From the transmission of knowledge to a competence-based approach

By Olivier Rey

After an issue devoted to humanist literature and culture in the common core of knowledge and skills, this issue comes back to the question of competences in a more generic way, to ask questions about the definitions of this concept which circulate within the educational field. As a term with multiple significations, the word "competence" takes on different meanings depending on whether it refers to the simple acquisition of knowledge and skills, whether it designates levels to be reached within the educational system or whether it qualifies a new approach to learning. Are we speaking of the same thing when the OECD and the EU propose their key competences, when researchers ask questions about the contextualisation of knowledge and going beyond learning by objectives or when French-speaking educational systems invoke the competences at the heart of their curriculum reforms? The ambiguity of a term present to such a great extent today in the educational world therefore appears to be worthy of an issue devoted to defining it, given that the question of the assessment of these competences will undoubtedly deserve another issue later on.

Une approche popularisée par les organisations internationales | Du monde professionnel au monde éducatif | The difficulties of finding a common definition | Towards a new approach to learning? | Bibliography.

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An approach popularised by international organisations

The "key competences" of the OECD DeSeCo project

The development of the term "competences" in the educational world is already relatively long-standing. It was first expressed in the field of languages with the language-learning policies developed by the council of Europe followed by the famous Common European Framework of Reference for Languages, referring to the "communicative competence" defined par Hymes. The term "competence" is to be found in certain countries in speeches and reports as of the eighties, and its use increased, to the extent that Marc Romainville in 1996 published article entitled *"L'irrésistible ascension du terme "compétence" en éducation"* (The irresistible rise of the term "competence" in education). This was in Belgium, a few months before the publication of the decree "Missions", which defined the framework of a reform resolutely centred on the introduction of competences into the education system. But it was in the late nineties that the concept acquired an international scope and a more standardizing dimension in all countries (including France), through the increasing number of references to competences as a central element for piloting curricula.

In this respect, the DeSeCo project (definition and selection of key competences) of the OECD (1997-2003) played an important role, by defining and systemizing a reference international framework of discussion for public policies. Controlled by the Swiss federal statistics office, the project brought together, either on a permanent or an ad hoc basis, various experts to draw up "states of the art" of the concept, to compare definitions, establish convergences and finally list a series of key competences for the development of society and individuals. Said key competences would obviously be called upon to constitute the major goals of education.

This undertaking is rendered legitimate by the fact that the traditional, basic skills are important but not sufficient to meet with the requirements and the complexity of present-day social demands, which justifies the identification of key competences in conjunction with a higher degree of complexity and a reflective approach. The publications of the DeSeCo project stress in particular a "holistic" definition of the concept of competence, broader than that of the common meaning, as may be used to qualify a skill, an aptitude or mastery of a particular technique, endowing the term with the meaning of a complex system of action including cognitive aptitudes and non-cognitive attitudes and other elements. "*A competence is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on, and mobilising psychosocial resources (including skills and attitudes) in a particular context* » (executive summary, 2005).

Finally, DeSeCo put forward nine key competences, divided into three categories, likely to be relevant for any national of an OECD country or even beyond:

Acting Autonomously
– Act within the big picture
– Form and conduct life plans and personal projects
– Defend and assert rights, interests, limits and needs

Using Tools Interactively
– Use language, symbols and texts interactively
– Use knowledge and information interactively
– Use technology interactively

Interacting in Heterogeneous Groups
– Relate well to others
– Co-operate, work in teams
– Manage and resolve conflicts

The competences defined come within the perspective of life-long learning, and as such are not limited to curricula, even if they include them. The development of competent individuals requires a different type of education, which must be less centred on the accumulation of knowledge and the definition of the contents of knowledge, and more on the improvement of the ability to react to new demands and to adapt to new circumstances. The exercise therefore has a universalist vocation, even though a certain reserve is asserted as to the possibility of establishing universal and decontextualized competences of national cultures. As has been pointed out, defining key competences is an exercise which always has to do with political and social values (Tiana, 2004).

In addition, the OECD has also played a driving role via the launch of the international PISA assessments since 2000, as PISA, unlike other international assessments, does not base its surveys on study programmes but on a series of competences in broad disciplinary areas, including in them the so-called transverse competences concerning motivation or behaviour (see also Mons, 2004).

The key competences of the European Union
At the level of the European Union, during the European Council of Lisbon of March 2002, which marked the launch of the strategy of the same name, the representatives of the States declared that: "*a European framework should define the new basic skills to be provided through lifelong learning: IT skills, foreign languages, technological culture, entrepreneurship and social skills*".

As of 2002, an group of experts proposed eight key competences:
– communication in the native language;
– communication in foreign languages;
– ICT;
– numeracy and competences in mathematics, sciences and technology;
– entrepreneurial spirit;
– interpersonal and civic competences;
– learning to learn;
– general culture.

In the same year, the information network on education in Europe published an investigation aiming to take stock of the development of the concept of key competence in compulsory general education (Eurydice, 2002) within the 15 Member States of the Union. In the majority of countries, it points to the growing interest in introducing competences into curricula, certain countries (the French Community of Belgium, Portugal, the United Kingdom, etc.) having even formally integrated the term into the official frameworks that steer their education system.

The interest in this question is justified by the fact that "*for a long time in Europe there has been a general consensus that mastery of reading, writing and arithmetic is a necessary but insufficient requirement for a successful adult life. These abilities may be regarded as the starting point of any further learning but they are only one aspect of this field of basic competences generally called literacy and numeracy*". Considering that, in the educational context, codified or explicit knowledge is largely represented by knowledge of the subject, whereas tacit knowledge is mainly associated with the personal and social competences of the learner, Eurydice stresses in its study the competences known as "generic know-how", also called subject-independent competences or transverse competences. "*Among generic competences, we may mention communication, problem-solving, reasoning, leadership, creativity, motivation, team work and the ability to learn*" (Eurydice, 2002).

Thinking on key competences is becoming an official operating arena of the European Union's "Education and Training 2010". Going back to the distinctions of the DeSeCo project, the experts of the European commission chose a broad meaning for competences: "***The terms 'competence' and 'key competence' are preferred to 'basic skills', which was considered too restrictive as it was generally taken to refer to basic literacy and numeracy and to what are known variously as 'survival' or 'life' skills*** » (Saavala, 2004).

After various reports and proposals from the working groups, a "*recommendation of the European Parliament and Council on key competences for life-long education and training*" was finally adopted on 16th December 2006 (EU, 2006).

It proposes a reference framework based on 8 key competences:
– communication in the native language;
– communication in foreign languages;
– competence in mathematics and basic competences in sciences and technology;
– numerical competence;
– learning to learn;
– social and citizen competences;

- initiative-taking and entrepreneurship;
- cultural awareness and expression.

Admittedly, the educational policies of each State always obey specific national agendas and follow institutional paths primarily mapped out by cultural, political and social logic specific to each country. Having made this point, the popularisation of the concept of "key competences" and its intellectual and political framing by the OECD or the European Union are not without impact on the thinking carried out by the ministries of each State. Work done by international organisations provides resources and means of structuring in debates on changes in education systems. So it was that Gilles de Robien, the minister for education, hailed the European Union recommendation as he was launching the "common core of knowledge and competences" in France.

❑ **See also**
- Saavala Tapio (2008). Cluster Key Competences - *Curriculum Reform : Synthesis Report on Peer Learning Activities in 2007*. European Commission, Education and Training 2010, Work Programme.

From the professional world to the educational world

Although "key competences" have been particularly formalised by international organisations over the last few years, the majority of researchers stress that the concept of competence initially appeared in an economic context.

Florence Legendre underlines the fact that the concept of competence initially developed in the professional context and the business world (Legendre, in Audigier & Tutiaux-Guillon, 2008). It was, she claims, during the Seventies that the **concept of competence gradually started to replace that of qualification** (a set of know-hows and techniques recognised in a training course for which a diploma is awarded), leading to a greater consideration of the role of the person. It meant putting the responsibility of the employee to the test with regard to the result, in a professional context. Competence requires a certain amount of autonomy to face situations that are not entirely foreseeable: the employee must be able to innovate.

The concept of competence was next rolled out in the world of adult training and professional didactics, in order to better adapt the contents of teaching to professional situations. It was a question of recognising the key place of "knowledge as acts" or "pragmatic concepts" which underlie effective activity.

How this then moves into the area of basic teaching is not easy to understand. In school, competence is more standardised than related to a personal experience: it is a question of defining procedures which can be passed on and communicated (being able to read, write, carry out, etc.). As compared to this standardised training, competence rather makes it possible to characterise the singular competences of an individual's adapting to unusual situations and his competences at changing as technology and society change (Rey, Carette, Defrance & Kahn, 2006).

As a common point with the world of work, it is also an ability to make use of procedures so as to face up to an original situation.
The introduction of competences into the world of adult education and professional training was a general move, but its opening-up to take over the academic world as a whole was not a forgone conclusion, it would seem, as shown by the experience of the English. In England, the development of key or generic competences was initially thought of as a means of answering contemporary requests from companies in professional training. On the other hand, the determination of Labour governments to develop "Key Skills" within the GCSE or A-Level (the diploma that gives access to university) syllabus in the reform of secondary education ("Curriculum 2000") did not meet with the hoped-for success (Hayward & Fernandez, 2004): in the minds of families and pupils, the concept of key competences remained largely confined to vocational training, with a fairly negative image.

Many researchers also underline the fact that, just as learning by objectives went well with the Taylorist economy, the rise to power of the competence-based approach goes hand in hand with an economy based on personal autonomy and flexibility. **For a long time, the contents of school curricula were cut up into many micro-objectives, and the education system took on a behaviourist perspective, reflecting the triumph of the Taylorist approach to the organisation of work in companies**. The growing reference to the concept of competence logically espouses another conception of the company, founded on worker autonomy and flexibility (Jonnaert *et al.*, 2004).
Paradoxically, some believe, in contrast, that the current of the competence-based approach, at least in its initial version, is a result of Taylorism and the organisation of work, or of the world of industry (Boutin, 2004).

This "professional" origin of the concept of competence is often suspected of reducing the ambitions of education. Marcel Crahay believes that *"the concept of competence reflects a utilitarian perspective that is dear to the English-speaking world: cognition is subordinated to action, which itself aims to solve a problem"* (Crahay, 2006).

It should be additionally noted that the concept is not self-evident in the business world either. So-called relational or social competences, so important in service-related activities, prove for example to be particularly difficult to formalise (Lemaître & Hatano, 2007), and the procedures for validating the fruits of experience often reveal a confusion between recognition, competences and experience Between identifying an activity, and assessing and measuring it, trainers are confronted with many problems which will inevitably reoccur with even greater force, when competences are introduced into compulsory education.

❑ **Se also**
- Le Bortef Guy (2006). *Construire les compétences individuelles et collectives*. Paris : Éditions d'organisation (4th ed.).

The difficulties of finding a common definition

No matter where we believe the concept of competence comes from, its use in education is current today and gives rise to many theoretical and practical debates, for the term "competences" often shows up in many official texts. The French "common core of knowledge and competences" set up by the law on guidance and on the programme for the future of school, on 23rd April 2005, presents 7 major competences each broken down into **knowledge, abilities and attitudes**. But

this definition of competences is not the only one possible: it depends on the national or language cultures, or the differing approaches of researchers, who stress the frequent conceptual blur which surrounds the idea of competences in education, and therefore the difficulty of finding a definition on which all can agree.

Roger-François Gauthier observes that *"depending on the languages this word indicates types of professional know-how, which answer specialised practical questions: this is not what we are talking about here. It also denotes know-how as regards intellectual work: one can speak about competence in finding information, of competence in arguing, in reading a map, solving a problem, etc. It still sometimes denotes separate pieces of knowledge, mastery of which it is desired to assess in a specific way, as when one evaluates, for example, not the knowledge which pupils have of the mark of the plural in English, but their ability to prove it regularly and - why not? - automatically. It is still often related, using the term "skill" in English-speaking literature, to various types of know-how which apply to the general activity of living"* (Gauthier 2006).

The opposition between disciplines and competences, or disciplinary learning versus transversal competences, is often to be found. Particularly in France, the idea that intellectual competences not directly induced by disciplinary transmission can be acquired is accepted only with difficulty. R- F. Gauthier recognises that these competences cannot be worked on outside their application to particular areas of knowledge, *"except that it remains to be proven that they are actually identified, cultivated and appreciated in these particular areas of knowledge, and not referred back to the individual learning of pupils, who often learn how to work only with help from their families or via private lessons"* (Gauthier 2006).

When one speaks about competences as a new educational paradigm, one is referring rather to the possibility for an individual of internally mobilising an integrated set of resources, in order to solve a family of problem situations, according to the definition of X. Roegiers (2004). Le Boterf (2006), who looks mainly at professional training, has defined "knowing how to act" as being at the heart of competence, breaking the latter down into:

– knowing how to mobilise;
– knowing how to integrate;
– knowing how to transfer.

Building "in situation" competences, as a break with teaching by "by objectives"
The competence-based approach is primarily intended as a break with learning by objectives, a traditional method that was predominant in the educational world in the 20th century, which breaks down knowledge to be taught into objectives to be attained at each level of schooling.

Here, on the contrary, preference is given to integrating learning into a global logic, with the concern that the final aim of the competence to be acquired is not present only "at the end" of the process, but is included as of the beginning and even conditions the way in which the pupil builds up the various components of competence. In this sense, it is knowledge in action, built for action, in problem situations, families of tasks, etc.

The forms of knowledge mobilised are transformed and recontextualized. It is from actions that competences must be inferred, hence the importance of assessment through appropriate situations. This also poses also the problem of "knowing how to be", not easily appraisable other than from indirect clues (Scallon, 2007). The idea of seeing things in the context of a situation is key, and competence seldom appears through counting or a quantified result, but rather by a global judgement. It is not an abstract ability, isolated from any context: **competence is finalised and contextualised**.

This sometimes leads one to clearly dissociate the question of learning competences from that of assessing them or certifying them within the school system. In the Eurydice report, we read that *"schools are able to assess the knowledge and know-how of their pupils but not necessarily their competences. Examination results should consequently not be regarded as an absolute measurement but rather as an indicator of the acquisition of key competences. It is the performance of the individual in the work place and in his private life which will provide undeniable proof of the effectiveness of the formal and informal channels of training"* (Eurydice, 2002).

Taking competences into account in the world of training indicates in a more general way the **progressive move from knowledge-centredness, such knowledge being considered as prerequisite to the activity and often approached in a decontextualized way, to taking into account the activities in which this knowledge is incarnated** (Legendre, 2008). We are no longer in a framework of forms of knowledge that are stable in their discipline but rather in that of forms of knowledge being built dynamically, and being permanently recombined by the pupil. We are not so much aiming at passing on a science, or erudite knowledge received as a heritage, as making forms of knowledge be produced in the activity which express themselves by the production of practical results and expressed know-how. This is how knowledge is to become competence, through activity-centred learning (Lemaître & Hatano, 2007).

In the eyes of its promoters, the advantage is obvious in terms of interest for the pupil, since the voluntary and efficient carrying out of a task (it is not just behaviour) with a view to a goal is at the heart of the notion of competence. Aiming at a competence is to make pupils work at sufficiently global activities which have meaning and whose functionality appears to the pupil (Rey, Carette, Defrance & Kahn, 2006).

Presenting pupils with knowledge as it may possibly be used is a means of motivating them. Nevertheless, these authors warn that *"the social use of the knowledge taught is not always perceptible"*. Part of the knowledge is not directly useful, at least in the short run, but helps to make the world intelligible and to broaden individual experience. It is in any case very difficult to determine which competences are "useful" for social and professional life and it would be dangerous to reduce the knowledge taught at school to just those elements which would feed apparently "useful" competences. *"The notion of competence does not therefore evoke simply the idea of rendering knowledge operational but also an acquisition by the pupil that modifies him or her deeply: it is a quality which is acquired durably"*.

In the end, three degrees of competences can be distinguished, of which only the last two really deserve to be called "competence":

– an elementary competence: being able to carry out an operation in response to a signal (an automated procedure or skill);
– a competence that has been structured beforehand: interpreting an unusual situation and choosing the appropriate elementary competence;
– a complex competence: choosing and combining several competences in order to handle a new and complex situation (Rey, Carette, Defrance & Kahn, 2006).

This explains that researchers who wonder about the effective application of competences take a special interest in the tricky question of "situations" in the teaching process, with the concern of proposing solutions that are applicable in educational systems. "*One cannot expect to navigate safely between a traditional conception based on the transmission of knowledge and the objective of allowing people to build competences from situations*" (Jonnaert et al., 2004).

Xavier Roegiers, for example, endeavoured to compare two models of teaching that give a key role to "situations", one favouring the use of situation-problems at the beginning of the teaching sequence (e.g. pupils' debate on the best possible solutions), the other giving preference to using resources already seen to solve a problem, after the phase of transmission of the resources by the teacher.He examines to what extent these two models, separated only by "realism" as far as the possibilities of change and improvement of education systems are concerned, are more or less effective and fair (Roegiers, 2007).

It is always tricky to set up these approaches in educational systems. Marie-Claire Dauvisy considers that appraisers, trained in traditional teaching by objectives, draw up grids which aim at limiting the arbitrariness of their decisions and at making the marks allotted incontestable. In doing this, the grids split up the various components of the competences, at the risk of completely falsifying the integrated approach to them. "*Other practices can be identified but they have difficulty getting established in traditional school marking systems*" (Dauvisy, 2007).

Mobilising resources reflectively

The various approaches to competence quoted show that the latter cannot be reduced to a corpus of knowledge or know-how. **The complex skills involved in the field of competences are based on the mobilisation of several types of knowledge and know-how** (Scallon, 2007).

Too often," the concept of competences simply replaces that of objectives without any real modifications, with a number of operational objectives renamed as competences", warn certain researchers who have observed, especially in Quebec, the formal introduction of competences into curricula (Jonnaert *et al.*, 2004). At least three constant elements seem to make up the concept of competence in contemporary literature:

– competence is based on mobilising and coordinating resources by a person in a given situation;
– competence can develop only in a situation;
– competence can be attained only if the situation is successfully handled.

But this is not, they believe, a sufficient definition to help with the drafting of curricula. In particular, the question of coordinating the resources is often badly understood, these latter being mostly reduced to the existing contents of disciplines to be juxtaposed with one another. However, competence is the result of the effective coordination of resources, rather than a sum of these resources. But resources are not just knowledge in its different forms. Codified knowledge, described in curricula, concerns resources outside the person. Knowledge is obviously a cognitive resource and, for this reason alone, relates to resources within the person. **Resources cannot therefore be taken for knowledge, and vice versa** (Jonnaert *et al.*, 2004).

"Explicit and thought-out competence" seems to be remarkable for its absence from contemporary didactic and educational thinking on competences. However, "*while the situations are important, they are not sufficient*", warn these researchers.

An echo of this concern can be found in the thinking of M. - F. Legendre, who distinguishes two areas in the concept of competence: a logic of implementation and a logic of thinking. The "knowing how to act" part of competence supposes the ability to invest previously acquired knowledge in action **but also the ability to abstract oneself from one's knowledge actions which can be reinvested in new contexts**. She too recognises that adopting the language of competences in the curricula is not enough to modify the underlying logic by objectives, which is fundamentally additive, sequential and linear, with general, intermediate and specific objectives fitting into each other. It is not easy to strike a balance between a fragmentation of competences through being preoccupied with assessment, and too great a generalisation of the formulation which in fact covers the knowledge already taken into account in the curricula (Legendre, 2008).

Some problems brought out from the Belgian experience

In the French Community of Belgium, the "'Missions" decree in 1997, which reformed compulsory education, introduced the question of competences into the heart of eight reference systems that structure the bases of competences. The reference system distinguishes several competences (e.g. asking oneself questions, criticising, etc.) hinging round families of tasks (e.g. communicating a piece of historical knowledge).

For Jacqueline Beckers and Catherine Voos, the development of new reference systems took place within the framework of disciplinary groups working in a relatively heterogeneous way, without any common conceptual framework. How knowledge and competences interact remained unclear in number of reference systems, and only a minority of disciplines succeeded in defining "families of tasks". They do not therefore feel certain that the reference systems are coherent and clear enough to guide the design of curricula and teaching practices, because it is known that it is the curricula that guide the day-to-day work of teachers, sometimes via text books (Voos & Beckers, 2008).

Marcel Crahay wonders how relevant it is to overvalue the contextualisation induced by certain approaches to competences. To his way of thinking, the Missions decree added to traditional definitions of competence those of the "complexity" of the tasks to be performed and the "new" character of the situation, which amounts to evaluating "knowing how to mobilise and transfer" and, in fact, flexible intelligence. Consequently, he wonders: *"why make the exceptional into the standard of true competence? Why assess pupils in situations which will not necessarily recur?"* (Crahay, 2006). While he recognises that knowledge is necessary for the subject to function cognitively, but is not sufficient, he believes that **the term "competences" does not help to pose the problem of acting appropriately in a situation, by inducing the idea that knowledge is secondary.** the diversification of the contexts of learning or of problems, the conceptualisation and integration of any new concept into a network, and stimulation of meta-cognitive thinking.

Maggy Schneider-Gilot shares these concerns when she observes that the mention of the discipline concerned really appears only at the level of the family of tasks, the competences remaining highly transversal or even interchangeable from one discipline to another, with the risk of masking the knowledge mobilised

As far as interdisciplinary work is concerned, this conception aims at confronting an approach for general resolution (choosing and selecting elements from several disciplines) with a particular but relatively indifferent object (the same approach

whatever the object), without being allowed to refer a problem back to another parent problem or to "categorise" the interdisciplinary problems (Schneider-Gilot, 2006). *"Transverse competences often have to do with the phantasm of transferring school to real life on the basis of "in situation" learning versus learning in a school context"*, she claims; *"they are a means of evading the real problem of transfer, which supposes adaptation and management of specific features, in order to get back to reassuring common situations which give the illusion of transfer by avoiding categorisation. A number of studies show that for a pupil, procedural knowledge is based on specific knowledge more than on alleged general capacities".* It is based on the correspondence between a class of problems and a programme of treatment which can be applied to it (for each type of problem, there is a particular type of already tested treatment).

❑ **See also**
- Lebeaume Joël & Magneron Nathalie (2004). « Itinéraires de découverte au collège : À la recherche de principes coordinateurs ». *Revue française de pédagogie*, n° 148, p. 109-126.
- Web site of the "Renouveau Pédagogique" in Québec, a reform that is largely based on the introduction of competences into school curricula.
- Roegiers Xavier (2004). *Une pédagogie de l'intégration : Compétences et intégration des acquis dans l'enseignement*. Bruxelles : De Boeck.
- Whitby Karen, Walker Matthew & O'Donnell Sharon (2006). *Thematic Probe: the Teaching and Learning of Skills in Primary and Secondary Education*. Qualifications and Curriculum Authority (QCA), INCA - International Review of Curriculum and Assessment Frameworks Internet Archive.

Towards a new approach to learning?

Over and above the real or imagined, feared or desired upheavals that the introduction of competences is likely to generate in curricula and the assessment procedures, the competence-based approach is often regarded as a new, more global way of understanding training courses.

Considering the curriculum rather than course contents

In this field, the term "curriculum" is increasingly used. This is a notion that was initially developed in the sociology of education in the English-speaking world and which is now tending to spread to the international scene.

The curriculum first refers to the idea of a plan and an organisation, an intellectual construction which includes the whole process of teaching and learning: intentions, contents, organisations, methods, environment, assessment, etc. (Audigier, Crahay & Dolz, 2006). It looks in full at the reality of pupils' courses throughout their years of schooling, and at all the teaching which they will follow: *"we leave the patchwork, the jigsaw and the shapeless piling-up, to arrive at an ordered unit, in the sense that will be seen"* (Gauthier 2006). From this standpoint, the competence-based approach makes it possible to fight against the fragmentation of learning, to give meaning to knowledge by going beyond the goal of merely passing school tests. **It stands for refocusing on pupils' learning processes rather than on teaching content** (Houchot & Robine, 2007).

From this point of view, to favour the development of competences is not to dissociate the knowledge that is believed to be relevant for pupils to acquire from the treatment that is expected of it and the situations in which this knowledge is intended to be mobilised. This is a move away from behaviourist models, which imply specific, bounded and successive acquisitions and a greater taking-into-account of integration into broad training processes, as preached from the cognitive, constructivist and socio-constructivist standpoints (Legendre, 2008).

The introduction of competences into the training process therefore makes it necessary to reconsider all aspects of the curriculum (including school organisation and the professional practices of teachers) and not just the course contents and study plans, unless one is aiming for a superficial renovation, simply because it is currently in vogue. Florence Legendre even puts forward the idea that the competence-based approach comes within a broader set of changes to society to which it is a party. These changes go beyond the question of modifications to the curriculum and therefore beyond just the question of changes to the content and study programs. What is at issue is not so much the reformulation of curricula into the language of competences as the change in the design of the learning proposed and therefore of its impact on teaching practices. **"We come to wonder whether it is the notion of competence which is at the centre of curriculum reform or whether in fact curriculum changes themselves are caught up in a huge movement, that of competences, which goes far beyond them".**

Here is to be found the well-known tension running through the educational field between, on the one hand, an approach centred on disciplines, knowledge and the subject to be taught, and, on the other, an approach centred on the child's experience, in the tradition of Dewey. *"What should we think about the way approaches and contents interact?"* wonder F. Audigier, M. Crahay & J. Dolz (2006). The sociology of the curriculum stresses the fact that school subjects are social systems supported by networks of influence, with a whole series of negotiations and regulations, which are at the same time connected to global society issues and power struggles between various professional classes concerned with the curriculum (including discipline specialists). It is also necessary to question not only the amount of the official curriculum (recommended or prescribed) which is actually taught and assimilated, but also the amount of the curriculum which is directly produced by the practices of teachers and pupils in teacher-pupils relationships.

At a more basic level, within one of the European Union working groups on key competences, this broad approach to competences is underlined. It is stated that the ideal environment for learning key competences requires the following elements:
- a more individualised approach to learning;
- teachers better coordinated for transverse competences and who collaborate effectively on these questions;
- a shared vision of the school which encourages teachers to work as a team.

Developing competences requires not only syllabuses to be re-examined but also the organisation of teaching, teaching materials (textbooks), the practices of teachers and their initial and in-service training. A real change is possible only if teachers are convinced that it is useful and that it can really be implemented. Nevertheless, the responsibility for teaching transverse competences must be that of the school overall and not only that of certain teachers (Saavala, 2008).

Focusing on changes in course contents alone to improve an education system may even turn out to be a dead end, as has been shown by researchers who carried out a critical analysis of the implementation of new school contentsin Africa through the example of the competence-based approach (Nkengne, Bernard & Robert, 2007). A number of countries have chosen this approach for the development of new school course contents and it is presented as a key factor in improving the quality of education. However, starting out from the case study of the reform of basic schooling in Mauritania, the researchers conclude that the main issues as regards acquisition are initially in the effective application of the curricula in the classrooms, rather than in their contents. In the case in point, the problems of equipment (rooms, educational materials, number of places) and of supervision (coordination, training and remuneration of teachers, for example) are more decisive than the question of course contents.

Competences and standards: complementary concepts?

It is not infrequent also to come across the concept of standards when the question of competences is brought up.

For example, the performance standards-based approach introduced in the United States by the report *A Nation at Risk* (National Commission on Excellence in Education 1983), produced content standards which come closer to learning objectives (expected level in a field of study, often disciplinary) than to competences. Standards are nevertheless more related to daily life than objectives, whose special features have excessively multiplied the number (Scallon, 2007).

In Germany, a report published in 2004 sets competences firmly within the attempt at defining new quality standards (Klieme, 2004). The competence models presented here are clearly directed towards a goal of assessing the objectives of education by means of tests, within the framework of regulation by results (*outputs*). Competences, in contrast to what we have seen previously, are even largely regarded as being specific to the fields of study, with a central role assigned to abilities and knowledge, as well as a close relationship with the teaching disciplines!

In Switzerland, O. Maradan gives thought to the association between **standards which intervene around the edges of the curriculum to frame it (*outputs*) and models of competence which are at the heart of the learning processes (*inputs*),** considering the implications induced in terms of the "common culture" necessary. While in traditional objectives-based courses the formal curriculum described the path to be followed from more or less detailed micro-objectives, it is the common horizon which is defined in competence-based curricula, but not the path to take in order to reach it. As the horizon is the same for all, it induces common culture curricula that are valid for all pupils.

The curriculum area, in this approach, includes a number of "beacons" which act as temporary reference marks of "what must be acquired" within a space to be crossed between the lower limit to be exceeded and the horizon of competence, with intermediate beacons revealing levels of competence (cf. the common European framework for languages). The common core can be understood as a common beacon, given that specific beacons then translate more discriminating courses of study.

"The *standard, as a minimal level required, needs systemic construction from competence models but it cannot replace more in-depth work on curricula and teacher training*" (Marandan, 2008).

But this association of competences with standards worries those who fear to see knowledge giving way to competences, or in other words, to record the hastening towards a society centred only, or almost only, on performance. G. Boutin thus denounces the amalgam of two psychological approaches which fall under different paradigms - behaviourism and socio-constructivism - which might be behind a paradox that teachers are undergoing. They are directed at one and the same time to encourage pupils to "build" their knowledge in a context which curiously recalls that of the libertarian school, and to subscribe to the obligation to achieve results prescribed by the authorities, he explains, thereby joining up with a certain critical current towards teaching reforms currently under way in Quebec (Boutin, 2004).

In France, the debate on competences or standards has focused on the fear of a possible lowering of the requirements by the common core of knowledge and competences which, for a time caused controversy. From this point of view, Roger-François Gauthier believes that it "*is advisable to check that centring on competences does not mean abandoning knowledge and opportunities for the pupil to build a culture on the world, or preferring low-level competences that can easily be assessed, but that are not very elaborate: the concept of key competence, for example, according to the documents, may be at the service of an ambitious project including knowledge explicitly (see the definition of the 8 key competences by the European Unit Eurydice) or on the contrary may be more directed towards competences alone, including "using" knowledge, as in the definition of the key competences given by the OECD, without it being strictly a question of "acquiring" the knowledge in question*" (Gauthier 2006).

It would currently seem that the debate is couched in different terms since, even if the new primary school curricula announced by the French minister for state education Xavier Darcos refer to core knowledge and competences, the priority orientation seems more like "centring on the essential disciplines", which is like the American "*back to basic skills*" or a defence of the conception of "explicit" teaching known as the "third way", than with an integrated vision of competences: "*It is by offering pupils **structured and explicit** teaching, directed towards an acquisition of basic knowledge and in providing them with systematic training in reading, writing, mastery of French and mathematics, as well as solid cultural references, that they will be prepared for success*" (BO, new curricula for the primary school, 20th February 2008, p. 3).

This change of direction means, for example in mathematics, "*keeping problem-solving for the phase when pupils apply knowledge initially studied for itself*", believes R. Charnay on the EducMath site (on this subject, see also the critical stance of M. Fayol and J.-E. Gombert).

❑ See also

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