THE CURRICULUM DEBATE: WHY IT IS IMPORTANT TODAY

Geneva, Switzerland, June 2013

The series *IBE Working Papers on Curriculum Issues* is intended to share interim results of ongoing research and to increase access to a range of unpublished documents, reports and exploratory studies produced at UNESCO-IBE, by IBE partners or members of the IBE network on curriculum development. These Working Papers are disseminated to a wide audience of both academic and non-academic people and institutions for purposes of information and discussion. Also, they give education and policy stakeholders the opportunity to make use of a 'work in progress' in a timely manner. They have been approved for circulation by UNESCO-IBE but typically have not been formally edited or peer reviewed. Therefore, feedback on these documents is warmly encouraged.

Previous issues (available online on the IBE website):

1. *Instructional Time and the Place of Aesthetic Education in School Curricula at the Beginning of the Twenty-First Century.* (By M. Amadio, N. Truong and J. Tschurenev). March 2006.
2. *SOS Profesión Docente: Al Rescate del Currículum Escolar.* (By D. Vaillant). July 2006.
3. *¿Se puede aprender a bucear antes de saber nadar? Los desafíos actuales de la reforma curricular.* (By X. Roegiers). August 2006.
4. *La compétence comme organisateur des programmes de formation revisitée, ou la nécessité de passer de ce concept à celui de « l'agir compétent ».* (By Ph. Jonnaert, J. Barrette, D. Masciotra and M. Yaya). September 2006.
5. *Desarrollos curriculares para la educación básica en el Cono Sur: Prioridades de política y desafíos de la práctica.* (By M. Palamidessi). October 2006.
6. *The Diversification of Secondary Education: School Curricula in Comparative Perspective.* (By A. Benavot). November 2006.
7. *L'approche par compétences en Afrique francophone : quelques tendances.* (By X. Roegiers). May 2008.
8. *Conocimiento complejo y competencias educativas*. (By I. Aguerrondo). May 2009.
9. *Currículo e inclusión en la región andina de América Latina.* (By L. Guerrero Ortiz y V. Villarán). October 2009.

The curriculum debate: why it is important today

by

Juan Carlos Tedesco, Renato Opertti and Massimo Amadio

Geneva, Switzerland, June 2013

UNESCO International Bureau of Education

About the authors:
Juan Carlos Tedesco (Argentina) is currently Professor of educational policy at the National University of San Martin (Buenos Aires). He previously served as Minister of Education of the Republic of Argentina. Email: juancarlos.tedesco@gmail.com
Renato Opertti (Uruguay) is Programme Specialist at the UNESCO IBE (Geneva, Switzerland). Email: r.opertti@ibe.unesco.org
Massimo Amadio (Italy) is Senior Programme Specialist at the UNESCO IBE (Geneva, Switzerland). Email: m.amadio@ibe.unesco.org

Introduction

The current debates on the purpose and role of education are linked to social imaginaries which should be convening and achievable. At the core of these imaginaries is the construction of a more just society. Increasingly, education is viewed as a necessary condition for such visions to be achievable. However, this situation is concomitant with the spreading of citizens' strong distrust in governments' capacity to shape and implement long-term educational policies, and in the effectiveness of the education system to respond to contemporary challenges and problems. This skepticism is particularly evident in the questioning of political actors, media, families and international evaluators. The education system is criticized due to the considerable gaps that still exist in the universalization of essential skills and knowledge (one of the main functions of education) as well as the persistent inequalities in the social distribution of those foundational skills and knowledge. The quality of education is often questioned, especially as it is increasingly measured by the results of national and international assessments. The traditional organization of the teaching and learning process and content are increasingly perceived as outdated with regards to the knowledge, skills, attitudes and values (the *competences*) needed to live in an ever-changing world and a century that is filled with uncertainties, but also opportunities.

The dilemmas faced by societies to sustain and ensure the welfare of their populations strongly contrast with the response capacity of the education system in regards to the what, why and how of education. Thus, a significant dissociation is observed between the political and social demands of education and its provision. The functioning of the school system is increasingly questioned by international and national assessments that tend to take the place of the curriculum in the teaching and learning process (Savolainen & Halinen 2009) and 'make judgements' about its effectiveness.

One of the consequences of the tension between society, the political system and education is the 'guilty victim' logic that prevents or hinders policy solutions to problems in education. External actors are dissatisfied because they feel that the education system is affected by conservatism, corporatism and low responsibility for results. Internal actors take defensive positions. Their discourse tends to focus on the conditions and inputs required to ensure successful teaching and learning processes. The assumption that education can produce the expected results only within a society where certain conditions of social inclusion are met paves the way towards certain fatalism and leaves no room for advancing inclusive education proposals. The excessive focus on conditions and inputs is also often accompanied by rhetorical statements about education as a right and public good, which do not take into account the reality of educational institutions and classrooms.

In a context characterized by serious concerns and incessant claims, giving a convincing purpose to education and learning must become a priority in the effort to redefine the ultimate goals pursued by national societies. The education and learning processes that are to be promoted cannot only be envisaged in terms of prescriptions and norms without reference to the actual circumstances. It is also essential that the renewed significance given to education and learning raises the enthusiasm of teachers, families, and communities, and encourages students to engage in their learning.

Within this conceptual framework, the curriculum can be considered as a means to providing content and coherence to education policies. Instead of being viewed simply as a collection of study plans, syllabi and teaching subjects, the curriculum becomes the outcome of a process reflecting a political and societal agreement about the what, why and how of education for the desired society of the future. The consensus reflected in the curriculum can potentially provide a reference framework for putting learner welfare and development at the core of the education system. This framework can also help strengthen the links between education policy and curriculum reform, and provide a more effective response to the expectations and demands of youth and society.

This document does not intend to cover the wide array of pending challenges and complex issues that currently preoccupy education authorities, educators and society at large. Rather, it briefly addresses some issues to emphasize the importance of the curriculum and its relevance to supporting more democratic and inclusive social imaginaries. The first part addresses the debate on the purpose of education for societies involved in a process of rapid and constant transformation that increasingly generates tensions and uncertainties. The second part focuses on certain elements of the current discussions – often controversial – about the school curriculum. In the last section we share some concluding remarks.

Education: what type of values for what kind of society

Social justice and the 'why' of education

This text is based on the assumption that building up a more just society is an ideal that could (and should) guide the behaviour of social actors, particularly those involved in educational processes. This point of view is based on recognizing that quality education for all is a necessary condition in order to achieve social justice in an information and knowledge society.

The theoretical discussion about justice currently occupies an important place in the fields of social sciences and political philosophy. This is not surprising, since the need to build up more just societies has increased due to the heightened risk of injustices produced by the new capitalism and the generalization of demands for democracy, respect for human rights and recognition of cultural, ethnic, linguistic and gender identities.

From a curricular perspective, the link between education and social justice can be analyzed both in terms of contents and attitudes. In Pierre Rosanvallon's (2011) recent book about the society of equals, Rosanvallon recalls the *paradox of Bossuet* to describe the current situation regarding social justice. According to such paradox, human beings deplore in general what they accept in particular. This apparent schizophrenia is also reflected in the evidence, widely documented by surveys and testimonies from different countries, that there is a strong rejection of a society which causes unprecedented levels of inequality, along with an acceptance of the mechanisms that produce these inequalities. For educators, the most interesting aspect of Rosanvallon's approach lies in his attempt to analyze the epistemological and cognitive dimensions of this apparent contradiction in citizens' behaviour. His analysis shows that for the condemnation of global affairs people rely on facts, data and objective information. For the acceptance of particular situations, however,

individual behaviours and choices are taken into account. An example of such dualism is the approach that many families have towards the education system. While the unfair nature of segmentation within the school system is criticized, any measure intended to promote a more equitable distribution of enrolment and thus affecting the parents' decision to enrol their children in schools where their 'equal' attend, is individually avoided. In Chile, for example, it was found that subsidies to private schools largely determine family decisions concerning where to enrol their children, promote segregation within the education system, and reinforce the strong relationship between the family's socioeconomic background and school quality (García-Huidobro & Corvalan 2009).

In Latin America, during the last decade egalitarian and inclusive imaginaries have gained ground in collective representations of governments and citizenry, despite the fact that social inequality and equity gaps in the education system are still very strong (UNESCO-PRELAC & SEP 2012). The widespread perception that we are far from achieving a quality education for all, and the existence of major disparities between public and private offerings, is a context within which many families choose educational proposals for their children that lead to higher levels of segregation.

The paradox of Bossuet implies the pedagogical challenge of designing strategies to overcome the dichotomy between general adherence and particular rejection. This means designing learning experiences that lead individuals to understand that a particular situation includes (or should include) general principles and situations. Or, conversely, that adhering to a general principle includes (or should include) a consequent personal behaviour. In either case, it is necessary to recognize that these learning experiences intended to generate such an important cognitive shift require great efforts in terms of reflection and a constant adjustment in values, attitudes and behaviours. In short, achieving high levels of adherence to justice is, ethically and cognitively, a very demanding objective.

A short look at the history of education shows that adherence to and appropriation of values such as national identity or respect for elders and cultural traditions were associated in the traditional school to a number of rituals largely borrowed from religious practices. The patriotic symbols and traditions were considered 'sacred' and adherence to them could not be modified. Adherence to justice, however, cannot rely on these ideas. Generating adherence to justice in the knowledge society means being able to manage large amounts of important information and their ethical implications, and having a strong core of universal values that reinforce meanings and practices regarding justice.

The link between knowledge and ethical values has held educators' attention for a long time. We see that knowledge itself does not necessarily make good people. On the other hand, we also know that an ethically fair behaviour requires adequate information and knowledge. What is new, from this point of view, is that we are overcoming the traditional dissociation between the cognitive and the emotional dimensions in the teaching and learning process. The student's welfare, which is key to achieving relevant and sustainable learning, requires a synergy between cognitive, emotional and social aspects, as the person and personality are not divisible into parts abstracted from the whole. For example, the Finnish National Board of Education (2013) states that the curriculum must include plans describing the main goals and principles of student welfare services, and that student welfare is the concern of all those working in the educational community.

Likewise, recent contributions from neuroscience suggest that evaluation is a core feature of brain activity. The architecture of the brain is made up of what is called the 'cognitive and motor brain' and the 'emotional brain' (Marina 2011). Without reference value or capacity to understand and evaluate stimuli, a system cannot learn or remember. In order to learn, it is necessary to prefer some stimuli over others. Value systems and emotions are seen as essential for the selection work of the brain. The Western philosophical tradition has accustomed us to distinguishing and separating the mind from the body, the cognitive processes (the *reason*) from the emotions (the *passions*), even though it could be more appropriate to try to explore and understand their interrelationships, i.e. the emotional nature of cognitive processes and cognitive nature of emotions (Pons, de Rosnay & Cuisinier 2010). This implies the challenge of combining cognitive development with the emotional dimension to avoid education being reduced to solely the instructional process.

This approach permits placing current discussions about concepts such as emotional intelligence or competency-based curriculum in the context of a pedagogical proposal that recovers the main purpose of education, *the reason why* we educate. It is essential that educational processes and curricular proposals are meaningful to students in order to engage them with their learning, allowing them to mobilize their reference frameworks – values, norms and attitudes – to address challenges and daily life situations.

The cognitive and ethical effort required to coherently relate my general values with my particular behaviour has a specific significance today: to generate the necessary adherence to justice to comply with the goal of learning to live together.

Education, values and religion

There is an ongoing debate on values education in view of strengthening its purpose and presence in educational policies and curriculum proposals. Among other aspects, the discussion refers to: (i) the need to define renewed approaches that ensure cultural and social integration; (ii) related to the above, the recognition that social and education models of secular integration, which ignore or do not teach about the diversity of faiths in society (the historical case of France) or allow each group to live according to their respective faiths without creating links between them (the historical case of United Kingdom) do not achieve effective integration into society or protect the diversity; and (iii) comprehensive citizenship education (Lenoir, Xypas & Jamet 2006), which means promoting values education as a cross-cutting dimension permeating the diverse purposes and contents of learning. We will try to illustrate these aspects making reference to the relationship between education and religion.

The discussions about the links between education and religion have a long history, with different connotations depending on the context in which they took place. However, despite this long record, the debate is still ongoing. Its forms and contents are constantly renewed, and today we are witnessing a new stage where the place that religion and its institutions occupy in culture and society has changed and, consequently, also the way in which the school manages, or should manage, the tensions that this link generates.

First of all, it is necessary to avoid any attempt to homogenize or universalize the contents of this debate. Rather, it is essential to place it in its historical, cultural and political context. Originally, at least in the Western Catholic world, the discussion was focused on religion as curricular content. The compulsory public school emerged as a social space that

sought to overcome religious, ethnic or, in some cases, linguistic particularism. In several countries laicism was the typical expression of this vision of educational policy, mainly based on the principle that the public sphere should not be divided according to religious beliefs, which were to remain within the realm of private decisions. From this point of view, laicism was associated to religious neutrality, freedom of conscience and, in political terms, it reflected the growing process of secularization.

The debate on laicism, which took place in the late nineteenth century and during the first part of the twentieth century, is quite well known. Since then, there have been profound cultural changes that have not followed linear trends or occurred in accordance with the predictions of analysts. On one hand, data from international surveys show a declining power of institutionalized religion. On the other hand, however, the importance of religion for young people seems to be increasing. The regression of religious beliefs due to the progress of education, as anticipated by classical sociology, is far from being empirically verified. This phenomenon may be seen among the European population, but not in the United States. Likewise, neither does it seem to be the case of European young people of immigrant origin. They tend to integrate religion as an important dimension of their cultural identity and as a reaction to the lack of educational and employment opportunities in societies where they feel like foreigners in relation to the dominant cultures. And the case of Latin America is also different. In this region religion has been associated to both progressive youth movements and reactionary conservatism.

This issue has complex dimensions, and within the context of this document we would like to refer only to formal education. Stated as concisely as possible, the original idea according to which laicism aims to promote universal values over religious particularisms may be supported. However, we should discuss the appropriateness of promoting those common values without taking into account the religious dimension of individuals. Unlike classical laicism, a renewed approach would see it as a curricular domain that contributes to transforming the public school into an institution accepting and welcoming people from a wide variety of societal backgrounds and promoting social cohesion through the knowledge of and respect for diversity, rather than by ignoring or being indifferent to it.

To a large extent, the debate on the purpose and role of the public school is part of a more comprehensive discussion on the universalism of public policies. Traditionally, the public school was the quintessential representation of an integrating and homogenizing universalism – e.g. equal treatment and the provision of the same education for every child – and was based on different variants of the welfare state. Given the large equity gaps and the explosion of diversity, this kind of universalism does not seem to be a sustainable solution any longer. The alternative might be a different and inclusive universalism that seeks to establish an effective integration through a close interface between a set of universal and binding value references and the particularities of groups and individuals. It is understood that this renewed universalism implies a new historical pact among the political system, society and education and necessarily, to rethinking the role of the school as a socializing agent.

It is also important to highlight that this debate tends to focus on what is going on in public schools managed by the state. In several contexts, however, the terms of the debate on the teaching of religion in private schools managed by different churches or their representatives are still too limited. From this point of view, in our opinion, the teaching of religion within a spirit of tolerance, respect for and understanding of diversity is a valid

requirement for private schools. The education system has the ethical obligation to ensure the compliance to universal values in every educational institution, being it private or public, and not to encourage or allow the practice of any kind of reduced universalism.

What does this mean? It means that the teaching of religion(s) should be offered in the context of an education aimed at forming people and citizens respectful of human rights and of cultural, religious and gender diversity, who have a sense of solidarity and are also active advocates of peace and dialogue in conflict resolution. From this perspective, it would not be acceptable, for example, to promote values that incite one to view the *other* as an enemy or a threat. Within the framework of building more just societies, it is essential to educate citizens and elite leaders who are ethically convinced and committed to social justice, respect for human rights, peace and solidarity.

In terms of public policies, it can be argued that democratic ethical education is a fundamental task of the school, whether it is managed privately or by the state. The state has the obligation to provide direction and supervise the different educational provisions so that this mandate is fulfilled. The need to strengthen ethics in education also applies to state-managed institutions. Nevertheless, the contents of the traditional laicism, which implies an abstraction from social contexts and demands, are no longer a force able to guide democratic citizen behaviour. The secularization process has greatly advanced in society, even though the ethical challenges we face are unprecedented. Following the view of Habermas, citizens today are facing issues whose moral implications greatly exceed the traditional political dilemmas of the past. Modifying or not the human genome, radically changing our consumption habits in order to ensure the sustainability of social development, and reflectively and consciously practicing solidarity in order to enable social inclusion for all citizens, are extremely demanding ethical challenges. In order to face these challenges, the whole education system has to identify the ethical and cognitive experiences that could be designed in order to contribute to the moral reserves of society and specifically to the development of an individual's moral capacity.

In the end, we should admit that both public and private schools face a common challenge: to strengthen their capacity to impart core values in order to attain one of the pillars of education in the twenty-first century – learning to live together.

We are all special

The debate on inclusive education is increasingly framed in the context of rethinking the responsibilities, role and functions of education systems. The most traditional approach tends to view the education system as a service provider mainly in formal settings, and characterized by a wide range of institutions, actors and programmes that do not necessarily work in a coordinated manner under a common long-term vision. Its effectiveness is understood and measured mainly in terms of the access and survival rates, and increasingly on the basis of the results of national and international assessments, which are becoming policy drivers under the slogan 'examine, assess and compare' advocated by multilateral agencies (Kamens & Benavot 2011).

It is assumed that altogether the diverse educational provisions will contribute to equalizing opportunities and result in expanded and democratic access to education. Access-oriented policies prioritize investments considered necessary in areas such as physical infrastructure and supplies (i.e. textbooks, computer equipment) to support the learning

process. Reforms are primarily evaluated in terms of education expenditures' share of GDP and/or improvements in the working conditions of teachers and school operation. Investments and better salaries are key, but often the results that they are expected to produce are not attained. Evidence from the comparative analysis of educational reforms suggests that it is not sufficient to improve conditions and inputs in order to achieve better results – although it is still certainly necessary – it is also critical to support these improvements with a renewed vision of the what and how of education. A clear example is Latin America, where investments and education expenditures have increased substantially in most countries during the last decade, while educational outcomes generally have not shown any improvement trend (Albornoz & Warnes 2013).

Under this traditional view of the education system, inclusive education is a set of interventions and programmes – frequently uncoordinated and lacking a holistic perspective – focused on specific sectors of the population such as, women, indigenous peoples, those with special educational needs, the displaced and the extremely poor. This approach basically implies compensating differences among groups and implementing remedial actions with a focus on the reduction of disparities. There does not seem to be a great concern for redefining educational opportunities and learning by elaborating curriculum proposals based on the specific profiles of the different groups. The focus of these policies seems to reflect a sort of cultural amnesia and the neglect of persons as the 'protagonists' of their own learning.

In contrast to this traditional view, education systems should be increasingly conceived as facilitators of learning with the aspiration to achieve more just and inclusive societies. The idea of facilitation is mainly related to the "full range of learning opportunities available to children, youth and adults, whether provided or funded by the State or non-state entities such as, individuals, private companies, community associations or religious organizations" (World Bank 2011). The education system has to promote learning that is relevant to society and individuals, but it should also stress the acquisition of a set of values and universal references that strengthen citizenship and society and, at the same time, enable and protect the expression of diversity.

It could be argued that the education system should be based on the commitment to provide every student with a personalized opportunity to learn. Personalizing education does not mean the addition of individualized student plans detached and abstracted from a collective learning environment with other peers; rather, it entails mobilizing all the potential within learning environments in a variety of contexts. Personalizing education is to respect, understand and build upon the uniqueness of each person within collaborative environments viewed as a learning community where all are needed and support each other.

According to Marc Tucker (2011) education systems that seem to be more successful are constantly concerned with providing all students a real opportunity to learn without leaving anyone behind, mobilizing each student's learning potential and providing learning experiences relevant to individuals and society. The analysis of the best performing education systems shows that their curricular proposals are able to motivate, challenge and encourage life and citizenship skills development.

Building an effective inclusive system requires substantial changes in mindsets, policies and practices. The challenge consists in moving from traditional systems where only a few students learn to new systems – viewed as facilitators of learning opportunities –

where all students need to learn at high levels (Schleicher 2011). The focus on learning, a central feature of inclusive education systems, requires linking three elements: (i) high quality of knowledge shared by teachers with students in the different learning areas and related disciplines (i.e. the pursuit of excellence not only in the traditional 'hard' areas of knowledge); (ii) a wide range of opportunities to learn and apply knowledge competently (openness to society and real life problems); and (iii) the emphasis on values and attitudes that show appreciation of freedom, solidarity, peace and justice, among other core values.

It is not just about advocating generically and rhetorically for inclusion, investing more resources in infrastructure and equipment considered as necessary, adjusting the curriculum, or changing the training and professional development of teachers. Rather, inclusive education implies above all openness, willingness, being convinced and convincing others of the necessity to respect, understand and support the diversity of students' profiles and needs in order to democratize and enhance learning opportunities, processes and outcomes. Among other key aspects, it implies that educators are convinced and thus, actively promote inclusive practices in collaborative learning environments.

Inclusive education can then be considered as a cross-cutting principle of the organization and functioning of education systems. It is a way to reinforce the purpose and comprehensive framework of social policies through a gradual shift: from seeking to equalize through a homogenizing approach to pursuing inclusion through personalization that takes into account the diversity of students (Ainscow & Miles 2008; Frandji & Rochex 2011). This customized approach is based on the conviction that we are all special and we need to be supported. Therefore, inclusive education cannot result in separation, segregation or stigmatization of provisions and learning environments. Further, it cannot entail adjusting learning expectations to the socioeconomic characteristics of students. Ensuring the personalization of education requires comprehensive frameworks that clearly define common visions, goals and outcomes for diverse populations and groups.

Inclusive curriculum, schools and teachers

Proposing inclusive education as a lever for changing the education system should rely on policies and strategies that contribute to its effective implementation in school. In light of this challenge, experiences worldwide seem to show that the triad 'inclusive curriculum frameworks–schools–teachers' is a way of enhancing the universalism of education policies in order to provide each student with a personalized opportunity to learn (UNESCO-IBE 2009 and 2011).

The intended curriculum is an educational policy instrument that defines the learning that is relevant to society and individuals, but by itself is nothing more than a document that sets objectives, contents and expected outcomes. To some extent, it represents for the education system what a constitution is for a democracy (Jonnaert, Ettayebi & Defise 2009).

The intended curriculum requires an educational institution able to implement it and the organization of learning opportunities and processes adapted to the diversity of students. However, the institution itself risks being too prescriptive if it is not able to convince and commit its actors. Hence, there is a need for teachers that can implement the curriculum, translate into practice the intended objectives, prioritize learning and content areas, and adopt teaching strategies and evaluation criteria that respond to each student's uniqueness. In addition, the teacher alone cannot personalize education if the curriculum and educational

institutions are not friendly. The above-mentioned triad is thus a possible response of education policy against the constraints of a prescribed curriculum (i.e. decided at the central level without regional and local roots), an institution merely executing policies (top-down approach), and a wishful teacher (i.e. teacher isolationism).

A curriculum that aims to respond to the diversity of expectations and needs of the entire student population requires schools that develop their educational offerings while paying attention to the diversity of students' contexts and capacities. It also requires teachers who are able to organize a learning process that takes into account and respects each person's characteristics and needs. Therefore, an inclusive education public policy can be described as the permanent search for the intersection points among the curricular proposal, the school conception, and the teacher's profile, role and practices. Teachers must be supported and have a clear understanding of the why, what and how of education for all – a role played by a curriculum focused on the person and learning – within the framework of an institution with pedagogical leadership, vocation and teamwork practices.

Countries around the world increasingly organize basic, primary and secondary education into cycles around curriculum frameworks (De Armas & Aristimuño 2012). A curriculum framework is (i) a technical tool that sets the parameters for the development of other curricular documents such as study plans and syllabi, and (ii) the outcome of a social agreement regarding the national priorities for education and the aspirations for the future society (UNESCO-IBE 2013). An example of a structure in cycles is the Basic Education Programme in Africa, a UNESCO initiative aimed at supporting the implementation of a compulsory and integrated nine-year basic education with a competency-based approach (UNESCO-IBE *et al*. 2009). In this case, one of the main challenges consists in overcoming the gaps between an intended universal primary education and an elitist secondary education that essentially remains based on models and patterns imposed during the colonial period.

Curriculum frameworks are a way to define and give coherence to the curriculum development process, in the form of documents that establish parameters within which the curriculum must be developed. Among other components, they include statements related to the underpinning principles and core values, general objectives, learning achievement expectations, and guidelines concerning the organization of the teaching and learning process as well as assessment methods – assessment of, for and as learning.

A curriculum framework provides a coherent and sequenced set of guidelines and national standards that enable and support the development of the school curriculum. This development process should reflect local realities and challenges while providing an open and wide perspective of the world and the national society. Countries with good educational results on international tests combine a curriculum framework, that defines what is to be learned, with autonomous schools which decide how to achieve that learning (Kärkkäinen 2012). The elaboration of an inclusive curriculum framework at the national level, which provides guidance and support, can strengthen the relevance and flexibility at the regional and local levels as well as in each school.

An inclusive curriculum framework is supported by collaborative learning environments. It has a threefold role: (i) it facilitates the coordination and implementation of an integrated and holistic approach of social policies targeting improvements in social justice, cohesion and inclusion; (ii) it focuses on promoting children's emotional and cognitive development and social welfare in a holistic manner; and (iii) it seeks to effectively include

children from diverse ethnic, cultural and socioeconomic backgrounds, promoting socialization processes and heterogeneous learning environments in the context of a society that accepts and appreciates diversity as a value for coexistence. For an inclusion-oriented school every child matters, as it is permanently creating the conditions and promoting the processes that provide all children with an effective opportunity to learn. Therefore, schools must identify and make effective use of the available resources in order to help develop the learning potential of each pupil and student.

Curriculum frameworks and schools in turn should be supported by a teacher fully convinced of the benefits of inclusive education and empowered to make decisions for its implementation in the classroom. This requires that teachers effectively participate in the curriculum development process, are accountable for their inclusive practices, and are encouraged and supported by the education system as a whole. It also requires addressing inclusion and diversity as cross-cutting dimensions in teacher training programmes. Issues related to diversity and inclusion should not be regarded as 'thematic units' to be added to the curriculum. Quite on the contrary, a better understanding of these issues is crucial for the comprehensive care of learners and the provision of an effective opportunity to learn to all of them. Findings from neuroscience and cognitive psychology can progressively inform teaching and learning processes, and can lead to a more personalized education based on inclusive principles and guidelines.

Training areas and curriculum approaches

Competency-based approach: opportunities and challenges

During the last decades in many national contexts the focus of attention and concern has gradually moved from the access to education and the necessary inputs to the outcomes of the educational process. These outcomes are increasingly defined in terms of generic or cross-cutting *competences* that students should have acquired by the end of their general education in order to succeed in their further studies, for their personal development and for employment and inclusion in a knowledge society. Several organizations, including partnerships and consortia, have developed and proposed different frameworks of competences – defined, among others, as 'key competences', 'core competences', 'life skills' or 'twenty-first century skills' – using different approaches, groupings and terminologies, which sometimes may contribute to generating ambiguity and uncertainty.

In the context of the European Union (EU), for example, competence is defined as "a combination of knowledge, skills and attitudes appropriate to the context", and key competences "are those which all individuals need for personal fulfillment and development, active citizenship, social inclusion and employment" (European Parliament 2006). The EU Reference Framework sets out eight key competences for lifelong learning, namely: communication in the mother tongue; communication in foreign languages; mathematical competence and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; and cultural awareness and expression. Competence in fundamental basic skills of language, literacy, numeracy and information and communication technology (ICT) is seen as an essential foundation for learning, and learning to learn supports all learning activities. In addition, the European reference framework includes a series of 'themes' – in principle, cross-cutting

competences – that play a role in all eight key competences, i.e.: critical thinking, creativity, initiative, problem-solving, risk assessment, decision-taking and constructive management of feelings (*ibid.*).

To a large extent, many of the competences contemplated in the EU framework are included in other reference frameworks. However, there are variations in the classification and in the importance attached to each of the competences. In some cases the four 'Cs' are proposed, i.e. communication, creativity, collaboration and critical thinking. In others, the competences are classified as cognitive, personal and interpersonal competences. In addition, reference frameworks may include a number of personality attributes and qualities sometimes defined as 'soft' skills, such as integrity, empathy, responsibility, flexibility, leadership, etc., which are deemed necessary for employment and are valued by employers in addition to professional competencies ('hard' skills; this issue will be further analyzed below). Excluding ICT-related competence or digital literacy, most of these competences are not entirely new to educators and have been taken into consideration for a long time.

The increased emphasis on generic or cross-cutting competences is not limited to EU and OECD countries. A rapid assessment of curriculum frameworks and policies in countries from all regions in the world compiled by the UNESCO IBE, shows that almost 90 countries – including some sub-federal entities – refer to generic competences in their general education curricula. Competence in communication (mother tongue and foreign language) and social competences are the most frequently highlighted, followed by problem-solving, creativity, digital competence and numeracy. Almost half of the countries make reference to civic competence, collaboration, critical thinking and entrepreneurship. Countries place slightly less emphasis on literacy (often implicitly included in communication), basic competences in science and technology, information processing and management, and learning to learn. It is important to note that the analysis focused on cross-cutting competences, i.e. those competences that in curriculum-related materials are presented as the expected result of the whole process of learning across specific subjects or disciplines, without taking into account references to competences within some specific disciplines – for example, basic competences in science in the disciplines of natural sciences, physics, chemistry or biology.

Another interesting aspect is the presence of cross-cutting or transversal themes in curriculum documents of at least 70 countries. These themes are generally conceived as a pedagogical means intended to: connect programmatic content across disciplinary boundaries; promote a multidisciplinary or interdisciplinary approach; enrich the curriculum without overloading it; facilitate cooperative learning; address issues relevant to students' lives; and, in several cases, to support the development of key competences. In addition, in general lower and upper secondary education cross-cutting themes should promote teamwork among teachers from different disciplines and facilitate collaborative approaches to planning learning experiences that reinforce the collective responsibility for students' learning. Cross-cutting themes cover a wide array of topics and issues, such as values education, civic and citizenship education, health education, education for HIV and AIDS prevention, human rights education, ICT, gender equality, and environmental education – in several cases related to sustainable development issues. Environmental education is the most frequently mentioned theme in curriculum documents (in more than 50 countries).

Within the scope of this document it is not possible to refer to all the complexities and pending challenges in relation to the competency-based approach or analyze the various

ongoing discussions and contrasting views around curriculum reforms that have adopted this approach. We will try instead to briefly highlight some aspects that in our opinion deserve closer attention.

In general, it is recognized that many of these key competences or twenty-first century skills overlap and support each other. They are viewed as being, to some extent, transferable, even if it is not yet clear the range of contexts through which these competences may be transferred and how learners can be supported in transferring cognitive and 'non-cognitive' competences across different disciplines (National Research Council 2012). There seems to be a consensus on the main competences that students should acquire, although similar terms can be interpreted in many different ways depending on the context. For example, it has been observed that there is no unanimous agreement on the definition of 'critical thinking' or a widely accepted definition of 'creativity' (Lai & Viering 2012), and in the European context the interpretation given to the term 'attitudes' – one of the main components of a competence – can be very different in each country (Gordon *et al.* 2009). 'Learning to learn' is certainly a fundamental competence, but there is still some uncertainty about the best way it can be acquired and how to assess its attainment (*ibid.*). In an analysis focusing on OECD countries, it was found that almost all the countries participating in the survey recognize the relevance of twenty-first century skills and most countries reported that these skills are integrated across the curriculum, although it has not been possible to obtain clear answers about how they define these skills (Ananiadou & Claro 2009).

It is frequently recommended that a cross-curricular approach be adopted for the development of key competences, although some of them tend to be seen as closely related to traditional disciplines or 'core' learning areas – such as languages, mathematics, sciences. Also, certain competences can be considered more important or fundamental than others as they likewise support learning in the different curriculum areas. Returning to the example of the EU framework, a study concerning its implementation has shown that four competences – communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology – tend to be anchored in traditional disciplines, while the others along with the 'themes' are seen as transversal competences or skills, and that the distinction between the two groups is not very clear (Gordon *et al.* 2009).

The majority of studies and analyses focusing on generic competences/skills agree that the most important challenges relate to their practical implementation and assessment. Defining the role and place of competences within the traditional discipline-based curriculum and how core subjects and other subjects should contribute to their development is still an open and controversial issue (Voogt & Roblin 2010). It is also evident that very sophisticated implementation strategies and profound changes are required in the organization of the teaching and learning process as well as in the professional development of teachers, as it is unlikely that teachers can support students in developing competences that they themselves have not acquired.

The assessment of key competences (or twenty-first century skills) is another critical issue. The necessary implementation of new assessment systems is extremely challenging and potentially burdensome, as illustrated by Oliver Rey (2012) in the case of France. 'Non-cognitive' skills, personal qualities and attitudes have an influence on the learning process, but they are rarely taken into account in assessments both at the national and international level. Furthermore, the concept of competences implies a range of contexts in which they

could be utilized, and requires an assessment not far away from 'real life'. In his analysis of key competences assessment policies in EU countries, David Pepper (2011) notes that current assessment tends to concentrate on the 'traditional' competences – languages, mathematics and science – and the associated disciplines in a limited range of contexts. The main focus is on knowledge and skills, while the assessment of other transversal competences is much more limited and sporadic. The same author underlines the risk of distorting the curriculum by assessing only a few competences, as well as the danger of distorting the same competences if only some of their components are assessed (Pepper 2012: 2).

There are also several pending challenges in the case of cross-cutting themes, above all with regard to their implementation. Quite often teachers have to deal with a 'congested' curriculum. Thus, it may be difficult for them to find enough time for transversal themes that require high levels of engagement and interaction between teachers and among teachers and students. Teachers, as well as students and their parents, may have the perception that these themes are an addition and are not truly relevant, especially if the learning from these themes is not formally assessed. In addition, the well-rooted disciplinary structure of the curriculum and the discipline-based qualifications of teachers (primarily at the secondary level) may create a powerful barrier to the adoption of an interdisciplinary or multidisciplinary approach.

Instead of taking a position in favour or against the competency-based approach, it seems to us more productive to underline at least three significant aspects related to the what and how of education. The first of these is the necessity to adopt and develop a holistic approach to learning, which not only considers the academic knowledge, cognitive development and skills, but also the 'non-cognitive' dimensions – attitudes, values, emotions, personal qualities – the importance of which is increasingly recognized (see for example Levin 2012; Brunello & Schlotter 2011). The second is the need to consider the applied dimension of knowledge, since not only what we know is important, but also what we can do with that knowledge. And the third: if the development of competences is to be effectively promoted, it is necessary to entirely rethink the traditional disciplinary structure of the curriculum, the organization of learning experiences, the teaching approaches and the assessment systems.

The debate around 'soft' and 'hard' skills

The concept of 'soft' skills is frequently used to refer to those competences related to civic engagement that go beyond the traditional cognitive and academic dimensions. At first glance, one may be tempted to believe that something 'soft' is easier to teach and be learned than something 'hard' and, therefore, less relevant and less prestigious. For this reason, among others, achievements in mathematics and sciences are systematically assessed while this is not the case for ethics and social commitment. Nevertheless, teaching and learning to respect others, developing strong adherence to social justice and to values such as solidarity and peaceful conflict resolution, or changing consumption habits to contribute to protecting the environment, is likely to be 'harder' than teaching and learning the theorem of Pythagoras. Learning this set of values and attitudes demands more time and different teaching strategies, it mobilizes more personality traits and obliges to modify representations that have a strong emotional significance.

The major concern lies in this apparent dichotomy between 'hard' and 'soft', which informs the decision-making process involved in the elaboration of educational policies and

may lead to the dissociation of the ethical dimension from the cognitive dimension as well as the emotional dimension of citizenship agency. The division between cognitive, emotional and ethical aspects is associated with the division between hard and soft sciences, and is based on the assumption that some knowledge is more relevant and valuable than another. Certain consequences of this approach are learning processes that are disconnected from values, and a curriculum strongly influenced by multiple interpretations of what might be understood as 'hard' knowledge. Rather than the hierarchical organization of knowledge – a complex and sensitive issue – what matters is providing students with the opportunity to access and enjoy different and complementary learning experiences that contribute to the development of the whole person and to become responsible citizens. This might be related to the concept of 'indispensable basic' mentioned by Coll and Martín (2006) when referring to the essential learning which, if missed, can negatively affect the students' personal and social development and their project of life, exposing them to social exclusion.

The analyses of the cognitive requirements of contemporary society have underlined the need to teach and learn at least two main capacities. The first one is the ability to abstract, since we live within a context overloaded with information. The second one is system thinking or complex systems thinking which can enable us to better understand the complex nature of our reality. History shows that teaching these abilities without ethical contents may be dangerous for democratic coexistence and the moral reserves of society. Inversely, promoting democratic values without scientific information and knowledge may lead to a superficial and purely formal adherence. In both cases the comprehensive civic and citizenship education that enables people to critically reflect and be proactive based on evidence is being distorted.

In the curriculum domain the division between cognitive, emotional and ethical aspects is linked to the division between hard and soft sciences, or between scientific disciplines on the one side, and arts and humanities on the other. It seems clear that the countries making more progress in education design their curriculum proposals on the basis of a diversity of learning experiences connected to the demands and expectations of society and to students' motivations. Recent analyses of this issue show the obsolete nature of a reductionist and dichotomous approach. Science and technology have expanded well beyond the sphere of economic production and nowadays they permeate all domains of life. This technological omnipresence evidences its social nature. Inversely, social life today requires the management and mastery of technologies, as well as knowing what they can be used for.

In short, it is imperative to get away from the binary opposition between the 'soft' and the 'hard'. This kind of reasoning, which simplifies and distorts problems, may cause diagnosis mistakes leading to inefficient strategies in the attainment of educational policy goals. But getting away from this binary logic implies the recognition that we are facing complex and delicate tasks and challenges. We are facing challenges inherent to the productive structure (e.g. the trend towards growing economic inequality, precarious employment, concentration and privatization of the research and development capacity) that tends to promote social fragmentation, xenophobia, and the weakening or even erosion of those links that connect us to other people.

In order to face these challenges, we can rely on the same elements that many sectors of the society use to promote the construction of more just societies. In this sense, we cannot reduce the challenge to a sectoral, scholastic or pedagogical issue. Supporting the development of these *systemic* abilities (neither hard or soft) implies a strong cognitive,

ethical and emotional engagement, as well as rigorous work that will lead to the identification of learning experiences – in the sense Dewey defined this concept – which students should realize throughout their educational trajectory. The difficulty and complexity should not paralyze us, rather they should motivate us to make a greater effort and avoid the naïve optimism teachers tend to show.

Scientific culture or digital culture?

Most of the literature on pedagogy and education policy in recent years revolves around themes of digital culture and its place in the curriculum at different educational levels (Pelgrum & Law 2003). This issue is being widely investigated and discussed and nobody (or almost nobody) questions the need to universalize access to information and communication technologies (ICT) and learning how to use them. Digital literacy is conceived as a right and governments are allocating very large amounts of money to buy computers and other technological devices and develop the connectivity infrastructure essential for these devices to be fully used.

Less agreement, however, exists around the meaning of digital culture. The first analyses on this issue considered digital culture as a 'revolution', associated with such values as democracy, creativity, freedom, solidarity, participation and tolerance, among others. The initial widespread optimism of those who were promoting the expansion of this culture is no longer unanimously shared today, and more skeptical voices are heard, drawing the attention on a complex reality. On the one hand, we are witnessing phenomena such as the intensive use of information technologies for the propagation of fanaticism, violence, racism and other expressions that greatly differ from the original vision. On the other, the available evidence indicates that there is no technological determinism in the explanation of behaviours and values associated to the use of ICT. The ways of using these devices depend on how social actors are envisaging their development. ICT need an ideological and pragmatic framework in order to make clear their purpose and specific mission.

In parallel with this discussion about digital culture, the future and the sustainability of the present production and consumption patterns are the topic of many current debates. Societies face quite challenging issues such as, for example, climate change. The economic growth of the Southern countries will generate a significant increase in energy demand, which currently can only be met by the massive exploitation of fossil fuels – the main factor contributing to global warming. This warming will affect the poorest regions of the planet, with draughts and disastrous floods. Health risks, food crises and governance crises are foreseeable situations in light of present development patterns. Facing these challenges requires, among others, the utmost efforts in terms of research and the promotion of a scientific culture among citizens in order to encourage more reflexive discussions and decision-making that carefully considers the magnitude of problems.

Paradoxically, the growing importance of sciences and technology in society is not mirrored by an increase in the interest and involvement of youth in scientific activities. Environmental care and protection is a matter of concern, but significant deficits can be perceived in scientific vocations and in policies intended to greatly improve the quality of science teaching in basic and secondary education. Today, scientific literacy is an essential component of citizenship education, and its importance should be reflected in the decisions regarding the allocation of resources, research and teacher education.

The education system faces the challenge to promote the development of these two 'cultures', the scientific and the digital one, as complementary areas contributing to a comprehensive citizenship education. They are different but they are not in opposition. In fact, it is just the contrary. What we want to argue is that the debate about digital culture would have a different connotation if we put it in the context of developing a scientific culture. It is not about young people becoming skillful users of digital devices; rather, it is about giving a social purpose to such skills beyond the merely technological and purely individualistic ones. We need an ultimate purpose and vision for what we do with technological devices. Therefore, the promotion of a culture that allows us to have a better understanding of the challenges faced by society and of the debates around the strategies to cope with these challenges is a central objective.

Southern and Northern countries are making significant financial investments to equip educational institutions with technological devices. It does not seem that investing to improve the teaching and learning of sciences is receiving the same attention and level of funding. However, the future of the planet does not depend on what key we should press on a computer. It depends, to a greater extent, on understanding the challenges of inclusive social development and behaving as responsible and proactive citizens who share a sense of solidarity.

Some final reflections

In a national and global context permeated by uncertainties and often by disappointments, the education system needs a profound transformation to effectively offer each and every student the opportunity to learn in a framework of universal values and references. The education system itself is not only legitimized by the investments made to improve learning conditions and ensure the universal access to education. Imparting values education to achieve a more just and inclusive society, providing a variety of learning experiences for a competent and active citizenship, and ensuring quality and equity in learning outcomes, are three key challenges education systems face. This implies, among others, to rethink the role of curriculum.

The curriculum understood only as study plans organized around disciplines with lists of goals and contents, does not seem to contribute to a renewed vision of the education system as a facilitator of learning opportunities. The curriculum, however, may constitute an important catalyst if it is also conceived as the outcome of a process engaging citizenry and as a reflection of a society's aspirations and vision for its future, committing a diversity of institutions and actors, and clearly focusing on the what, why and how of education. It is therefore necessary to ensure a wider policy dialogue around curriculum design and development, with the active involvement of other actors apart from the traditional ones such as, for example, parents organizations, business chambers representatives, trade unions, community leaders, and representatives of the organized civil society.

The curriculum as an instrument of legitimization of education policy can provide a foundation for and be a carrier of principles and guidelines intended to democratize educational opportunities in terms of processes and outcomes. From this perspective, at least five issues may be relevant for the curriculum debate.

To conceive the curriculum as a core element of educational change implies, among others, recovering the utopia and education narrative that is often minimized when the

attention is excessively concentrated on the conditions for learning and disregards processes and engagement in learning. Certain principles or central ideas are needed to articulate the complementary role of education as a cultural, social and economic policy intended to achieve more just and inclusive societies. In this sense, we believe that the four pillars of education set forth in the Delors report – e.g. learning to know, learning to do, learning to be and learning to live together – should be revisited and understood as a desirable and feasible utopia guiding the educational process. Among other reasons, this reaffirmation of the principles advocated by the Delors report is related to the fact that they are still current and pending duties of education, and should contribute to redefining the education system priorities.

If education policy is based on the principle of education as a right and public good, the curriculum proposal would have to clarify what is understood by quality education for all. In particular, it is important to take into account the required conditions and processes to ensure that the dimensions of justice, equity and inclusion are the main organizing principles of curriculum development. Quality is the outcome of a process. It cannot be promulgated and should not be interpreted only on the basis of the results of national and international assessments – a trend that is expanding and consolidating. Quality implies a holistic vision of the education system and a comprehensive curriculum approach comprising processes and results. Also, quality does not mean only having good documents that reflect an innovative vision – for example, the competency-based approach. Rather, and above all, quality entails ensuring the necessary conditions to effectively translate the vision into the teaching practice and the concrete organization of the learning process.

In a globalized world, the curriculum should increasingly look for the complex but necessary balance between the integration of universal values and the respect for the diversity that characterizes national societies. The challenge of achieving a diverse and inclusive universalism and making 'learning to live together' a reality, requires that the curriculum proposal recognizes that universal values are critical for people to live according to their beliefs and life styles while respecting those of the others. Diversity may reinforce civic coexistence by integrating the richness of the faiths and affiliations in a universalistic frame of values. The effective incorporation of diversity into curriculum development as a reference criterion should imply the revision of educational goals and strategies as well as the assessment approaches and instruments which are frequently conceived independently from the students' heterogeneous profiles.

The interplay between global and local is an important aspect in curriculum development processes and sometimes leads to a confrontation between opposed educational visions. As we know, economy, commerce, finance, migration movements and communication technologies have extended to a global scale. Contrary to what happened in the past, contemporary curriculum reforms increasingly make reference to transnational models – for example, the twenty-first century skills – and to international surveys such as the Programme for International Student Assessment (PISA), whose results are even interpreted as an indicator of competitiveness in the global market. Tensions between the global and the local have a strong impact on the curriculum debate when it comes to defining educational goals and contents. It is clear that the main priority is basic education – which includes (or should include) democratic citizenship education (Cox, Jaramillo & Reimers 2005; Cox 2010) – without which it is not possible to progress in education and have access to the knowledge that citizens need for a successful integration into the 'local' society. But most of the contemporary and future challenges go well beyond national borders, and it is

critical that basic education also ensures access to the knowledge that helps students behave in a responsible and competent manner as global citizens.

Finally, the curriculum faces the challenge of ensuring that students take the leading role in their learning, recognizing that we are all special – e.g. the current broadened conceptualization of inclusive education. This recognition requires, on the one hand, a more personalized education to enable all learners to reach their full potential respecting their pace of progress, and, on the other, paying more attention to student welfare and to social and emotional learning in addition to cognitive development. As guiding criteria, personalization of education and student welfare oppose the separation between 'soft' and 'hard' knowledge, the narrowing of learning experiences to those that can be easily measured, as well as the prevalence of teachers as knowledge transmitters and of summative assessments. The personalization of education provides a range of opportunities to promote the necessary skills to live in the twenty-first century knowledge society and foster the pedagogical use of ICT linking digital literacy and scientific culture. It should be recognized, however, that the introduction of a competency-based approach and ICT involves rethinking the curriculum structure and objectives, the approach to teaching and learning, as well as the assessment systems within the framework of a holistic vision of education.

Bibliography

Ainscow, M. and Miles, S. 2008. "Making Education for All inclusive: Where next?" *Prospects*, Vol. 38, No 1, pp. 15–34.

Albornoz, F. and Warnes, P. 2013. *Educación en América Latina: más gasto, ¿mismos resultados?* [Education in Latin America: more spending, same results?]. (Accessed 20 September 2013.)

Ananiadou, K. and Claro, M. 2009. "21st century skills and competencies for new millennium learners in OECD countries." *OECD Education Working Papers*, No. 41. Paris: OECD. (Accessed 20 September 2013.)

World Bank. 2011. *World Bank Education Strategy 2020.* Draft executive summary. Washington DC: World Bank. (Accessed 20 September 2013.)

Brunello, G. and Schlotter, M. 2011. "Non cognitive skills and personality traits: Labour market relevance and their development in education and training systems." *Discussion Paper No. 5743* (May 2011). Bonn (Germany): Institute for the Study of Labor (IZA). (Accessed 20 September 2013.)

Coll, C. and Martín, E. 2006. "The prevalence of the curriculum debate. Basic learning, competencies, and standards. The curriculum in the spotlight." *PRELAC Journal*, No. 3, pp. 6–27. Santiago: UNESCO Regional Bureau of Education for Latin America and the Caribbean. (Accessed 20 September 2013.)

Cox, C. 2010. *Informe de Referente Regional 2010. Oportunidades de aprendizaje escolar de la ciudadanía en América Latina: currículos comparados* [Regional Reference Report 2010. School opportunities for learning citizenship in Latin America: A comparison of curricula]. Sistema Regional de Evaluación y Desarrollo de Competencias Ciudadanas (SREDECC) [Regional System for the Evaluation and Development of Citizenship Competencies], Inter-American Development Bank. Bogotá: CERLALC. (Accessed 20 September 2013.)

Cox, C., Jaramillo R. and Reimers, F. 2005. *Education for Democratic Citizenship in the Americas: An agenda for action.* Department of Sustainable Development, Inter-American Development Bank. Washington DC: IDB. (Accessed 20 September 2013.)

De Armas, G. and Aristimuño, A. 2012. *La transformación de la educación media en perspectiva comparada. Tendencias y experiencias innovadoras para el debate en Uruguay* [The transformation of secondary education in a comparative perspective. Trends and innovative experiences for the debate in Uruguay]. Montevideo: UNICEF. (Accessed 20 September 2013.)

Finnish National Board of Education. 2013. *Social welfare services*. (Accessed 20 September 2013.)

Frandji, D. and. Rochex, J. Y. 2011. "De la lutte contre les inégalités à l'adaptation aux « besoins spécifiques »." *Éducation & formations*, No. 8, pp. 95–108. (Accessed 20 September 2013.)

García-Huidobro, E. and Corvalán, J. 2009. "Barriers that prevent the achievement of inclusive democratic education." *Prospects*, Vol. 39, No. 3, pp. 239–50.

Gordon, J., Halász, G., Krawczyk M. et al. 2009. *Key Competencies in Europe. Opening Doors for Lifelong Learners Across the School Curriculum and Teacher Education.* Center for Social and Economic Research (CASE). (Network Report, No. 87.) Warsaw. (Accessed 20 September 2013.)

Jonnaert, P., Ettayebi, M. and Defise, R. 2009. *Curriculum et compétences : un cadre opérationnel* [Curriculum and competencies: an operational framework]. Brussels: De Boeck.

Kamens, D. and Benavot, A. 2011. "National, regional and international learning assessments: trends among developing countries 1960–2009." *Globalization, Societies and Education*, Vol. 9, No. 2, pp. 285–300.

Kärkkäinen, K. 2012. "Bringing about curriculum innovations: Implicit approaches in the OECD area." *OECD Education Working Papers*, No. 82. Paris: OECD.

Lai, E. R. and Viering, M. 2012. *Assessing 21st century skills: Integrating research findings*. Vancouver BC: National Council on Measurement in Education. (Accessed 20 September 2013.)

Lenoir, Y., Xypas C. and Jamet, C. 2006. *École et citoyenneté. Un défi multiculturel* [School and citizenship: A multicultural challenge]. Paris, Colin.

Levin, H. 2012. "More than just test scores." *Prospects*, Vol. 42, No. 3, pp. 269–84.

Marina, J. A. 2011. *El cerebro infantil: la gran oportunidad* [The child's brain: the great opportunity]. Barcelona: Planeta S.A.

National Research Council. 2012. *Education for life and work: Developing transferable knowledge and skills in the 21st century*. Committee on Defining Deeper Learning and 21st Century Skills. Board on Testing and Assessment and Board on Science Education, Division of Behavioral and Social Sciences and Education. J. W. Pellegrino and M. L. Hilton (eds). Washington DC: The National Academies Press.

European Parliament and Council. 2006. "Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning." *Official Journal of the European Union*. Brussels, European Union. (Doc. 2006/962/EC.) (Accessed 20 September 2013.)

Pelgrum, W. J. and Law, N. 2003. *ICT in education around the world: Trends, problems and prospects*. Paris: UNESCO International Institute for Educational Planning. (Accessed 20 September 2013.)

Pepper, D. 2011. "Assessing key competences across the curriculum – and Europe." *European Journal of Education*, Vol. 46, No. 3, pp. 335–53.

——. 2012. *KeyCoNet 2012 literature review: Assessment for key competencies*. European Schoolnet and Key Competence Network on School Education (KeyCoNet). Brussels: European Commission. (Accessed 20 September 2013.)

Pons, F., de Rosnay, M. and Cuisinier, F. 2010. "Cognition and emotion." Pp. 237-44 in P. Peterson, E. Baker and B. McGaw (eds.) *International Encyclopaedia of Education*, Vol. 5. Oxford: Elsevier.

Rey, O. 2012. "Les défis de l'évaluation des compétences" [The challenges of competency assessment]. *Dossier d'actualité veille et analyses*, n° 76 (juin 2012) Lyon (France): Institut français de l'éducation. (Accessed 20 September 2013.)

Rosanvallon, P. 2011. *La société des égaux* [The society of equals]. Paris: Seuil.

Savolainen, H. and Halinen, I. 2009. *De la educación inclusiva al currículo inclusivo* [From inclusive education to inclusive curriculum]. (Discussion paper about curriculum and inclusion). Geneva: UNESCO-IBE. (Accessed 20 September 2013.)

Schleicher, A. 2011. *Educación: Una inversión estratégica con altos logros* [Education: A strategic investment with high achievements]. (Paper presented at the conference organized by Center for Educational Studies of the Global Foundation for Democracy and Development, 18 April 2011). Santo Domingo.

Tucker, M. S. 2011. *Standing on the shoulders of giants. An American agenda for education reform.* Washington DC: National Center on Education and the Economy. (Accessed 20 September 2013.)

UNESCO International Bureau of Education (UNESCO-IBE). 2009. *Defining an inclusive education agenda: Reflections around the 48th session of the International Conference on Education*. Geneva: UNESCO-IBE (Accessed 20 September 2013.)

——. 2011. *Interregional and regional perspectives on inclusive education: Follow-up of the 48th session of the International Conference on Education*. Geneva: UNESCO-IBE (Accessed 20 September 2013.)

——. 2013. *Herramientas de formación para el desarrollo curricular: Una caja de recursos* [Training tools for curriculum development: A resource pack]. Geneva: UNESCO-IBE.

UNESCO-IBE, UNESCO-BREDA and GTZ. 2009. *The Basic Education in Africa Programme (BEAP). A Policy Paper – Responding to demands for access, quality, relevance and equity*. Eschborn (Germany): BREDA/IBE-UNESCO/GTZ. (Accessed 20 September 2013.)

UNESCO Regional Education Project for Latin America and the Caribbean (UNESCO-PRELAC) and Secretariat of Public Education of Mexico. 2012. *Situación educativa de América Latina y el Caribe. Hacia una educación para todos en 2015 y más allá* [The state of education in Latin America and the Caribbean – Towards Education for All by 2015 and beyond]. Paper presented at the Third extended Meeting of the Bureau PRELAC, Mexico City, 29–30 January 2013. Santiago: UNESCO Regional Bureau for Education in Latin America and the Caribbean. (Accessed 20 September 2013.)

Voogt, J. and Roblin, N. P. 2010. *21st century skills discussion paper*. Report prepared for Kennisnet. Enschede (Netherlands): University of Twente. (Accessed 20 September 2013.)