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A Conceptual Framework for Competencies Assessment



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Open Note

The IBE has launched the series In-Progress Reflections on *Current and Critical Issues in the Curriculum and Learning* to open a communal space for a global conversation, collective production and discussion on those issues of high concern for Member States. It intends to support country efforts in mainstreaming challenging issues within the processes of curriculum renewal and development across different levels, settings and provisions of the education system.

Initially, the focus areas of the In-Progress Reflections series encompass, among others,: (i) Early Childhood Care and Education (ECCE) as a foundation of holistic child development and learning; (ii) Reading and writing in early grades to support the development of essential competencies; (iii) Youth Culture and competencies for Youth in the early 21st century (covering formal, non-formal and informal education); (iv) ICT curricula and inclusive pedagogy contributing to relevant and effective learning outcomes; (v) STEM (Science, Technology, Engineering and Mathematics) curricula to foster sustainable development; (vi) Curriculum for Global Citizenship Education (peace, human rights, sustainable development, values, ethics, multiculturalism, etc.); (vii) Assessment to enhance and support learning opportunities; and (viii) Inclusive education as an over guiding principle of education systems.

The series of reflections covers a wide array of knowledge products, among them: discussion papers, policy briefs, frameworks, guidelines, prototypes, resource packs, learning tools and multimedia resources. These materials are discussed, refined, used and disseminated engaging education and curriculum agencies / institutes, and in particular curriculum developers and specialists, development experts, policy makers, teacher trainers, supervisors, principals, teachers, researchers and other educational stakeholders. Also, they serve as reference materials for the IBE menu of capacity-development training on curriculum, learning and quality education – namely masters, diplomas, certificates and workshops –, to forge policy and technical dialogue involving a diversity of stakeholders and to support sustainable country field work.

Through blogs and e-forums, we encourage the audience to actively interact and bring in diverse perspectives. Effectively, the online space for reflection allows us to stay connected, facilitates exchange between experts from different regions of the world, and truly fosters continuous reflection on the issues concerned. The blog is structured to gather diverse resources, which include tools and documents (as previously mentioned) under specific themes so as to provide a complex and rich set of materials targeted to the specific needs of Member States. The In-Progress Reflections will capture relevant visions, views and comments shared by the audience, and serve as a key resource to support Member States' efforts in mainstreaming relevant findings and effective practices in national policies, curriculum frameworks and developments and in professional practices.

Dr. Mmantsetsa Marope: Director, International Bureau of Education



A Conceptual Framework for Competencies Assessment

Abstract: There can be no denying the influence of competencies on the development of the school and its curricula. It is increasingly the case that, to enrol in a socio-economic fabric, whether locally or globally, learners– male or female – must learn to place their knowledge and know-how at the service of action: they must be able to deal with complex situations of daily and professional life. In short, they must be taught to transfer their knowledge and know-how. The school and its stakeholders must therefore be tooled to be able to handle this novelty: conducting learning processes in terms of competencies, but also assessing learners in terms of competencies.

This article emphasizes competencies assessment, particularly in a comprehensive curriculum vision, attempting to articulate all the facets of a school cursus for all. It begins by situating the contribution of competencies in the world of the school: Where do they come from? What do they bring? What is their future? It then shows how several conceptions of competency have come to exist side by side. Two of them dominate in particular. On the one hand, we have the conception of “generic competencies”, which constitute a general stock of knowledge for the learner, notably including socio-affective competencies; on the other, there is the conception of “situational competencies”, which represent the learner’s potential ability to deal with certain complex situations referring to an exit profile. The article finally addresses the general problem of competencies assessment, both generic and situational competencies, by showing the methodologies specific to each type to be mobilized for assessment, and the difficulties facing stakeholders when it comes to assessing both categories. In conclusion, it marks out a few new paths to follow for assessing competencies.

Keywords: Competencies – curriculum – assessment – life skill – generic competency – exit profile – transfer – integration teaching

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1. The contribution of competencies in the world of the school

1.1. The present curriculum challenges

The school is the quintessential place for crystallizing the values that underlie a society. Everywhere in the world, through the children and young people, the school is at once a generator and indirect inheritor of many economic, cultural, environmental and social challenges. It takes root in the histories of peoples, in the projects they uphold, as well as in the age-old divergences between persons and peoples finding it hard to agree on priorities and on how to face these challenges.

What role must the school play regarding these projects, and with respect to these divergences and cleavages? Should it respond to what society demands at a particular time, or on the contrary, is its role to help rethink and hence regulate it? It is no doubt that the school will still long need to navigate this twofold mission.

It seems, in any case, subjected today to a twofold influence prompting it to reposition itself.

Alienating forces

A first group of influences is alienating forces. This concerns, first of all, the negative and perverse effects of this globalization carrying so many hopes but which, despite everything it brings, is all too often turned into a “commodification”, seeking gradually to reduce the human being to a mere consumer. Hence, this threatens individual freedoms and the common good, whether we consider water, plants or education. It goes hand in hand with a worrying phenomenon, that of increased underemployment and poverty. In particular, according to ILO¹, the 2008 crisis did away with over 20 million jobs worldwide that have not been recovered to date, and a return to the pre-2008 situation is only anticipated for 2017 in the advanced countries.² This phenomenon of diminished employment followed by its social repercussions is particularly seen among youth and it raises, no more and no less, the question of their place and role in society, and hence of the future of society in general.

Recent developments show that this “commodification” is not alone in exerting alienating pressure. The rise of certain forms of extremism is another equally real direct or indirect influence.

Liberating forces

Fortunately, this first force of attraction seems to be offset by liberating forces characterized on the one hand by an acceleration of awareness and, on the other, by citizen and economic initiatives seeking to restore the human being to the centre of debate and to preserve the planet for future generations. They are marked by a questioning of the value systems that direct decisions and affect the modes of governance. Even if, worldwide, political regimes continue to evolve in a variety of directions, citizens’ desire for change is evident in an ensemble of world regions: working for more democracy, more equality of opportunity and more justice.

These influences on the school cause the constant re-examination of its relevance or its prime mission: educating for what and for what society projects, both locally and globally?

¹ International Labour Organization (2010)

² International Labour Organization (2013)

A school context itself developing apace: globalization and its effects

In the space of a few decades, globalization has led the school to take a huge leap forward since it has obliged the school to modify the scale of reference. While, hardly 30 years ago, it was almost exclusively the local and regional environment that was concerned in the founding documents of the school curricula, the school suddenly finds itself projected into the global environment. To an ever greater extent, it is then subjected to varied constraints linked to the different scales into which it has to fit: local, regional, national, international, etc.

This change of scale obliges the school to *articulate several levels, in particular the global and the local level* (Bravslavsky, 2001; Opertti, Brady & Duncombe, 2011). It is, first of all, induced to refocus learning processes on an attachment of the learner to the local level. But at the same time it is invited to join the international movements, such as EFA,³ and to gain better understanding of the functioning of the global level, all within a sustainable development perspective.⁴ More than ever, the school is therefore called upon to be connected with its environment: the local and regional environment as well as the global one.

This duality between the local and the global is not the only one to which the school is subjected. Others enter the picture, between flexibility and constancy, plurality and identity unity, the virtual and the material, the “here and now” and the incorporation in a history, etc. The inclusive/comprehensive education movement⁵ reflects, in particular, this demand for the alignment of education with today’s society.

In terms of tools and devices, globalization brings two direct influences to bear on the school, which need managing with the utmost vigilance (CONFEMEN, 2012).⁶

- The development of the information and communication technologies (ICT) in education.
- The development of international standardized tests.

The ICT

The virtual environment today transcends the geographical environment, or rather all the geographical environments of the various levels, mentioned above: the learners of today inhabit the virtual (Serres, 2011). ICTs were installed first in the educational establishments, then in the classrooms, and now in the learners’ school bags.

The question of ICT arises first and foremost, as one of social scope. “The broad questions on which UNESCO focuses as an expert and unbiased adviser, are: How can one use ICT to accelerate progress towards education for all and throughout life? How can ICT bring about a better balance between equity and excellence in education? How can ICT help reconcile universality and local specificity of knowledge? How can education prepare individuals and society to benefit from ICT that increasingly permeate all realms of life?”⁷

ICTs today go directly inside the learners’ school bags. For example, in Singapore and South Korea, textbooks and exercise books are on their way out of the school bags and being replaced by the electronic tablet.⁸

³ Education for All, see <http://www.unesco.org/new/fr/education/themes/leading-the-international-agenda/education-for-all/>

⁴ In this respect, the theme of the 17th Assembly of the AU, held in June 2011 in Malabo, is eloquent: “Accelerating Youth Empowerment for Sustainable Development”.

⁵ <http://www.ibe.unesco.org/fr/themes/themes-curriculaires/education-pour-linclusion.html>

⁶ CONFEMEN: Conference of Ministers of Education of French-Speaking Countries.

⁷ http://portal.unesco.org/ci/fr/ev.php-URL_ID=2929&URL_DO=DO_TOPIC&URL_SECTION=201.html

⁸ <http://www.extremetech.com/computing/88872-south-korea-to-digitize-all-school-textbooks-by-2015-provide-tablets-for-kids>

There is a major issue regarding the status of ICT. Are they seen as a commodity or as a universal language that each learner must henceforth master in the same way as a language of instruction? On this subject, the question of recourse to open-source software in the professional environment, as well as at school, is a crucial matter. The indications seem to be that this open-source software today is making a decisive breakthrough.

The emergence of a remarkable paradox in the devices for observing education systems

Another major influence is that of international standardized tests. Today, they are an integral part of the educational landscape in most countries. Are they friends or foes? The question increasingly deserves to be asked from a special point of view, that of analysing the resulting education systems.

Our epoch is not short of paradoxes. One of the most apparent is linked to the observation of education systems.

Historically speaking, let us recall that the late 1960s and early 1970s were marked by attempts to standardize curricula on an international scale, notably under pressure from the United States of America. While those attempts failed, they did lead to the introduction, as of the 1990s, of various standardized tests, regionally and then worldwide, particularly in the instance of the Organisation for Economic Cooperation and Development (OECD). Thus, it was the TIMSS and PIRLS⁹ and, more recently, PISA surveys¹⁰, that were established in order to obtain comparative measurements of international performances. The collection and the exploitation of data are based on the will and commitment of politicians to take the lead in the international competition (Périsset, 2008).

The elaboration of standards — a notion that is ill-defined and put to a great variety of uses regarding education, but, above all, characterized by a strong emphasis on educational outcomes rather than on the initial conditions and the process of learning — is part of this trend.

Were it not for the information gathered from international standardized tests, however, we would never have obtained so much information on the functioning of education systems today. Those tests have to be credited with producing, regarding comparative education, a host of useful data notably on the efficiency and equity of education systems. Nevertheless, these tests have their limitations of which we should be aware. Such standardized tests cannot be used to gauge whether learners are respectful of the environment, whether they can act in a manner of solidarity, whether they have acquired a taste for reading and physical exercise, and so on. We cannot gauge either their critical and complex thinking, nor can we gauge their performances on oral examinations.

The truth is that learners may be passed on the basis of replies to exercise-type tests but failed if given tests in the form of complex situations, and vice versa.

Standardization and relevance are hardly compatible since standardizing means reducing complexity through homogenization, whereas being relevant involves taking phenomena with all their complexity, and in a contextualized manner (Ardoino, 1993). Therefore, despite their merits and their contribution, these international standardized tests deprive, sometimes brutally, all the education systems of much of what makes them relevant.

In regards to methodology, reservations must be taken when these results are used as a basis for guiding education policies. As a matter of fact, the main research findings referred to in international reports, as well as the results mentioned below, are based on these international standardized tests because they today constitute the only source of information usable for this type of study. As interesting as these results may be, however, we must always bear in mind the limits of their validity.

⁹ Conducted by the IEA as of 1995 in mathematics and reading.

¹⁰ Carried out by the OECD as of 2000 in the areas of reading, mathematics and science.

The introduction of ICTs and massive arrival of international standardized tests are therefore two ingredients that seemingly must be taken into account if we wish to understand what the school has become today and what it will be tomorrow.

These two components are inextricably linked. In particular, we can only construe the development of competencies at school — the subject of this document — through the ICT filter and international standardized tests.

1.2. Competencies as a response to these challenges

The challenges facing the school are lacking in neither quantity nor intensity, both in policy terms (the alienating and liberating forces) and management of the standardized tools made available to it.

One of the major responses to these challenges is gradually redirecting the missions of the school: emphasizing learners' competencies and no longer just their knowledge. This focus on competencies is meant to equip learners to meet the demands of daily and professional life, and sometimes also its contradictions.

Recourse to competencies must, in particular, enable the learner to not only learn to use the tools and languages of today (ICT, international standardized tests), but also to master and question them.

Fundamentals needing to be strengthened¹¹

The school today and, even more so, that of tomorrow, will have the task of training all learners in the competencies and knowledge needed for thinking, acting, working, exercising their rights and fulfilling the duties of life, regardless of their place of birth or background of existence: competencies in languages (national and foreign), in mathematics, in scientific and technological culture, in artistic and sporting disciplines, in history and geography, in environmental and citizenship education, in religions, in the media, in economics and in law, and increasingly in socio-affective competencies. It is an ever increasing inventory but an essential one, calling for a treatment other than mere juxtaposition.

The transformations to be carried out suggest more than ever the need to develop a set of basic competencies in each learner in sufficient quantity and quality to ensure his or her incorporation into the socio-economic fabric and its potential ability to cope with change. This is, all the more so, since the standard of general education of youth increasingly conditions access to vocational education and training (Steedman & Verdier, 2010).

The fundamentals of the school are, therefore, more topical than ever -not in terms of pure knowledge, as today, with access to learning now open, the latter "is always and everywhere already given" (Serres, 2011) - but in terms of competencies, namely in terms of potential to act thoughtfully on the basis of this knowledge.

It is only in this twofold movement of alienation and emancipation that we can construe this desire to introduce competencies in school: of course to help young people find their place in socio-professional life, and to arm them so that they can steer clear of this twofold form of alienation consisting of profit-seeking at any cost and the terrorist temptation, through a critical perspective to be acquired in order to strengthen the emerging emancipatory movement referred to above. Only when tangible activities are undertaken, notably within the school, does the building of a more equitable world come into its own.

¹¹ CONFEMEN (2012)

1.3. The concept of competency: evolution and approaches

Historically speaking, it is the content-matter approach [l'approche par les contenus-matières] which long prevailed in education systems, and is still predominant in many places. There was a switch — in the 1970s — from the content-matter logic to an approach termed “teaching by objectives” [Pédagogie par Objectifs (PPO)], in which the operational and hence assessment concern became dominant. Instead of drafting curricula in accordance with what the teacher or trainer should teach, the “teaching by objectives” proposed drafting the curricula in accordance with what the learner should master, on the basis of a division into operational objectives.

Today, the vast majority of education systems agree on placing competencies at the heart of curricula. The very notion of competency, however, is far from being entirely stabilised. It is understood in several different ways and reflected through a certain number of variants in the curricula.

Let us try to identify today's major international trends in the introduction of competencies in the world of education, where they converge and where they differ, or are sometimes even in conflict.

The points of convergence

Whatever the various ways may be of envisaging the potential role of competencies in school curricula, there is general agreement on the following three proposals that can be regarded as their common denominators (Roegiers, 2010).

1. The content of education goes beyond knowledge and know-how.

While the school today has to cope with new knowledge and know-how following the natural evolution of knowledge, it is, above all, faced with the need to take into account new categories of content, such as life skills¹² or cross-cutting competencies. This evolution stems from the need for the school to address problem areas related to and influencing education: culture, employment, notably through the circulation of values, information, ideas and persons associated with them, implicitly assigning other functions to the school. Firstly, this circulation implies that the school is no longer regarded as the prime vector for the spreading of knowledge. It then presupposes the acquisition of a system of values based on human rights in addition to international rules of communication and behaviour in the educational world. These rules are essentially represented by life skills (notably encouraged by UNESCO, UNICEF and others), reflections of certain values inherent in the Western democratic countries and in their own way of thinking as societies: access to citizenship and practices linked to sustainable development in the domains of food, environmental friendliness, health, and so on.

The school is therefore induced to go beyond the disciplinary structure of education, which used to respond essentially to problem areas of content and knowledge. Today power no longer belongs to those who know, as it previously did, or even to those who seek, but to those who act- those who embark, who organize, who manage, and so on. Pure action no longer suffices today; a reflexive and critical analysis of actions and situations is also essential for meeting current challenges. The point is that the division into disciplines is no longer adapted to this logic of action.

¹² « Compétences de vie courante », « compétences pour la vie », « aptitudes de vie »...

2. It is the learner who is the actor of his or her learning processes.

Whatever learning theory we consider, research in the science of education shows how adequate learning processes depend essentially on the cognitive mobilization of the learner, in both quality and quantity. In other words, for a better quality education, learners must take an ever more active part in their learning processes as often as possible. This learner activity may take a great many forms: group work, online research, surveys, projects, and so on.

This issue is closely linked to another important concern, namely that of gradually altering the role of teachers in the classroom- making them play a mediation and accompaniment role vis-à-vis the activity of the learner, instead of transmitting a pure and simple knowledge of a hierarchical order in a way that causes learners to feel alienated from what they are learning.

3. Knowing how to act in situations is given prominence.

Today, the place that should be occupied by complex situations in learning processes is no longer questioned by many even if, according to different variants, the specialists of the competency-based approach propose different emphases and priorities when it comes to exploiting complex situations in the classroom.

Some see complex situations rather as the source of learning processes (situations of exploration, situations of research, didactic situations, etc.). Others situate them more as the culmination of learning, in which case they are situations of integration or “target situations”, namely problem situations which, to be solved, require in the learner’s mind the articulation of several resources (knowledge, know-how and life skills) in order to apply his or her learning processes with a view to practising a given competency. Still others insist on the role of complex situations as a means of assessing the learners (assessment situations). Nevertheless, all acknowledge that managing complexity becomes a fully fledged component of learning processes.

The differences

As for the differences, or even disagreements, existing among the variants of the competency-based approach, they can, above all, be explained with regard to two factors:

- The conception of the **exit profile** reflected in the curriculum, in relation to the end purpose of the education system; this profile stems from the policy guidelines of education, dictated themselves by the economic and social context, by the values to be promoted, and above all by social demand;
- The **contents** highlighted in the curriculum, and the various ways of regrouping them in disciplines and/or in disciplinary fields.

Some variations may indeed be explained by differing views of how to express a learner exit profile, depending on the values conveyed by the education system, and others by differing conceptions of what are the priority contents in education.

On the other hand, the **teaching-learning processes**, namely the educational methods used by the teacher, do very little to explain these various manners of conceiving the introduction of competencies in the curricula. Indeed — apart from some rare approaches such as the situational approach, which advocates the exploitation of complex situations for conducting the bulk of learning processes (Jonnaert, 2010) — increasingly, the present trend is to leave the teacher free to choose the educational practices for steering the learning processes, in whatever perspective the official curricula are drawn up. In other words, in each manner of bringing competencies into the classroom, we can find teachers who have recourse rather to socio-constructivist practices, to practices linked to teaching by objectives, to practices related to project-based learning, and even sometimes to transmission practices.

Let us detail the various conceptions of the exit profile and the main types of content. Our purpose is not to develop theoretical categorizations just for the sake of doing so, and still less to stigmatize the directions adopted by some education systems, but to show that they match empirical categorizations such as we see to be emerging today in education systems worldwide.

1. How to construe an exit profile, in relation to the end purposes of the education system

Three main conceptions coexist today within the education systems regarding how to express the learner's exit profile. These conceptions should be seen not as opposing one another but as being in tension, or even being complementary, in the curricula:

- A general profile, **in cultural and cognitive terms**, in which knowledge is prominent. This type of profile responds essentially to end purposes of maintaining and developing a culture. This is the profile traditionally conveyed by the school, particularly in the curricula of "Latin" tradition; it is no doubt still today the most widespread in general education, from basic education to higher and university education, where assessment tests are often still dominated by the reproduction of knowledge. What is above all given precedence in this view of the profile is the potential of the learner to "know how to think" in a cultural environment, to be preserved and enhanced, as witnessed, for example, by the major assessment test represented by the dissertation;
- A profile **in terms of standards**. These standards consist of a list of knowledge items, competencies and attitudes representing as many minimum objectives of mastery required for the purpose of recognition of achievements. This type of profile is particularly common in the Anglo-Saxon world; the term "standard", chosen to designate these minimum objectives, testifies beyond any possible doubt to a uniformity and harmonizing bid with employability in view; the learner is seen above all through his or her potential to "know how to respond" to the requirements of the economic world, in terms of the movement of persons and the enhancement of qualifications;
- A profile **in terms of families of complex situations** that the learner must be able to handle in a contextualized and personalized manner. This type of profile has long been present in certain career paths, the families of complex situations being linked to the professional tasks to be performed. In general education, this profile matches to the purposes of incorporating the learner in a constantly evolving socio-economic and cultural fabric and testifies to a desire to deconstruct that environment. These families of situations correspond to local and regional concerns alike, in addition to universal ones; the learner is seen above all through his or her potential to "know how to act" in a critical manner in an ever-changing environment.

How a profile is operationalized in a curriculum is decisive since it is what very directly prompts the type of tests underlying **certificate-based assessments**.

2. The contents

For the reasons stated above, the contents of the curricula have undergone considerable changes in recent decades. Nowadays, three major categories of contents are taken into account in the curricula:

- knowledge and know-how;
- “life skills” (“psycho-social and interpersonal skills used in everyday interactions”¹³), which contributes to “knowing how to live together in society”¹⁴ (education for citizenship, peace, tolerance, etc.);¹⁵ and
- capacities mobilized in all disciplines, often called “cross-cutting competencies”, or “cross-cutting capacities”: seeking information, processing information, communicating effectively, etc.

Depending on which content categories emphasis is placed, various arrangements of these contents will be prompted: the contents will be organized into disciplines if precedence is given to knowledge and know-how; emphasis placed on life skills tends to give rise to the establishment of new disciplines, often called “general training domains”; emphasis on cross-cutting competencies will favour interdisciplinarity, together with the regrouping of several disciplines into “disciplinary domains”¹⁶ or disciplinary fields.¹⁷

This list does not intend to be exhaustive or even homogeneous. Our purpose is not to propose a thoroughly explanatory model, but to explain operationally the main differences among several ways of conceiving the competency-based approach and how the competencies are reflected in the curricula.

The following schema presents the two factors referred to above, with their respective practices.

Priority contents	Priority exit profiles
Knowledge and know-how	General profile
Life skills	Profile in terms of standards
Cross-cutting capacities	Profile in terms of families of situations

¹³ UNICEF, Curriculum Report Card, Working paper series, April 2000

¹⁴ To echo inter alia the terms of UNESCO

¹⁵ (1) Interpersonal skills (cooperation and teamwork, active listening, non-verbal communication...), (2) skills for building self-awareness (self-assessment skills, positive thinking skills, skills for building self-image and body image, etc.), (3) values clarification skills (skills for understanding different – social beliefs, ethics, culture, gender, diversity and tolerance, skills for acting on discrimination and stereotypes, identifying and acting on rights, responsibilities and social justice, etc.), (4) decision-making skills (critical and creative thinking skills, skills for evaluating information, etc.), (5) coping and stress management skills (self-control skills, dealing with situations, etc.) (p. 21)

¹⁶ For example, the framework plan (French-speaking Switzerland) provides for three domains of general training: the relationship to oneself, the relationship to others, and the relationship to the world (Maradan, O., Présentation INRP Lyon, 21-22 May 2007).

¹⁷ We can give as an example the environmental study course, introduced in the first two years of lower secondary (collège) in the French Community of Belgium (Catholic education network) since the 1980s, and which offers the learner an approach involving research and analysis on problem areas situated both in time (history) and in space (geography).

These two entries may be combined in many ways. For example, the traditional approach favours a perspective of development of a general profile in which knowledge and know-how are dominant contents.

The first item of each column lies outside any competency concern, but the other four suggest four different and complementary conceptions of how to incorporate competencies in the curricula and in classroom practices.

The following schema presents these four options.

<i>Priority contents</i>		<i>Priority exit profiles</i>
Knowledge and know-how		General profile
1. Emphasis on life skills	<i>Four conceptions of the introduction of competencies in curricula</i>	3. Emphasis on profiles in terms of standards
2. Emphasis on cross-cutting capacities		4. Emphasis on profiles in terms of families of situations

Four conceptions of the introduction of competencies in curricula

As we have seen in the modelling proposed above, these four conceptions of the rightful role of competencies in the school curricula place *special emphasis* on one item of the table, but without excluding a possible contribution of the other features.

- Two of these conceptions place emphasis on a particular category of *contents*.
- Two of these conceptions place emphasis on a particular vision of the *exit profiles*.

The “United Nations” approach

Among the conceptions placing special emphasis on certain contents, we can cite the “United Nations” approach (UNDP, UNESCO, UNICEF, etc.). It insists mainly on “life skills” and “living together in society”, focused on the development of citizenship attitudes, environmental protection, and safeguarding of one’s health and that of others.

This approach is inclusive, from the angle of both learners and contents. With regard to learners, it seeks to reduce the factors of exclusion. In relation to contents, if the emphasis is on these special contents represented by “life skills”, the latter go hand in hand with the development of other contents, whether knowledge or know-how, or again the cross-cutting competencies. On the other hand, one of the stumbling blocks is that of assessing them because this would need to be done in an authentic situation, or at least a non-constrained situation, which is no easy matter in a school context, especially in one marked by mass expansion. We shall come back to this later.

In this approach the central concept is that of “life skill”.

The “interdisciplinarity” / cross-cutting capacities approach

The “interdisciplinarity” approach is also defined through a reflection on the priority contents. It nevertheless emphasizes another category of contents that the previous approach does not. The essential component in this is to develop a set of “generic competencies” of a methodological kind in order to better learn and “learn to learn”. These generic competencies are sometimes called “cross-cutting capacities”, if one emphasizes the fact that they are common to the various disciplines, or “key competencies”,¹⁸ if the emphasis is on the necessary intellectual proficiency to give the individual mobility and adaptation to a changing environment.

Without neglecting knowledge, know-how or life skills, this approach nevertheless affirms the importance of giving the learner cross-cutting cognitive and socio-emotional proficiency to handle the requirements of the various disciplines, or rather the various disciplinary fields — because the outlook is gradually to move beyond the division into disciplines — and thus, ensure better adaptation to the changes that society imposes on us. It does not rule out any type of profile, even if, for want of credible pointers for assessing achievement, the items assessed are in fact knowledge and know-how.

The central concepts are those of “cross-cutting capacity” and interdisciplinarity.

The standards approach

Other conceptions of competency differ rather in the emphasis placed on a certain type of learner exit profile. This is the case of the curriculum approach based on “standards”, focusing on the introduction — and assessment — of minimum know-how and competencies at each level, in a bid to harmonize learner profiles with a view toward employability, namely with respect to the professional and personal activities that learners may be called upon to perform. This approach is particularly developed in the Anglo-Saxon world, and disseminated worldwide by such structures as the Commonwealth or USAID.

Noteworthy in this respect is the European Qualifications Framework (EQF), the aim of which is to make training courses more legible for the user and the employer, and to enable education and training operators to situate their offer at both the national and the European level by defining “learning outcomes”. This European Qualifications Framework is partly situated in the standards approach inasmuch as the learning outcomes are not solely expressed in terms of specific resources or competencies deemed immediately profitable by the employer,¹⁹ but also in terms of competencies that are all-important when it comes to enabling learners to take a full part in an education and training process throughout life.

The standards approach is an inclusive approach from the point of view of contents, in that it describes exit profiles while neither excluding any content *a priori*, nor ruling out the other types of exit profile (general profile, profile in terms of families of situations), provided that the expected standards are attained. On the other hand, this inclusion is less evident from the point of view of the learners since, by encouraging a culture of normality, it excludes those not mastering the standards, notably those who, owing to a deficit of sensorimotor or mental competencies, find it harder to enter the job market.

The central concept is that of standard.

¹⁸ As we see in some texts of the European Union.

¹⁹ As in the approaches advanced in North America.

The approach by integration of achievements and the terminal competencies

A fourth approach that can be described as inclusive marks a break with the standards approach. It does not entirely reject standards, which it considers useful at certain levels of training, but it gives a different definition to educational goals. For this approach — which is often called “basic competencies approach”, or again “integration pedagogy” (De Ketele, 1989; 1996; 2006; Roegiers, 2000; 2010; 2011) — it is essential to give each learner the cognitive, gestural and emotional capability, enabling him or her to act concretely in complex situations as a responsible citizen. One of the basic features of this approach is the fact that it is contextualized, namely that there is no normative bid to standardize the contents of these families of situations (Miled, 2002, 2005). Each education system defines a set of situations in the face of which it considers that the learners must be able to cope with the purpose of their training. These situations match its context, its values and the challenges facing it locally, regionally or internationally; they are thus situated in what Bravslavsky (2001) and Operti (2007) call a “glocal” perspective, given that they respond as much to local as to regional or universal concerns.

The central concept is that of “basic competency”, or “terminal competency”. These competencies describe an exit profile sought at each level of education with a view toward the incorporation of young people in society, their involvement in professional activities, or the pursuit of their studies.

This approach is also inclusive. To begin with, all types of content — knowledge, know-how, life skills, cross-cutting competencies — are necessary to enable the learner to resolve complex situations. These contents are regarded as resources for the benefit of competencies.

A certain idea of the notion of competency

These four approaches reflect different conceptions of the notion of competency, schematized in the following table, with an example each time.

	Focusing on an adequate response to a request	Focusing on the management of complex situations
General quality, hard to assess	1. “Keeping one’s office clean” <i>Favoured by the life skills approach</i>	3. “Taking care to protect one’s natural environment” <i>Favoured by the cross-cutting competency-based approach</i>
Knowing how to act, assessable	2. “Putting waste paper and plastic in the right bin” <i>Favoured by the standards approach</i>	4. “In a given situation, proposing a set of measures to protect an ecosystem” <i>Favoured by the terminal competencies and the situations of integration</i>

1.4. Background to the development of competencies in the academic world

Historically speaking, and taking into account the set of factors developed above, we can model the developments of how competencies are acknowledged in school curricula as follows.²⁰

The developments having been slightly different in the Anglo-Saxon world and its sphere of influence, on the one hand, and in the “Latin” world on the other (French-speaking, Spanish-speaking, Portuguese-speaking, Italian-speaking, etc.). The following table attempts to show the points of convergence and divergence of these two spaces.

<i>Past developments</i>					<i>Probable developments</i>	
<i>Years 1960 - 1970</i>		<i>Years 1980 to 2015</i>			<i>As of 2015</i>	
		Professional standards	Cognitive and psycho-social standards			
Contents	TBO (teaching by objectives)		Life skills	Learning outcomes	Incorporation of the emotional dimension	International standards in comprehensive terms
		CBA ²¹ based on cross-cutting competencies	CBA based on the integration of terminal gains/competencies			

Legend

Developments within the English-speaking space
Developments within the Latin space
Itinerary common to both spaces

	Emphasis on contents
	Emphasis on results
	Emphasis on the significance and complexity of learning processes
	Emphasis on life skills
	Emphasis on the holistic character of education

These are of course general trends sometimes overruled by particular curriculum developments in some countries.

We can see in particular in what the emphasis on results is, on the one hand, a powerful trend, not set to become less dim, and in what this emphasis on results stabilized earlier in the English-speaking world. For the “Latin” world was crossed by a marked current of production of meaning before placing greater emphasis on the results of education.

We can also see how the holistic dimension of education is a concern common to both spaces in terms of perspectives, even if this dimension is far from being a reality in most cases.

²⁰ There exist very few diachronic readings of the development of curricula, particularly when the diachronic perspective interacts with a cultural, geographical or even geostrategic dimension.

²¹ CBA = competency-based approach

1.5. Contribution of the competency-based approach in regard to learning achievements

How can we gauge the effects of the introduction of competencies in the curricula?

Let us mention two types of effects²²:

- effects of a general kind caused by the manner in which the programmes are designed;
- effects brought about more specifically by the introduction of each of the competencies conceptions referred to above.

How the curricula are designed

Two factors seem to have an influence: how operational a programme is and the centralized or decentralized character of its design.

- Concerning the first factor, namely the level of functionality of the programmes, are programmes with objectives, defined globally at the central level, but that local stakeholders (local authorities or establishments) reflect in the form of detailed programmes which seem to give good results in terms of efficacy. This is why curricula focusing on generic competencies have produced mixed results.

This gain in efficacy, nevertheless, has another side to it: in the Anglo-Saxon countries, more sensitive to any impairment of educational standards, we can observe a professional “mutation” in the sense that teachers traditionally termed “*democratic*”, mindful of a personalized education of their learners, become “*managerial teachers*”, careful to see that their “clients” achieve the standard imposed by politics and economics (Maroy, 2008), going about it in an entirely “professional” manner, namely the satisfaction — in the short term — of the client (Le Boterf, 2006).

- Concerning the second factor, the research results seem to show that both a conception of curricula entirely devised at the central level and a conception left to the appreciation of local authorities has an adverse effect on the global performances of learners (efficiency) (Mons, 2007). On the other hand, a conception of curricula developed at the central level, but with a large measure of independence for schools, assists the global performances of learners.

With respect to equity, a conception of curricula entirely devised at the central level enables educational inequalities of a social kind to be limited, whereas practices giving the local authorities more leeway tend to make the system less equitable.

It, therefore, transpires that the two most common practices seemingly oppose efficacy and equity: the unitary curricula reportedly have a positive effect on social inequalities among learners (equity), but are weaker in terms of global learner performances (efficiency). Conversely, the curricula with common “objectives” are said to be more effective in terms of global performances, but at the expense of increasing social inequalities.

There is, consequently, a choice of values to be advanced at the outset between efficacy and equity. This choice is an apparently contradictory choice between maximizing the talent of each learner and the principle of equal opportunities (Duru-Bellat & Bydanova, 2011).

This apparent opposition needs tempering with two considerations.

On the one hand, the increase in equity helps to make a system more efficient. So really there is a third choice, which is that of developing efficacy while developing equity. It is generally recognized that the fact of attaining a good standard does not mean having to increase the disparity among learners. On the contrary, the best way for a country to raise the standard of learners is to improve equity (Duru-Bellat & Bydanova, 2011). Furthermore, certain devices make it possible to increase both efficacy and equity.

²² CONFEMEN (2012)

We can cite:

- in terms of education policies, schemes involving close collaboration between the central and the decentralized level (as in Finland);
- in terms of curricula, the approach by situations of incorporation and terminal competencies.

The method adopted regarding the competency-based approach

Among the characteristics documented in the international surveys, the philosophy of the curriculum approach is scarcely or not at all present, probably because it is hard to characterize in terms of objective indicators, and hence not really lending itself to an analysis of the type permitted by such tests as PISA.

More generally speaking, it has been investigated very little in the relevant literature. We know the shortcomings of an approach essentially centred on contents, as for example the danger of scholasticism (Meirieu, 2001): a purely declarative knowledge, a formal knowledge on things and the world usable only as a means of “distinction”, distinguishing oneself in the examination, in society, exhibiting oneself by showing what one knows. The same applies to the threat of what Paulo Freire calls “banking pedagogy”,²³ a commodity education where the learner learns only in order to “render” to the teacher, on the day of the examination, a sterile knowledge of no concern to him or her.

But do we know the effects produced by the other approaches? What type of effects does “teaching by objectives” produce on education systems? What does a standards approach produce? What is the product of a curriculum approach based on cross-cutting competencies? What does an approach focusing on the incorporation of achievements produce? These inquiries must be conducted in the light of a larger number of criteria than efficacy and equity since, above all, **relevance** must be questioned.

Relevance embraces several aspects. It refers, first of all, to the question of contextualizing the curricula (Miled, 2011) with regard to both their design and to their introduction by the various stakeholders: teachers, school principals, regional education officials, and so on. It challenges, in particular, the end purposes of education in a given context, and the link that the latter maintains with the needs of life in society, together with the needs linked to the job market and its possible changes. Relevance is also linked to the notion of common good in education (Barroso, 2000). It finally questions the type of activity of the learners: around piecemeal contents and objectives, or around complex situations? The main issue today seems to be that of articulating the complex and the concrete in the curricula.

Any curriculum approach may indeed be defined by two basic characteristics:

- it may rest upon complex statements (e.g. statements of competencies), or on the contrary piecemeal, fragmented statement (e.g. statements of operational objectives);
- it may rest upon a concern regarding teaching-learning processes and considering that assessment is a by-product, or on the contrary it may take the view the assessable character of the statements must be taken into account before anything else.

²³ Freire, Paulo. *Pedagogy of the Oppressed*, 30th Anniversary ed. New York: Continuum, 2006.

It seems today that the following conclusions can be inferred:

- the complex character of the statements upon which a curriculum rests secures its relevance, particularly since these statements are contextualized; conversely, statements which are either standardized or split up lack relevance; this is why it is generally agreed to recognize this contribution of relevance linked to the introduction of competencies in the curricula;
- the concrete, assessable character of the statements underlying a curriculum (e.g. the programmes with objectives mentioned above) influences above all the efficacy of the learning processes.

The following table synthesizes these observations.

	<i>Learning processes are based on piecemeal statements barely contextualized</i> Low relevance	<i>Learning processes are based on contextualized complex statements</i> Marked relevance
<i>Reflection is based from the outset on the teaching-learning process.</i> Low efficacy	<ul style="list-style-type: none"> • Approach by contents • ... 	<ul style="list-style-type: none"> • Approach based on cross-cutting competencies • ...
<i>Reflection stems from assessment (the statements are assessable)</i> Marked efficacy	<ul style="list-style-type: none"> • Teaching by objectives • Approach by standards • ... 	<ul style="list-style-type: none"> • Approach based on the incorporation of achievements • ...

This table shows how an approach based on the incorporation of achievements leads to positive effects, both in terms of relevance and efficacy (Sebaganwa, 2013).

We can add to this table the dimension of equity, depending more on the role of the State: more equity for a strong regulatory role on the part of the State, for example through the introduction of a system of collaboration; less equity in the case of decentralization not supervised by the State.

In addition, certain recent works show in what respect the fact of assessing achievement through complex-type tests increases equity still further (Rey, Carette, Defrance & Kahn, 2003; Letor & Vandenberghe, 2003). While we could already link efficacy and equity — one can improve efficacy by improving equity — these results enable us to link relevance and equity: in some cases — when working on complex, contextualized and assessable statements — we increase both relevance and equity, together with efficacy (Roegiers, 2007). Needless to say, using this type of complex test necessitates an appropriate teaching/learning process.

Also noteworthy is the action of the multilateral agencies which, with the introduction of “life skills”, have helped improve the relevance of education. On the other hand, regarding efficacy, we can question the effects brought about in some developing countries by the introduction of “life skills” in the curricula, in a context where, in the vast majority of these countries, financing of the extension of the mandate of teachers has not been achieved effectively. A twofold phenomenon seems to have operated. First of all, these “life skills” learning processes have very often been placed side by side rather than articulated with the basic learning processes. Furthermore, to prompt the introduction of these life skills in the classroom, it has often been accompanied by the distribution of an allowance

to teachers who developed them in the classroom. It seems that the conjunction of these two factors has sometimes unwittingly contributed to diverting the school from its basic learning functions. We must therefore be cautious when introducing an innovation in a public education context, and we must study its effects in terms of the global efficacy of learning achievements. In particular, we can say that the relevance of the life skills is not questioned, but rather the place they too often occupy in the curricula in a juxtaposed and not integrated manner.

1.6. Contribution of competencies in a comprehensive curriculum vision

These various approaches all try to develop certain aspects of a curriculum, whether they are individual dimensions linked to the learner (the cognitive, sensorimotor, psycho-emotional and other dimensions), the dimensions linked to learning processes within a class group (the meaningful dimension of learning processes, acknowledgement of complexity in learning experience, etc.) or collective dimensions linked to an education system (respect for values, efficiency of the system, equity of the system, relevance of the curricula, employability, effectiveness of the system, etc.).

These concerns pertain mostly to what is increasingly termed a “comprehensive curriculum vision” (IBE-UNESCO), which attempts to link these various aspects.

The term “comprehensive” refers notably to the *comprehensive schools* in the United Kingdom, which are multipurpose establishments ensuring continuity between primary and secondary and which are open to all categories of learners.

This comprehensive curriculum vision comprises three essential facets:

1. An inclusive education

The inclusive character is linked to the concern not to close the door on any category of learners in the schooling process and to combat educational exclusion:

“Inclusive education is a growing universal concern that informs and challenges the processes of educational reform in both developing and developed regions. Inclusive education is also an evolving concept useful to guide strategies of educational change addressing the sources and consequences of exclusion within the holistic framework of the EFA goals and the understanding of education as a human right” (Opertti & Belalcázar, 2008, p. 151).

This inclusive character responds essentially to a desire for social justice, to guarantee **more equity**.

2. A holistic education

The comprehensive curriculum vision seeks to develop the various facets of education, and not just those of a cognitive nature. It seeks to take into account the major societal challenges of today. Within educational establishments, its aim is to promote democratic relations with a citizenship perspective.

This holistic character responds to a desire to make all stakeholders more responsible, starting with the learners. It seeks to introduce **more relevance** within the school curricula.

3. A desire to articulate the various dimensions of the curriculum

There is also this notion of a global curriculum that does not split up the contents but considers them in an articulated way. This articulation also applies to the various components of the curriculum: the educational programmes, the organization of learning processes, the forms of assessment of the learners’ achievements, textbooks, teacher training, and so on.

The comprehensive curriculum vision seeks to make the various components consistent with one another. This coherent character is aimed at **greater efficacy** within the curricula.

We therefore find, in the comprehensive approach, these three pillars of any curriculum and any innovation: relevance, efficacy and equity.

2. Competencies under a magnifying glass

2.1. Conceptualizing competency and modelling its various acceptations

Clarifying terminology for functional rather than theoretical purposes

There are many forms of categorizing competencies, resting more or less on sound bases: cross-cutting competencies, organizational competencies, functional competencies, psycho-emotional competencies, basic competencies, disciplinary competencies, essential competencies and so on, with a great number of adjectives to label them.

It is not the adjectives that are important. What matters is having a good conceptual entry for categorizing them, in accordance with an objective pursued. Just as the purpose of this document is to clarify a certain number of aspects having to do with assessing a competency in the school setting, the conceptual framework will be set to advance with a view toward this objective.

Two clarifications

Two clarifications need formulating right away.

1. First of all, when we refer to competency, we put ourselves in the place of the learner: competency denotes something the learner must master. It therefore does not reflect what the teacher must do: “Prompting awareness of the various literary currents” is an action of the teacher, which says nothing about what the learner should be able to do with these literary currents.

2. Nor does a competency refer to an activity carried out by the learner in the course of learning: “Going off to discover one’s environment” is not a competency, any more than “Discovering second-degree functions”. A competency denotes a quality acquired by the learner, a potential for reflection and action that he or she keeps and maintains.

Multiples usages

To guarantee uniformity in statements of competencies, it nevertheless does not suffice to be able to call upon a statement formulated from the point of view of the learner and which represents a quality that he or she can reinvest. Above and beyond this twofold minimum condition, there still exist differences of conception of a competency. In a document, should we worry about finding a mix of various conceptions of a competency? It is unimportant when we are just talking about intentions, at the level of an education policy. It does not matter if, in a policy paper, we find side by side the two statements “Learners must be able to express themselves easily in the second language” and “Learners must be self-reliant”. But when the aim is to implant learning processes on these statements and assess them, namely when it is a matter of switching to classroom practice, the function of each statement needs identifying.

Let us illustrate this idea with an example, that of the “key competencies” of the European Union.²⁴ They work out as follows:

1. communication in the mother tongue;
2. communication in foreign languages;
3. competency in maths and basic competencies in science and technology;
4. digital competency;
5. learning to learn;
6. social and civic competencies;
7. the spirit of initiative and enterprise; and
8. cultural sensitivity and expression.

As general guidelines, we can readily see from this list what Europe wants to promote. But in terms of implementation in a training course, we soon realize that this list is mixed:

- Some are competencies to be mastered upon completion of studies (basic competencies in science and technology, etc.), and others mention activities to be developed in the course of learning processes or even contents (cultural sensitivity and expression, etc.);
- Some are competencies serving educational learning processes (communication in the mother tongue, digital competency, etc.), and others are not (the spirit of initiative and enterprise, etc.);
- Some are assessable competencies (communication in the mother tongue and in foreign languages, etc.), while others are much less so (learning to learn, etc.).

The term “competency” is therefore not used in the same way in the eight statements, which obliges the teacher or instructor to translate them into “pedagogical” terms to be able to do something with them in the learning processes and in the assessment.

Modelling

Whatever the conception to which one resorts, the latter is a potential of the individual to act in a certain way, in an adequate manner, one might say.

Using this rationale, we can identify several categories or levels of competency, according to how accurately it is wished to qualify this potential for action. This potential may be very general, for instance, when we talk about “seeing” or “communicating”. On the contrary it may be more operational when we associate it with certain situations of everyday or professional life, like “driving a car”, “looking for information on the Internet” or “managing the work of a team”. In the school setting, this potential for action may rest upon certain educational contents (disciplinary or otherwise), like the ability to solve a mathematical problem requiring a delimitation of the mathematical tools needed for its solution, or on the contrary be disconnected from any educational content, like collaboration competency or the ability to manage one’s emotions.

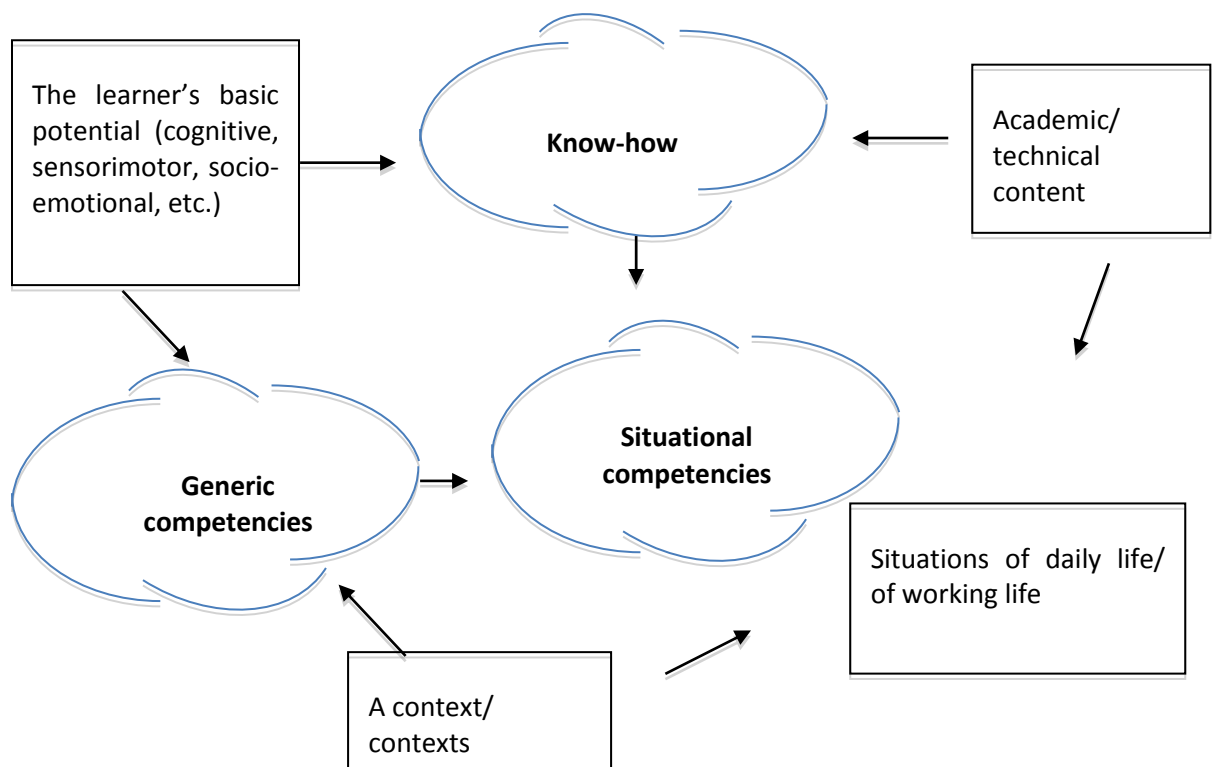
²⁴ http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11090_fr.htm

On this basis, three categories of competencies can be put forward:

- **competency = potential to act + educational/technical content:** this involves cognitive, gestural and technical **know-how** (in technical or professional training), such as recognizing a triangle, comparing two modes of germination, fitting a door frame, etc.
- **competency = potential to act + context:** what are involved here are **generic competencies**- the competency of being open, assertive and creative, of seeking information, of paying attention to detail, of having scientific rigour, etc. They are not linked to a particular content but rather they are meaningful only if they are connected with contexts. Being open in the domain of art has little to do with being open to the intercultural relationship; one can be very open in the workplace, but have difficulty communicating in the family with one's teenage children. This category of competencies is above all developed in the Anglo-Saxon literature.
- **competency = potential to act + educational/technical content + situation:** these are **situational competencies**, which are only meaningful if characterized by a family of situations to be handled, this family of situations being delimited by a set of contents supposedly acquired by the learner and that he or she must reinvest in situations. These situations ("integration situations") also present certain characteristics and a certain dosage: complicated enough but not too complicated, complex enough but not too complex. It is this conception of competency that is conveyed today in the writings of the main French-speaking authors (Paquay, De Ketele, Tardif, Rey, Le Boterf, Perrenoud, Beckers, Roegiers, et al.).

Only the competencies of this final category permit a power of action with a certain breadth and a certain depth: forms of know-how are limited and are often a matter for the executant, while the generic competencies are general and only permit action if they have themselves been activated by the learner in varied contexts.

The following diagram reflects this modelling.



In terms of learning processes, this modelling suggests two main courses of action:

- either begin by installing contents and then gradually associating with them some generic competencies to make these contexts “live” in the situation concerned; this is rather the logic of the approach via integration situations;
- or emphasize the deployment of generic competencies by the learners, and gradually implant academic contents in this compost that will have been prepared but not fertilized; this is rather the logic of the “life skills”.

What must be avoided at all costs in a comprehensive logic is to divide up the contents and know-how, on the one hand, and generic competencies on the other.

Is it better to begin by installing the contents and then associating generic competencies with them, or to begin by focusing on generic competencies and, in a second phase, associating academic contents with them?

This is perhaps a notional question, what with the numerous and substantial interactions between the two, but which nevertheless deserves to be asked because it is fundamental for the type of learning given prominence among the learners, particularly within systems subjected to mass expansion such as in the public education systems.

From the point of view of the production of sense, it is better to begin with what makes sense, namely the work on generic competencies since they are what bring the contents to life.

But from the point of view of assessment and the efficiency of learning processes, it seems to be better to begin by installing the contents because, in the academic framework in any case, it is extremely difficult to assess something not resting upon educational content.

2.2. Competencies of various kinds

According to the potential expected, but also the content to be treated, the type of situations in which the learner is invited to reinvest what he or she has achieved, all these categories may have a sensorimotor (sensorial perception and movement), cognitive (thinking, knowledge) or psychosocial/socio-emotional (life skills, attitudes) dominant one. A competency is seldom a pure cognitive, socio-emotional or other competency, but it is often possible to pinpoint a dominant one.

2.3. Competency and skill

We do not switch directly from a set of elementary resources (knowledge, know-how, etc.) to a competency. All this is a bit theoretical. In the hotel sector, between the micro know-how “Putting a fork in the right place beside a plate” — which is of the order of the elementary gesture — and situational competency “Providing the dining room service for a four-course meal and a score of customers” — which is of the order of knowing how to act after careful consideration — there is a set of levels of know-how matching as many intermediate levels as these two mentioned. These are various levels of professional know-how.

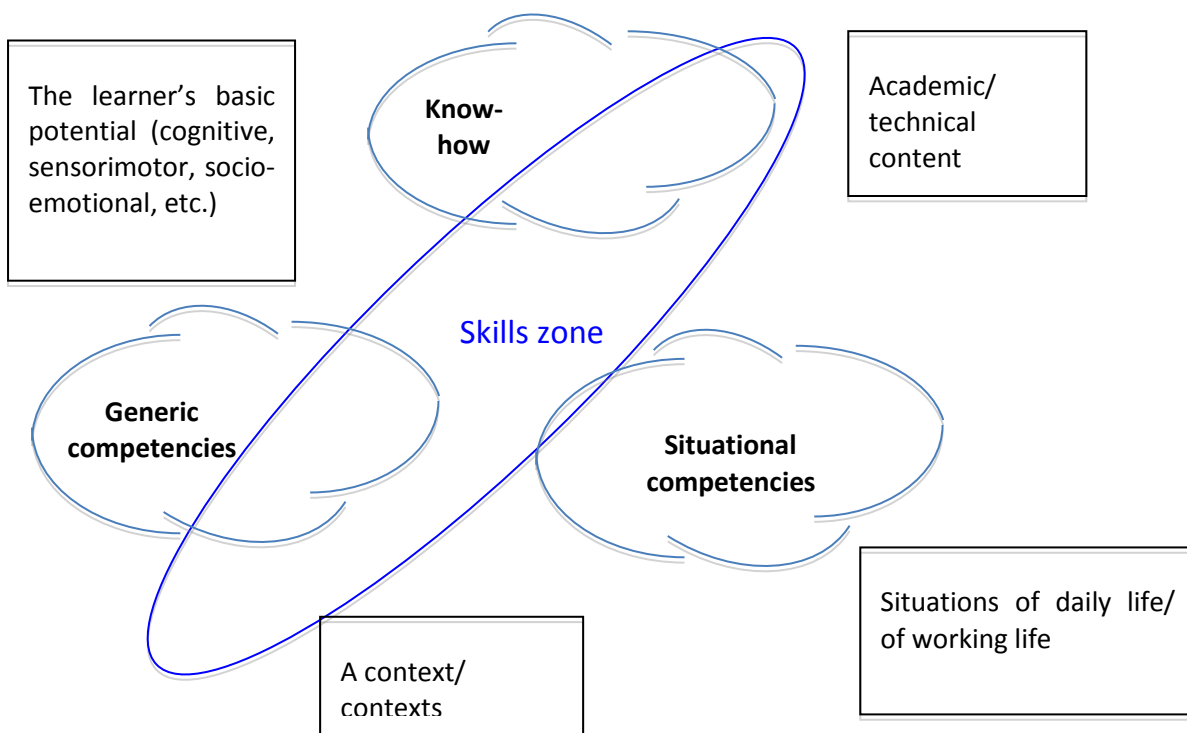
These intermediate levels pertain both to a certain level of contextualization and to a level of combination of know-how types: they are the two ingredients of complexity. For example, the professional know-how “Taking orders” requires a high degree of contextualization rather than recourse to a combination of elaborated kinds of know-how, whereas the professional know-how “Putting in place and clearing tables” will be more directed towards a combination of technical gestures and less concerned with the context.

It is at this level that the “skills” appear and, more generally, the standards: these are all know-how types more complex than an elementary know-how, but which do not have the level of complexity of a situational competency.

Stages of competency? Professional know-how? Standards? It all depends on one’s point of view adopted. If we assume the point of view of the learner who gradually constructs and organizes his or her resources, we shall talk rather of “know-how in a situation”. If we take the point of view of the educator planning and organizing his or her learning processes, “stage of competency” will be the more likely choice. From the point of view of the serving professional, the choice will be such a term as “professional know-how”. The politician seeking to establish equivalences in levels of qualification will instead use a term like “standard”.

The term used matters little. What is important, on the other hand, is the precise targeting of the level of complexity sought.

We can position the notion of “skill” on the diagram previously proposed as follows.



If, in the notion of “skill”, there is this desire to take into account the action of learners in their environment (cognitive act, technical act, civic act, etc.), it is limited to the use of a specific set of resources known to the learner. There is not this dimension of treatment of a complex situation (integration situation) enlisting a set of acquired resources to be identified and mobilized by the learner.

This notion there significantly overlaps with the zone of know-how and generic competencies, but they are situated short of the situational competencies zone.

2.4. Generic competencies

Among the three clouds mentioned in the above diagrams, it is probably the “generic competencies” cloud which is the hardest to define because of their less tangible character than that of the others, since they are not linked to academic or technical contents.

What are generic competencies? We have seen that they are qualities (capacities) linked more to the personality of the person (the learner) and to the types of context. They are nevertheless not bound with particular situations or specific tasks: this what makes their character “generic”.

How they are described varies very considerably from one country to another:

“‘key competencies’, ‘soft skills’, or ‘employability skills’ (Australia); ‘key skills’ or ‘core skills’ (United Kingdom); ‘essential skills’ (New Zealand); and ‘necessary skills’, ‘employability skills’ or ‘workplace know-how’ (United States)” (Clayton, Blom, Meyers & Bateman (2003), p. 15).

On the Asian continent the concept of “generic competencies” often overlaps with that of “key competencies”.

One of the fundamental features of “generic competencies” lies in their cross-cutting character:²⁵ they transcend disciplines and, hence, are not associated with disciplinary situations or specific tasks.

Adaptive competencies

Another of their characteristics is to develop throughout life. It is permanently that one becomes more or less curious, more or less assertive, and more or less creative. The generic competencies, like the spirit of analysis, the spirit of synthesis, the sense of observation, the sense of detail, etc., develop with age, but, above all, they develop in contact with a variety of stimulations and interactions between individuals and their environment. This evolution generally moves toward a better mastery of generic competencies, but that may also turn around for physical and physiological reasons, particularly in the case of generic competencies with a sensorial (listening, observing, etc.), motor (precision of gesture, etc.) or cognitive (memorizing, etc.) dimension for which ageing plays a part. The motivational dimension is also involved and may affect these generic competencies, just as it may affect others — notably those of a socio-emotional kind — linked to the history of the individual (such as a personal event affecting initiative, stress management, managing change, discretion, etc.).

This twofold cross-cutting and labile character makes generic competencies very hard to assess. We shall come back to this later.

Many authors have tried to categorize generic competencies: organizational competencies (e.g. leadership), socio-emotional competencies (e.g. team spirit), psycho-emotional competencies (e.g. self-confidence), functional competencies (using the computer tool), and so on. All these categories are taken into account in the framework of professional activity, for recruiting and assessing staff.

In the school context, the quest is not to categorize these competencies but, above all, to show the role they play in learning processes. For instance, there is a list of nine generic competencies interfacing with disciplinary learning objectives in mathematics, which are the subject of a study in Hong Kong, namely collaboration skills, communication skills, creativity, critical thinking skills, information technology skills, numeracy skills, problem-solving skills, self-management skills and study skills (Leung, K.C., Leung, F. K. S., Zuo, H., 2013).

²⁵ Cross-cutting competencies

South Korea, for its part, has introduced in the curricula “The Vision for the Educated Person”. It reflects “the vision of a ‘global creative person’ who should possess key competencies such as self-respect and self-understanding, communication, creativity, logic, problem-solving, citizenship, cultural sensitivity, and leadership” (Keunhoo, 2014, p. 3).

A capital for action

Generic competencies are not just a theoretical capital that individuals possess, but a capital they can mobilize that is linked to action, as can be seen from the translation of OECD competencies in Japan, emphasizing the power to “use a capacity”, to link it with a context: the capacity to “take advantage of knowledge and information” (知識や情報を活用する能力), to “take advantage of technology” (テクノロジーを活用する能力), etc.²⁶ A generic competency is therefore meaningless unless it prepares action and draws sustenance from it. We find this idea in the capacity to “contribute” (New Zealand) (Xin Tao, Jiang Yu & Liu Xia, 2013), which pushes further than the capacity to “participate”, because it is action-oriented.

Three dominant dimensions of generic competencies can be identified:

- the *cognitive* dimension, concerning the competencies which cover to a great extent the cognitive aspects of a learning process; these are competencies which prolong the cognitive operations of taxonomies like that of Bloom (1969) or that of D’Hainaut (1977) (such as problem-solving skills, critical thinking skills, logic, etc.);
- the *methodological* dimension, concerning the competencies that cover the operational aspects of a learning process (e.g. information technology skills, learning to learn, motivation, study skills, self-management, planning and organizing, managing one’s time, etc.). They are given a good deal of prominence in training because they are mostly linked to the “job of the learner”;
- the *socio-emotional* dimension, concerning the competencies that cover the socio-emotional aspects of a learning process: collaboration skills, communication skills, creativity, citizenship, and so on.

These three dimensions are nevertheless closely interconnected, and looking for a precise categorization is not only pointless (one cannot see the effect such a type of categorization could have on the quality of learning processes), but also practically impossible to accomplish. One must therefore give up any idea of classifying them, since this involves forming exhaustive and mutually exclusive categories.

2.5. Socio-emotional competencies and emotional education: a new challenge for teaching

Among these three dimensions generally associated with generic competencies, the methodological dimension has been the subject of much research, notably in its “learning to learn” aspect. In some education circles, it even became a fully-fledged paradigm in the 2000s.

Was it just a passing fad or a response to a real need? It is hard to rule on that. Today another dimension seems to grab the attention of a number of researchers and stakeholders on account of the responses it may provide for the ills suffered not just by the school but by our entire present-day society: socio-emotional competencies and emotional education.

²⁶ http://www.mext.go.jp/b_menu/shingi/chukyo/chukyo3/004/siryo/05111603/004.htm

“Everyone has the right to education. [...] Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.”²⁷

The Universal Declaration of Human Rights aims to have public education offer the basis of an education for peace and respect for fellow beings, beginning with self-respect. Even though it is not recent, it has had a broad impact in recent years, particularly through the promotion of human rights within education systems.²⁸

Instruction, teaching and education

For decades, there was a strong temptation to reduce education to instruction:

“Today, what is defined as ‘education’ is very often [confused] with teaching. Teaching is almost solely directed to the intellectual and sensitive abilities. It is only a mental transmission designed to increase the amount of knowledge or to influence opinions. This kind of teaching has become the only purpose of school, whereas one can guess that family is in charge of the building of the character, including feelings, emotions, habits and inner attitudes.”²⁹

The content of curricula (knowledge) occupies almost the entire field of the school, invading much of the relations between teachers and parents. The need to accumulate a large amount of knowledge to progress in the school system is central. This is the logic of knowledge. It prevails almost everywhere in the world.³⁰

At school, teaching aims to bring learners to know, but not or very little to know themselves or to live and create together. The result is a split between thinking, on the one hand, and action and sensitivity on the other.

Traditional education tends to prioritize the function of thinking and to condition learners to situate themselves exclusively in the outside world alone. In a way, they remain alien to the inner world of their emotions, of their sensitivities and of their needs, disregarding the essential pointers on the basis of which they could unleash both the creativity and the relational aptitudes that life requires of them (Morin, 1999).

Strong hypotheses are at present emerging in this respect, according to which the shortcomings of the school on the emotional side help to feed an acknowledgement of failure in a good many education systems around the world, despite efforts made. This phenomenon is said to be amplified by the fact that the family is seldom in a position to complete the theoretical education given by the school with an emotional education: at once in terms of socio-cultural (“This is unusual where I come from”), socio-emotional (“I don’t know how to set about this as a parent”) and/or socio-economic conditions (“I cannot afford a therapist”). This shortcoming allegedly makes it harder for young people leaving the system to enter into their economic and social lives and lend meaning to their actions. They are apparently all too ready to immerse themselves in a pervading discontent or in derivatives presented as purveyors of happiness, whether it be in excessive materialism, violence, addictions or other chimera adopted as palliatives for what ought to be a multidimensional education.

²⁷ Universal Declaration of Human Rights, adopted by the General Assembly of the United Nations on 10 December 1948, Article 26.

²⁸ UNESCO (2012). *Human Rights Education in Primary and Secondary School Systems: A Self-assessment Guide for Governments*. United Nations, Office of the High Commissioner for Human Rights.

²⁹ Weil (2002), p. 20.

³⁰ The European Commission, through the works of Jacques Delors, of whom an international report was addressed to UNESCO in 1996, upholds an education resting upon four pillars: learning to know, learning to do, learning to live together, and learning to be. We place ourselves here at the level of the third and fourth pillars. See in this connection the site <http://www.ecolechangerdecap.net/spip.php?article357>

*“Perhaps the starkest examples of the alleged irrelevance pertain to [...] youths’ multiple disengagement and sometimes even displacement vis-à-vis employment, work and society”.*³¹

Yet, since 1995, scientists have been in agreement on the principle of emotional intelligence. This principle, updated by Goleman (2006), shows that, by accepting one’s emotions, one can develop a new intelligence.³² emotional intelligence, following the works of Gardner (1983; 2006). This emotional intelligence opens the way to the socio-emotional competencies. Individuals with high emotional intelligence seem better armed to brave conflicts, develop their creativity, innovate and influence their environment positively. Hence researchers asked themselves how they could accompany the development of this intelligence. Is it possible to increase one’s emotional intelligence and, if so, how? Can the school have a part to play? How can teachers be accompanied in conducting educational sequences for increasing the emotional intelligence of their learners? The field of emotional education is born.

What kind of society do we want?

Ken Wilber, a philosopher and psychologist,³³ proposes putting education and sustainable development back into a coherent whole and enhancing its significance. He develops an integral model of reality named AQAL in which inner reality and exterior reality, together with personal and collective realities, are four complementary fields of experience (Wilber, 2008).

For Michel Claeys Bouuaert, it is emotional education that engenders the socio-emotional competencies. These competencies represent the capacity of individuals to be at peace with themselves and to remain emotionally balanced, conscious of their emotions without letting themselves be carried away by them.

The socio-emotional competencies : new competencies for a new society

Individuals unaware of their emotional experience often cling to stereotyped thoughts or behaviour patterns as a basis for their sense of identity. At this stage, they are often manipulable, influenceable or less capable of assuming their self-reliance, their projects and their needs. They can find it very difficult then to become actors of change and probably hard to be happy people. This is where we speak of a distance between self and self, and between feeling and the awareness one has of it. It is this distance, this wall of unawareness, that emotional education seeks little by little to transform.

Emotional education concerns the management of one’s own emotions:

“Emotional education aims to develop competencies linked to the various aspects of the relationship vis-à-vis oneself, others, the environment and the community. It offers learning processes related to physical, emotional and mental well-being, self-esteem and personal attachment in a trusted setting” (Claeys Bouuaert, 2014), whatever the conditions of the learning environment.

“It includes personal development in addition to social integration, inner balance and efficient management of one’s existence. A distinction can therefore be drawn between the following domains although the competencies sought are in fact closely linked: physical awakening and body awareness, emotional balance, control and power of the mental, social education, self-fulfilment, and transpersonal education.”³⁴

³¹ Focus Areas for Operationalizing the IBE Centre of Excellence Strategy (January 2015, p. 1)

³² <http://www.danielgoleman.info>

³³ United States of America.

³⁴ Claeys Bouuaert (2014), pp. 15 and 16.

Even though the limits of emotional education are blurred, we can see here the principal dimensions.

“Emotional education is not a subject to be assimilated intellectually. We are not concerned with theoretical or philosophical notions to be assimilated and restored correctly, behavioural precepts on what is ‘good’ and what is ‘bad’, a drill to format the character, a psychology or a psychotherapy course.”³⁵

Emotional education fits in with the values of humanism and progress.

The aim of emotional education is to train learners who become capable of understanding and managing their relational difficulties. They know their emotions and an adequate manner of experiencing them, develop a keener awareness of their needs and their centres of interest, and are capable of forming a personal project for circumscribing their problems. They shed their fatalistic view of life and fully assume responsibility for their happiness, their lives and the challenges of the planet.

The introduction of emotional competencies in school therefore rests upon the need for education to train young people capable of rising to the economic, environmental and social challenges, the challenge of “undertaking together”, which is particularly relevant in the case of learners dropping out of school, or in danger of doing so (Roubaud, 2012). Meeting the challenge means prolonging the acquisition of theoretical subjects while accompanying their implementation in complex situations. This is the approach based on the exploitation of integration situations. These take into consideration the emotional dimension. Learners faced with integration situations to be handled are thus invited to develop the necessary socio-emotional competencies. A link of meaning is woven through the inner world, knowledge and the ability to take action. It is from this link that the young will draw the energy, resolve and creativity to assume the challenges of our time.

As of now, there are few traces of this emotional dimension in the school curricula. Nevertheless, some of these competencies are present in educational literature in China, such as self-understanding (了解自我与), open-mindedness (胸开), compassion (同情), and respect (尊重) (Xin Tao, Jiang Yu & Liu Xia, 2013).

2.6. The “situational” competencies

Owing to their direct hold on action, situational competencies go a step further than generic competencies. With respect to them, we can truly speak of “knowing how to act” (Perrenoud, 1997; Le Boterf, 2006).

They call upon a multitude of resources to permit treatment of a complex situation linked to each of them. For example, the situational competencies of driving a car draws on knowledge (including the Highway Code and the various commands for driving the car), types of know-how (knowing how to use the gears, reverse, park, and so on) and life skills (being careful, courteous and the like). One category of resources of these situational competencies happens to be certain generic competencies. Anticipating or managing one’s stress are generic competencies which also come into play in the situational competencies: “driving a car”, just as in other situational competencies like “managing an industrial project” or again “performing an open-heart operation”.

It is fully important to understand this link of subordination of generic competencies to situational competencies when determining paths for assessment of these two types of competencies.

³⁵ See above, page 17.

Situational competencies: terminal nature

As their name suggests, situational competencies are linked to a family of situations, as we have seen above. In the school context, some authors speak of terminal competencies, to highlight their connection with an exit profile. An example of a situational (terminal) competency in mathematics is: “On completion of basic education, the learner must be able to solve a problem situation calling on the four basic operations, on the percentages and on proportionality”. Unlike a generic competency developing throughout life, we can say at a given time that a situational competency is acquired in an individual because a certain number of signs (indicators) testifying to this competency are observed. This does not mean that, once acquired, it is going to remain acquired for life; it can be lost for instance if not mobilized. “Unlike the familiar battery, the competency only runs low if not used.” (Le Boterf, 1995, p. 18). But we can say at any time whether or not it has been acquired, which is meaningless for a generic competency.

These competencies are sometimes unjustly placed on a par with disciplinary competencies. It is true, in a school context, that they are of a disciplinary nature because they form part of the curriculum of a discipline. Nevertheless, this disciplinary character has nothing to do with the actual notion of situational competency, which, on the contrary and by nature, more readily relates to complex interdisciplinary situations.

This simplistic character of disciplinary competencies is therefore linked to the limits of what the school has become accustomed to develop, but not to the actual concept of situational competency.

First- and second-generation CBA

Historically, within the “Latin” world mentioned above, a first generation of competency-based approaches in curricula has been expressed in terms of cross-cutting competencies: such competencies as “seeking an item of information” and “processing a piece of information” have been placed at the heart of the curricula of several countries (French-speaking Belgium, Canada -Quebec-, Benin, etc.). This approach, which tended to secure maximum significance for learning processes by treating complex situations in any learning process, has presented the drawback of not offering sufficiently credible pointers for assessing such competencies.

At present, this first-generation CBA tends to be replaced by a “second-generation” CBA, based on situational competencies (terminal competencies) and integration situations.

2.7. Questions for decision-makers

These developments suggest, for decision-makers, a few questions underlying a choice regarding the introduction of competencies in the curriculum:

1. Link with the learner’s exit profile

What type of learner exit profile is sought? A general profile (knowledge, know-how, culture, etc.)? A set of standards with an eye to employability? A potential for handling complex situations of everyday and professional life?

2. The assessable character of competencies

Do we want to be able to assess these competencies, or do they just serve as a guide lending colour to the learning processes? Are competencies a goal to be reached by each learner or do they represent a framework describing the spirit in which the learning processes should take place?

3. Link between competencies and programme content

Do we consider that competencies must encompass educational content, or rather that they should develop alongside this content?

4. Importance of the socio-emotional/emotional dimension

How far is the system actually ready to introduce the socio-emotional dimension in the curriculum, or even in the emotional dimension?

3. Assessing competencies

In the world of education

A priori, since the three categories of competencies — know-how, generic competencies and situational competencies — are in the course of being developed in the curricula, all three are in the running to be assessed.

Assessment of know-how

- Since the introduction of teaching by objectives in education, the types of know-how are assessed at school in accordance with relatively satisfactory systematic procedures, whether through questionnaires, exercises, MCQs or practice.

Assessing generic competencies

- The assessment of generic competencies in teaching is today the subject of very few instrumented devices. They are still often assessed through a subjective appreciation given by the teacher.

Assessing situational competencies

- Apart from technical and professional training, where these assessments are common practice, there is not, in the world of primary or secondary general education, any deep-rooted tradition of assessing situational competencies. In recent years, however, particularly in a number of French-speaking countries, they are beginning to be assessed by means of complex situations presented to the learner — situations of producing a complex written submission, solving a problem, etc. Furthermore, such complex situations are increasingly making their appearance on international standardized tests.

In the world of business

It is now several decades since the business world developed a great variety of devices and tools for assessing a competency, focusing above all on generic competencies.

Hence, it is more a global profile that is assessed rather than situational competencies concerning tasks to be performed. The latter are also assessed but rather on the job at the workplace.

This experience in the world of work in assessing generic competencies deserves mention because this is a major source of inspiration for assessing generic competencies in basic and secondary education.

3.1. Non-educational approaches to assessing a situational competency

Assessing situational competencies

In the world of work, a situational competency is assessed above all at the workplace. The same goes for professional tests. They are based on real-life simulation. In the English-speaking literature, they are to be found under the headings of “complex tasks”, “performance assessment” (Meyer, 1992; Popham, 2002, 2006; Speers, 2008), “context-based assessment”, and “authentic assessment” (Archbald & Newmann, 1989; Cumming & Maxwell, 1999; Wiggins, 1993).

Several authors situate the types of assessment on an axis of growing complexity, ranging from “restricted performance” to “extended performance” (Wiggins, 1998; Gronlund, 1999; Linn & Miller, 2005; Popham, 1998; Roussel, 2014). On an axis of complexity, the latter comes close to authentic assessment. They apply to both the professional context and to the school or academic context.

The French-speaking literature echoes some of these notions: they are to be found rather under the “complex tasks” headings (Scallon, 2004; Tardif, 2006; Roegiers, 2010). The emphasis is on the unprecedented character of the assessment situation and on the gradual nature of competencies assessment (Beckers, 2002; Rey, 2007). In professional training, other comparable conceptions are also developing: assessment directed towards acting effectively, but also the assessment of collective competencies (Le Boterf, 2006).

3.2. Educational approaches to the assessment of a situational competency

The integration situations

While the method of assessing a situational competency at the workplace goes without saying when it comes to assessing a situational competency in connection with a professional activity or even professional training (notably on training courses), it is not suitable as such for assessing a situational competency in general education because recourse to a situation of authentic assessment is seldom possible. The mass expansion of studies rules out assessing in real life the competency of “applying for a job” or that of “solving a mathematical problem requiring use of the four basic operations”. Recourse to integration systems gets around this difficulty in part.

It is above all, in the French-speaking literature that we find the notion of “integration situation” (De Ketele, 1996; Roegiers, 2010). This notion can be associated with the concept of “extended performance”. When one cannot resort to an “authentic” professional situation, the person to be assessed needs to be confronted with a complex situation, close to a professional situation that he or she will be called on to handle or, failing that, a **case study**. Examples of this are: the competency of “analysing a balance sheet” by presenting the person with a statement of accounts to be analysed, and the competency of “planning the activities of a service” by providing him or her with a context and information to be processed with a view toward planning some activities.

These situations pursue another function, different from (but complementary to) the situations used for learning resources: the didactic situations, or again the “learning tasks”.

In practice, the departure point for curriculum construction is the fact that one regards a situational (terminal) competency as an element of a measurable exit profile of the learner.

In which case, the sequence of stages is:

Stage 1. Formulate a few disciplinary or interdisciplinary terminal competencies.

Stage 2. For each competency picked, delimit a few integration situations that the learner will need to be able to handle independently at the end of the learning cycle.

Stage 3. Develop (in the classroom) generic competencies and resources (knowledge, know-how, life skills, etc.) in accordance with varied, active and adequate methods.

Stage 4. Set aside periods (e.g. two weeks every eight weeks) in which the learner is called upon to resolve, as much as possible individually, one or another integration situation matching the exit profile (and hence the competencies defined).

Stage 5. Prepare — for certification purposes — a test with one or two new integration situations, of the same family as those involved in Stage 4, namely of the same level of difficulty and complexity.

3.3. The methodological difficulties linked to assessment of a “situational” competency

The development of assessment of situational competencies at school raises a number of questions of relevance, validity, feasibility and reliability.

Their relevance

The main benefit of these assessments is that they are relevant, namely directly aimed at the tasks the learner will be required to handle. When they can be akin to an authentic assessment, these are highly relevant assessments since what is assessed is close to the activity to be carried out. When an authentic assessment is ruled out, recourse can be had to integration situations. Such recourse admittedly detracts from the relevance of the tests as against an authentic assessment, but does keep relevance at a very high standard when compared with a traditional assessment based on the restitution of knowledge or on mere applications of a notion.

Their validity

The validity of an integration situation is linked to several factors.

One factor which works in favour of the validity of a test in terms of an integration situation is the fact that the resources (knowledge, know-how, life skills, etc.) are tested in a real-life situation, which makes the information gathered more consistent. For example, we are better able to check whether a learner has understood the concept of oligarchy if he or she has to mobilize it in a situation, and justify its use, than if a question is just asked about the concept of oligarchy.

Other factors are linked to the test produced and, first of all, to the type of integration situation submitted to the learners. Is the learner obliged to mobilize central resources rather than secondary resources? In other words, do the resources that the learner must mobilize constitute central aspects of the competency to be verified or not? Treating an integration situation indeed requires the choice of a contextualized and hence specific situation. There is then a reduced variability in terms of resource sampling, even if one can design tests in such a manner as to target the foremost resources, for instance through recourse to emblematic situations (Perrenoud, 1997).

Another factor is the quality of the treatment of these resources required by the learner: is it an articulation of knowledge and know-how that is asked of him or her, and not a mere juxtaposition of knowledge and know-how?

A third factor of validity is linked to the unprecedented nature of the integration situation, particularly when, for some disciplines, the number of integration situations is limited. There is therefore a risk that, at a given time, a situation put to a learner is not a first-time one.

For all these reasons, we can say that the validity of a “simulated” integration system is good, even if not optimal.

Their feasibility

The main limits to the practice of integration situations has to do with problems of time (hence feasibility): the time they require (1) for designing the test, (2) for doing the test, and (3) for correcting it.

Their reliability

In terms of reliability, there is quite an advantage for case studies, professional tests and all integration situations in general inasmuch as the learner or candidate is subjected to a singular treatment of complexity: what the learner produces is thus singular and so makes cheating difficult.

On the other hand, integration situations raise another problem do with reliability: that of correcting the copies. Indeed, for these tests made up of open questions, a sizeable gap is observed between various correctors (“agreement between correctors”), despite the recourse to criteria and indicators. The specialists have long put this gap at around 15% to 30% (Laugier & Weinberg, 1938), which estimate has not to date been disputed.

In conclusion, the strength of professional and similar tests (case studies, etc.) has to do with the fact that they are meaningful, but sometimes with cumbersome and imprecise modalities. They present certain weaknesses concerning rather validity and feasibility.

3.4. Non-educational approaches to assessing a generic competency

We have seen that the business world has long since developed a large variety of devices and tools for assessing generic competencies. Essentially involved are psycho-technical tests.

Psycho-technical tests are based on a joint assessment of various capabilities of individuals: their numerical, logical and verbal skills, but also their cognitive reasoning, their situational judgement, their sense of observation, analysis and synthesis, their ability to distinguish the essential from the incidental, their creativity, and so on.

There are three types of them:

- intelligence tests gauging the capacity to analyse a situation, to adapt to a new situation or new environment, to handle new constraints, to find solutions to a problem, which further test vivacity or reactivity (Wechsler, Cattell, et al.);
- personality questionnaires gauging the capacity of individuals to assert themselves, to know their strengths and weaknesses, and to enter into a relationship with the other (self-understanding and understanding others);
- projective tests seeking to describe the personality, the action plans, its structure, its organization (e.g. the Rorschach test, with ink-blot to interpret).

These tests seek to identify persons with a situational intelligence, in every sense of the word: a formal, relational, creative, etc., intelligence and who hence perform better than others generally, regardless of the specific tasks that may be entrusted to them. Initially drawn up in an attempt to gauge intelligence (Binet & Simon test in 1912), they have been developed since the 1960s and are used in human resources management by businesses (Avanzani, 1999).

Their main advantage lies in the massive amount of information they can process almost instantly, and in the possibility they offer for comparing results and profiles. In this respect, we can say that their feasibility is appreciable, even if the many questions they include sometimes make them indigestible as the candidates see it.

3.5. Educational approaches to assessing a generic competency

Generic competencies are often assessed by means of a subjective appreciation given by the teacher, but they are not the subject of systematic procedures. Above all, it is the instances of formative assessment that provide the opportunity to assess them (Legendre, 2001). Certain advances have nevertheless been achieved in a more systematic assessment of some cross-cutting competencies, such as the “learning to learn” competency and citizenship competency in the Spanish Basque country,³⁶ or again the competencies linked to information processing in New Zealand.³⁷

3.6. The methodological difficulties involved in assessing a generic competency

Their relevance

The main limitation of psycho-technical tests is their limited relevance when it comes to assessing a targeted generic competency, because they assess several things diffusely, including features which are not relevant. There is no external measurement of the generic competency to be checked with which one can compare the results of the psycho-technical test. Admittedly, this diffuseness of the assessment is logical inasmuch as, at the very level of their design, the link between the questions asked and the competency to be assessed has not been established, but it is awkward if one wants draw up a specific map of the competencies in the candidate. For example, one can fail visual or lexical memory tests while being very competent in the organization or management of projects. In particular, with reference to the multiple intelligences of Gardner (1983; 2006³⁸), together with other writings completing them (Kincheloe, J.L., ed., 2004), certain forms of intelligence are given precedence, such as logical (abstract) intelligence or spatial intelligence, and other forms less so, such as environmental/ naturalist intelligence.

Their validity

Given their purpose, these tests are relatively valid in that the balance of the various questions has been carefully studied for the sake of a global profile. On the other hand, the questions do not test some aspects in a real-life situation: just because a candidate says that he or she would do X in a hypothetical situation, this does not mean that the person concerned will do X when actually faced with that situation. Furthermore, the questions do not target the central aspects of one competency in particular since they seek, not to assess a specific competency, but to circumscribe a general profile. This lack of relevance and validity therefore has above all to do with the fact that one cannot, on a trial basis, link success in the tests and mastery of the competencies proper in a real-life situation.

³⁶ ISEI/IVEI (Instituto vasco de evaluación e investigación educativa), Bilbao

³⁷ New Zealand Council for Educational Research: Essential skills assessments (www.nzcer.org)

³⁸ Gardner (2008) for the translation into French.

It is therefore an assessment more of the personality and global potential of an individual than of a professional competency. This has two consequences. First, the tests are geared more towards assessing cadres and leaders than towards the assessment of professionals. Then, they are often selective; we can reasonably suppose that the fact of presenting the candidates with such broad questions is a very considerable source of failure, in the selection and recruitment tests.

Their reliability

In terms of reliability, their level is variable; it essentially depends on how conscientious the examinee is, and hence on what the stakes are for him or her. For example, when there is no stake involved and the learners are asked the same MCQ-type question twice in a questionnaire (a page apart for instance), they often give a different answer than the first time round; this sometimes even applies to half the people concerned.

3.7. Leads for a simplified assessment of some generic competencies

What is the problem ?

Simplified assessment of competencies means above all “assessment through MCQ-type questions”.³⁹

The problem is that when the learner is asked an MCQ on the capitals of the world or a historic event, we can reasonably conclude that he or she has or has not mastered this educational content. But when I ask the learner a multiple-choice question on the organization of a task, can I say that, because the learner has given the right answer, he or she has acquired the competency of learning to learn? In other words, what proves that the questions which I, as the designer of the test, *thought assessed* the competency of learning to learn *really assessed that competency* and not something else?

Questionnaires testing generic competencies at school

As we have seen above, worthwhile initiatives with respect to assessing generic competencies are emerging in various places. Questionnaires are beginning to be produced that aim to assess the competency of “learning to learn, the competency of citizenship, and the competency of seeking and processing a piece of information.

A methodological problem nevertheless arises. As the items are not linked to complex performances of the learner, themselves linked to the generic competency it is sought to assess, how can one be sure that it is indeed the competency of citizenship or of learning to learn that is assessed, and not something else, as for instance the competency of understanding a statement in the language in which the question appears to the learner? True, one can study the correlation existing between the performances of a learner on a “learning to learn” or “citizenship” questionnaire, on the one hand, and another reading comprehension test on the other, and deduce whether the answers to these two types of test are relatively independent. But how can one determine the cause of the part of common variance between the two tests?

³⁹ Multiple-choice questions.

Another approach to competencies assessment at school

In this regard, a group of researchers recently adopted an innovative approach, for the time being essentially centred on generic competencies of a cognitive nature.⁴⁰ It is based on the observation that assessing situational competencies, however relevant it may be, requires time for designing the tests and for correcting the copies, and that it is liable to be affected by the subjectivity of the correctors (see above).

The research question is the following: is it possible, from carefully studying the constituents of a situational competency, to assess them separately by means of easy questions that do not take long to correct, of the MCQ type, while working to do this with margins of error below to those faced when one creates and corrects complex learner productions?

If the research results are confirmed, this advance would enable us, on the one hand, to link up the complex performances of learners with the components of the competency in question, but also, through extensive statistical analysis, to link up the components between themselves.

Generic competencies are indeed major components of these situational competencies, as we have seen above. It is therefore indirectly that this methodology would enable us to assess generic competencies by linking them to complex situations.

This work can only be done by interrelating many items and putting them, on the one hand, in contact with one another (internal validity) and, on the other, relating them to the complex performances of the learners (external validity).

This same principle could underlie a device for assessing socio-emotional generic competencies, which could then tie into the generic competencies assessments already conducted by means of questionnaires (cf. above).

In conclusion

In conclusion, we can say that the task of assessing competencies in the educational world is proceeding apace. While the assessment of know-how has long been the subject of well-established assessment devices and tools, there are more and more paths for conducting an assessment of generic competencies and situational competencies with all the relevance, validity and reliability they require, while attending to feasibility, four essential qualities in the present context of education for all and a comprehensive curriculum approach.

⁴⁰ Hallisse scrl

Bibliography

- Archbald, D. and Newmann, F. 1989. The Functions of Assessment and the Nature of Authentic Academic Achievement. Berlak (ed.), *Assessing Achievement: Toward the development of a New Science of Educational Testing*. Buffalo, NY: SUNY Press.
- Aschbacher, P. R. 1991. *Alternative Assessment: State Activity, Interest, and Concerns*. Los Angeles, CA: UCLA Center for Research on Evaluation, Standards, and Student Testing.
<http://www.cse.ucla.edu/products/Reports/TR322.pdf> (Accessed 1 July 2015.)
- Avanzani, G. 1999. *Alfred Binet*. Paris: PUF.
- Barroso, J. 2000. Autonomie et modes de régulation locale dans le système éducatif. *Revue française de pédagogie*, n°130, janvier-février 2000, pp. 57-71.
http://www.persee.fr/web/revues/home/prescript/article/rfp_0556-7807_2000_num_130_1_1053 (Accessed 1 July 2015.)
- Beckers, J. 2002. *Développer et évaluer des compétences à l'école: vers plus d'efficacité et d'équité*. Brussels: Labor.
- Bernard, H. and Fontaine F. 1982. *Les Questions à Choix Multiple. Guide Pratique pour la Rédaction, L'analyse et la Correction*. Montréal, Service pédagogique de l'Université de Montréal, 166 p.
- Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H. and Kratwohl, D.R. 1969. *Taxonomie des Objectifs Pédagogiques*. Tome 1: Domaine Cognitif. Montréal : Les Entreprises Éducation Nouvelle.
- Bouvy, T. and Warnier, L. 2011. *Document de synthèse sur les QCM*. Louvain-la-Neuve: IPM.
<http://www.uclouvain.be/cps/ucl/doc/ipm/documents/vademecumQCM-V2.pdf> (Accessed 1 July 2015.)
- Braslavsky, C. 2001. *La Prise en Compte de l'Interculturel dans les Curricula* [Taking the Intercultural into Account in the Curricula]. Geneva: UNESCO-IBE, 2001.
- Broadfoot, P. 2000. Un nouveau mode de régulation dans un système décentralisé : l'État évaluateur. *Revue française de pédagogie*, n°130, janvier-février 2000, pp. 43-55.
http://www.persee.fr/web/revues/home/prescript/article/rfp_0556-7807_2000_num_130_1_1052 (Accessed 1 July 2015.)
- Century, D. N. 2002. *Alternative and Traditional Assessment: Their Comparative Impact on Students' Attitudes and Science Learning Outcomes. An Exploratory Study*. Pennsylvania: Temple University. <http://adsabs.harvard.edu/abs/2002PhDT.....92C> (Accessed 1 July 2015.)
- Claeys Bouuaert, M. 2014. *L'éducation Émotionnelle de la Maternelle au Lycée*. Editions Souffle d'Or.
- Clayton, B. and Blom, K., Meyers, D., Bateman, A. 2003. *Assessing and Certifying Generic Skills. What is Happening in Vocational Education and Training?* Australian National Training Authority.
- CONFEMEN. 2012. *La Diversification de l'Offre Éducative au Regard des Grands Défis de l'École de Demain*. Document de réflexion et d'orientation pour la 55^e session ministérielle. Dakar: CONFEMEN. <http://www.confemen.org/wp-content/uploads/2013/04/DRO-diversification.pdf> (Accessed 1 July 2015.)
- Cumming, J. J., and Maxwell, G. S. 1999. Contextualizing authentic assessment. *Assessment in Education*, 6(2), pp. 177–194.
http://www98.griffith.edu.au/dspace/bitstream/handle/10072/10921/Authentic_Assessment.pdf?sequence=1 (Accessed 1 July 2015.)
- De Ketele, J.-M. 1994. *Les Différents Types de Question D'Évaluation et la Manière de Les Formuler*.

Louvain-la-Neuve.

- De Ketele, J.-M. 1996. L'évaluation des acquis scolaires : quoi ? Pourquoi ? Pour quoi ? *Revue Tunisienne des Sciences de l'Éducation*, 23, pp. 17-36.
- D'Hainaut, L. 1977, 3e édition 1983. *Des Fins aux Objectifs*. Paris-Bruxelles: Nathan-Labor.
- Duru-Bellat, M. and Bydanova, L. 2011. Structure des systèmes éducatifs et inégalités sociales de performance. In V. Dupriez & N. Mons, Les politiques d'accountability, du changement institutionnel aux transformations locales. *Revue d'Education comparée*, n°5, pp. 157-186.
- Gardner, H. 1983. *Frames of Mind: the Theory of Multiple Intelligence*. New York: Basic Books.
- Gardner, H. 2006. *Multiple Intelligences: New Horizons in Theory and Practice*. New York: Basic Books.
- Gardner, H. 2008. *Les Intelligences Multiples : la Théorie qui Bouleverse nos Idées Reçues*. Paris : Retz.
- Gilles, J.-L. 2003. *Smart, Consignes Concernant les Degrés de Certitude*. Liège, Université de Liège www.smart.ulg.ac.be/smartweb/outils/guess/ (Accessed 1 July 2015.)
- Goleman, D. 1995. *Emotional Intelligence: Why it can Matter More Than IQ*. Bloomsbury Publishing PLC, New edition (1996).
- Gronlund, N. E. 1999. *Assessment of Student Achievement*. Boston: Allyn and Bacon.
- Grossman, D. 2008. Democracy, citizenship education and inclusion: a multi-dimensional approach. *Prospects*, Vol. XXXVIII, n°1, mars 2008, pp. 35-46. <http://link.springer.com/article/10.1007%2Fs11125-008-9054-1> (Accessed 1 July 2015.)
- Gulikers, J. T. J., Bastiaens, T. J. and Kirschner, P. A. 2004. A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52(3), 67. <https://racetothetopvolusia.wikispaces.com/file/view/A+Five+Dimensional+Framework+for+Authentic+Assessment.pdf> (Accessed 1 July 2015.)
- Hartog, P. and Rhodes, E. 1935. *An Examination of Examinations*. London: Mac Millan.
- Hayton, G. and Wagner, Z. M. 1998. Performance assessment in vocational education and training. *Australian and New Zealand Journal of Vocational Education Research*, 6(1), pp. 69-85. <http://vital.new.voced.edu.au/vital/access/services/Download/ngv:28557/SOURCE2> (Accessed 1 July 2015.)
- Helgøy, I. and Homme, A.D. 2011. Individual or collective responses to accountability policies. A comparative study of teacher professionalism in Norway and Sweden. In V. Dupriez & N. Mons, Les politiques d'accountability, du changement institutionnel aux transformations locales. *Revue d'Education Comparée*, n°5, pp. 107-131.
- International Labour Organization. 2010. *World of Work Report 2010: From one crisis to the next?* International Institute of Social Studies. http://www.ilo.org/public/french/bureau/inst/research/summary_f.pdf (Accessed 1 July 2015.)
- International Labour Organization. 2013. *World of Work Report 2013: Repairing the economic and social fabric*. International Institute for Labour Studies. http://www.ilo.org/wcmstp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_214673.pdf (Accessed 1 July 2015.)
- Jacobs, L. C. 2004. *How to Write Better Tests: A Handbook for Improving Test Construction Skills*. Indiana University Bloomington Evaluation Services & Testing. http://www.indiana.edu/~best/write_better_tests.shtml (Accessed 1 July 2015.)
- Jonnaert, Ph. (Dir.) 2010. Approche par situations – Matrice du traitement compétent d'une situation. *Cahiers de la CUDC*, (1010)5, numéro thématique.

- Keunho, Ly. 2014. Competency-based curriculum and curriculum autonomy in the Republic of Korea. *IBE Working Papers on curriculums issues*, n°12. http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Working_Papers/curriculum_development_KoreaRep_ibewpci_12_eng.pdf (Accessed 1 July 2015.)
- Kincheloe, Joe L., ed. 2004. *Multiple Intelligences Reconsidered*. Counterpoints v. 278. New York: Peter Lang.
- Laugier, H. and Weinberg, D. 1938. *Recherche sur la Solidarité et L'interdépendance des Aptitudes Intellectuelles d'Après les Notes des Examens Ecrits du Baccalauréat*. Paris: Chantenay.
- Le Boterf, G. 2008. Des cursus professionnalisant ou par compétences: enjeux, craintes et modalités. *Actualité de la Formation Permanente*, n°209. <http://www.guyleboterf-conseil.com/Approcheparcompetencesuniversites.pdf> (Accessed 1 July 2015.)
- Le Boterf, G. 2006 (5^e Ed.). *Ingénierie et Evaluation des Compétences*. Paris: éditions d'organisation.
- Le Boterf, G. 2006. *Professionaliser, le Modèle de Navigation Professionnelle*. Paris: Editions d'organisation.
- Le Boterf, G. 1995. *De la Compétence : Essai sur un Attracteur Étrange*. Paris: Editions d'Organisation.
- Leclercq, D. 1986. *La Conception des Questions à Choix Multiple*. Bruxelles: Labor
- Letor, C. and Vandenberghe, V. 2003. L'Accès aux Compétences est-il plus (In)Équitable que l'Accès aux Savoirs Traditionnels ? *Les cahiers du GIRSEF*, Louvain-la-Neuve, n°25, novembre 2003. <https://halshs.archives-ouvertes.fr/halshs-00603508/document> (Accessed 1 July 2015.)
- Leung, K.-C., Leung, F. K. S. and Zuo, H. 2013. *A Study of Assessment Alignment to Generic Skills in Hong Kong New Senior Secondary Mathematics Education: Objectives, Issues, and Challenges*. <http://www.eee.hku.hk/research/doc/tr/TR-2013-001.pdf> (Accessed 1 July 2015.)
- Lidz, C. 1991. *Practitioner's Guide to Dynamic Assessment*. New York: Guilford Press.
- Linn, R. L. and Gronlund, E. N. 2000 (8^e Ed.). *Measurement and Assessment in Teaching*. Upper Saddle River: Merrill Prentice-Hall
- Linn, R. L. and Miller, M. D. 2005. *Measurement and Assessment in Teaching*. New Jersey: Upper Saddle River, N.J.: Pearson/Merril Prentice Hall.
- Maden, J. and Taylor, M. 2001. Developing and Implementing Authentic Oral Assessment Instruments. Présenté à l'Annual TESOL Conference, St-Louis.
- Marchessault, L. 2004. *La Planification Pédagogique dans le Contexte d'une Approche par Compétences: Analyse des Représentations d'Enseignantes et d'Enseignants en Formation Professionnelle*. Université du Québec à Montréal, Montréal.
- Maroy, C. 2011. Accountability et confiance dans l'institution scolaire. In V. Dupriez & N. Mons, Les politiques d'accountability, du changement institutionnel aux transformations locales. *Revue d'Education comparée*, n°5, pp. 132-156.
- Maroy, C. 2008. *Régulation Post-Bureautique des Systèmes d'Enseignement et Travail Enseignant*. Conférence au 20^e colloque de l'ADMEE-Europe, Genève, université, 9-11 janvier 2008.
- Meirieu, P. 2001. *Éduquer à l'environnement : Pourquoi ? Comment ? Du Monde-Objet au Monde-Projet*. Conférence donnée lors du Congrès international Planet'ère, UNESCO, novembre 2001. http://www.meirieu.com/ARTICLES/MONDE%20OBJET_PROJET-RTF.pdf (Accessed 1 July 2015.)
- Meyer, C. A. 1992. What's the difference between *authentic* and *performance* assessment? *Educational Leadership*, 49, pp. 39-40.

- http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_199205_meyer.pdf (Accessed 1 July 2015.)
- Miled, M. 2011. Contextualiser l'Élaboration d'un Curriculum de Français Langue Seconde : Quelques Fondements Epistémologiques et Méthodologiques.
http://www.bief.be/index.php?presentation/notre_equipe/mohamed_miled&s=2&rs=7&uid=62&lg=fr
- Mintah, J. K. 2001. Authentic Assessment in Physical Education: Prevalence of Use and Perceived Impact on Students' Self-Concept, Motivation, and Skill Achievement. Iowa: University of Northern Iowa.
- Mons, N. 2007. *Les Nouvelles Politiques Éducatives*. Paris: PUF.
- Moon, T. R., Brighton, C. M., Callahan, C. M. and Robinson, A. 2005. Development of Authentic Assessments for the Middle School Classroom. *Journal of secondary gifted education*, 16(2-3), pp. 119-135. <http://files.eric.ed.gov/fulltext/EJ698321.pdf> (Accessed 1 July 2015.)
- Morin, E. 1999. *Les Sept Savoirs Nécessaires à l'Éducation du Futur*. Paris: Éditions du Seuil.
- Opertti, R. and Belalcázar, C. 2008. Tendances de l'éducation pour l'inclusion aux niveaux régional et interrégional : problématiques et enjeux. *Prospects*, Vol. XXXVIII, n°1, March 2008, pp. 149-179.
- Opertti, R., Brady, J., and Duncombe, L. 2011. *Interregional Discussions Around Inclusive Curriculum and Teachers in Light of the 48th International Conference on Education*. IBE/UNESCO.
<http://unesdoc.unesco.org/images/0021/002147/214724e.pdf> (Accessed 1 July 2015.)
- Paquay, L. 2012. Continuité et Avancées dans la Recherche sur la Formation des Enseignants. *Les cahiers de recherche du Girsef*, N°90, Louvain-la-Neuve, mai 2012.
https://www.uclouvain.be/cps/ucl/doc/girsef/documents/cahier_90_Paquay_final.pdf (Accessed 1 July 2015.)
- Périsset, D. 2008. *De l'Accommodation des Enseignants aux Effets des Nouvelles Politiques Éducatives: Une étude de Cas*. Communication présentée dans le cadre du colloque international « Efficacité et Équité en Éducation », Rennes, 9-12 novembre 2008.
http://www.unige.ch/fapse/life/textes/perisset_a2008_01.pdf (Accessed 1 July 2015.)
- Perrenoud, Ph. 1997. *Construire des Compétences dès l'École*. Paris: ESF.
- Popham, W. J. 2000 (3^e ed). *Modern Educational Measurement: Practical Guidelines for Educational Leaders*. Boston: Allyn and Bacon.
- Popham, W. J. 2000 (3^e ed). *Classroom Assessment: What Teachers Need to Know*. Boston: Allyn and Bacon.
- Popham, W. J. 2006. *Assessment for Educational Leaders*. Montréal: Pearson Education.
- Rey, B. 2007. Pourquoi l'école s'obstine-t-elle à vouloir faire acquérir des savoirs ? In M. Durand et M. Fabre (Éds.) *Les Situations de Formation entre Savoirs, Problèmes et Activités*. Paris: l'Harmattan.
- Rey, B., Carette, V., Defrance, A. and Kahn, S. 2003. *Les Compétences à l'École: Apprentissage et Évaluation*. Bruxelles: De Boeck.
- Roegiers, X. 2004. *L'École et l'Évaluation: Des Situations pour Évaluer les Compétences des Élèves*. Bruxelles: De Boeck.
- Roegiers, X. 2006. ¿Se Puede Aprender a Bucear Antes de Saber Nadar? Los Desafíos Actuales de la Reforma Curricular. *IBE Working Papers on curriculum issues*, n°6, August 2006,
http://www.ibe.unesco.org/fileadmin/user_upload/COPs/News_documents/2007/0710GuatemalaCity/Desafios_de_la_reforma_curricular.pdf (Accessed 1 July 2015.)

- Roegiers, X. 2007. Curricular reforms guide schools: but, where to? *Prospects*, vol. XXXVII, no. 2, June 2007.
- Roegiers, X. 2010. *La Pédagogie de l'Intégration. Des Systèmes d'Éducation et de Formation au Cœur de nos Sociétés*. Bruxelles: De Boeck.
- Roegiers, X. 2008. L'Approche par Compétences dans les Curriculums en Afrique Francophone: Quelques Tendances. *IBE Working Papers on curriculums issues*, n°8, Mai 2008
http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Working_Papers/currcompet_africa_ibewpci_7.pdf (Accessed 1 July 2015.)
- Roegiers, X. 2010. *La Pédagogie de l'intégration : des Systèmes d'Éducation et de Formation au Cœur de nos Sociétés*. Bruxelles: De Boeck.
- Roubaud, N. 2012. *Accompagner des Ados en Rupture Scolaire*. Bruxelles: De Boeck.
- Scallon, G. 2004. *L'Évaluation des Apprentissages dans une Approche par Compétences*. Saint-Laurent: Éditions du renouveau pédagogique.
- Sebaganwa, A. 2013. Introducing complex situations in primary education: their impact on student's results in terms of efficiency. *International Journal of Education*, Vol. 5 N° 3.
- Serres, M. 2011. Petite Poucette. Séance solennelle « Les nouveaux défis de l'éducation » Mardi 1^{er} Mars. Académie Française.
- Speers, J. F. 2008. *Design and Utilization of Performance Assessment by Vocational Educators*. Doctorat en éducation, Illinois State University, Normal.
- Tao, X., Yu, J. and Xia, L. 2013. Model construction of key competencies of students in compulsory education period. *Journal of Beijing Normal University (Social Sciences)*, 2013, vol. 1.
<http://wkxb.bnu.edu.cn/EN/abstract/abstract99.shtml> (Accessed 1 July 2015.)
- Tardif, J. 2006. *L'Évaluation des Compétences. Documenter le Parcours de Développement*. Montréal: Chenelière Éducation.
- UNESCO. 2012. *Éducation aux Droits de l'homme dans les Systèmes d'Enseignement Primaire et Secondaire : Guide d'Auto-Evaluation à l'Intention des Gouvernements*. Nations Unies, Haut Commissariat aux droits de l'homme.
http://www.ohchr.org/Documents/Publications/SelfAssessmentGuideforGovernments_fr.pdf (Accessed 1 July 2015.)
- Vincke, G. 2013. Plateforme Etests. <http://sourceforge.net/projects/etests/> (Accessed 1 July 2015.)
- Wechsler, D. 1958. *The Measurement and Appraisal of Adult Intelligence*. Baltimore: The Williams & Wilkins Company.
- Weil, P. 2002. *The Art of Living in Peace*. Editions UNESCO/Unipaix.
- Wiggins, G. P. 1993. *Assessing Student Performance*. San Francisco: Jossey-Bass Publishers.
- Wiggins, G. P. 1998. *Educative Assessment: Designing Assessments to Inform and Improve Student Performance*. San Francisco: Jossey-Bass.
- Wilber, K. 2008. *Le Livre de la Vision Intégrale*. Interéditions.
- Writing multiple-choice questions that demand critical thinking. 2002. University of Oregon Teaching Effectiveness Program
<http://tep.uoregon.edu/resources/assessment/multiplechoicequestions/sometechniques.html> (Accessed 1 July 2015.)