded).
- b) The idea that competence is not directly observable, and that it does not reveal itself except through performance in real situations and therefore competences (or incompetences) are inferred through observed performance. This does not mean that the competences are "virtual"; they are real as they regularly occur through the activities of the subject.

Here, it seems that we find an error of behaviorism that dispenses with the notion of competence (where only performance is real); or performance is confused with competence and this distinction is considered unnecessary.

In addition, the usage of the expression 'virtual competence' also refers (Jonnaert, 2002, p. 39) to the distinction between target competences (for example, within a program of study or an educational curricula) and competences acquired by the individual (at the end a training program or through experience). This idea additionally makes reference to the distinction between the skills required to complete a task (or set of tasks), from a perspective of prescribed work and skills effectively executed by someone during an activity in a real-life work situation. I consider it necessary, therefore, to keep this distinction between competence and performance, in accordance with the point that Allal (2002) makes and avoid using the term, "virtual competence" which only causes confusion.

Furthermore, I am not completely in agreement with the competence structure that he proposes (Jonnaert, 2002, p. 56). It has four levels: 'compétences, capacités, habiletés et contenus disciplinaires' (competences, abilities, skills and disciplinary content). I do not see the value in dividing by discipline, but it is true that Jonnaert proposes a frame of reference for both initial general education and vocational training. I prefer to limit the definition of competence model to VET. In this framework, it seems appropriate to examine the areas of activity (or functions), categories of tasks and types of situation, and to identify content areas based on these categories, rather than through disciplinary division.

I additionally prefer to limit the use of the term "habiletés" to those gestures or combinations of perceptions and gestures, addressing concrete activities. Finally, we can discuss the possibility of keeping the term "capacités" for delineating fundamental elements of a competence. Indeed this term has in French a behaviorist connotation as it

has been widely used in “pédagogie par objectifs” (behavioral objectives based education). The terminology of vocational didactics (la didactique professionnelle), which is based on the socio-constructivist theory of learning, could prove useful as a replacement. The fundamental elements of a competence would thus be analyzed according to pragmatic concepts organizing action and operational schemes. In sum, the structure that Jonnaert proposes appears to be unnecessarily complex, using inadequate terminology.

To conclude this section and return to the definition of competence, I have proposed the following elements: a competence that is composed of a set of cognitive resources and socio-affective and/or sensory-motor skills that a person can use in combination to be effective in a class of situations or a category of tasks. The characteristics of this concept are operationality (effectiveness), contextuality (relative to certain tasks or specific situations) and this idea of a combination of different resources (declarative, procedural knowledge, attitudes and sensory-motor skills). These are constructed and evaluated in situations over the time; it is in this framework that they can (and should) be validated. They are not the same as (and should not be reduced to) basic skills as they involve the selection and combination of resources necessary for the completion of tasks as well as the ability to deal with complex situations.

More specifically, this involves the ability to develop a representation of the situation, identify the type of situation that it is classified under and recognize the category of the task to assure the resolution of problems. Additionally, one must choose and activate the schemes that can organize the action, the relevant operative model(s), and the pragmatic concepts that are more or less explicitly linked to a cognitive model (of validated knowledge). The “performance” or practical effectiveness in a situation is precisely the visible result of the implementation of required competences in the situation.

Analysis of VET programs based on the competence model

Recently in vocational education and training, the training design largely takes after the “modèle de la compétence” (Zarifian, 2001) or the “approche par les compétences” (Coudray & Gay, 2009). These concepts cover the methods and tools that I will be discuss in the second part of this article, with an epistemological and methodological view. With which paradigm(s) are they linked? What theoretical and methodological principles are these paradigms based on? On what model of competence are these training programs and tools developed?

A Methodology of document analysis

To provide answers to these questions, I have conducted a study of written documents used in various vocational education and training systems in both social work and healthcare: job or activity standards (référentiels), lists of competences, training curricula, evaluation tools and portfolios. The method of analysis of the documents I used is both lexical and semantic; it also covers explicit content (terminology), the rationale that underlies the categories structuring the standards and the implicit assumptions that they contain (Kerbrat-Orecchiori, 1986). This analysis also evaluates to what extent documents reviewed include a set of features that allow us to consider whether or not these approaches to training are marked by behaviorism or if they combine characteristics that fall under various and somewhat incompatible paradigms.

The main criteria are:

- the degree of breakdown of the professional activity into tasks and operations,
- the presence or absence of a distinction between competence and performance or activities,
- the phrasing of competence in terms of observable behaviors as in the kind recommended by *pédagogie par objectifs* (to be able to + action verb in the infinitive) or in terms referring to ‘un système de connaissances conceptuelles et procédurales organisées (...) susceptibles d’être mobilisées en actions efficaces face à une famille de situations’ (a system of organized conceptual and procedural knowledge (...) that is likely to be used effectively to confront a group of situations) (Gillet, 1991, p. 81; Allal, 2002, p. 84),
- the lack of consideration of the relational dimensions of competence or its reduction to the communication techniques (Hébrard, 2011).

Like Jonnaert (2002, p. 34), I consider that these criteria permit us to distinguish between ‘une approche par compétences (qui) serait connotée par une perspective strictement comportementaliste’ (a competence-based approach (that) is implied by a strictly behavioral perspective) and approaches that may address a socio-constructivist paradigm. My analysis of written documents was supplemented by semi-directive interviews with trainers that used these documents (four interviews for each occupational group studied). These interviews contributed to the interpretation of the data, but they will not be reported here due to lack of space. Here I present the results of our analysis on four programmes of vocational education concerning two professions of healthcare (nursing and childcare) and two professions in social work – ‘techniciens de l’intervention sociale et familiale (TISF) (specialists in social and family intervention) and ‘éducateurs spécialisés’ (DEES) (educators in special education).

Nursing training in France

The 2009 reform brought forth a number of changes in the training system for nurses. A reference guide for the training of French nurses includes a list of activities and a reference list of competences (référentiel de compétences). This set of materials makes up the training program. Here I will present some results from the analysis on the list of competences.

Confusion between activities and competences

The list of competences (le référentiel de compétences) defines five competences that lie at the ‘heart of the occupation’ and five ‘general’ competences common to certain paramedical professions. These ten main competences (that are more akin to functions) are broken into between six and twelve items (close to 80 in total, beginning with a verb in the infinitive and describing the activities). For example, in the fourth competence: ‘Implement diagnostic and therapeutic actions’, we find, among others, items like ‘initiate and adapt the administration of analgesics in medical protocol’ and ‘manage a therapeutic aide relationship’ (Ministère de la Santé, 2009, p. 258).

Therefore we can see in this document that there is not a clear distinction between activities and competences. In addition to these référentiel de compétences, there is a ‘portfolio’ for students, which is meant to facilitate the coordination between trainers from training institutes and those professionals that receive nursing students who are doing an internship. This portfolio contains support for follow-up training and periodic

evaluation of the internship. In fact, two-thirds of this document consists of evaluation rubrics with the various competences listed for assessment from supervisors. For each one, a series of criteria are defined (4 on average, so a total of 40 criteria) and, for each criterion, there are several indicators that are meant to assess whether or not the competence is ‘acquired, to be improved, not acquired or not practiced’ (there is a check box for each criterion and each internship completed).

For example, for competence number 5: ‘Initiate and implement educational and preventative care’, one of the two criterion is, ‘relevance in the implementation of educational and preventative care’ and its indicators are:

- require the participation of the person or group,
- adapt and evaluate the technical and pedagogical tools,
- assess the actions performed.

In the articulation of indicators, we frequently find terms that are very close to those expressed in the elements of the list of competences (but they are formulated with verbs in the present indicative without a subject).

The analysis of the structure of the list of competences and portfolio as well as the vocabulary used, bring us to our first observation: we find a type of terminology and methodology that is very closely linked to that used in the United Kingdom for the National Standards of Vocational Qualifications. For each profession, a small number of competence areas correspond to the main functions of each activity, which are then defined and split into elements of competence. For each element some performance criteria are then formulated and what can be used as proof is listed. The only difference is that the term, “performance criteria” is replaced by “evaluation criteria and indicators”.

The difficulty with interpersonal competences

Leaving aside the more technical aspects of the occupation of nursing, we will analyze more closely the way that interpersonal competences are dealt with. We will limit ourselves to a few examples that we find characteristic of the approach studied. If we look at the evaluation criteria and the indicators in the portfolio for competence number 4, ‘implement actions for diagnostic or therapeutic purposes,’ out of 29 indicators, only 4 deal with the relationship with the patient:

- use therapeutic interview techniques
- analyze the relational dynamic
- explain acts to the patient
- provide attention to the individual.

On one hand, the relative weight given to the competences surrounding the relational dimension seem reduced, and on the other hand, the competences are viewed by the use of techniques, the analysis and explanation of data more than in terms of “care”, with the exception of the final indicator.

If we examine competence 6: ‘communicate and manage a relationship within the care context’, three criteria are defined. The first criterion and its indicators are formed in terms of situation analysis, the explanation or the identification (of adapted attitudes), that is to say, through a rational and intellectual approach, outside of the relationship itself. The second criterion and its indicators are largely formulated in terms of

communication and the only indicator that refers to the attitude required in the relationship itself is the following, ‘pays attention to the person’.

More generally speaking, we have noticed a kind of avoidance or difficulty in tackling the human relational aspect, as aforementioned (the relationship with the care recipient, the professional relationship or the educational relationship). The criteria and indicators for these elements in nursing competence do not sufficiently address the quality of the relationship, the attitudes, or the ethical values of the profession. Instead, they are formulated in terms of the implementation of steps to be completed, information to be communicated and methodology and techniques to be used. What has come to light in our analysis of these materials is that the affective dimensions are largely hidden. Therefore, what we see is a vision that is technicist, reductionist and focused on communication at the expense of a more relationship-centered clinical approach, of a more ‘care’ approach and an approach taking into account the complexity of the human relationship.

The professional child care assistant diploma (Auxiliaire de puériculture)

The documents that have been analyzed are based on two regulations from January 16, 2006 relating to the training for professional childcare assistants and the organization of the Validation of Prior Learning and Experience (VAE: Validation des Acquis de l’expérience) to obtain the diploma. Included in the annexes are: a description of the occupation, a list of activities, a list of competences and a training program.

The description of the occupation is synthesized from a list of eight activities (e.g.: ‘1. Take care of children in their daily activities from birth to adolescence’; ‘3. Help the nurse or childcare professional regarding healthcare’; ‘8. Welcome and accompany colleagues during internships’). The following annex presents ‘detailed activities’ where each activity is specified by ‘the main operations that make up the activity’, ‘the major professional situations associated’, and the ‘methods, tools and resources used’. The list of operations is quite detailed and long (more than 100 operations in all).

For each of its eight modules, the training program shows a competence statement that explains the title of the module (e.g.: Module 8 ‘Labor Organization’; competence: ‘organize work in a multi-professional team’). There are then a series of training objectives beginning with the expression ‘to be able to’ as well as a list of very detailed ‘related knowledge’ elements, which differentiate ‘theoretical and procedural’ knowledge and ‘practical’ knowledge. Finally, the ‘level of acquisition’ and the ‘requirement thresholds’ as well as the evaluation criteria in two categories (result and comprehension criteria) are described. If the attention to methodological rigor and thoroughness that this document conveys can be appreciated, we shouldn’t forget to question the heaviness of such an analytical approach and the excess in prescription that it engenders. In addition, the vocabulary used (‘operations, to be able to...’) evokes the behaviorist model of *pédagogie par objectifs*.

Social and family help technician (Technicien de l’Intervention Sociale et Familiale) (TISF) training programme

Here we present the results from the study of the materials used to train Technicians in Social and Family Help (TISF) as reformed in 2006. The TISF, formerly called “family workers”, is mainly involved in work within the home. In addition to work with

household tasks, the profession has expanded to include socio-educational and preventive action.

In an educational project describing the training program leading to the diploma in social work we find the latest reform mentioned from 2006:

In the same vein as other reforms in social work, the TISF diploma was revised and eligible for the Accreditation of Prior Learning and Experience (*VAE, Validation des Acquis de l'Expérience*). It was created from a professional reference document (*Référentiel professionnel*) and proposes a list of competences from which the training program and curriculum were derived.

After quite a detailed description of the training process, the document presents six 'areas of training', each of which is composed of three to five modules. Each area of training is specified in terms of hours of theoretical teaching and practical training as well as a list of 'indicative content'. After that, there is a list of competences that describes domains, each divided in two to six competence (21 in total), completed by a series of 'competence indicators' (from three to twelve indicators for each competence).

The analysis of these documents shows that the same difficulties arise in dealing with interpersonal skills as those that were seen in the areas of social work and nursing. Thus, the first competence area is called: 'project management for personal care'. If we examine the corresponding curriculum in the training guide, we find that the contents cover the legal and institutional framework of the activities, the methodology (project and intervention) and the 'personal development,' but strangely there is nothing on the aspects of personal care and the aid relationship).

The second area of competence is entitled 'professional communication and work within a network'. The curriculum focus on the history of the social professions, the role and functions of social workers and the transmission of information, though the competence 'establish a professional relationship and provide mediation' belongs to this area of competence. Regarding this competence, the indicators are: 'be familiar with the general principles for interpersonal communication, identify the modes of communication in familial and intercultural relationships, facilitate discussion and exchanges between people and between people and institution, and be able to use conflict management techniques'. Again we find, like in the nursing profession, descriptors focused principally on communication and the use of methods and techniques, thus displaying a reductionist and technicist vision of the profession.

The State Diploma in Special Education (Le Diplôme d'Etat d'Eduteur Spécialisé, DEES)

A comprehensive idea of this profession

Annex 1 from the June 20, 2007 law entitled 'référentiel professionnel' includes a profession definition and a description of the context of work for the professional in Special Education. It then goes on to describe a 'list of functions/activities' which outlines four functions, each broken down into three to five activities (sixteen in total). The function titles are conveyed through an expression that begins with a noun (e.g.: 'educational support of the person or group', 'design and management of socio-educational action'). The activities are defined by expressions that begin with a verb in the present indicative in the third person singular (e.g.: 'establishes an educational relationship with the person, the family or the group'). All of the activities are very broadly defined. Their statement is generally more complete than those of the other programs above analyzed. Some of these explicitly refer to concepts from the

humanities, such as ‘the practice of a symbolic function’ or those that have to do with values, such as ‘the greatest possible respect of one’s choice and of one’s privacy (of the person who is supported)’. The articulation of these activities denotes a comprehensive, yet well-synthesized design with regards to the educational profession. It expresses the meaning and purpose, far from being limited to describe, from the outside, a series of tasks.

The annex to the aforementioned law then describes four competence areas that do not exactly cover the four functions. Additionally they are each broken down into four or five competences (nineteen in total). The title of these competences is often quite brief (e.g.: ‘build a relationship’, ‘design an educational project’). Following these titles, there is a table that lists a series of indicators for each competence (from two to seven), formulated with the verb ‘to know how to’ followed by another verb in the infinitive form. Some of these descriptors are very concise (e.g.: ‘know how to welcome’, ‘know how to understand a situation’), others are more developed (e.g.: ‘know how to transmit values, knowledge and professional methodology and then put them into practice’). The list of competence indicators is long: close to eighty, about twenty indicators per area of competence. The actual use, through different stages of professional development of the students and notably in the evaluation during internships periods, can raise problems, which may encourage avoidance.

As with other “référentiels” studied, we notice again that the distinction between activities and competences is not very clear: sometimes the formulation of the competence is not differentiated from the activity except by putting it in the infinitive form or using a synonym (e.g.: the activity, ‘evaluates the actions in the educational project’ corresponds to the competence ‘to evaluate the educational project’ and the descriptor of this competence is ‘to know how to assess actions completed and objectives obtained’).

An analytical and behavioral idea of competences

In a previous version (March 12, 2004), the training programs were presented differently. The concept of competence and its descriptors were absent, and replaced by ‘know-how’ and ‘reference knowledge’. The newer version of 2007 came back to the notion of competence and the indicators of competences; the latest ones are numerous, formulated with operative objectives as promoted through “pédagogie par objectifs”. The underlying idea defining a competence and what permit its evaluation seem to be more based in an analytical approach that refers to a list of tasks and operations to be performed than based on an analysis of the activity in context carried out in a comprehensive sense. This version is less consistent with the list of functions/activities than the version of 2004.

This competence approach at first glance may seem to facilitate a rigorous and more objective evaluation of competences acquired, but professionals interviewed emphasize the heaviness of its use that could make it difficult to use systematically and it may even cause it to be disregarded. Furthermore, couldn’t this intention to simplify by cutting risk us losing sight of the complexities of the activity itself or even the meaning for the actors involved (Clenet et al., 2005)?

Ambiguities and paradoxes

In the first part of the article I have examined the origins of the notion of competence and the evolution of its meaning from the legal field, through the linguistic field and to the area of training design. In the latter, I have distinguished two models or paradigms of competence and I have examined their underlying theoretical and epistemological foundations. The first one is the prevalent technicist model strongly marked by the behaviorism, which reduces the competence to a detailed list of operational know how (Elias & Merriam, 1983). The second one is a socioconstructivist model which takes into account the complexity of situations and activities, as well as the meaning that professionals give to their work (Clenet et al., 2005). In order to characterize the second model, I referred to the book “Compétences et socioconstructivisme” (Jonnaert, 2002), however I developed critical arguments about the ambiguity of the notion of “virtual competence” and about the elements of the definition of competence proposed by the author. I argued that competences, if they are not directly observable, are real since they occur through the performances, the activities in situations, which are called “real work” by ergonomists.

Then I examined a corpus of documents regulating the vocational training programmes of 4 professions: 2 professions of healthcare and 2 professions of social work. For this purpose, I used a set of criteria in order to identify the model(s) of competence they are based on. This study allow me to bring to the fore ambiguities and paradoxes in the approach of competences used by these programmes.

A competence-based approach strongly colored by behaviorism

In the majority of the materials studied with little variation, I found the same design based on the “competence approach” that is clearly influenced by a behaviorist model. The reference documents, which serve to frame the training programs in their design, structure, terminology and the foundation of their content, are created through this base. The relational skills often occupy a very limited space and the depth of human relationships is generally reduced to superficial communication and the use of “techniques”. The complexity of the affective dimensions of identity and social, political and ethical issues seem to be hidden or at least pushed into the background.

During the course of the presentation and the analysis of the training programs, I noticed that the underlying concepts defining activities as well as the notion of competence were not clearly differentiated. Before proposing other answers to the questions seen in the introduction, I present a summary table of the significant quantitative data from the materials studied.

Table 1: Quantitative data regarding the reference documents (référentiels) for the professions studied

| | Functions/ activities | Competen ce areas | Competen ce (elements of) | Criteria/ indicato rs |
|---------------|--------------------------|----------------------|------------------------------------|-----------------------------|
| TISF | 6 | 6 | 21 | 89 |
| DEES | 4/16 | 4 | 19 | 79 |
| Child care | 8/108 /operations | 8 | 56 (know- how) | 60 |
| Nurses | 9 | 10 | 77 | 40/117 |

Regarding the activities, some differences are worth noting. For these four different programs, the number of activities described in the documents is from 6 to 16 (for the DEES, which groups them into 4 functions). The diploma for childcare assistants is defined by a short list of main activities, but then broken down into more than 100 operations. The categorization of activities, either being broad or narrow and the choice to establish a more comprehensive or more detailed list gives an indication of the design work and the type of analysis that has been made. The terminology, for example, the terms of operations and know-how, which are used in the descriptions of the childcare assistant diploma, show a strong underlying base in the behaviorist model.

Regarding the list of competences and when we find indicators, their length and the terms used to describe them also provide information about the idea (conception) of education and training they cover. There are long lists of competences for healthcare professions studied (77 competences for nurses) and more synthesized versions for social workers. There is additionally an extensive list of indicators (60 to 117) for all professions presented.

Ambiguities of the model of competence as implemented in training programs studied

Here we find the elements of both paradigms mentioned above: in the first three programs we studied, on one hand we see a behaviorist and technicist (if not Tayloristic) vision of work and vocational training that dominates. This evokes the idea of “competences in bits” (Friedmann, 1956). On the other hand, we see a design that is more humanistic and constructivist, which is not broken down analytically into smaller slices of activities; for example, we see this design in the training program of DEES.

The influence of the first paradigm is evident in the definitions of competences as we have seen sighted in Coudray and Gay (2009, p. 41) in the article where they explain the design method of a new training program of the state’s nursing diploma: ‘la compétence est la maîtrise d’un savoir-faire opérationnel relatif aux activités d’une situation déterminée, requérant des connaissances et des comportements’ (competence is the mastery of operational know-how relating to the activities of a given situation, requiring certain knowledge and behavior). If we find in this definition the key

characteristics of the notion of competence such as operationality and contextuality (linked to a given situation), we also see terms implied in behaviorism such as operational know-how or behavior.

On the other hand, in a socio-constructivist approach, because the competences are related to situations or types of situations forming a meaningful whole, often complex, they are composite: they combine and integrate a set of resources (declarative and procedural knowledge, attitudes, sensory motor skills) that may be activated to perform an effective action (Allal, 2002; Gillet, 1991). In order to assess their acquisition they need a developed description according to certain characteristics, like observed in the list of functions/activities of the DEES. However, they are not equivalent (nor can they be reduced) to the sum of a series of operational skills described in terms of behavior.

Additionally, the analysis of the lists of competences reveals a difficulty in distinguishing the notions of an activity, competence and performance. The contributions of the field of ergonomics, the vocational didactics (*didactique professionnelle*) (Schwartz, 1997; Pastré et al., 2006) and the constructivist theories of learning (Vergnaud, 1996; Jonnaert, 2002) do not appear to have been integrated into the design of the programs analyzed in this study. This is particularly the case in the distinction between the task (the prescribed work) and the activity (the real work). An in-depth study of the latter could serve as a basis for the design of professional training programs, which would describe the main functions and the list of activities. For professions with a technical nature, it could be useful to divide activities to the level of operations. But this doesn't seem particularly relevant to the relation-oriented occupations such as education or childcare. In these areas, wouldn't a technician training design risk 'deprofessionalizing' these occupations (Hébrard, 2004, p. 215), or the 'proletarianization' (Stiegler, 2008, p. 11) of these professions? A framework of standards of activities that cuts the tasks into small parts, a competences list that multiplies the criteria or the indicators and a methodology founded in a behaviorist approach are all representatives of a design of work and training that has been the object of much criticism (Elias & Merriam, 1983; Stroobants, 1993; Allal, 2002; Ollagnier, 2002; Crahay, 2006).

The analysis of documents stating these reforms and tools designed for implementation, like the interviews performed with teachers and trainers, reveal an array of ambiguities and paradoxes. On one hand, the tools are very prescriptive – with professional activities divided into tasks and sometimes numerous operations and with competence lists showing poorly classified lists of activities, expressed in similar terms to behaviorist objectives including those recommended by the “*pédagogie par objectifs*”. On the other hand we see an emphasis on the concepts of situation, integration, autonomy and reflexivity that refers to a constructivist approach to learning, while at the same time, the concepts of control, know-how and operational behavior evoke a behaviorist paradigm or technician paradigm, at the very least. The theoretical foundations and the methodologies that form a base for the training design used seem to cause us to question its coherence, if not its pertinence as well as the concepts of vocational training implied. Without pretending that this study can be generalized to all occupations having to do with human relations, my results seem likely to encourage a deeper reflection for both practitioners and researchers in these areas. Comparative studies on a larger scale involving more training programs in other European countries would allow us to complete and enhance this analysis.

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