



# Trends of Educational Research in the International context

## Tendenze della ricerca educativa nel contesto internazionale

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### ABSTRACT

This position paper analyses some trends of educational research in the international context, as well as in relation with social and human sciences research, taking into account main dissemination publications and activities of organisms controlling both policy making and funding for Educational Research in the EU and USA.

This analysis is undertaken with the aim to support comparative perspectives of educational research, focusing some key issues, forthcoming sceneries and critical aspects that will shape activities and training of educational researchers.

Questo *position paper* analizza alcune tendenze della ricerca educativa nel contesto internazionale e in relazione alla ricerca nelle scienze umane e sociali. A questo scopo, tiene conto delle principali pubblicazioni divulgative e attività degli organismi che controllano sia le politiche che i finanziamenti per la ricerca educativa nell'UE e negli USA.

Questa analisi è intrapresa al fine di sostenere prospettive comparative sulla ricerca educativa, individuando alcune questioni chiave, scenari prossimi e aspetti critici che definiranno le attività e la formazione dei ricercatori in ambito educativo.

### KEYWORDS

International trends in educational research, research funding and financing, critical issues of research training..

Tendenze internazionali della ricerca educativa, finanziamenti per la ricerca, criticità della formazione dei ricercatori.

## 1. Introduction

This position paper analyses some trends of educational research in the international context, as well as in relation with social and human sciences research, taking into account main dissemination publications and activities of organisms controlling both policy making and funding for Educational Research in the EU and USA.

This analysis is undertaken with the aim to support comparative perspectives of educational research, focusing some key issues, forthcoming sceneries and critical aspects that will shape activities and training of educational researchers.

The analysis, through an exploratory approach, has considered as starting point the following questions: Which is the role and visibility of educational research in the European and the International context? Furthermore, which is the part played by educational research inside social and human sciences' research? Which topics are mainly considered valuable within this research field? Which are the links with the general research and development context of the above mentioned regions (USA and EU)? Which are the adherence between educational researchers' interests and policy-making interests?

The kernel of this position paper is the issue of the problem faced in today's educational research as academic discipline, entailing researchers practice and status as scientists, as well as the training needs for young educational researchers' trainees.

Educational research has afforded, throughout the whole XX century, the need of defining their methods (Gage, 1989; Hammersley, 2002); the efforts made in the early years of this century were all directed to align educational research with experimental sciences, whereas later on, scientists discussed passionately the need of introducing qualitative approaches. That "paradigms war" (Gage, op.cit) seems to be overcome through the mixed methods approach in educational sciences, that searches adherence of methodological approaches to the educational problems instead of the opposite. Nevertheless, educational research is facing a wholly new station, which regards their placement among other social and human sciences. In fact, while the methodological discussion was an inner concern of educational research, their research topics and the usefulness of their results/products, meaning their role not only in the academic world but also in society, are today at the centre of attention.

It seems that the still many "provinces" of educational research are costing the whole discipline its status, its possibilities of being considered among policy-making strategies, and the worst of all, the possibility of educational research to shape a clear agenda of development. In fact, this own agenda should dialogue with policy making strategies; the risk is that educational researchers are imposed topics and research fields to "survive" as disciplinary field, instead of creating recursive situations where societal problems are the starting point for research and policy making (Whitty, 2006; Biesta, 2009, Margiotta, 2010).

As Biesta (2009) puts out, a critique of educational research could be based in at least three dimensions: usefulness, evidence and values, methods and theory.

We will first afford this three dimensions, in order to depict the problem. After this, we will take a look to empirical information coming out from the analysis of research trends within two international regions: European Union and the USA.

### *1.1. Usefulness: The Practical Roles of Educational Research*

In the UK, reports commissioned by the Department for Education and Employment (the *Hillage Report*, 1998) and Ofsted (Tooley and Varby 1998) expressed serious doubts about the quality and relevance of educational research, arguing, among other things, that educational research did not provide answers to the questions of policy makers, that it did not provide educational professionals with clear guidance for their work, that it was fragmented, non-cumulative and methodologically flawed, and that it often was tendentious and politically motivated (Hammersley, 2004; Biesta, 2009 ). For the AERA (American Educational Research Association, 2010), educational research has developed over the years serious attempts to address quality of educational research, partly by focusing on the methodological quality of educational research and partly by improving communication between the academic research community and many other constituencies. Also EERA (European Educational Research Association), in the last years, has declared the evident need of addressing topics relevant within European development context. Furthermore, the Framework Programme, since 1995, has published a number of reports stressing the transversality of educational research to

reach European developmental goals. Whereas these lines can be seen as separate, they are united by the fact that they both try to address the issue of the usefulness of educational research. The point here is that there is a strong tendency in discussions about the usefulness of educational research – and social science research more generally – to see useful research as research that tells us how to do things, how to solve problems, how to answer questions, and so on. This was precisely what was at stake in the criticism of international educational research – i.e., that it was not providing policy makers with the answers to their questions and educational professionals with the means and techniques to improve their practice – (Lagemann, 2000). Nevertheless, these criticisms have been around ever since education emerged as an academic discipline, and we could guess that, if educational research is given a place, it is because now than ever education (and learning) is being considered the key for a new society. Educational research is nowadays being given the opportunity to prove that their outcomes can be considered useful; if research failed to generate such outcomes the risk of being replaced by other more consolidated disciplines (like specific social sciences and humanities) is waiting at the corner. As a matter of fact, partly based on studies conducted in the Netherlands on the relationships between educational research, educational policy and educational practice the Dutch sociologist Gerard de Vries has developed a simple but important distinction between two ways in which research can be useful for practice (De Vries, 1990). On the one hand research can produce ‘technical’ or ‘instrumental’ knowledge, i.e., knowledge that indicates what one should do in order to achieve a particular result or outcome. To this De Vries refers as the technical role of research; it is a technical way in which research can be useful for practice. But the technical role – i.e., the provision of technical or instrumental knowledge – is only one way in which research can be useful for educational practice. The other way in which research can inform and improve practice is through the provision of different interpretations and understanding of educational practice. This is what De Vries refers to as the cultural role of research.

The distinction between the technical and the cultural role of educational research allows us to see that the provision of technical knowledge is not the only way in which research can benefit educational practice. While there is an important task for research in finding, testing and evaluating different ways of educational action, research can also have a practical impact if it helps practitioners to acquire a different understanding of their practice. To see a classroom through the lens of behavioral objectives, through the lens of legitimate peripheral participation or as a learning culture (see James & Biesta, 2007) can make a huge difference, not only in that we can see things differently but also in that we may be able to see problems where we did not see them before. As a result, we may see new and different opportunities for action and improvement. We could conclude that the cultural role of educational research is thus no less practical than the technical role, but it is necessary to balance the tensions among the two dimensions. While the first one takes research to serve immediate political/practical purposes regarding societal problems, the second one sees educational research committed with depicting new sceneries of practice, new conceptions of learning and teaching. Educational researchers should be aware of these two sides of the coin.

To illustrate this, De Vries argues that the role that educational research can play in relation to policy and practice to a large extent depends on the micro- and macro-political conditions under which researchers operate (see also Harbers, 1986). The research on which his theory is based indicates that in those cases in which there is a strong consensus about the aims of education or, to look at it from a different angle, where the aims of education cannot be questioned, the only possible role for research is a technical one. When such a consensus does not exist, either because parties cannot agree or because there is a belief in the worth of a plurality of views about the aims of education, it becomes possible for research to play a cultural role.

It is precisely here that De Vries connects his analysis with the idea of democracy. He argues that a democratic society is a society in which social research is not restricted to a technical role, but can also perform a cultural role. A democratic society is, in other words, characterized by the existence of an open and informed discussion about problem definitions and the aims and ends of education, a discussion, moreover, to which research is expected to make a contribution as well.

### 1.2. Evidence and Values

The exploration of the different roles of educational research also has implications for a notion that has become very prominent in many professional practices including education, which is the notion of ‘evidence.’ From an initial flirt with the notion of evidence-based practice, the discourse has increasingly shifted to that of evidence-informed practice (Biesta, 2007a). This last is attractive and misleading at the very same time. The attractiveness lies first of all in the fact that it is difficult to imagine anyone wanting to argue against the idea that policy and practice should be informed by evidence – or to put it even more strongly: for anyone wanting to argue that policy and practice should not be informed by evidence. A further problem with the idea of evidence-informed practice is that the amount of available evidence is always limited in relation to actual practice. There is always ‘more’ practice, so we could say, than that there is available evidence which means that a lot of what is done in education – in schools and classrooms – is actually done without any basis in research evidence. But the ambition of covering all educational practice with “research evidence” is fundamentally mistaken in its conception of what educational practice is. This becomes clear when we look at situations in which teachers are only allowed to do things for which there is positive research evidence available, as in those situations teachers would actually be able to do very little. Teaching is also an art and a social work, that requires creative interventions every day.

Finally, one could argue that these problems lie precisely behind the shift from evidence-based practice – i.e., the idea that ultimately practice can be totally based on evidence – to evidence-informed practice, where evidence is seen as one of a number of possible sources to inform practice. Nevertheless, here it seems to be necessary to dig into the kind of relationship is envisaged between research and practice if the discourse is that of practice being informed by research. There are epistemological, axiological and political questions at stake here. To begin with the epistemological point: ‘evidence’ operates in the domain of the empirical and is mostly a notion that refers to ‘technical’ knowledge, that is, knowledge about relationships between actions and consequences. This is perhaps one of the main reasons why John Dewey has argued that “(n)o conclusion of scientific research can be converted into an immediate rule of educational art” (Dewey, 1929:9).

It is also why Dewey emphasised that the only way in which research can inform practice is through the transformation of professional action into what he called ‘intelligent’ professional action. Again, what is important about Dewey’s notion of ‘intelligent action’ is that it in a sense combines the technical and the cultural role of research, in the sense that intelligent professional action is not a form of the application of externally generated knowledge, but as a process of problem solving. This reveals that intelligent professional action both needs technical and cultural ‘input’ from research. It not only needs evidence about what has worked in particular situations; it also needs different ways of interpreting and understanding the problem at hand, and this refers to the methodological debate within pedagogical science, of using quantitative or qualitative approaches, and among these last, constructivist/participatory approaches (taking into account the classification of Guba&Lincoln, 2003)

This means that for education the idea of evidence-informed practice is not enough. It needs at least to be complemented by the notion of value-informed

practice, and perhaps we should say that value-informed educational practice is the overarching concept and within it there is a place for evidence, but always judged through the lens of the question of what is educationally desirable.

### 1.3. Methodology and Theory

The third dimension mentioned by Biesta covers the problem that has been defined as a lack of capacity in the educational research community of researchers with up to date knowledge, understanding and skills in a range of research designs, methods and methodologies.

Mainly in Europe, there is a tendency within the wider field of social science to see the problem predominantly in terms of a lack of capacity in working with quantitative data, in spite of efforts done for the development of research skills across a range of approaches, in the context of initial and continuing educational researchers career.

Nevertheless, in the same context, some criticism has emerged regarding the lack of focus on theory and epistemological dimensions of educational research. High quality educational research is not just a matter of the application of the right methods and techniques but crucially depends on the combination of high quality techniques and high quality theorising. This also means that the ability to capitalise on capacity building in the relation to methods and methodologies may well be restricted because of a lack of attention to capacity building in the domain of theory.

Educational researchers are divided, regarding this problem, into Anglosaxon and Latin research traditions, with the former more concerned to empirical research and uncovering theoretical issues, and the later more focused on theoretical discussions and few empirical studies.

For example, the prevailing view in the Anglo-American world is to see educational research as the interdisciplinary study of educational processes and practices. As a result, research in education heavily relies on theoretical input from other disciplines. Historically, the four most prominent disciplines for the study of education have been philosophy, history, psychology and sociology (see, e.g., Tibble, 1966), albeit that their respective influence on and role in the study of education has changed over time. What is virtually absent in the Anglo-American 'construction' of the field is the idea of education as a separate academic discipline with its own forms and traditions of theorising. In this regard the Anglo-American construction is different from the ways in which the study of education has developed on the Continent where there is a strong tradition of educational theorising linked to a conception of education as an academic discipline in its own right. This has been most strongly developed within the German tradition (which has influenced developments in many European countries), particularly through the contribution of 'Geisteswissenschaftliche Pädagogik', which played a major role in the establishment of education as academic discipline in Germany in the beginning of the 20th century. Work along these lines has been ongoing up to the present day (see, e.g., Mollenhauer, 1972; Benner, 2005) and is exemplified in typical educational theorising around such notions as 'Bildung' or 'Didaktik.' (Margiotta, 2006)

If these observations are correct, it's highly necessary to create opportunities of international dialogue for setting new international educational research agendas that are in time set the transnational agendas for funding/supporting educational research.

The authors of this position paper argue that it is important to look forward and ask questions about the future of educational research, as academic field, as well as context of researchers work and initial and continuing training. Building on the international debate about the role of educational research, it seems that three imbalances within the domain of educational research need to be redressed: *usefulness* of educational research only as the technical role of educational research, with no room for the cultural role; *interrelationships between research and practice*

as “empirical evidence” rather than “evidence on values”; *quality of research* as internationally diversified and imbalanced focus on methods /methodologies and theory.

As concluding remarks, we should say that educational researchers should strive for mainstreaming in educational research as a mean to demonstrate the crucial role this interdisciplinary field plays in building a new society. In fact, education is a cross-sectoral discipline that gives support to the development of socio-economic, scientific and environmental research and development.

In order to further discuss this concepts, we will now introduce two case studies: the role and features of educational research in the context of EU and USA.

## 2. Educational Research in the context of Europe

### 2.1. FP6 and FP7 research projects addressing directly issues of education and training

High quality education and training systems are declared to be “*indispensable for European welfare and for developing a knowledge-based society*”. As such, education and training should be essential policy components from both an economic and social point of view. The Report on FP6 and FP7 research projects addressing directly issues of education and training makes it better attempt to demonstrate how educational research is embedded within the context of European research.

In line with this, the report introduces a number of European research projects that have studied diverse aspects of education and training mostly dealing with knowledge and skills (Lisbon Strategy), inclusion and cohesion (Social Agenda), culture, youth and migration (Citizenship), horizontal, international and support actions.

Among the key questions addressed by European researchers are: How can the education systems contribute towards a lifelong learning society in Europe? What is the role of social innovation? What competencies are needed for succeeding in the knowledge society or for training successful entrepreneurs? How can education and training contribute to better social inclusion?

These research projects have been selected – following very competitive calls – within the context of Socio-economic Sciences and Humanities research programme, for their scientific excellence, their policy relevance and their potential impact at European, national, regional and local levels<sup>1</sup>. The SSH research programme addresses major current and future societal challenges through top-quality, multidisciplinary and multinational research.

We will now take a look to the topics, disciplines, geographical zones, methods and results, against the previously depicted debate on educational science. The following table introduces hence the area of research, the project’s acronym and description, the disciplinary field, methods and results.

1 The study declares to have revised 200 European research teams grouped in 19 European collaborative research projects, with an overall European investment of 30 million euros shared.

Research area	Topic	Disciplinary Field	Methods	Who/Where
<b>Knowledge and skills: Lisbon Strategy (4)</b>	REFLEX The flexible professional in the knowledge society – New demands on higher education in Europe LifeLong Learning 2010 Towards a lifelong learning society in Europe: the contribution of the education system	Economics – Sociology of Education	Documental Analysis Extensive Survey Qualitative study on competences in HEI	Universiteit Maastricht Research Centre for Education and the Labour Market (ROA) Maastricht – NL
	LIFELONG LEARNING 2010 The project aims to examine and report on national differences in approaching formal lifelong learning, but also to assist policy-makers and practitioners in learning appropriate lessons from contrasting practice in other countries.	Comparative Educational Studies	Interdisciplinary analyses based on extensive survey and interviews at various institutional levels	Tallinn University Institute for International and Social Studies Tallinn – EE
	EUEREK European universities for entrepreneurship: their role in the Europe of knowledge	Economics – Sociology of Education	Documental Analysis Extensive Survey	Institute of Education, University of London London – UK
	KNOW & POL The role of knowledge in the construction and regulation of health and education policy in Europe: convergences and specificities among nations and sectors	Sociology of Education – Health care services	Documental Analysis Extensive Survey National Case studies	Université catholique de Louvain (CERISIS-UCL and GIRSEF-UCL) Louvain-la-Neuve – BE
<b>Inclusion and cohesion: Social Agenda</b>	PROFKNOW Professional knowledge in education and health: restructuring work and life between the state and the citizens in Europe	Sociology of Education – Health care services	Cross-national Life-stories Interviews, discourse analysis	Göteborg Universitet Learning and Teaching Unit Göteborg – SE
	INCLUDED Strategies for inclusion and social cohesion in Europe from education	Sociology of Education – Cultural Studies	Documental Analysis. Analysis of practices through ethnographic approach to communities and institutions Definition and clustering of strategies	Universitat de Barcelona CREA: Research Centre in Theories and Practices that Overcome Inequalities Barcelona – ES
	KATARSIS Growing inequality and social innovation: alternative knowledge and practice in overcoming social exclusion in Europe.	Sociology of Education – Cultural Studies	Documental Analysis, Extensive survey, Interviews.	University of Newcastle Upon Tyne Global Urban Research Unit (GURU), School of Architecture, Planning and Landscape – Newcastle Upon Tyne – UK
	PROFIT Policy responses overcoming factors in the intergenerational transmission of inequalities	Political Sciences, Sociology of Education	A multidisciplinary comparative study in policies and practices (with special attention paid to education)	University of Lodz Institute of Sociology Lodz – PL

<p><b>Culture, youth and migration: Citizenship</b></p>	<p>EMILIA Empowerment of mental health service users: lifelong learning, integration and action</p> <p>YIPPEE Young people from a public care background: pathways to education in Europe</p> <p>INTERACT Intercultural active citizenship education</p> <p>EMILJE A European approach to multicultural citizenship: legal political and educational challenges</p> <p>REDCo Religion in education. A contribution to dialogue or a factor of conflict in transforming societies of European countries</p> <p>BIOHEAD-CITIZEN Biology, health and environmental education for better citizenship</p>	<p>Anthropology of Education</p> <p>Anthropology of Education</p> <p>Cultural Studies, Ethnography</p> <p>Political Sciences – Sociology of Education – Curriculum studies</p> <p>Cultural Studies - Curriculum Studies History of Education</p> <p>Sociology of Education – Environmental studies</p>	<p>Documental Analysis (review of lifelong learning policies in the European Union region) National Case Studies</p> <p>Documental Analysis (policy documents and practices) Survey and Interviews (track and evaluate the educational plans and path- ways of a sample of 19-21 year-olds from a public care background )</p> <p>Documental Analysis Teachers' interviews, professional discourse analysis</p> <p>Critical Review of Literature, Case Studies on the basis of Legal, political and curriculum studies</p> <p>Curriculum analysis (historical analysis and cross-national analysis), Teachers' discourses analysis</p> <p>A comparative analysis of syllabi and school text- books. A comparative analysis of the teachers' and teachers-to-be conceptions (social representations)</p>	<p>Lifelong Learning, Health and Social Sciences London – UK</p> <p>Institute of Education University of London Thomas Coram Research Unit London – UK</p> <p>Universidade de Coimbra Centro de Estudos Sociais Coimbra – PT</p> <p>Hellenic Foundation for European and Foreign Policy Athens – EL</p> <p>University of Hamburg Institut für International und Interkulturell Vergleichende Erziehungswissenschaft Hamburg – DE</p> <p>Universidade do Minho Instituto de Estudos da Criança IEC (Institute of Child Studies) Braga – PT</p>
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<p><b>Horizontal, international and support actions</b></p>	<p>EDUMIGROM Ethnic differences in education and diverging prospects for urban youth in an enlarged Europe</p>	<p>Cultural Studies, Policy Studies</p>	<p>Extensive Survey, Interviews and focus groups at institutional level</p>	<p>Central European University Center for Policy Studies Budapest – HU</p>
	<p>EUMARGINS On the margins of the European Community – Young adult immigrants in seven European countries</p>	<p>Cultural Studies, Geography</p>	<p>a combination of biographical and ethnographical data- collection in eight urban environments; analysis of available statistical data on relevant literature.</p>	<p>Universitetet i Oslo Department of Sociology and Human Geography Oslo – NO</p>
	<p>SINCERE Supporting international network and cooperation in educational research</p>	<p>International Cooperation</p>	<p>International Cooperation programmes analysis (FP5 / FP6) Networking and dissemination</p>	<p>Menon Network EEIG Brussels – BE</p>
	<p>Tripl-E DOSE Days of socio-economy: education, employment, Europe</p>	<p>Sociology and Economy of Education</p>	<p>Summary of outcomes of socio-economic research resulting from the FP5 and FP6 projects under ‘common denominator’ related to the socio-economic issues: education and employment in Europe Networking and Dissemination</p>	<p>Instytut Podstawowych Problemow Techniki Polskiej Akademii Nauk National Contact Point for Research Programmes of the European Union Warszawa – PL</p>
<p>EERQI European educational research quality indicators</p>	<p>Research Methodology</p>	<p>Design of a new methodological framework to measure social and humanities research quality. Complementary to traditional measurements of scientific quality (citation analysis, journal impact factor), new methods and indicators of quality assessment will be tested (usage assessments versions available, other statistical methods, as well as by means of advanced, semantics-based detection of linking, correlations and referral contexts)</p>	<p>University of Hamburg Department for International, Comparative and Multicultural Education Hamburg – DE</p>	

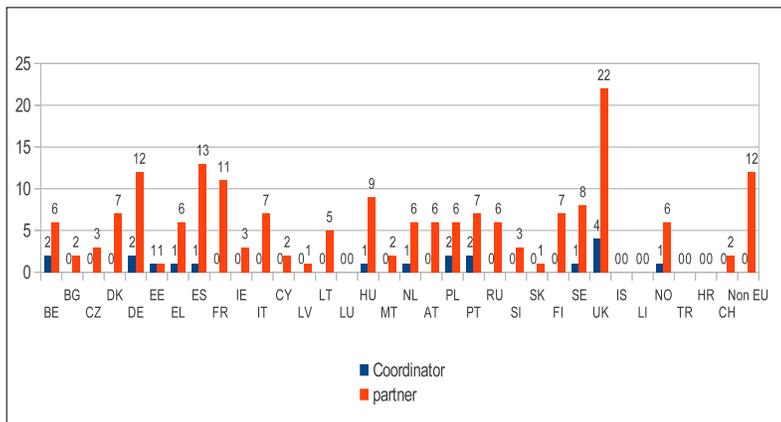
This table shows how disciplines are distributed within educational projects, with a good representation of Political Sciences, Cultural Studies and Anthropology; it goes without saying that there's a richness of methodological approaches, with the adoption of mixed methods to afford the complexities of multi-level objects of study, from large scale societal phenomena to specific institutional and individual focus on practices. All projects show a cross-national, compared approach (mainly through case studies comparisons), with strong empirical studies supported by critical reviewing of literature as well as desk research.

Few studies afford psico-social dimensions of education, nor they consider learning processes or evaluation/assessment research. Among selected projects, there are no only theoretical studies, or studies focused on philosophy of education.

With regard to the topics, it is to be highlighted the strong concern of the European Commission to tackle the problem of the multiethnic society as well as new poverties (a theme related to social cohesion in Europe); less evident, yet present, is the topic of new skills for new jobs (related to competitiveness).

We will take into account now the geographical distribution, in order to see which countries are actively engaged in European funded educational research.

Educational Projects within 6-7FP:  
analysis of participation by country coordination and partnership



As we can see, an impressive number of projects has as leader and partner UK's institution, followed far by Spain, Germany and France (this last country only as partner). Among Western European countries, Portugal shows a better performance than Italy, with more coordinated projects and participation as partners, whereas Italy is involved only as partner. Scandinavian countries, Netherlands and Belgium show a good number of projects, behind the main Western countries.

It is to be highlighted the outstanding participation to the projects of educational research by new entering countries from Eastern Europe, like Poland, Hungary, Estonia (all with participation as coordinators as well as partners), and Lithuania and Rumania (good participation as partner).

Having analysed educational research from inside, we could now take a look to educational research in the context of Social Sciences and Humanities, in order to understand the relevance of educational issues in the context of other societal problems and topics.

## 2.2. Educational Research in the context of SSH research in Europe: how is the participation of educational research to providing the insights for future solutions?

For the EC, funding the field of socio-economic sciences and the humanities (SSH) contributes to an in-depth, shared understanding of the complex and interrelated socio-economic challenges facing Europe and the rest of the world. The European Commission has supported SSH research over the last four consecutive framework programmes, and has sealed this commitment by dedicating a specific theme to SSH research under the Seventh Framework Programme (FP7). Under FP7, priority is being given to research into the following areas, considering them *crucial to provide insights for future solutions*:

- growth, employment and competitiveness in a knowledge society;
- social cohesion, and social, cultural and educational challenges in an enlarged EU;
- combining economic, social and environmental objectives in a European perspective;
- major trends in society and their implications;
- sustainability, environmental challenges, demographic change, migration and integration, quality of life, and global interdependence.
- Europe in the world (covering migration, poverty, crime and conflict);
- the citizen in the European Union;
- socio-economic and scientific indicators;
- foresight activities, such as the future implications of global knowledge, migration and ageing.
- It is worth now to see how educational research participate in within these topics, hence supporting “insights for the future”.

We will introduce the List of projects 2007-2010 of European Research Socio-economic Sciences and Humanities, highlighting the number of educational research projects and their related topics.

**Growth, employment and competitiveness in a knowledge society:** European research in socio-economic sciences and the humanities should help European Union economies thrive, resist the international competition and innovate. At the same time, more research is needed in order to increase rates of employment and the quality of jobs.

Within this area, 16 projects have been funded, from which one regards the topic of educational research: *Governance of educational trajectories in Europe. Access, coping and relevance of education for young people in European knowledge societies in comparative perspective.*

**Combining economic, social and environmental objectives in a European perspective:** European research in socio-economic sciences and the humanities is to understand how social cohesion has been made possible in Europe and how it can be affected by current problems, taking into consideration that sustainable development is at the same time a challenge and an opportunity.

In this area, 17 projects have been approved, with none of them pertaining to the field of educational research.

**Major trends in society and their implications:** European research in socio-economic sciences and the humanities should address the main scientific and policy concerns about major social changes such as ageing, migration, families, work, multicultural societies, racism, to quote but a few.

Within this area, 26 projects have been funded, with two of them regarding educational research: (a) *Ethnic differences in education and diverging prospects for urban youth in an enlarged Europe* (b) *Religious education in a multicultural society: school and home in comparative context.*

**Europe in the world:** European research in socio-economic sciences and the humanities is to address the new reality of the multipolar world with its economic, social and political developments and upheavals and study the role of Europe in this new context.

In this area, 19 projects have been approved, with none of them pertaining to the field of educational research.

**The citizen in the European Union:** European research in socio-economic sciences and the humanities should help understand how European democracies work, how citizens' participation is important for the legitimacy of governments, but also how, in Europe, diversities and commonalities are shared that make European Union different but also united in a European political reality.

In this area, 20 projects have been approved, with none of them pertaining to the field of educational research.

**Socio-economic and scientific indicators:** European research in socio-economic sciences and the humanities should study the use of indicators in policy-making and especially try to develop new indicators that are not strictly economic but integrate new social or environmental data.

Within this area, 11 projects have been funded, with one of them regarding educational research

### *2.3. European educational research quality indicators*

**Foresight:** European research in forward looking activities aims at identifying major trends, tension and potential transitions for Europe and the world. It also develops likely scenarios for the future of Europe. It builds new tools for forecasting main social, economic, environmental and technological issues.

In this area, 9 projects have been approved, with none of them pertaining to the field of educational research.

**Strategic activities:** this area covers issues like European emerging needs of society, horizontal measures to support international cooperation, measures to support the dissemination of research, transnational cooperation in the field of social sciences and humanities.

In this area, 14 projects have been approved, with none of them pertaining to the field of educational research.

### *2.4. EERA: a critique to 8th Framework Programme regarding Social Sciences and Humanities and the role of Educational Research*

EERA, the European Educational Research Association (composed by 26 national members), reacted to the FP8 Consultation, which aim was to programme funding of research projects from 2012-2017<sup>2</sup> (Green Paper). EERA's main concern with the Green Paper was, that social science, humanities and thus educational research seems to be disappeared from the Framework Programme.

The EERA's response to the Green paper focussed on questions touching on a wider focus on societal challenges, bottom-up activities and links between research and

2 European Commission: Research & Innovation (2011) From Challenges to Opportunities: Towards a Common Strategic Framework for EU Research and Innovation funding Bruxelles, 9.2.2011/ COM (2011) 48 definitive. Accessible at <[http://ec.europa.eu/research/csfr/index\\_en.cfm?pg=documents](http://ec.europa.eu/research/csfr/index_en.cfm?pg=documents)>, retrieved 27/05/2011

policy, in the context of EU2020 and “Innovation Union”. In fact, the analysis in those papers is that there is too much fragmentation in European science and technology. Sharpening the focus should reduce fragmentation: Clarifying objectives, reducing complexity, avoiding duplication (simplifying and broadening participation, increase impact of EU funding), more collaboration between science and business. Related to this issues, the Green Paper envisages a common strategic framework that shall tackle societal challenges, strengthen competitiveness and strengthen the EU science base and EU Research Area. The EERA's position is that the GP appears to take a very narrow view of what constitutes economic development (ie. one measured very largely by reference to GDP) and it ignores other important approaches to and measures of development (already advanced by Nobel Laureate Amartya Sen, who expresses economic growth in terms of the growth in human capabilities).

«Even within its own terms of business development it looks exclusively to science and technology and ignores the contribution to GDP in many countries in Europe made by eg film, television and other media, the publishing industry, cultural and heritage industries, art and design, health services and indeed the huge foreign earnings from overseas students choosing to study in Europe» (L. Moos, President of the EERA, 2011)<sup>3</sup>

Beyond this, and granted the need to establish some priorities for research funding, the EERA remarked also the omission from the strategy of any reference to such key areas as health (other than in terms of medical science), education, social welfare, social inclusion, social justice, multi-culturalism, immigration, mobile EU population, European languages, arts & culture, identity & citizenship.

«There also should be room for non-linear thinking: Educational research, for example, rarely works in this way and rarely has the tangible ‘product’ that might issue from eg materials science or medical research. Often, what it provides is new understanding, which then enters into a complex process of assimilation into policy and practice, but is rarely the only source of the policy or practice, which emerges. Often too the conduct of educational (and other social science) research itself stands in a close relationship with the sites of practice: the research is itself conducted in a way, which will contribute directly to development. There is not such a clear separation between research and development as there is in e.g. many areas of science and technology» (Idem).

Thus in EERA's vision, the whole discourse of ‘knowledge transfer’ and ‘taking products to market’ should be reconstructed in contexts of what might be thought of as social innovation but not only these. The point is that the requirements for reporting and impact in educational and social science research need to be tailored to the particular ways in which research functions in these areas.

### *2.5. European Research on Education and Training: strategic framework of policy*

The above depicted scenery of educational sciences as field of research in the context of SSH has showed us a not-too-much comforting panorama.

3 News of EERA, 2011. The whole document can be consulted at: <<http://www.eera-ecer.eu/news/eera-responding-to-fp-8-consultation/>>

Nevertheless, education is considered by the EC the key of development of Lisbon strategy (2000-2010) through its main policy programme of ET2010 (Education and Training Programme); and in continuity with this, the key of EU2020 flagship initiative, through the ET2020<sup>4</sup>.

Politicians at the European level have recognised that education and training are essential to the development of today's knowledge society and economy. The EU's strategy emphasises countries working together and learning from each other.

EU education and training policies have gained impetus since the adoption of the Lisbon Strategy in 2000, the EU's overarching programme focusing on growth and jobs. The strategy recognised that knowledge, and the innovation it sparks, are the EU's most valuable assets, particularly in light of increasing global competition<sup>5</sup>.

The long-term strategic objectives of EU education and training policies are:

- Making lifelong learning and mobility a reality;
- Improving the quality and efficiency of education and training;
- Promoting equity, social cohesion and active citizenship;
- Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training (European Commission, idem)

EU level activities are being developed to address priority areas in each of the different levels of education and training – early childhood, school, higher, vocational and adult education – based on these overall aims.

A series of benchmarks are set for 2020.

The benchmarks for 2020 are:

- at least 95% of children between the age of four and the age for starting compulsory primary education should participate in early childhood education;
- the share of 15-years olds with insufficient abilities in reading, mathematics and science should be less than 15%;
- the share of early leavers from education and training should be less than 10%;
- the share of 30-34 year olds with tertiary educational attainment should be at least 40%;
- an average of at least 15 % of adults (age group 25-64) should participate in lifelong Learning (European Commission, idem)

## 2.6. Research and Analysis in the context of ET2020

To serve these ambitious objectives, the European Commission has launched a number of studies and research into areas of common concern for the education and training sector across Europe. These help to promote comparative research and ensure that European policies have a solid factual basis.

So far, efforts have looked into fields including: early school leavers; the key competences of young people; how education develops entrepreneurship; foreign language teaching; equity in education; and the financing of education. These topics are more than just wider areas of interest: the European Commission has identified 16 core indicators for monitoring progress and performance in education and

4 EU Member States and the European Commission strengthened co-operation in 2009 with *strategic framework for European cooperation in education and training* ("ET 2020") a follow-up to the earlier *Education and Training 2010 work programme* launched in 2001. <[http://ec.europa.eu/education/lifelong-learning-policy/doc1120\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc1120_en.htm)>

5 Introduction to the Strategic Framework for European Cooperation in Education and Training <[http://ec.europa.eu/education/lifelong-learning-policy/doc28\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm)>, retrieved 25 May 2011.

training across Europe, and annual reports summarise countries' progress towards common objectives<sup>6</sup>.

In addition, Member States are currently carrying out major assessments of the situation in a number of these key areas, often as part of joint international surveys, as shown in the following table.

Research Topic	Short Description	Who
<p>Learning to learn; &lt;<a href="http://ec.europa.eu/education/life/learning-policy/doc2441_en.htm">http://ec.europa.eu/education/life/learning-policy/doc2441_en.htm</a>&gt;</p>	<p>Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, and to being aware of learning needs. It means gaining, processing and assimilating new knowledge and skills, as well as seeking and making use of guidance.</p> <p>Education ministers from across the EU suggested that the development of indicators should be started in this field in 2005. The European Commission brought together an expert group to develop an instrument to measure learning-to-learn competences in different countries, together with support from the CRELL research centre.</p> <p>The instrument developed was tested in eight countries in 2008 – France, Italy, Cyprus, Slovenia, Finland, Austria, Spain and Portugal. Altogether, 2 325 14-year-olds from 49 schools were tested and each country made recommendations to improve the instrument.</p> <p>The findings of this pilot survey are being used to develop a full-scale European indicator in the field. Data will then enable education decision-makers to undertake thorough analyses of how learning-to-learn abilities are acquired, taught and measured in different national settings. This, in turn, will give greater understanding of curricula developments and teaching methods.</p>	<p>University of Helsinki Centre for Educational Assessment 2008 (Call for Tenders)</p>
<p>Adult skills; &lt;<a href="http://ec.europa.eu/education/life/learning-policy/doc2437_en.htm">http://ec.europa.eu/education/life/learning-policy/doc2437_en.htm</a>&gt;</p>	<p>Some 20 EU Member States are taking part in the Programme for International Assessment of Adult Competences (PIAAC), initiated by the OECD. The survey aims to assess "adult skills" in a comparable way among the 26 participating countries (the European countries plus Australia, Canada, Chile, Japan, Korea and the United States).</p> <p>A key part of the survey is to assess literacy in the broadest sense, including the use of digital and communications technology, and the ability to access, manage, integrate and evaluate information and to communicate with others.</p> <p>The main topics in the international report could include country comparisons, skills used on the job, the role of education and training in the process of skill acquisition, the economic and social outcomes of skills, and the survey methodology.</p> <p>A timetable for action has been agreed, with preparation of the surveys lasting until 2011 and data collection up to 2012. The first international report should be finalised in 2013 and a series of thematic reports should be released from 2014 onwards.</p>	<p>OECD Programme for the International Assessment of Adult Competencies (PIAAC)  Located at Paris (FR)</p>

6 See for example, the Conference "Improving Education: evidence from secondary analysis of international studies" (Stockholm, November 2009) presented key results and research from large

<p>Civic skills; &lt;<a href="http://ec.europa.eu/education/lifelong-learning-policy/doc2433_en.htm">http://ec.europa.eu/education/lifelong-learning-policy/doc2433_en.htm</a>&gt;</p>	<p>“Civic skills” are the knowledge, abilities and attitudes that people need to be able to take an active role in society and to be “engaged citizens”: EU Member States are involved in international research efforts looking into how well education and training systems deliver these skills to young people. The work covers areas such as democracy and citizenship, national identity, social cohesion and diversity. The main effort in this field is the International Civic and Citizenship Education Study (ICCS 2009), which involved 22 EU Member States together with Asian and Latin American countries. It surveyed teachers and pupils’ understanding and attitudes towards civic and citizenship matters, as well as the political, cultural and educational contexts. The results from the study have been released in June 2010. Civic skills are identified as one of the 16 core indicators for education and training in Europe, and the Commission will use the results of the ICCS study to assess progress in this area.</p>	<p>International Association for the Evaluation of Educational Achievement Located at Hamburg (DE)</p>
<p>Teachers’ professional development; &lt;<a href="http://ec.europa.eu/education/lifelong-learning-policy/doc2425_en.htm">http://ec.europa.eu/education/lifelong-learning-policy/doc2425_en.htm</a>&gt;</p>	<p>Research and analysis: teachers’ professional development The amount of professional development that teachers receive and its quality are crucial factors in the effectiveness of education and training systems. For the first time, teachers in 19 EU Member States and associated countries have completed a comprehensive survey on the main aspects of their learning environment and working conditions, as part of wider international efforts. The EU worked together with the OECD to produce the first internationally comparable data on teachers’ professional development in summer 2009, within the Teaching and Learning International Survey (TALIS). In November 2009, a report on teachers’ professional development was published, with further analysis of this area. The main finding of the report is that professional development is an established part of teachers’ lives. Almost nine out of ten teachers take part in some form of in-work professional training, and more than half say they want more. Overall, the results indicate that a school policy of giving feedback to teachers on their performance is strongly linked to their professional development and its impact. However, teachers identified “conflict with work schedule” as the biggest barrier to participation in training, which suggests that policies to integrate teachers’ professional development more effectively into their total work package and into the functioning of schools would be beneficial. Recommendations to come out of the report for policy-makers are that an increased focus on appraisal, feedback and a positive school climate can contribute to the development of schools and improve the quality of teaching. The TALIS project is ongoing with further analysis on teacher training planned for the future.</p>	<p>European Commission and the OECD, Directorate for Education Located at Paris (FR)</p>

international assessments, relevant for education policy making. Retrieval on the web through <[http://ec.europa.eu/education/lifelong-learning-policy/doc2000\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc2000_en.htm)>, last access on 27 May 2011; and the latest progress report, covering 2010/2011, at <[http://ec.europa.eu/education/lifelong-learning-policy/doc2881\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc2881_en.htm)> (last access 27 May 2011)

<p>Language learning: &lt;<a href="http://ec.europa.eu/education/lifelong-learning-policy/doc2429_en.htm">http://ec.europa.eu/education/lifelong-learning-policy/doc2429_en.htm</a>&gt;</p>	<p>Skills in foreign languages are becoming ever-more important as economies become increasingly globalised and people travel abroad more often. The EU is looking into how well education and training systems in different countries teach languages.</p> <p>The European Survey on Language Competences is a major initiative by the European Commission to support the development of language-learning policies across Europe.</p> <p>The survey will test the two most widely taught European languages (from English, French, German, Italian and Spanish) in each participating country in a representative sample of pupils in their final year of lower secondary education. A sample of approximately 1 500 students per language tested per country will be used.</p> <p>The survey will assess students' proficiency in listening, reading and writing. It will also collect data on how demographic, social, economic and educational factors affect language proficiency.</p> <p>The data collected in the survey will be used to construct an indicator to measure progress towards EU objectives of improving the learning and teaching of foreign languages across Europe.</p> <p>The survey will take place in February/March 2011, and the final report will be published in 2012.</p>	<p>International Consortium "SurveyLang": Centre international d'études pédagogiques (CIEP) (FR) Gallup Europe (BE/HU) Goethe-Institut (DE) Instituto Cervantes (ES) Cito (NL) University of Cambridge ESOL Examinations (UK) Universidad de Salamanca (ES) CVCL – Università per Stranieri di Perugia (IT)</p>
<p>Vocational Educational Training &lt;<a href="http://ec.europa.eu/education/lifelong-learning-policy/doc60_en.htm">http://ec.europa.eu/education/lifelong-learning-policy/doc60_en.htm</a>&gt;</p>	<p>Faced with challenges such as intensified global competition, high numbers of low-skilled workers and an ageing population, vocational education and training (VET) is vital to prepare individuals for today's society and ensure Europe's future competitiveness and innovation.</p> <p>Actions to improve vocational education and training help to provide the skills, knowledge and competences needed in the labour market. As such, they are an essential part of the EU's 'Education and Training 2020' work programme.</p> <p>The European Commission acts together with EU Member States and other countries to strengthen VET across Europe. The 'Copenhagen Process', established in 2002, lays out the basis for co-operation in VET, with 33 European countries involved.</p> <p>On 9 of June 2010, the European Commission presented a 10 year vision for the future of vocational education and training in the Communication "A New Impetus for European cooperation in Vocational Education and Training to support the Europe 2020 strategy".</p> <p><b>Actions cover:</b> Recognition VET Teachers and trainers Mobility</p>	<p>CEDEFOP (European Center located at Thessaloniki, GR)</p> <p>ETF (European Center located at Turin, IT)</p>

<p>Higher Education Area in Europe &lt;<a href="http://ec.europa.eu/education/life/online-learning-policy/doc62_en.htm">http://ec.europa.eu/education/life/online-learning-policy/doc62_en.htm</a>&gt;</p>	<p>Higher education in Europe Higher education plays an essential role in society, creating new knowledge, transferring it to students and fostering innovation. EU-level actions help higher education institutions throughout Europe in their efforts to modernise, both in terms of the courses they offer and the way they operate. Europe has around 4 000 higher education institutions, with over 19 million students and 1.5 million staff. Some European universities are among the best in the world, but, overall, potential is not being fully realised. Curricula are not always up to date, not enough young people go to university, and not enough adults have ever attended university. European universities often lack the management tools and funding to match their ambitions. In the light of these challenges, governments and higher education institutions are looking for ways to create better conditions for universities. National governments are responsible for their education and training systems and individual universities organise their own curricula. However, the challenges facing higher education are similar across the EU and there are clear advantages in working together. The role of the European Commission is to support national efforts. This is done through a) a modernisation agenda for Member states, based on the common principles of "Bologna Process"; exchanges of good practices and reflections through the European network 'cluster' on the modernisation of higher education – to share experiences and look at common challenges; the Erasmus Programme for academic mobility among European countries, and programmes like Tempus and Erasmus Mundus; specific studies on specific areas relevant to higher education policy by gathering, analysing and sharing information on the state of play across Europe.</p>	<p>European "Cluster on Modernisation of Higher Education"  European Network</p>
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Beyond this framework of research for policy recommendation, the EC promotes exchanges of information on different policy options, eventually supported by research, that can help advance reforms in national education and training systems and form a key part of European co-operation in education and training. EU-wide peer learning activities are organised either by groups (“clusters”) of Member States interested in specific topics, or by expert groups established by the European Commission. Meanwhile, the Copenhagen Process organises peer learning activities for vocational education and training, and the working group on the Adult Learning Action Plan organises peer learning in adult education<sup>7</sup>.

The current peer learning themes/Clusters and groups are:

- Cluster on Modernisation of Higher Education
- Cluster on Teachers and Trainers
- Teachers and Trainers in Vocational Education and Training
- Cluster on Making best use of resources
- Cluster on Maths, Science and Technology (MST)
- Cluster on Access and Social Inclusion in LLL
- Cluster on Key competences
- Cluster on Information and Communication Technologies (ICT)
- Cluster on Recognition of learning outcomes
- Working group on the Adult Learning Action Plan
- European Lifelong Guidance Policy Network (ELGPN)

Further Studies commissioned by the EU, are available at the several research centers:

- Eurydice, the official information network on education in Europe providing information on and analyses of European education systems and policies.
- Cedefop, the centre of reference for vocational education and training for the European Union.
- CRELL, the EU’s Joint Research Centre for research on lifelong learning based on indicators and benchmarks

Other “ad hoc” studies and research, financed by the Education, are commissioned to external experts through processes of “tendering”, through extremely competitive call for tenders. An analysis of studies commissioned make visible that mainly private societies, as well as University research centers from UK, France, Belgium, Germany, and with less participation, Netherlands, and Scandinavian countries are the main implementers of these studies.<sup>8</sup>

### *2.6. A big “umbrella” programme to innovate on education and training: the Life Longlearning Programme*

This policy framework also puts the basis for the Lifelong Learning Programme to become the main instrument of realization of these strategies and policy priorities, whit extensive financial support for both European multilateral cooperation and national activities. In spite of this, even when the LLP projects require dissemination strategies that could entail research activities, as well as quality assurance (that includes evaluation of impacts of pilot activities) it doesn’t necessarily implies

7 The activities of “clusters are visible at the portal named “The Knowledge System for Lifelong”. The KSLLL website on the outputs of the European cooperation in education and training, accessible to <<http://www.ksl11.net/Default.cfm>>.

8 All “ad hoc studies” commissioned by the Education and Training programme are available at <[http://ec.europa.eu/education/more-information/moreinformation139\\_en.htm](http://ec.europa.eu/education/more-information/moreinformation139_en.htm)>

research activities. This could encompass, in the future, that a lot of interesting educational practices, even when guided by principles of innovation and development, could be loosely connected to the educational research agenda.

In fact, LLP urges for design projects that cover specific policy priorities, and inside them, it requires research background supporting proposals. Nevertheless, proposals are not only approved by their scientific solidity, and many LLP projects implement interesting ideas, more concerned on covering activities than in producing valid and reliable evidence for future practice.

Only in the last call (2011-2013) the LLP has included a transversal programme “Key Actions 1: Policy Cooperation and Innovation” to support comparative educational research and research networks.

### 2.7. Studies and comparative research in the context of LLP

The objectives of “Studies and comparative research” line are to achieve cross-national comparative analyses of educational systems in the EU in the field of development and innovation of education and training at local, regional, national level in a worldwide context. The analyses should be based on comparable data, statistics, knowledge and analysis to underpin lifelong learning strategies and policy development and to identify strategic areas for particular attention.

The Action focuses on priority issues which are defined in relation to the needs identified in the “E&T 2020” strategic framework. These are published in the LLP General Call for Proposals 2011-2013 of the programme. Particular attention is paid to dissemination and exploitation of the results of studies and research carried out under this Action. The activities of the Action include comparative studies and research, research networks and research conferences as well as publication and dissemination of results.

The objectives of Action “Studies and Comparative research” are:

- to support the new strategic framework for cooperation in the field of education and training (E&T 2020) through studies and comparative research in education and training fields at European level;
- to contribute to evidence-based policy-making by producing state-of-the-art scientific knowledge on specific sectors of education and training;
- to promote the creation of research consortia and cooperation between European research institutes and researchers in the field.

Priority is given to studies and research which provide an added value to state of the art of knowledge in the field and which focus on topics not yet covered by recent or ongoing and forthcoming studies funded under this action. Before submitting an application, applicants should, therefore, ensure that the proposed topic has not yet been and will not be covered by another study funded by EU education programmes<sup>9</sup>. The priority topics for comparative research to strengthen the *evidence base for policy and practice* in education and training are (EC, 2010):

9 With a budget of nearly € billion for 2007 to 2013, the programme funds a range of actions including exchanges, study visits and networking activities. Projects are intended not only for individual students and learners, but also for teachers, trainers and all others involved in education and training. LLP covers the so called “Sectoral Programmes”, which include COMENIUS (school education improvement), LEONARDO (competences for the professional life), GRUNDTVIG (adult learning), ERASMUS (higher education improvement). Furthermore, the LLP also offer funding for “Transversal programmes”, that focus topics that are cross-sectoral like LANGUAGES (improvement of languages learning), ICT (use of ICTs in education and professional life and digital literacy), and Dissemination and Exploitation of achieved

**Provision and demand for adult learning:** Studies focus are comparative or in-depth country analyses of organisational, management and funding models designed to create a high quality and efficient adult learning system (formal, non-formal and informal), supported by guidance, validation, electronic learning platforms and other key features, thereby providing concrete ways to enable adults to learn and improve their qualifications over their entire life course.

**Acquisition of key competences in education and training throughout lifelong learning.** Studies addresses the following issues:

- a) measures to improve literacy, maths and science attainment and gender balance as well as transversal competences (learning to learn and creative skills);
- b) measures and methodologies for assessment and evaluation of key competences.

**Social inclusion in education and training, including the integration of migrants.**

Studies focus on :

- a) the effectiveness of measures to reduce early leaving from education and training;
- b) the role of early childhood education and care in social inclusion (participation, pedagogical approaches etc.);
- c) measures to improve the participation of underrepresented groups (social, economic, ethnic...) in higher education;
- d) the role of adult learning in alleviating social marginalisation and exclusion.

**Attractiveness of vocational education and training (VET).**

Studies focus on:

- a) comparative analysis of initiatives concerning tertiary VET programmes;
- b) comparative analysis of factors of quality of initial and continuing VET programmes which have proven to have the potential for substantial image change of VET.

**Measuring competences and anticipating future skills.**

Comparative analysis of future skills' needs in the economy and in the society; responsiveness of education and training systems to those needs; quality of transitions between education and training and the labour market; improving understanding of the links between compulsory education, further education, higher education; adult education and working life.

As we can see, the big umbrella of LLP can create real good opportunities for the development of educational research initiatives. Nevertheless, this is not its main scope; within it, research is considered an instrument of "cultural value", to foresight future trends and sceneries. So participation and agenda should dialogue with practices and agenda of educational researchers as consolidated group.

The results of the 2011 call for proposals will enlighten educational researchers on the nature of the studies financed by LLP, as well as main implementers/coordinators and partnerships.

results in sectoral programmes. In addition, the programme includes Jean Monnet actions which stimulate teaching, reflection and debate on European integration, involving higher education institutions worldwide. From: *"The Lifelong Learning Programme: education and training opportunities for all"*, <[http://ec.europa.eu/education/lifelong-learning-programme/doc78\\_en.htm](http://ec.europa.eu/education/lifelong-learning-programme/doc78_en.htm)> , retrieved 26 May 2011.

### 3. Educational Research in the context of USA

Needless to say, USA has largely based educational policies (and development strategies) on a long tradition of educational discussion and research, from the pioneer works of John Dewey, to Bruner's presidency of the discussions for a new strategy of development in the 60's.

Nowadays, all trends in educational research are still shaped by American agenda on educational research, that is configured by key institutions like the Education Department of USA, the National Academy of Sciences and the American Educational Research Association (AERA).

In this section, we will analyze main trends of research in the USA through the exploration of the agendas and activities of the National Academy of Sciences and the AERA.

#### 3.1. The National Academy of Sciences

***The National Academy of Sciences (NAS) is an honorific society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare***

The NAS was established by an Act of Congress that was signed by President Abraham Lincoln on March 3, 1863, at the height of the Civil War, which calls upon the NAS to "investigate, examine, experiment, and report upon any subject of science or art" whenever called upon to do so by any department of the government. Scientific issues would become more complex in the years following the war, and to expand the expertise available to it in its advisory service to the government, the NAS created the National Research Council under its charter in 1916. To keep pace with the growing roles that science and technology would play in public life, the National Academy of Engineering was established under the NAS charter in 1964, and the Institute of Medicine followed in 1970.

Since 1863, the nation's leaders have turned to these non-profit organizations for advice on the scientific and technological issues that frequently pervade policy decisions. Most of the institution's science policy and technical work is conducted by its operating arm, the National Research Council (NRC), which was created expressly for this purpose and which provides a public service by working outside the framework of government to ensure independent advice on matters of science, technology, and medicine. The NRC enlists committees of the nation's top scientists, engineers, and other experts, all of whom volunteer their time to study specific concerns. The results of their deliberations have inspired some of America's most significant and lasting efforts to improve the health, education, and welfare of the population. The Academy's service to government has become so essential that Congress and the White House have issued legislation and executive orders over the years that reaffirm its unique role.

Educational research has its own well recognized role among other topics, as it is possible to see on the annual reports of the four areas concerned with research policies in USA:

- Natural Resources and the Environment
- Science, Engineering, and Technology
- Education, Research, and Competitiveness
- Health and Safety

From the studies completed in 2010, we can identify 8 areas of research, 1 of these Education and Social Issues. The topics where: Defense, Security, and Space, Education and Social Issues Health and Safety, Industry, Commerce, and Technology, International Affairs, Natural Resources and the Environment, The Scientific Enterprise, Transportation Inside of this specific "Education and Social Issues" area, we can count 31 projects, of which specifically focused on Educational research are:

1. Student Mobility: Exploring the Impact of Frequent Moves on Achievement — Summary of a Workshop
2. Science and Technology for Children – Books
3. Preparing Teachers: Building Evidence for Sound Policy
4. The *National Oceanic and Atmospheric Administration's Education Program: Review and Critique*
5. Lifelong Learning Imperative in Engineering — Summary of a Workshop
6. Learning Science: Computer Games, Simulations, and Education
7. Language Diversity, School Learning, and Closing Achievement Gaps — A Workshop Summary
8. High School Dropout, Graduation, and Completion Rates: Better Data, Better Measures, Better Decisions
9. Exploring the Intersection of Science Education and 21st Century Skills — A Workshop Summary
10. A Data-Based Assessment of Research-Doctorate Programs in the United States (2-Volume Set with CD)
11. Best Practices for State Assessment Systems Part I — Summary of a Workshop

So this makes 11 of 31 projects, with clear focus of concern on science, technology and math education, from teachers training to advanced training within higher education. In fact, education is linked specifically to the nation competitiveness. In fact, the National Academies released “Rising Above the Gathering Storm”, in 2005 urging action to maintain American competitiveness in an increasingly global economy. In 2007, Congress passed the America COMPETES Act authorizing many recommendations from the report, which called for sustained investment in education and basic research. But most of the measures went unfunded until the economic stimulus package was created early in 2009.

In the above mentioned reports, it is clear that building U.S. Talent in Science and Technology in USA depends on the capacity of educate high specialized work force and teachers. So studies from the list, concluded by 2010, focused the trends of training for Science, technology, engineering and mathematics, with the engagement of the National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, funded by NASA, National Institutes of Health, National Science Foundation, Carnegie Corporation of New York, and the Otto Haas Charitable Trust. In general, the results pointed out specific facts addressing further policies: science and engineering work force is expected to grow faster than any other sector of the U.S. labor market, but international students have accounted for almost all growth in doctoral degrees awarded in science, technology, engineering, and mathematics (STEM). The concern for the U.S. Regards the increasingly uncertain path that this fact represents since as many of these international students may choose to return to their home countries. In addition, K-12 science and mathematics teachers need better preparation, and high school programs should emphasize college readiness.

Another focus of concern for the U.S. Development plan is Teachers' Education. Most K-12 education reform efforts in recent years have included a focus on improving the quality of teaching, which studies show could have the greatest potential effect in raising student achievement. Yet there is little definitive evidence about which particular approaches to teacher preparation yield high-quality educators whose students are successful. Therefore, evidence on Teachers' Education is required for sound policies to train teachers as key players for quality education systems. The report *Preparing Teachers: Building Evidence for Sound Policy*<sup>10</sup> calls for better data collection and research to

10 The NAS, 2010: “*Preparing Teachers: Building Evidence for Sound Policy*” <<http://books.nap.edu/catalog/12882.html>>, last access, 2 June 2011 . The National Research

provide a firmer foundation for efforts to prepare high-quality teachers. Research is badly needed on specific factors in teacher education that may ultimately affect student learning, with particular attention to different aspects of teacher knowledge, clinical experiences, and the quality of entering teacher candidates. The U.S. Department of Education should develop a national education data network that incorporates comprehensive data related to teacher education.

Research reviewed in the report confirms that reading, mathematics, and science teachers need strong subject-matter knowledge as well as familiarity with how students learn a particular subject. Many mathematics teachers, in particular, lack the needed level of preparation in mathematics content.

### *3.2. Good Education is the base for competitiveness; good educational research is the base for good education*

According to NAS, (and also supported by the International Academy of Sciences - ICUS-), educational research seems to be relegated to a “ghetto” where educational issues achieve the own relevance and agenda, but are not fully integrated with the international science development agenda.

The Science education is a critical aspect of capacity building. NAS focus shows the clear will of been very active in promoting enquiry-based science education from the early primary education level to higher education, analyzing trends of mobility and training of key figures on sciences, as well as studying teachers’ sciences training. As final recommendation of NAS, science education, science and society and the ‘public domain for science’ should be considered key topics where closer collaboration of academics should be developed, strengthen links to trans-disciplinary and transnational networks in areas of science policy, Higher Education, Research and Knowledge.

As we can see, educational research is seen pragmatically entrenched with results achieved in the field of science and engineering, obliging researchers to a specific agenda “policy driven”, and profoundly linked to the traditions of empirical research.

Within educational research, the raising debate is, again, on the needs of developing theory-driven research, that creates a disciplinary identity for education science.

In fact, as highlighted by Anyon (2009), no fact, investigation, or conclusion can be theory-free; she claims, in fact, for more awareness about the theories underlying empirical research in U.S., as well as the critical (or uncritical) use of these. The focus of discussion amongst U.S: educational researchers seems to be how to give continuity to a sound trajectory in empirical research, without loosing the need of generating theory, which in times make the disciplinary field grow. As Anyon claims, in order to understand any educational phenomenon, educational researchers need also to look at the larger social, economic, and political contexts within which that phenomenon is embedded, and to seek out theories that connect these.

Furthermore, theories can be used not just to understand the individuals, situations, and structures studied, but also to change them. The physicist and sociologist of science Evelyn Fox Keller, writing about the physical sciences, argues that scientific theories are

«both models of and models for, but especially, they are models for; scientific theories represent in order to intervene, if only in search of

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confirmation. From the first experiment to the latest technology, they facilitate our actions in and on that world, enabling us not to mirror, but to bump against, to perturb, to transform that material reality. In this sense scientific theories are tools for changing the world.» (Keller, 1992, pp. 73-74).

So the debate of educational researchers in U.S. is currently driven by the need to generate “scientifically” based research, that generates clear data, usable with the competitiveness scenery envisaged by policy-makers; but at the same time, there is concern with keeping the educational research identity, as interdisciplinary field, based on humanities and social sciences.

To reinforce this position, we will revise AREA's agenda.

### *3.3. The American Educational Research Association: a milestone for educational research on the XXI century*

The American Educational Research Association (AERA), founded in 1916, is concerned with improving the educational process by encouraging scholarly inquiry related to education and evaluation and by promoting the dissemination and practical application of research results. AERA is the most prominent international professional organization, with the primary goal of advancing educational research and its practical application. Its more than 25,000 members are educators; administrators; directors of research; persons working with testing or evaluation in federal, state and local agencies; counselors; evaluators; graduate students; and behavioral scientists. The broad range of disciplines represented by the membership includes education, psychology, statistics, sociology, history, economics, philosophy, anthropology, and political science.

It is worth to consider two recent lines of research of AERA, transversal to educational research activities, aiming to acquire quality of research outcomes: a study on the quality of research-doctorate programmes, and the definition of Scientifically based research in the field of educational sciences.

In fact, AERA, launched in the 2008, together with the National Academy of Education (NAEd), a complex study concerning the Assessment of Education Research Doctorate Programs. Undertaken jointly by these two scholarly and scientific organizations, a first-time-ever assessment examined education research doctorate programs in graduate schools and colleges of education in the United States. In fact, the field of education could be considered large and robust with its production of approximately 1,800 doctorates each year; nevertheless, there has been no prior comprehensive assessment of doctorate programs. This assessment examined the national picture for programs in 16 major fields of education research that have distinct programs of doctoral study, including mathematics and science education, teaching and teacher education, curriculum and instruction, educational psychology, education measurement and statistics, higher education, and educational policy. The focus of the assessment was the quality of educational research to be undertaken in a nation that should restrain resources of research.

The second specific concern of AERA was the definition of *Scientifically Based Research*, (SBR), which was developed by an expert working group convened by the AERA in June 2008. The SBR definition set forth below was supported by the AERA Council as a framework that offers sound guidance to members of Congress seeking to include such language in legislation. AERA provided this definition in response to congressional staff requests for an SBR definition that was grounded in scientific standards and principles. The request derived from an interest in averting the inconsistencies and at times narrowness of other SBR definitions used in legislation in recent years.

### 3.4. Alternate Definition of Scientifically Based Research (SBR) Supported by AERA Council, July 11, 2008

- I. The term “principles of scientific research” means the use of rigorous, systematic, and objective methodologies to obtain reliable and valid knowledge. Specifically, such research requires:
  - a. development of a logical, evidence-based chain of reasoning;
  - b. methods appropriate to the questions posed;
  - c. observational or experimental designs and instruments that provide reliable and generalizable findings;
  - d. data and analysis adequate to support findings;
  - e. explication of procedures and results clearly and in detail, including specification of the population to which the findings can be generalized;
  - f. adherence to professional norms of peer review;
  - g. dissemination of findings to contribute to scientific knowledge; and
  - g. access to data for reanalysis, replication, and the opportunity to build on findings.
- II. The examination of causal questions requires experimental designs using random assignment or quasi-experimental or other designs that substantially reduce plausible competing explanations for the obtained results. These include, but are not limited to, longitudinal designs, case control methods, statistical matching, or time series analyses. This standard applies especially to studies evaluating the impacts of policies and programs on educational outcomes.
- III. The term “scientifically based research” includes basic research, applied research, and evaluation research in which the rationale, design, and interpretation are developed in accordance with the scientific principles laid out above. The term applies to all mechanisms of federal research support, whether field-initiated or directed.

This definition implies specific interest on addressing research based policies, as well as decision taking in the context of Education for the government of U.S.

### 4. Final Remarks regarding Educational Research in Europe and USA

Until this point, we have highlighted key challenges of Educational Research in a societal context of change – demographic change, globalisation, and sustainability –, that European education and training systems, as well as the U.S. have to face in order to flourish in the future.

From one hand each social and economic development model brings about a whole set of implications for educational systems, that will require political attention for a long time to come; from the other hand, educational research afford scientific inner concerns that shape the agenda and features of research activities. This last issue has its roots into philosophical conditions of development.

We have grouped at the beginning these implications into three dimensions, that are mutually overlapping: usefulness of educational research, inner values and conceptions, and the relation among theory and methodological concerns of research design. It is self-evident that our future-oriented exercise has a brainstorming character that contains a lot of imponderability. There is no scientifically rigorous way of saying how global and regional societies will look like in the next ten years, and it is hence impossible to perfectly determine the role of educational research as a block of the whole building of society and the world. There are a lot of possible future scenarios in the broader sense of society and the restrict sense of educational research participation, for which there is no rigorous basis to argue from. What we have attempted, is to frame the debate by documenting the way in which educational

research is participating to social sciences and humanities, and how/who/where educational research is implemented. Apart from 'trends and scientific reflections', our exercise has highlighted inherent tensions between various legitimate priorities such as, for example: the need of providing "technical" and "usable" results of educational research to support European as well as American frameworks of development, aiming to create spaces of reflection on the future of learning in society, and on the future of education within societal models of development.

As we have demonstrated here, educational research across Europe is mainly undertaken by certain institutions in certain geographical areas, responding to a specific European agenda. Most of research projects show a discipline that is more "respondent" than proactive "creator" of policy-making agendas, being educational research a mean to an end, rather than a specific topic for social sciences and humanities.

We have briefly summarized agendas in the U.S., reaching the conclusion that educational research has a longer tradition as base for setting policy-making activities, but striving equally towards a new scenery of definition of the research field and status. In the case of U.S., empirical research have provided solid basis to declare research as a pillar of policy making (policy evidence based); but this has also undermined the independent reflection on theory and scientific identity's definition.

Furthermore, policy-making as well as research agendas are defined linearly; they proceed in a series of moments of debate, agreement, launch of initiatives, testing, and feed-back; from the identification of a key issue within research, many years can separate the concrete application of principles to everyday life.

In fact, conventional models of policy implementation often assume that once a particular policy has been developed it will be straightforwardly adopted. However, all of the research projects which have focused on innovation and modernisation underscore the difficulty of effecting change. There are a number of factors that contribute to the gap between policy and practice. Some of these relate to the context in which the policy is being implemented. Some derive from the tensions and limits of the policies themselves. Exhortations for schools and universities to 'modernise' or 'innovate' often fail to recognise the social and cultural dimensions of institutions and those who work and study in them. It is not just that implementing change is hard, there are sometimes vested interests in resisting change. Implementing new technologies, for instance, is not about installing computers and providing staff development courses (although these are important). If their potential is to be realised, it will require radical shifts in the ways in which learners and teachers see themselves. In fact, policy-makers often overestimate the scope of change that can be effected in and by schools. New technologies, for instance, have been heralded as a means of simultaneously transforming learning, widening participation, reducing social exclusion and aiding European integration. In reality, the research reveals that they are marginal to most people's educational experiences and, even if they were to be more widely made use of, it is more than probable that they would only recreate (or even strengthen) educational inequalities rather than reducing them.

This is where educational research have to respond with a clear agenda, with not only evidence but also values that come from an inner consistency, from an international community of researchers that play an specific part in shaping policies, rather than in responding to them to keep a place and pace in the context of social sciences and humanities development.

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