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EU RESEARCH IN
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Education

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Preface

Education is becoming increasingly important in the economy and society as they become more and more complex and as international exchanges of all kinds expand rapidly. The role of knowledge and learning is continually increasing in this context, and contributes both to current economic, social, political and cultural development processes as well as to building the intellectual foundations, knowledge, skills and resources for dealing with future challenges, whether foreseen or unexpected. Education is also being asked to fulfil an increasing number of roles from tacking the possible emergence of racism and xenophobia to encouraging active citizenship. The Lisbon Council recognised the key role of education in achieving its objectives. By stressing that lifelong learning is central to their achievement, the 2005 Spring European Council confirmed that investing more and better in learning is at the heart of the Lisbon strategy. The 2006 Spring Council concluded that Europe's education and training systems are critical factors to develop the EU's long-term potential for competitiveness as well as for social cohesion.

However, addressing these challenges through education has by no means proved to be straightforward, and research has a crucial role to play in achieving a better understanding of the issues involved and in tackling the policy questions.

Research on education challenges has been an integral part of the EU programme of research in the social sciences and the humanities since the 4th Framework Programme began in 1995. Since then, a substantial number of research projects have been undertaken that address directly a considerable range of issues involving education and training. These collaborative endeavours – some of them currently in progress – have produced important insights for a range of policies. They have also laid the foundations for significant research cooperation across Europe in this field while building the European Research Area. European-level research has particular advantages in this context, notably in studying education in a wide range of national and other contexts and in enabling different research traditions to cross-fertilise each other, to better understand the problems and how policy might address them.

This policy review of much of the education research funded under the 4th and 5th Framework Programmes has been carried out by the independent scholar Sally Power and is one of a series of reviews of the social science research undertaken, according to different policy domains. The review covers 28 selected projects, which completed their research between 1998 and 2006. The results are very relevant today and provide many insights into important issues. More detailed examination of the projects themselves can be undertaken if the reader is looking for further details, and information on accessing these is provided inside. Building on the work covered here, the research being undertaken in the 6th and 7th Framework Programmes has an important place for education research in its work on the various societal challenges it addresses.

Jean-Michel Baer
Director, 'Science, Economy and Society'
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Note on the author: The author of this report is currently Director of Research in the School of Social Sciences, Cardiff University, UK. Most of the work that led to this report was carried out while she was still Head of the University of London Institute of Education's School of Educational Foundations and Policy Studies.

EXECUTIVE SUMMARY

INTRODUCTION

The objective of this report is to synthesise the findings of 28 research projects on education supported by DG Research of the European Commission under the 4th and 5th EU Research Framework Programmes, in order to highlight their key findings and extract their key policy implications.

Education has become an increasingly important policy area as a result of its potential for improving societal well-being through increasing understanding and promoting economic growth as well as improving social cohesion and reducing social inequalities. However, as the research reviewed here reveals, meeting these various challenges is by no means straightforward.

The 28 research projects reviewed in this report cover all phases of education – from early childhood provision to the needs of adult learners. Their evidence is drawn from a wide variety of sources – from cross-national databases to individual life histories. They also include sociological, economic and psychological investigations.

The synthesis of findings from these diverse projects is organised into five broad policy themes: (a) modernising education systems; (b) innovations in teaching and learning; (c) addressing inequalities; (d) education and employment; and (e) European 'convergence' and integration. The final section pulls out generic issues of policy implementation and research needs.

THEME-SPECIFIC POLICY ISSUES

a. Modernising education systems

Europe has traditionally been seen as having some of the most prestigious education provision in the world. However, in recent years there have been concerns that its national education systems are insufficiently flexible to respond to contemporary challenges. There are, therefore, increasing exhortations that Member States should 'modernise' their education systems.

In attempting to illuminate the most appropriate directions along which any modernisation should occur, researchers have undertaken comparative research across national education systems to try to understand what current features need to be amended or retained. They have sought to answer questions such as: Do resources make a difference and where are they best invested? When should transitions and branching off points occur? What mechanisms are most effective at facilitating modernisation?

The research reviewed here suggests that:

§ Investment in early childhood welfare and education _does_ bring long term pay-offs. However, mechanisms and resources need to be focused on bringing educators and parents closer together.

§ Differentiation of students into particular academic tracks creates wastage if undertaken too early (e.g. at early secondary level) or too late (e.g. at university level). The most appropriate time to differentiate is at upper secondary level.

§ Institutional autonomy appears to increase school effectiveness but needs to be set within a clear framework of external accountability.

§ External accountability mechanisms can have damaging effects on disadvantaged schools and communities. Legislation may be required to ensure that data relating to attainment are properly contextualised. External accountability mechanisms based on targets and performance indicators can also distort educational processes.

§ Downward devolution of responsibilities requires staff development at all levels of the system and increased awareness of liabilities.

§ Policy-makers needs to be realistic about what changes can be effected by schools, colleges and universities in terms of both scope and timescale.

§ The EU should stimulate further the development of research that can aid comparison of the strengths, weaknesses and progress of education systems.

b. Innovations in teaching and learning

In addition to the need for educational systems to modernise their governance and accountability mechanisms, there is also a general consensus that we need to develop new ways of enhancing teaching and learning. The development of these new kinds of learning skills is usually (although not inevitably) seen as a prerequisite for maximising the potential of new information technologies.

Researchers have sought to address such questions as: How widespread are innovations in learning and teaching, particularly those relating to new technologies? To what extent have they transformed learning and teaching? Who is making the most use of these new technologies? What are the barriers to innovation and implementation?

The research reviewed here suggests that:

§ Exhortations for schools and universities to 'innovate' often fail to recognise the social and cultural dimensions of institutions and those who work and study in them.

§ New information technologies are not a panacea for problems in education provision and their potential should not be overplayed without acknowledging the considerable investment in time and resources that they require.

§ Innovation requires more than exhortation. It will require explicit acknowledgement of the barriers to change, dissemination of good practice and resources, more secure funding and enhanced professional development.

§ Attempts should be made to ensure that policies related to testing regimes and benchmarking do not hinder innovation in learning and teaching.

§ If the potential of new technologies to foster cross-national learning within the Europe is to be realised, guidelines on how to tackle cultural and linguistic barriers will need to be developed and promoted at EU level.

c. Addressing inequalities

Although strategies for modernisation and innovation may bring system-wide benefits, there is also concern that these benefits will not be evenly distributed. All European education systems (although to a greater or lesser extent) are marked by widespread educational inequalities that need to be addressed if societal well-being and social cohesion are to be enhanced.

The research which focuses on inequalities has sought to answer questions such as: Where are the inequalities in the education system? How does education make matters worse? How can education reduce social exclusion and widen participation?

The research reviewed here shows that:

§ There are no simple 'quick fix' solutions. Multi-faceted strategies are needed that will include legislation, monitoring targeted resource investment, and 'softer' approaches designed to tackle cultural discrimination.

§ Governments at national and European level need to develop and monitor legislation that guarantees the most marginalised children a basic right to education provision.

§ In order to recognise and value diversity, there needs to be a more general acknowledgement of children's and students' diverse social and cultural backgrounds. Specialist provision (e.g. interaction with media, home language maintenance) needs to be put in place to support refugee and other migrant children.

§ Education professionals need to have increased knowledge of marginalised communities and develop appropriate curriculum resources and pedagogies for schools, colleges and universities.

§ There is a need to invest financial resources in institutions and organisations serving disadvantaged communities and to develop programmes to widen access and promote lifelong learning. Policy-makers may also need to consider how to encourage employers to support employees who wish to study, e.g. offering financial support or time off.

§ There needs to be greater investment in the third sector[1] and emerging organisations in civil society. Not only are such organisations well-placed to cut across welfare areas and identify local needs, they have added benefits for promoting participative citizens.

§ If there is one over-riding lesson that can be learnt from research on education and exclusion, it is that schools, colleges and universities cannot tackle all the issues alone.

d. Education and employment

Transitions into work represent one of the main challenges of contemporary education systems because of the considerable changes taking place not only in national education systems but also in labour markets. While these create new opportunities, they also create risks. Rapid changes in workforce requirements and lack of opportunities for unskilled workers mean that conventional routes into the labour market for those exiting education early are no longer available. Transitions into work need, therefore, to be more skilfully negotiated than in previous times. There are also demographic challenges arising from Europe's declining and ageing populations which will need to be addressed through lifelong learning.

Researchers in this area have sought to address the following questions: Are some systems more effective than others at facilitating transitions from education to work? Are some forms of provision more effective than others? Does investment in further training and higher education pay off?

The research reviewed here shows that:

§ Early educational failure has serious consequences at later stages, so policy makers need to ensure that there are systems to reduce early failure and/or provide alternative routes to skill acquisition. These will need to involve identifying those likely to leave and providing them with incentives to remain in education.

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[1] i.e. the non-profit sector.

§   As different providers have different strengths and weaknesses, there needs to be scope for diverse, long term and flexible forms of education, training and guidance.

§   As third sector organisations play such a pivotal role in supporting transitions from education to work, local and national governments should work to ensure that these organisations have sufficient security of funding to promote sustainable programmes.

§   There also needs to be diversity in the form of provision. Organisations should attempt to augment participation and motivation alongside providing the 'hard' currency that will enable young people to negotiate their own transitions.

§   Policy makers need to ensure that the calibre of professions supporting youth into work is commensurate with the task in hand. It might be appropriate to undertake a review of the training and salaries of education, training and guidance professionals.

e. European 'convergence' and integration

One of the basic aims of the European Union is to improve the lives of European citizens and to bring about a stronger sense of European citizenship. Education is seen to play a central role in contributing to this aim through encouraging students to think of themselves as citizens of not just their own country but of Europe. At higher education levels, it could be argued that student mobility and accompanying recognition of the parity of academic qualifications are necessary prerequisites for an open and dynamic European educational arena that will aid European integration and labour market mobility.

In order to identify progress in relation to European 'convergence' and integration, researchers have sought to address questions such as: What are the barriers to European 'convergence' and integration? How can these be overcome?

The research reviewed here suggests that:

§   European 'convergence' and integration will only progress if strategic attempts are made to tackle political and cultural barriers.

§   If migration is to be encouraged and the difficulties experienced by migrant families reduced, the EU needs to provide clear guidance and policies on definitions and to harmonise entitlements to welfare.

§   In order to encourage mobility between European universities, there is a need to improve information systems about current provision. Credit transfer could be facilitated through instigating a centralised body for the recognition of modules and courses.

§ Measures to reduce barriers to mobility could include improving language training. Although proficiency in English is most often sought after, the EU should also support training in less spoken European languages.

§ In order to foster international citizenship, the EU and national and local governments should continue to promote and fund international exchanges.

§ Simply developing policies at European level will not ensure their implementation in local contexts. Policies need to be adapted to local and national circumstances.

§ Education professionals also need to be brought on board. Measures should be taken to ensure that all EU countries regulate for the provision of cross-cultural competencies within teacher education. There may also be a case for harmonising this provision across the EU.

GENERIC POLICY ISSUES

In undertaking this synthesis, it has become apparent that there are a number of generic policy issues that need to be confronted. Some of these are to do with what the research indicates are common issues of policy implementation across different facets of education. Some are to do with tensions between different policy agendas. Some stem from the limits of contemporary policy discourses and some derive from the gaps in our knowledge.

Implementation of change

The research reviewed here raises a number of concerns about policy implementation which indicate that many policy-makers should not underestimate the difficulties of effecting change. In particular, it would seem that:

§ Policy makers need to have more sophisticated understandings not just of 'what works' but of the traditions, values and interests of educational professionals and practitioners.

§ The implementation of change requires considerable thought, resource investment and time.

§ Policy-makers also often overestimate the scope of change that can be effected in and by schools.

§ Reducing educational inequalities will require articulation across other areas of policy – housing, health and other benefits.

§ Tackling inefficient and unequal provision will also take time. Policy-makers' need to recognise that short timescales and unrealisable objectives lead to unsatisfied expectations and can ultimately lead to disillusionment.

Tensions in contemporary policy directions

Although there is broad consensus about policy directions, the research reviewed here indicates that the varying policy objectives can often pull in opposite directions: In particular:

- There is a tension between centralisation and decentralisation in education systems which has resulted in devolved responsibilities within a framework of centralised benchmarks and targets. This has contributed to the privileging of those educational outcomes that are more easily quantifiable rather than more qualitative achievements.

- Although policies that promote 'quality' and those that strive for 'equality' are theoretically not incompatible, current priorities privilege the former. Particularly in systems that promote market mechanisms, educational institutions develop a range of organisational strategies that have damaging consequences for disadvantaged populations.

- Attempts to 'harmonise' provision and to evaluate effectiveness through relatively narrow yardsticks are in danger of stifling innovation and driving out experimental forms of learning

- In spite of the overwhelming body of evidence which suggests that we need diverse forms of provision to cater for the needs of different communities, religions and individual aptitudes, diversification is unlikely to flourish in a context which emphasises common standards.

- Although cultural enrichment does feature in EU and national policies, the overwhelming emphasis within policies at EU and national level is on the economic rather than socio-cultural gains of education.

These tensions suggest that policy makers need to examine <u>the combined consequences of policies (both within education and across other areas)</u> rather than see them as isolated strategies.

The limits of contemporary policy discourse

One means of resolving the tensions of policy and building consensus around the competing aims of education has been the development of a meta-discourse of change. However, while this language may build consensus it also creates difficulties. The findings of the research reviewed here suggest that:

§ This meta-discourse can be problematic when it overstates the pace of change (e.g. 'the information age') and overemphasises the extent to which benefits will be widely distributed and glosses over contested territory.

§ Rather than build artificial consensus, policy-makers need to open up concepts such as 'the learning society' and 'widening participation' to critical debate so that they are not reduced to economic imperatives alone.

§ Policy makers need to work with academics and professionals to debate the fundamental principles of education and to explore how the traditional strengths of European education systems can be reframed to meet contemporary economic *and* social challenges.

Gaps in knowledge

Although research has revealed much about the progress and problems of implementing change, there are still significant gaps in our knowledge. If we are to enter into an informed debate about the future of European education, we need to develop a much more robust and comparative research base about the Member States' education systems. The research reviewed here shows that:

§ There is a need for more system level data that will enable robust comparative and diagnostic research on European provision and outcomes.

§ In addition to large scale quantitative databases, we need far greater understanding of variations and commonalities in the socio-cultural dimensions of European education.

§ Rather than see context-specificity as an 'interference' in research and policy, we should see it as a source of illumination and undertake research on the significance of biography, locality and structure. This will involve far greater emphasis on how education is perceived and experienced by its intended beneficiaries – the students themselves.

§ Only when we have a solid grounding in the (quantitative) patterns and (qualitative) processes of education will the explanatory potential of the comparative dimension of European research be realised.

1.1. INTRODUCTION

THE SCOPE OF THE REVIEW

This report is based on a review of twenty-eight European, transnational, collaborative research projects that directly addressed issues of education. These projects were supported by the European Commission's Directorate-General for Research under the Fourth and Fifth EU Framework Programmes for research. These education-related projects have been an integral part of the EU programme for research in the social sciences which aims to enhance our scientific understanding of the major societal challenges European contemporary societies are faced with, of their driving forces and consequences, and of how best to tackle them.

Education has become increasingly important as a means of improving societal well-being through its role in increasing understanding and skills development as well as improving social cohesion and reducing social inequalities. Provision has also expanded to cover more learners at more stages in their lives.

The 28 research projects reviewed in this report (see Table 1 on the next page) reflect these many dimensions of education. They cover research on the nature and value of pre-school education to provision for mature learners. They also reflect the wide array and methods commonly used for educational research, including surveys, interviews, analysis of datasets and observation. Some of the research is broadly social scientific in its orientation, having no particular disciplinary framework, while other studies are more clearly defined in terms of sociological, economic and psychological frameworks. What marks the research reviewed here as distinctive, though, is its comparative basis. All of the projects have looked at issues in a range of national contexts and drawn comparisons across them.

Table 1. Projects reviewed

Acronym	Project title	Project coordinator	Institution (at the time the project finished)	Summary, Briefing Paper, Final Report	Project web site
ADMIT	Higher Education Admissions and Student Mobility within the EU	A. West	London School of Economics and Political Science, UK	http://www.pjb.co.uk/npl/bp2.htm	
ADULT	University Adult Access Policies and Practices Across the European Union and their Consequences for the Participation of Non-Traditional Adults	E. Bourgeois	Université Catholique de Louvain, BE	http://www.pjb.co.uk/npl/bp8.htm	
AEI	European Network for Educational Research on Assessment Effectiveness and Innovation	W. J. Pelgrum	University of Twente, NL	http://www.pjb.co.uk/npl/bp9.htm	
CAPACITY	Capacity for Change and Adaptation of Schools in the Case of Effective School Improvement	B. Creemers	Rijksuniversiteit Groningen, NL	http://www.pjb.co.uk/npl/bp27.htm	
CATEWE	A Comparative Analysis of Transitions from Education to Work in Europe	D. Hannan, E. Smyth	Economic and Social Research Institute, IE	http://www.pjb.co.uk/npl/bp16.htm	http://www.mzes.uni-mannheim.de/projekte/catewe/Homepage.html
CHICAM	Children In Communication About Migration	D. Buckingham, L. de Block	University of London Institute of Education, UK	http://www.pjb.co.uk/npl/bp48.htm	
CHIP	Child Immigration Project	C. Collicelli	Censis - Fondazione Centro Studi Investimenti Sociali, IT	http://www.pjb.co.uk/npl/bp17.htm	http://www.injep.fr/chip
CLN	Computer-supported Collaborative Learning in Primary and Secondary Education	R.-J. Simons	Katholieke Universiteit Nijmegen, NL	http://www.pjb.co.uk/npl/bp31.htm	
DELILAH	Designing and Evaluating Learning Innovations and Learning Applications	C. Frade	The Tavistock Institute, UK	http://www.pjb.co.uk/npl/bp7.htm	
ECCE	European Child Care and Education Study	W. Tietze	Freie Universität Berlin, DE	http://www.pjb.co.uk/npl/bp15.htm	
ECT	Immigration as a Challenge for Settlement Policies and Education: Evaluation Studies for Cross-Cultural Teacher Training	P. Pitkänen	University of Joensuu, FI	http://www.pjb.co.uk/npl/bp1.htm	http://www.joensuu.fi/ect
EGSIE	Education Governance and Social Integration and Exclusion in Europe	S. Lindblad	Uppsala University, SE	http://www.pjb.co.uk/npl/bp35.htm	http://www.ped.uu.se/egsie/
ETGACE	Education & Training for Governance & Active Citizenship in Europe: analysis of adult learning & design of formal, non-formal & informal educational intervention strategies	J. Holford	University of Surrey, UK	http://www.pjb.co.uk/npl/bp44.htm	http://www.surrey.ac.uk/politics/ETGACE/
EURONE&T	Towards the European Society: challenges for education and training policies arising from the European integration and enlargement	M. Kuhn	BFER, University of Bremen, DE	http://www.pjb.co.uk/npl/bp56.htm	
IVETTE	Implementation of Virtual Environments in Training and Education	M. Barajas Frutos	Universitat de Barcelona, ES	http://www.pjb.co.uk/npl/bp34.htm	http://www.ub.es/euelearning/ivette/index.htm
LIT	Early Literacy Teaching and Learning: Innovative Practice in Four Different National Contexts	H. Dombey	University of Brighton, UK	http://www.pjb.co.uk/npl/bp11.htm	

LLL	Lifelong Learning: the implications for universities in the EU	N. Kokosalakis	Panteio University of Social and Political Sciences, GR	http://www.pjb.co.uk/npl/bp20.htm	
NAT	New Assessment Tools for Cross-Curricular Competencies in the Domain of Problem Solving	J.-P. Reeff	Ministère de l'Education Nationale et de la Formation Professionnelle, LU	http://www.pjb.co.uk/npl/bp28.htm	
NGMPE	Legal Framework of New Governance and Modern Policy in Education throughout Europe	J. De Groof, G. Lauwers	College of Europe, Bruges, BE	http://www.pjb.co.uk/npl/bp53.htm	http://www.lawandeducation.com/
OPRE ROMA	The Education of the Gypsy Childhood in Europe	A. Giménez Adelantado	University Jaime I, ES	http://www.pjb.co.uk/npl/bp46.htm	
PARTICIPATE	Enhancing the participation of young adults in economic and social processes: balancing instrumental, biographical and social competencies in post-school education and training	D. Wildemeersch	Katholieke Universiteit Leuven, BE	http://www.pjb.co.uk/npl/bp14.htm	
PURE	Public Funding and Private Returns to Education	R. Asplund	The Research Institute of the Finnish Economy, FI	http://www.pjb.co.uk/npl/bp29.htm	www.etla.fi/PURE
REFLECT	Teacher Training, Reflective Theories and Teleguidance: Prospectives and Possibilities in Teacher Training in Europe	W. Veen	Delft University of Technology, NL	http://www.pjb.co.uk/npl/bp43.htm	
REGULED UC	Changes in regulation modes and social production of inequalities in education systems: a European comparison	C. Maroy	Université Catholique de Louvain, BE	http://www.pjb.co.uk/npl/bp63.htm	http://www.girsef.ucl.ac.be/europeanproject.htm
SCIED	Improving Science Education: Issues and Research on Innovative Empirical and Computer-Based approaches to Labwork in Europe	M.-G. Séré	Université Paris Sud XI, FR	http://www.pjb.co.uk/npl/bp4.htm	
STT	Schooling, Training and Transitions: an economic perspective	C. Sofer	Université de Paris 1-Panthéon-Sorbonne, FR	http://www.pjb.co.uk/npl/bp18.htm	
STTIS	Science Teacher Training in an Information Society	R. Pinto	Universitat Autònoma de Barcelona, ES	http://www.pjb.co.uk/npl/bp33.htm	
YOYO	Youth Policy and Participation. The role of participation and informal learning in the transition of young people to the labour market. A comparative analysis in 10 European regions	A. Walther	IRIS, Institute for Regional Innovation and Social Research, DE	http://www.pjb.co.uk/npl/bp51.htm	http://www.iris-egris.de/en/uebergaenge/yoyo/

Note: The projects' final reports can also be found at http://improving-ser.jrc.it/default/, the database of projects from the FP4 and FP5 social science programmes.

REVIEW METHODS

Identifying key themes

In order to provide a framework that could cover the diversity of the projects, it was necessary to categorise the projects. A number of categorising systems were developed, for instance on the basis of age phase being considered. The system that appeared to capture the diversity of the research most comprehensively and suit the purpose of the review was one based on the distinctive policy agendas that the research projects addressed. These were identified as:

- o Modernising education systems
- o Innovations in teaching and learning
- o Addressing inequalities
- o Education and employment
- o European 'convergence' and integration

A matrix was then developed (see Table 2 below). As in all categorisations, the boundaries between themes are not always clear-cut and some projects have findings and implications relevant to more than one theme (e.g. ADMIT).

Modernising education systems	ADMIT, AEI, CAPACITY, ECCE, EGSIE, NGMPE, PURE, STT
Innovations in teaching and learning	CLN, DELILAH, IVETTE, LIT, NAT, REFLECT, SCIED, STTIS, VLE
Addressing inequalities	ADULT, CHICAM, CHIP, ECCE, ECT, ETGACE, EURONE&T, LLL, OPRE ROMA, PARTICIPATE, REGULEDUC, YOYO
Education and employment	ADMIT, CATEWE, PARTICIPATE, PURE, STT, YOYO
European 'convergence' and integration	ADMIT, CHIP, IVETTE, LIT, LLL, VLE

Table 2: Key themes and related projects

The final reports of these research projects were scrutinised in order to extract the relevant policy issues, summarise the key findings and pull out any policy implications. Where necessary, other working papers of the projects were consulted.

Distilling policy-relevant findings

The intention of this synthesis and review is to distil findings from these research projects that are of contemporary relevance to policy makers at local, national and European levels. This is by no means straightforward. Good social science research inevitably highlights the complexity of social reality and qualifies resulting findings with cautions about their contingency and context specificity. However, policy makers are faced with challenges and agendas where decisions have to be made and resources distributed. For them, clarity and concision are more important than complexity and cautions.

Trying to build a bridge between these two domains of social science and policy means that some of the complexity of the research is inevitably lost. Every attempt was made to try to extract the key issues and findings without doing disservice to the integrity of research. While some of the subtleties of the arguments and data will have been erased, without attempting to simplify it is hard to see how research can have any impact outside the academic world. Readers who wish to look at individual research projects in greater depth can access the full final report themselves on the European Commission's website http://www.cordis.lu/citizens/ or consult the projects' own web sites given in the table above.

In terms of distilling the policy implications of the research, it should also be noted that the review does not identify specific courses of action that need to be taken. Instead it outlines directions and alerts policy-makers to unintended consequences of strategies and innovations. In general, it highlights problems that need to be overcome rather than offering ready-made solutions.

STRUCTURE OF THE REPORT

As a background to the review, the report begins by examining some of the challenges currently facing European education systems and the main contemporary policy developments. The review then addresses each of the five main themes in turn. Each of these sections comprises an introduction to the key issues and research questions, a distillation of the principal findings arising out of the related research projects and the main policy implications of these.

Although each of the themes discussed had specific policy-relevant findings, it became clear that there are a number of generic issues arising – some of which are common across the policy themes and some of which contradict each other. The final chapter, therefore, provides an overview of the research, its policy implications and future directions. It concludes by indicating priorities for further research to inform policy.

1.2. CONTEMPORARY CHALLENGES AND POLICY DIRECTIONS

The Ambitions of Education

The research reviewed in this report and the resulting policy implications need to be considered against the expanding ambitions and challenges currently facing education. One of the most remarkable shifts within societies over the last 200 years has been the universal development of education systems. With each successive decade, provision has expanded to encompass more learners at more stages in their lives. The ambitions for education systems have also expanded to encompass objectives as diverse as personal fulfilment, cultural transmission, active citizenship, social cohesion and, increasingly, international economic competitiveness. Certainly, education and training systems are seen as a key factor in the development of a prosperous and cohesive European Union. They are seen as "a determining factor in each country's potential for excellence, innovation and competitiveness' as well as "an integral part of the social dimension of Europe, because they transmit values of solidarity, equal opportunities and social participation, while also producing positive effects on health, crime, the environment, democratisation and general quality of life".[2]

To some extent, the more qualitative and individual objectives (e.g. personal fulfilment and cultural enrichment) have been overshadowed by these more ambitious objectives that are designed to promote broader national and international advancement. But they have not been lost entirely. Many governments have developed 'national' curricula and school-level courses in citizenship education are also becoming widespread. At the European level, there is emphasis on the importance of using education to develop a European identity and anxieties over the potential loss of 'historical, geographical and cultural bearings' (EC 1996) as a result of new technologies.

The re-gearing of educational ambitions towards national and international ends reflects recent economic and technological shifts. It is widely assumed (although the extent of change is contested) that global forces are reconfiguring national economies. Rather than the wealth of nations being based on 'old' forms of capital, it is argued that we now live in a 'knowledge economy' in which the development of human capital through ongoing education is the priority. As the Lisbon European Council concluded: 'People are Europe's main asset and should be the focal point of the Union's Policies'. In order to compete in the new knowledge economy, European citizens, it is claimed, will need to engage in lifelong learning and be proficient with the new technologies.

Alongside ambitions of 'upskilling' for the knowledge economy are parallel ambitions relating to social cohesion. Some of these relate to the need to widen access and

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[2] COM 2006/79. Full references to this and other policy documents are given at the end of the report.

improve entitlements so that education systems do not exacerbate social and occupational inequalities. There are fears that within the new knowledge economy, education may be an even greater determinant of life chances than hitherto. There are concerns in particular of a 'digital divide'[3] and 'polarisation between the knowledge rich and the knowledge poor' that will damage economic and social cohesion'.[4] Other ambitions relating to social cohesion concentrate on the potential of education to reduce existing social problems (such as racism, poor health, etc.) through teaching people how to think and act differently.

The Challenges to Reform

In addition to their stated ambitions, all education policies, implicitly or explicitly, address particular obstacles or challenges. These can be categorised as those of external origin, i.e. within the broader social, political and economic context and those deemed to originate within the education system.

External challenges

Within national and European policy communications, there is an anxiety that the 'old' world is losing ground against more powerful and global competitors, particularly the USA and Japan. Not only has there been no narrowing of the investment gap between Europe and these competitor countries, but there are concerns that 'newer' competitors such as China and India are 'catching up fast'.[5] Nowhere is this more evident than in the rise of new technologies and the extent to which European nations are seen to suffer from 'accumulated delays and deficits in relation to key competitors'[6] and an outdated infrastructure.[7]

These challenges are seen to emanate from lack of investment at all levels of the system. At school level, for instance, there are lower levels of ICT equipment. At post-school level, the expanding scope of education reform and the emphasis on extending lifelong and higher educational opportunities whilst retaining a commitment to open access, has created severe resource challenges. Although public funding levels within the EU have remained relatively high, private investment from individuals, foundations and businesses is significantly lower than in the USA and Japan.[8] There are also anxieties that the higher levels of investment and enhanced career opportunities in these countries are leading to an outflow of researchers from Europe.[9]

Related to investment problems are demographic issues. Many European countries have low birth rates and ageing populations. This creates challenges of capacity building and sustainability. There are already insufficient well-qualified teachers and

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[3] EU 2002/236.
[4] COM 2002/779.
[5] COM 2006/79.
[6] COM 2002/779.
[7] COM 2000/318, COM 2006/208.
[8] COM 2002/779, 2004/6905.
[9] COM 2006/208.

trainers, particularly in new technologies, and this situation is only likely to get worse in the future.

The challenges of funding and demographics are European-wide, but are exacerbated as a result of increasing regional disparities. These are evident within countries, but also between nations. The expansion of the Community has widened these disparities and has also created additional strains in terms of flows of resources and people.

Within-system challenges

Although European national education systems have developed distinctive forms of provision, there appears to be increasing convergence in the identification of obstacles to reform within education systems themselves. These relate to a perceived lack of modernisation in the governance and management of educational institutions and the content of formal provision.

In terms of governance and management, it is increasingly believed that centralised systems of resource management are inefficient and contribute to poor accountability and transparency, high levels of wastage and impede speedy and flexible responses to local circumstances. There is also increasing consensus that bureaucratic decision-making hinders creativity and enterprise and that links between education, research and enterprise need to be more fully developed.[10] For instance, at the higher education level, regulatory frameworks that serve to protect public investment also act as a disincentive for universities to behave commercially.[11] In terms of tackling social exclusion, it is also increasingly recognised that the traditional departmental demarcations between welfare providers can impair service delivery.[12]

In addition to the challenges of management and governance, there is a common concern that European schools and universities teach the wrong kind of things. The liberal humanist curriculum taught in many European countries is deemed not to give sufficient emphasis to science and business. Indeed, it is suggested that within Europe 'education and training systems overtly or implicitly transmit values such as risk aversion rather than an entrepreneurial spirit'.[13] The disciplinary framework itself is seen to be an impediment to innovation, and there are concerns that the extended university careers within some countries are wasteful of time and resources. In addition, there is a mismatch between the supply of qualifications and the demand for qualified people, particularly in the arts and sciences, which yields a poor social return on public investment. It is also widely recognised that the lack of permeability between levels and forms of education leads to 'closed doors' and the continuing lack of participation in and under-recognition of vocational and acquired learning.[14] Nor

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[10] COM 2006/D/06.
[11] COM 2003/58.
[12] COM 2002/779.
[13] EC 1996.
[14] COM 2004.

have moves towards lifelong learning been as comprehensive or coherent as required.[15]

For the European Community, these challenges are compounded by the diverse languages, structures and standards of the Member States' education systems. On this front, a major policy challenge is the attempt to respect the principle of subsidiarity while simultaneously seeking to get education provision to converge to some degree and facilitate the cross-national transfer of knowledge, students and teachers.

The next sections explore the extent to which the relevant European research supported under the Fourth and Fifth EU Framework Programmes for research can provide insights into the most appropriate ways of realising the ever-expanding ambitions for education systems and tackling the challenges to reform.

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[15] COM 2002/163, COM 2006/79.

2.1. MODERNISING EDUCATION SYSTEMS

Introduction

Europe has traditionally been seen as having some of the most prestigious education provision in the world. However, in recent years there have been concerns that its national education systems are insufficiently flexible to respond to contemporary challenges. With the increasing expectations of mass education into higher levels and demands to keep abreast of new developments in science and technologies, there are concerns that the 'old' ways of doing things are not keeping pace. It is often claimed that schools, colleges and universities are insufficiently efficient and effective, leading to high levels of wastage and preventing Europe from being able to compete with other global players, particularly Japan and the USA. There are, therefore, increasing exhortations that Member States should 'modernise' their education systems.

Although the definition of modernisation is often somewhat vague, it is usually seen to entail breaking down 'old' bureaucratic control in favour of more accountable, transparent and flexible systems. In some countries, this has involved trying to make educational institutions more 'market-oriented' through increasing choice, diversity and providing information about performance (e.g. through the use of 'league tables' of attainment) to those who use them. There is also a general consensus that responsibilities should be increasingly devolved down to local levels, including individual institutions. It also commonly entails the growth of attempts to measure and stimulate the effectiveness of different education providers through measuring and comparing outcomes and through setting targets.

In attempting to illuminate the most appropriate directions along which any modernisation should occur, researchers have undertaken comparative research across national education systems to try to understand what current features need to be amended or retained. They have sought to answer questions such as:

- Do resources make a difference and where are they best invested?
- When should transitions and branching off points occur?
- What mechanisms are most effective at facilitating modernisation?

Although Europe, with its diverse systems, provides a potentially useful research arena in which to explore these issues, it needs to be noted that a consistent issue reported within the research is the lack of comparable data at system level. Although the AEI project found increasing interest in the potential of comparative data, Member States had varying expertise and experience in the measurement of educational processes and outcomes. This means that there are significant gaps in the availability and validity of performance indicators.

Principal findings

Investment

Although national systems vary widely, the evidence suggests that there is a consistent relationship between investment and outcome. The STT project, based on an economic analysis of longitudinal data from across Europe found that high resources lead to high returns (STT). This was apparent not only between institutions but also within schools, i.e. classes that had greater investments led to higher outputs.

There are, though, limits to investment and therefore considerable debate about *where* resources are most effectively invested. The ECCE project, based on longitudinal data from Austria, Germany and Spain, found that the quality of childcare (particularly within the family but also within institutions) had lasting impact. It proved to be the most important predictor for almost all indicators of children's developmental status at age eight – more important than the quality of the primary school setting. This was the case for all socio-economic groups.

On the other hand, other research (e.g. PURE's analysis of secondary data from 15 European countries) suggests that extra investment should be further up the system. In particular, if it is effectively targeted at 'at risk' populations is might prevent 'drop out'. Retaining students beyond compulsory education continues to be a problem for many Member States.

Transitions and branching off points

In addition to resourcing issues, there are structural aspects that need to be considered. In general, transitions between different phases within a system (e.g. from primary to secondary school, from school to further and higher education) and branching off points (e.g. into academic or vocational tracks) tend to reduce rates of progress, contribute to underachievement and encourage 'drop out'.

In the early years, there do not appear to be significant difficulties with transferring to primary school irrespective of the age of transition or the organisation and duration of pre-school childcare and education (ECCE). Although there was some evidence that very flexible transition arrangements can create problems with adjustment, the quality of relations between school and parents appears to be far more significant in reducing difficulties than any organisational variable.

It is further up the education system that arrangements for transition and branching off appear more crucial. The STT project found that early differentiation (at the lower secondary level) may be less cost-effective than later differentiation as aptitudes have not yet developed. This project also found that systems with relatively closed higher education provision avoided the costs associated with filtering and wastage within universities. However, this wastage could also be reduced through increased differentiation at upper secondary level and increasing the length of higher education.

Levers for change

Although the research evidence would suggest the resources *do* make a difference, there is also increasing recognition that investment alone is insufficient to effect modernisation. Increasingly attention is being focused not just on the amount of resources but on the balance of power between central, local and institutional agencies. As the EGSIE project's analysis of the policy developments in eight European countries has documented, there has been a shift away from bureaucratic *fiat* to increased institutional autonomy.

The CAPACITY project (based on case studies of 'improving' schools in eight European countries) would seem to suggest that this shift is in the right direction. Their evidence indicates that the school is the central lever for improvement and that attention should be paid to augmenting the quality of school (rather than government or teacher) strategies. Although institutional goals will have some relation to national goals, the research suggests that it is the former that will effect most change. This finding is endorsed through other research. The NGMPE project sought to identify the impact of the new accountability mechanisms on schools through a comparative study of 26 national systems based on expert accounts, analysis of legal frameworks and a questionnaire survey. The project found that education systems with a high degree of educational freedom are able to provide a high degree of autonomy and quality at the same time. Systematic and cyclical self-evaluation appears to be an effective tool for providing schools with the means of identifying areas of improvement and directions for change.

However, the CAPACITY project claims that institutional autonomy can only effect improvements within a framework of external pressure. This can take four main forms: market mechanisms; external evaluation and accountability; external agents; and participation of society in education and societal changes. In many European societies, a combination of market mechanisms and external evaluations are being developed. Although there is strong local and national variation, it is possible to identify two dominant models (NGMPE). The 'Continental model' relies on central inspection operates through disciplinary control measures. The 'UK model' combines strong elements of central direction with market mechanisms to emphasise school-level liability.

There are, though, risks attached to giving greater autonomy to schools. The NGMPE project found that the introduction of decentralisation policies has a profound effect on the administration of the education system as officials and professionals *at all levels* have had to adapt to their new responsibilities. The UK model, in particular, leads to the intensification of rules relating to inspection and quality, but also new risks of civil liability. This is likely to lead to an increase in legal claims.

Whichever model for modernisation is sought, the research cautions against overoptimistic expectations of how quickly institutions can 'improve' themselves. Even with the appropriate framework of external pressure, improvement takes time and cannot be achieved within the tight timeframes that some policy-makers seem to expect.

Policy implications

In terms of the substantive issues of investment, transitions and levers for change, the policy implications are many and varied. In terms of resourcing, it is clear that investment is important if European education systems are to undergo modernisation.

Early investment in pre-school provision would appear to have long-term pay-offs. As organisational differences between countries were less significant than the quality of child care, the research would suggest that *policy makers should focus more on quality rather than structure.* Although child-care policies usually focus on welfare benefits of provision, it would appear that their educational benefits deserve more attention. The importance of the family setting and the relationship between parents and schools, both in terms of the range of activities made available and the resources available, is such that strategies need to be developed early in children's lives which *bring educators and parents closer together.*

The importance of setting up policies to facilitate parent-school relationships is evident in research on school transitions. Further up the education system, the findings suggest that *early differentiation is potentially wasteful and might best be avoided.* However, the data also suggest that opening higher education without sufficient screening mechanisms (either at entry or upper secondary level) is also expensive and leads to wastage. The implications of these findings are that differentiation is most effective at the upper secondary levels.

The issue of the locus of change is more complex. The research suggests that *a combination of external mechanisms and institutional autonomy is most effective* at bringing about improvements in local contexts. The importance of local and national context is such that there is unlikely to be a simple recipe for change. Nevertheless, the research reviewed here indicates that, if the school *is* seen as the central lever for change, policy-makers need to find ways of supporting schools rather than focusing on the broader context or the teaching profession.

It follows that centrally set goals *need to be realistic* about what institutions can achieve both in terms of the extent of change and the timescale in which it is to be effected. Any centrally set goals *should provide enough scope* for schools to adapt them to their own circumstances and develop their own agendas. Schools benefit from pressure and support. However, policy makers *need to be alert to and attempt to ameliorate the negative consequences* of external pressure mechanisms. Many of

strategies have potentially damaging side-effects (e.g. innovation overload, market 'failures') that need to be borne in mind.

It might be tempting to conclude that the setting of targets related to robust performance indicators might meet both the need to establish robust comparative data and the need to develop an external framework for monitoring performance. However, such a strategy may well have unintended and negative consequences related to the distortion of educational processes in order to achieve most easily measurable outcomes. The use of *performance indicators as a means to increase accountability and measure performance (particularly relative to aggregated pupil test results) needs to be circumscribed through legislation* ensuring that relevant and related data (e.g. on pupil background and prior attainment) are also made available.

Downward shifts in responsibilities from decentralisation also *require staff development at all levels of the system* and enhanced awareness of liabilities and legal regulations.

Finally, one of the main issues that need to be addressed is the quality of system level data that will enable robust comparative and diagnostic research. If the European Commission is to undertake robust statistical analysis of Member States' educational outcomes, more work is needed to ensure that the data that are collected are consistent and comparable. The European Commission therefore needs to *stimulate further the development of a comparative assessment research workforc*e based on cooperation between countries in order to share the burden of creating high quality systems for comparative assessment and evaluation of educational progress within a European context. This will require mechanisms to ensure *rigorous standardisation* and *easy accessibility* of reporting indices of indicators. It will also require *systematic replication* in many contexts of potential indicators. These activities could be facilitated through a middle and long term plan for European cooperation on assessing educational progress and investigating educational effectiveness and its underlying explanatory factors.

2.2. INNOVATION IN TEACHING AND LEARNING

Introduction

In addition to the need for educational systems to modernise their governance and accountability mechanisms, there is also a general consensus that educational institutions and professionals need to develop new ways of enhancing teaching and learning. Innovation in teaching and learning is required for a number of reasons. Firstly, it is often seen as important in itself. It is widely believed that the 'information age' will require additional kinds of cognitive skills specially relating to problem solving, communication and 'learning to learn'. The development of these new kinds of learning skills is usually (although not inevitably) seen as a prerequisite for maximising the potential of new information technologies. These in turn are seen as having the potential to transform learning processes and outcomes through motivating learners, through giving them greater control over the learning pace and thus helping them become independent and through providing greater scope for collaborative learning.

It is envisaged that future prosperity will depend on the deployment of innovate approaches to learning and the ability to interface with new communications technology. Europe is often seen to lag behind in this area – as is evident from frequent policy calls to address her outdated infrastructure[16] and 'accumulated delays and deficits in relation to key competitors'.[17]

Innovations in learning and teaching are also imperative for capacity building in the areas of science and technology. Europe already suffers from a shortfall in mathematics, science and technology graduates and the inability to retain well-qualified scientists and technologists. As European Commission documentation has often pointed out, other parts of the world appear to be overtaking Europe in terms of scientific and technological capacity. In particular, there is concern that the traditional liberal curriculum of European education systems is not producing sufficient numbers of science and technology graduates. The improvement of science education at school level is therefore crucial in encouraging more students (particularly girls – who are traditionally poorly represented in science and technology) to pursue these disciplines at higher levels.

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[16] COM 2000/318, COM 2002/236.
[17] COM 2002/779.

It is also envisaged that new technologies also have the potential of removing national borders, and distance constraints and associated time costs of travelling thus making learning opportunities 'within reach' of wider geographical and socio-economic constituencies. Some modes of delivery are suitable to those already in full employment and can also be accessed throughout careers. The erosion of conventional geographical constraints could also potentially provide a vehicle for increasing 'virtual' integration across the EU.

The research has sought to address such questions as:

§ How widespread are innovations in learning and teaching, particularly those relating to new technologies?

§ To what extent have they transformed learning and teaching?

§ Who is making the most use of these new technologies?

§ What are the barriers to innovation and implementation?

Principal findings

Breadth of innovations

Virtually all available research shows that innovation and implementation in learning environments is at best patchy and that there is as yet little system-wide change. This is evident at every level of education.

In higher education, where one would have hoped that innovative approaches to learning and the development of new technologies, such as 'virtual learning environments' (VLEs), would be widely used, implementation was patchy. The IVETTE project involved nine case studies of higher education and other postgraduate training institutions in six different European countries. It found that, other than in those institutions specialising in distance learning, most VLEs were implemented in parallel with other teaching structures and often in combination with face-to-face teaching. The researchers found that, in general, providers do not appear to be willing to 'risk' new technologies with high status and traditional courses and students.

Changing modes of learning and teaching

Part of the problem is that the new kinds of learning and skills that are associated with them – such as 'collaboration' and 'problem solving' – do not have recognisable currency. The NAT project sought to define and develop new assessment tools for problem-solving competencies through examining documents, tests and survey data in three countries (Austria, Germany and the Netherlands). The researchers identified lack of conceptual clarity as a major issue. Despite the high profile given to 'problem solving' as a necessary educational skill to be developed, there is little precision within policy documents about what this actually means. And, while it is

possible to assess for problem solving skills in school settings and on a large scale, it is impossible to identify a general, unique 'problem solving competence'.

The researchers argue that the difficulties with reconceptualising and measuring the outcomes of the new modes of learning are an indicator of how much rethinking of educational practice and process will need to be done if the radical implications of innovative approaches to learning and the new technologies are to be fully grasped. They are likely to involve significant changes to teachers' and students' roles. Teachers will move away from being seen as a source of knowledge and take on a facilitator role. Learners will move away from being passive recipients to active collaborators. However, the transition is difficult and requires more than the provision of new teaching tools.

In connection with science education, a high priority on the EU agenda, the STTIS project set out to investigate through interviews and observations how science teachers actually implement innovations in the classroom. They were particularly interested in discovering whether there were differences between those countries which were 'rich' in terms of technology resources (France, Norway and UK) and those which were resource 'poor' (Italy and Spain). They found that, even in those countries and schools with high levels of computing resources, there was limited use in science classrooms. Teachers adapted new teaching guidelines according to their own prior expertise and understandings. In so doing, they often failed to incorporate the new principles appropriately which led to simplistic teaching and insufficient theoretical exploration. The project emphasised how changes in technology entail more than new teaching tools. They bring with them new pedagogies and classroom relations.

The difficulties of innovating in the classroom are underscored by the findings of the SCIED project. This research, based on surveys and case studies in Denmark, France, Germany, Greece, Italy and the UK, found that even more experimental modes of learning, such as labwork, generally involved following set routines and standard procedures rather than open-ended experimentation. Both teachers and students had limited understanding of the production of scientific knowledge and tended not to recognise the importance of theory in developing generalisations. Although computer-based simulations appeared to encourage greater conceptualisation, there was a tendency to concentrate on techniques rather than underlying theory.

Professional expertise

Part of the problem is lack of professional expertise and capacity. Teachers in classrooms do not appear to be confident in using new techniques and technologies. As the STTIS project discovered, new informatics tools are not fully naturalised and are given only limited use even where there are high levels of computing resources.

At university level, there do not appear to be strategic initiatives to integrate new technologies and modes of learning. Such innovation as does occur appears to be initiated through the efforts of small teams of individuals (IVETTE). However, these individuals are often those on the least secure kinds of employment contract. Part of the problems in universities is the relatively lower status of work in this area. Most VLEs being developed fall within the professional sphere, with the majority being in the field of educational sciences.

Barriers to implementing new modes of learning and teaching

The main barrier to implementing new modes of learning and teaching is often the narrow view that is taken of 'innovation'. It is often presumed that innovation is simply a technical issue of practitioners developing new skills and incorporating these into their practice. However, schools, colleges and universities have social and cultural dimensions that render 'innovation' problematic. Those who work and study in educational institutions also often interests in resisting or subverting innovations. Against the background of this broader socio-cultural context, there appear to be several inter-related barriers to change. These can briefly be summarised as professional capacity, curriculum restraints and lack of appropriate teaching materials.

An example of how these various barriers compound to restrict innovation is evident in the limited development of collaborative learning networks in schools. The CLN project, based on student-teacher interactions and learning outcomes in classes in 20 schools from five countries shows that the use of learning networks can improve cognitive outcomes and increase levels of student engagement and motivation. However, despite these benefits, the use of such networks requires forms of teaching that cannot be easily integrated with existing curricula. In order for integration to be facilitated, teachers would need to tailor resources appropriately. However, the researchers found that teachers did not have the time or expertise to develop their own materials and those which are available currently for them to use are limited and/or inadequate.

REFLECT also drew attention to the problem of technological difficulties in teacher education. Based on two trial projects (using video- and computer-conferencing facilities) undertaken as part of two post-graduate teacher education courses in the Netherlands and the UK, the researchers found that students' attitudes towards new technologies were heavily influenced by their experience of the technology. Technical difficulties led to negative attitudes towards using these new means of communication. Their findings would suggest that if beginning teachers start their careers with these negative attitudes, it does not augur well for their future willingness to use them as fully as they might in school classrooms.

It should also be noted that there is a tension between the modes of learning that are said to be privileged by the new technologies and increasingly required in the information age and the more easily measurable performance indicators that are

increasingly being developed by governments to benchmark and measure performance and modernise education systems (see earlier section).

Another issue might be the 'over-hyping' of the new technologies which have often been seen as something of a 'cure-all'. REFLECT found that while the new technologies have the potential to develop reflective skills in students, they are unlikely to replace the need for 'real' contact. Far from reducing the amount of time teachers needed to spend, the use of new technologies requires significant time commitments.

Policy implications

If there is one overriding lesson that can be taken from the research on innovation in learning and teaching is neither straightforward nor easy. Exhortations for schools and universities to 'innovate' need to recognise that change is not a technical intervention. *Policy-makers need to acknowledge the social and cultural dimensions of educational institutions* and those who work and study in them.

Policy-makers should also be aware that *the new technologies in themselves are not a panacea.* In particular, they should be wary of 'over-hyping' the potential of new technologies without acknowledging the considerable investment in time and money that their implementation requires.

The more widespread implementation of innovation will require more than strong exhortation from the EU and national bodies – although this may help. It will also require:

- Dissemination of good practice and teaching resources
- More secure funding bases within institutions
- Enhanced initial and continuing professional development

Policy-makers will also need to examine barriers to the implementation of innovative approaches to learning and teaching. There appears to be, for instance, a contradiction between putting in place testing programmes to increase institutional accountability and facilitate benchmarking and at the same time encouraging schools and universities to foster new kinds of thinking. *Policy makers need to ensure that testing regimes and benchmarking exercises do not prevent innovation.*

If there are implementation difficulties *within* national contexts, these are magnified at EU level because of the different languages, pedagogies and professional cultures. The EU could take a far more strategic role in helping to develop *and promote guidelines* on cross-national use of new learning approaches and technologies.

2.3. ADDRESSING INEQUALITIES

Introduction

The discourses that surround policies that attempt to modernise education systems and introduce more innovative and contemporary modes of teaching and learning tend to speak of education as if it were a universal and evenly distributed benefit which simply needs updating. However, all European education systems (although to a greater or lesser extent) are marked by widespread educational inequalities. All too often these reflect socio-economic inequalities. The pivotal but paradoxical role of education in relation to these inequalities is that it both contributes to their perpetuation but is also seen as a vehicle (and sometimes the *only* vehicle) by which they can be ameliorated.

Although early research into education inequalities tended to focus on school age children, the expansion of higher education and the need for more skilled labour have drawn attention to disparities in retention and participation further up the system.

Inequalities are evident throughout all areas of education systems and endure and even increase as children progress through school. At higher levels, they are evident in variable participation rates, transitions to work and involvement in lifelong learning. Although social changes, and particularly new technologies, are often seen as a means of increasing participation and inclusion, there are also fears that they will increase disparities. The already evident 'digital divide', for instance, will leave those most disadvantaged even further behind. This divide is likely to be brought even more sharply into focus as the Union expands and cross-national population movement increases.

The research which focuses on inequalities has sought to answer questions such as:

§   Where are the inequalities in the education system?
§   How does education make matters worse?
§   How can education reduce social exclusion and widen participation?

Principal findings

Where are the inequalities?

Inequalities can be found at every facet and level of education systems – from access to outcomes. Successive policies have been designed to increase formal access at successive stages, including recent moves to widen participation in higher education. However, inequalities stubbornly persist. In part, this is because of the close connection between educational achievement and social exclusion. Those who are socially 'excluded' (i.e. have significantly fewer opportunities to benefit from material, cultural and social wellbeing) are less likely to obtain the educational qualifications that will enable them to become more 'included'. Lack of educational qualifications therefore became a cause as much as a reflection of social exclusion.

The definitions of where inequalities exist have shifted and broadened as demographics and social opportunities have changed and as research has increased awareness of new dimensions of inequality. Enduring inequalities related to social class background remain evident across all European countries, although they are more pronounced in some countries than others. In the last thirty years, however, there has been increasing awareness of the relationship between gender, 'race' and ethnicity and educational inequalities.

The PARTICIPATE project examined the strengths and weaknesses of education, training and guidance projects designed to enhance the participation of unemployed young adults through qualitative investigation of two contrasting programmes in each of six countries (Belgium, Denmark, Germany, the Netherlands, Portugal and the UK). The researchers found that black and other minority ethnic groups often suffer exclusionary processes and have lower participation rates in higher education and training. The CHIP project investigated policy and practice relating to the welfare of children of immigrant parents through analysis of secondary and primary data in seven countries. It found that immigrant children do less well in the education system in terms of a range of indicators, including enrolment, performance and drop-out rates. The researchers argue that these difficulties arise primarily because of language issues, disparity between the culture of the home and the culture of the school and discrimination. OPRE ROMA examined the education and socialisation of Gypsy/Roma children in France, Italy and Spain through a multi-method project focusing on school and family processes and interactions. The research concluded that education systems do not cater adequately for the needs of Gypsy/Roma children as a result of a complex interplay of political, socio-economic, cultural and ideological factors The CHICAM project focused on the difficulties of refugee children in particular. This project, based on action research with groups of migrant children engaged in a variety of activities, networks and clubs in Germany, Greece, Italy, the Netherlands, Sweden and the UK, found that refugee children experience tensions between the need to maintain continuity with their past lives and families and their investment in new communities and contexts.

The expansion of higher education and the move towards widening participation has focused on age-related inequalities. The ADULT project examined the effectiveness of access policies and practices for adults in higher education institutions with particular regard to socially excluded groups. Its findings, based on case studies of six institutions in Belgium, Germany, Ireland, Spain, Sweden and the UK found that non-traditional students are generally less-well catered for. Adult students in full or part-time employment received little support from their employers either in terms of funding, sponsorship or time off to study. Although women are well represented in the schemes, minority ethnic groups are underrepresented. Many older students expressed dissatisfaction with feedback on work and support from lecturers. Although they wanted to be fully integrated into the university, they found that the facilities and structures were largely designed for younger students.

Although most research focuses on the ways in which lower levels of educational qualifications and training contribute to socio-economic disadvantage, other research has concentrated on the way in which the disadvantaged are excluded from decision-making processes and society in general. The ETGACE project, based primarily on life history interviews with samples of respondents in six countries (Belgium, Finland, the Netherlands, Slovenia, Spain and the UK), explored what kinds of education and training might support active citizenship and found that active citizenship often involved participation in trade union activities and management moves towards flatter structures. However, those who benefited most from changes in organisational structure were often the better educated and more senior. In general, women appear to be less active as citizens than men, although there were complex linkages with ethnicity, disability and sex. In addition to the specific difficulties experienced by the above-mentioned groups, there would appear to be a broader disillusionment with and lack of engagement with conventional politics. Contrary to popular belief, there do not appear to be marked differences in levels of active citizenship between the older and younger respondents.

How does education make matters worse?

Despite the general presumption that education systems offer opportunities to reduce social inequalities, the reverse is often true. Far from helping individuals overcome the limits of their circumstances, education can often compound inequalities. The processes through which this happens reflect a complex interplay of political, socio-economic, cultural and ideological factors.

At its most basic level, there are disparities in access to high quality education provision. Those with greater advantages often have access to more advantaged provision. Inequalities of access are evident throughout all levels of education systems. As the ECCE project has shown, the most important predictor of later educational attainment is the quality of pre-school childcare – of which socio-economic status was a strong factor. Difficulties of access are particularly acute for the most marginalised communities. The CHIP project found that the children of immigrant parents are often concentrated in particular schools and even universities, partly as a result of discrimination within the education system. Gypsy/Roma children also suffer from institutional segregation and the denial of choice of school (OPRE ROMA). Specially tailored provision (such as caravan schools or compensatory classes) does not overcome their educational disadvantage.

There is strong evidence that the segregatory tendencies of schools have been exacerbated through policies which have enhanced institutional autonomy and emphasised parental choice. REGULEDEC sought to investigate the impact of changing modes of regulation on educational inequalities through in-depth research in selected schools in Belgium, France, Hungary, Portugal and the UK. The researchers found that parental choice policies have led to greater competition between schools in some areas, particularly where there is demographic decline, a shortage of 'desirable' pupils and parents who choose on criteria other than

proximity. Schools that do well in the education market appear to offer different kinds of provision (having a greater emphasis on academic hierarchy) from those of lower prestige. It is likely that the greater academic push of prestigious schools, populated by parents of higher socio-economic status, provide safer routes into high status tertiary institutions. Similar processes can operate at further and higher education levels, where 'successful' institutions are able to become increasingly selective – both academically and (by default) socially.

Therefore, while local autonomy may 'empower' individual institutions to improve their outcomes, it is sometimes at the expense of increasing inequalities between institutions. The EGSIE project drew attention to the contradictory processes of increasing access through extended education and increased exclusion through the consequences of organisational decentralisation. The regulatory framework of accountability exercises and audits may also have negative consequences in that the very language through which educational progress is structured *contributes* to the construction of deviant categories.

However, even where there is formal equality of access or availability of provision, there can be exclusionary processes operating *within* institutions. With reference to Gypsy/Roma children again (OPRE ROMA), their low academic performance, irregular attendance and high drop-out rates are compounded by a lack of communication between schools and families. In part, this is because of cultural prejudices. In general, schools, universities and those who work in them do not understand or recognise Gypsy/Roma culture. Social representations of Gypsy/Roma populations are almost entirely negative, displaying racist stereotyping and prejudice. These representations compound with other factors to construct Gypsy/Roma children as 'outsiders' and 'problems'.

Prejudice and marginalisation are also evident in higher level institutions. Access routes to university provide opportunities to those who, for a variety of reasons, 'missed out' first time round. The LLL project examined how universities were responding to national and international strategies to promote lifelong learning through undertaking field studies in 28 universities in seven countries. The researchers found that even where provision for the needs of mature learners was available, it operated at the margin of university activities. They found that such courses tend to carry low status, have fewer funds and are often stigmatised as 'threatening' academic standards. And although the number of mature students has increased in all countries, the project concluded that provision catering for senior citizens is rare and often inadequate.

Educational inequalities cannot, however, be separated from broader inequalities and are often contributed to by welfare policies in other sectors. Housing policies, for instance, have a powerful affect on determining school recruitment areas. In urban areas, they have contributed to the 'ghetto-isation' of minority ethnic, refugee and traveller children in particular schools. A clear example of the lack of articulation

between welfare areas is in the lack of provision for itinerant Gypsy/Roma children, whose education is jeopardised by lack of provision of caravan sites or camps near schools (OPRE ROMA).

Within-institution discrimination also reflects broader societal attitudes towards disadvantaged and 'different' groups. Education professionals are not immune to the largely negative and sometimes racist portrayals of marginalised groups. For instance, despite the fact that, particularly in some countries, immigration is by no means a new phenomenon, the issue is often presented and handled as if it were a recent 'emergency' (CHIP). Media contribute to the portrayal of a 'crisis' of immigration through examining the phenomenon largely in terms of negative consequences, for instance, in relation to crime and security.

What strategies appear to work?

There are a number of indicators about strategies that appear to go some way towards addressing some aspects of educational inequalities that might contribute to increasing social inclusion. Some relate to providing targeted provision and specific facilities, some to 'softer' factors. All will have resource implications.

In terms of specific provision, as discussed in the section on 'Modernising Education' there is strong evidence that early investment in pre-school education brings longer term benefits. It is not just the availability of provision that matters, though. The *quality of provision is paramount* (ECCE). For example, research shows that interaction with appropriate media and resources can provide a powerful means of helping children articulate issues around disruption and relocation (CHICAM). Despite its oft-asserted negative influence, television in particular appears to be an important tool for integration.

On the cultural front, increased recognition and valuing of the cultures and issues confronting refugees and Gypsy/Roma communities would appear to help (OPRE ROMA). For example, educational institutions need to find ways of helping children maintain both their 'old' language and learn the 'new language' (CHICAM). Professional development is clearly important here. In this connection, the ECT project undertook surveys and interviews with staff and students in higher education institutions in six countries to evaluate the extent to which teacher education programmes equipped students with the necessary skills to promote the integration of minority ethnic students. The researchers found that although there are variations between countries about the nature and content of teacher education training courses, it appears that they *do* provide students with the competencies necessary to promote integration. However, the researchers found that there was a lack of current awareness of the changing nature of population movements.

The importance of developing appropriate professional skills is also highlighted in research on education, training and guidance (PARTICIPATE). The success of these projects was dependent partly on young adults developing positive social relations with the professionals.

The difficulty of providing common formulae to reduce inequalities and promote participation is evident in research on developing active citizenship. Although all European countries now appear to be promoting forms of citizenship education, research shows that no standard model or single process emerged as significant. In general, learning how to be an active citizen arises as a consequence of engagement with particular issues rather than as a result of formal training. Senses of citizenship are contextually specific and embedded in life histories, formed by family, school and community relationships. Engagement with third sector organisations and campaigning and interest groups appeared to be an important vehicle for increasing participation.

Policy implications

The research indicates that addressing educational inequalities is extraordinarily difficult and needs to be tackled on a number of fronts. Given the diversity of difficulties, it is unlikely that the solution can be found in a 'one size fits all' approach. Similarly, there *are no 'quick fix' solutions*.

In addition to targeted resource investment to compensate for socio-economic inequalities, strategies will need to include 'hard' interventions (such as legislation and monitoring) to regulate and guarantee minimum entitlements and 'softer' approaches designed to tackle cultural discrimination.

In terms of legislation, governments at national and European level *need to develop legislation that guarantees the most marginalised children a basic right to education provision*. Governments also need to monitor developments to ensure that this legislation and resulting policies are actually implemented.

Policy makers should be aware of the consequences of reforms on social exclusion. Despite the development of policies designed to increase education provision for disadvantaged communities, these are unlikely to be effective if they are set alongside other policies which unintentionally increase disadvantage (e.g. crude per capita funding formulae, competitive bidding for funds). In addition, policy makers need *to examine the combined consequences of policies rather than see them as isolated strategies.* Policy-makers at national and local levels need to be aware of the implications of market-oriented policies in particular and *put in place constraints on institutions to ensure that negative effects are minimised*. These might involve cross-school co-ordination relating to recruitment and exclusion. In terms of organisational levels, it is likely that *intermediary agencies should be given a strategic role in encouraging cross-school dialogue and co-ordination.* Care needs to be taken,

though, to ensure that such agencies do not simply add another layer of bureaucracy.

There is clearly also a need to invest financial resources in institutions and organisations serving disadvantaged communities. Targeted resourcing provides incentives for institutions to pursue activities to promote participation where they might otherwise be reluctant. Given the diverse, often nebulous and, in some cases, conflicting objectives of lifelong learning, *policy makers need to develop priorities and target funding at these* and ensure that other *national higher education policies (e.g. completion targets, etc.) do not create disincentives* for the development of lifelong learning provision in universities. At the higher levels of education systems, governments *need to provide financial incentives for lifelong learning projects and widening access*. If non-traditional students are to be encouraged into higher education, *diverse strategies and access routes will need to be developed*. These could involve removing upper age limits, providing childcare facilities and more widespread accreditation of prior learning experiences. Universities also need to be encouraged to develop *more flexible forms of provision* – in particular through offering part-time modes of study. They may also need to provide *professional development for lecturing staff* to equip them with the skills to support non-traditional students. Policy-makers may also need to consider *how to encourage employers to support employees* who wish to study, e.g. offering financial support or time off.

In addition to providing adequate legislation, being sensitive to the negative impact of other policies, governments need to work with education providers to ensure that discrimination *within* the system is reduced. Cultural prejudices within curriculum materials, pedagogies and professional attitudes need to be tackled.

In terms of curriculum materials, those concerned with the development of teachers and curricula should work towards *increasing knowledge about and representation of marginalised communities.* It is important that *all* teachers be familiar with the issues surrounding different cultures and experiences. Policy makers *should foster opportunities for migrant children and their families to interact with media* that help them deal with the disruptions and tensions of transition and relocation. In addition, investment in language maintenance is important. Attention also needs to be given to *curriculum materials designed specifically for the promotion of intercultural exchange*. Central authorities could also usefully *support universities in the research and development of alternative curricula and assessment modes*.

In order to recognise and value diversity, *there needs to be a more general acknowledgement of children's and students' diverse social and cultural backgrounds*. In order to facilitate this, *educators need to be encouraged to draw families into the educative process*. Governments should also *encourage schools to involve pupils in organisational decision-making*.

If there is one over-riding lesson that can be learnt from research on education and exclusion, it is that *schools, colleges and universities cannot tackle all the issues alone*. Because institutional segregation is largely a product of residential segregation, it is important that policy-makers *look across welfare areas to ensure that segregative tendencies are reduced elsewhere.* In particular, authorities need to ensure that housing and planning policies do not 'ghetto-ise' excluded communities in poor urban areas.

In order to provide local flexibility in tackling exclusion, there is likely to be *greater investment in the third sector and emerging organisations in civil society.* Not only are such organisations well-placed to cut across welfare areas and identify local needs, they have added benefits for promoting participative citizens. If governments want to develop active citizens, they need to *create opportunities for individuals to practise citizenship skills*. These are most effectively developed through actual engagement in citizenship projects rather than formal courses.

2.4. EDUCATION AND EMPLOYMENT

Introduction

Transitions into work represent one of the main challenges of contemporary education systems because of the considerable changes taking place not only in national education systems but also in labour markets. While these create new opportunities, they also create risks. Rapid changes in workforce requirements and lack of opportunities for unskilled workers mean that conventional routes into the labour market for those exiting education early are no longer available. Transitions into work need, therefore, to be more skilfully negotiated than in previous times. There are also demographic challenges. As many European countries are faced with declining and ageing populations, it is probable that older people will need to be encouraged to stay in the labour market. The extent to which they are able and willing to do so is likely to be related to the availability of training and lifelong learning.

However, the expanding need for higher, further and other forms of education has led to a crisis in funding. There is general consensus that public resources alone cannot meet the shortfall. As well as looking to business for funding, there are moves to increase the level at which individuals contribute towards their education. Their willingness and ability to contribute to the cost of their education will relate to whether they see this investment as worthwhile. It may be endangered by fears that significant numbers of people are 'overeducated' and that, accordingly, the value of qualifications has been considerably reduced.

The research considered here addresses the following questions:

§   Are some systems more effective than others at facilitating transitions from education to work?
§   Are some forms of provision more effective than others?
§   Does investment in further training and higher education pay off?

Principal findings

Are some systems more effective than others?

CATEWE aimed to develop and apply a comprehensive conceptual framework of school to work transitions in different national contexts through examining data drawn from the Eurostat Labour Force Survey and, where available, from national school leavers' surveys. The project identified three types of national system: a) countries with extensive vocational training systems at upper secondary level, linked to occupational labour markets (e.g. Germany and the Netherlands); b) countries with more general educational systems and weaker institutionalised links to the labour market (e.g. France and the UK); and c) countries with less vocational specialisation and lower overall attainment than the other groups (e.g. Southern European countries). As might be predicted, those individuals with lower levels of education have higher unemployment risks and tend to end up in low skilled or temporary work.

Overall, outcomes continue to vary by gender, social class background and national origin. However, it would appear that transitions in those countries with extensive vocational training systems tend to be smoother while those with less vocational specialisation are less likely to lead to stable employment.

Are some forms of provision more effective than others?

There is no clear evidence that one form of provider is more effective than another overall. The outcomes vary for different groups. Some research (STT) found that vocational training run by firms leads to longer tenure and lower turnover than that based in schools. Government regulated and structured programmes do appear to be effective – particularly for the long term employment prospects of women.

While both government- and business-led training have their advantages, third sector organisations appear to have a strong role to play in supporting transitions into the labour market. The YOYO project, like the PARTICIPATE project, sought to identify the policies and prerequisites for young people to negotiate successfully their transition into the labour market. Interviews with young people and a series of case studies across nine countries revealed that, because provision for helping young people move into work stands at the interface of relatively static education systems and fluid, often regionally variable, labour markets, third sector organisations are well placed to provide support. These suffer from insecure funding, but benefit from the increased responsiveness and flexibility of autonomy.

It would appear that having diverse forms of provision for education, guidance and training programmes is beneficial because there are different categories of unemployment which need to be addressed through different kinds of projects (PARTICIPATE). Young people leaving school with no or few qualifications require basic support and long term interventions. On the other hand, those who are excluded from the labour market as a result of societal discrimination (e.g. on grounds of race and/or gender) rather than because of their low level of qualifications, require a very different kind of support. Increasing standardisation of approaches throughout Europe is in danger of squeezing out alternative projects.

In general, provision to support transitions into the workplace can be generally subdivided into youth-work-related and labour-market-related schemes (YOYO). Youth-work-related projects tended to encourage participation (in terms of joining projects and engaging in organisational and social issues), but were weak on providing young people with the 'hard' means to support their own personal transitions. And, while an emphasis on participation encourages motivation, motivation in itself does not necessarily lead to sustainable progress and successful personal transitions into work. The labour-market-related projects placed less emphasis on participation (and were sometimes compulsory) but were more effective at matching personal needs to perceived labour market demands. Relatively few projects managed to promote participation *and* develop personal skills. Neither youth-work nor labour-market related provision tended to recognise the importance of

informal learning even though it plays a central role in transition processes. The development of positive social relations and trust between young people and project workers was the main prerequisite for participation and learning – both formal and non-formal (PARTICIPATE, YOYO).

Does investment in further training and higher education pay off?

In general, it would appear that personal and public investment in further training and higher education *does* pay off. Despite the fears of an oversupply driving down the value of qualifications, there is no evidence of this phenomenon (STT). However, the private returns to education, as well as the benefits of staying on in education, vary considerably across Europe (PURE). Some countries show a downward trend in rates of return, some an upward trend. There are no signs of a convergence. Nevertheless, across Europe, those social groups who commonly acquire little education will receive a potentially higher than average return. This supports moves towards lowering the number of early school-leavers. However, although there are variations between countries, at a European level, the differences in the return (in terms of wages) that individuals manage to reap from their investment in education are found to increase rather than decrease when moving up the educational scale. This is despite the huge increase in graduates. This may be related to a more rapid expansion in the demand for highly educated labour. There is not a straightforward relationship between a country's absolute unemployment rate and rates of return. It is the *difference* in unemployment rates between educational levels that appears to be more significant. Employment expectations affect incentives to invest in further education more at the lower end than higher up the educational scale.

In relation to training, formal training led to higher wage returns than informal 'on the job' learning (STT). In relation to labour force 'greying' there is no difference in the job performance of older workers, who, as mentioned earlier, are likely to constitute an important supply of labour in the future. Training appears to keep older workers in employment – although as we saw in the previous section, relatively few higher education providers cater for older students.

Policy implications

While the policy of increasing levels of general education appears to be justified, it needs to be ensured that specialist and targeted support is also available. What is clear from all the research is that, in all Member States studied, socially deprived groups provide a higher return on education. Policy makers need to ensure that there are *systems in place to identify individuals in these groups to provide them with incentives to stay in education.*

In terms of providers, it is also clear *there needs to be scope for diverse, long term and flexible forms of education, training and guidance.* These need to include firms, the public sector and perhaps most, importantly, third sector organisations. *Local*

and national governments should work to ensure that these organisations have sufficient security of funding to promote sustainable programmes.

Whatever the sector of the provider, the development and implementation of successful programmes will ultimately depend on the attributes of professionals. Policy makers need to ensure that the calibre of these people is commensurate with the task in hand. It might be appropriate to *undertake a review of the training and salaries of education, training and guidance professionals.*

The form of provision also needs to be diverse. Provision appears to be most effective when it combines participatory experience with the 'hard' currency young people need to negotiate their own transitions. Public and third sector organisations *should attempt to provide both kinds of opportunity, rather than only one.*

2.5. EUROPEAN 'CONVERGENCE' AND INTEGRATION

Introduction

At their most basic level, the aims of the European Union are to improve the lives of European citizens and to bring about a stronger sense of European citizenship. These ambitious goals involve tackling economic, political and cultural barriers and addressing social inequalities both between and within Member States.

Education is seen to play a central role in contributing to these objectives. At school level, there are possibilities for encouraging children to think of themselves as citizens of not just their own country but of Europe. This will involve recognition of the value and benefits of cultural diversity – not only in the abstract but in terms of their relations with migrant children – from Europe and elsewhere. At higher education levels, it could be argued that student mobility and accompanying recognition of the parity of academic qualifications are necessary prerequisites for an open and dynamic European educational arena that will aid European integration and labour market mobility. New technologies, we are promised, provide the potential to minimise the frictions of geographical distance. And if, as was indicated in the previous section, there are wide differences in rates of return from education one might expect increased cross-national mobility. In particular, highly educated workers from countries with lower rates of return may try to maximise their investment through working (at least 'virtually') in a country with a higher rate of return.

In order to identify progress in relation to European 'convergence' and integration and overcome barriers, research on this theme has sought to address questions such as:

§ What are the barriers to European 'convergence' and integration?
§ How can these be overcome?

Principal findings

What are the barriers to European integration?

There are significant cultural barriers to integration in and through education – as one might expect given the close relationship between the development of education systems and the formation of national identities.

One of the very basic difficulties is in actually finding out what European education systems *do*. The overwhelming majority of research projects have commented on the diverse structures, definitions and strategies for data collection within Europe that make it extremely difficult to understand, compare and get aspects of educational provision and attainment to converge to some degree. These problems are evident at every level. The LIT project was designed to pool knowledge on innovations in early literacy teaching and learning through sharing observations of teaching in classrooms

in four countries (Greece, Italy Spain and the UK). However, the researchers discovered that this was largely impossible because of the very different definitions of what counts as good practice and successful acquisition. In relation to comparing the relative outcomes for different groups of children, criteria for classifying children vary throughout Europe with different emphases being given to place of birth and ethnic origin (CHIP). With reference to higher education, problems with the range of data collected at national level and different national definitions of mobility and student status make accurate international comparisons about proportions and rates of student mobility within the EU impossible. Although there are data relating to EU initiatives, particularly the ERASMUS programme, little is known about 'free-moving' students within and outside the EU (ADMIT). There are also diverse definitions of lifelong learning and in some countries the terms 'continuing' or 'adult' education are used instead, although there appears to be a general shift in vocabulary towards the use of the term ("life long learning").

How successfully have these barriers been overcome?

There have been a number of strategies to promote 'convergence' and integration. These include increasing moves towards the establishment of common legislative entitlements, convergence of policies and encouragement to work with European partners and the promotion of new technologies. However, the success of these strategies within education has been fairly limited.

There is increasing harmonisation of entitlements and the development of international conventions on human rights. However, there are differences between countries in the extent to which these policies are actually implemented (CHIP). There are also economic and language incentives that pull some countries' education providers towards nations other than their European partners. For instance, at higher education level, although EU policy explicitly favours student mobility within the EU, emphasis within most of the countries is increasingly directed towards mobility *outside* the EU and especially in the three largest countries (Germany, France and Britain) on inward mobility (ADMIT). The dominance of English as an international language has provided the main incentive for student mobility, but clearly this has not led to reciprocal mobility between Member States. In general, cross-European student mobility has been limited by three main barriers: language, finance and recognition and/or admissions. In terms of finance and recognition, it appears that there is a general lack of interest in some universities and in some subject areas, particularly the most prestigious institutions and courses, to encourage student mobility. This may reflect a lack of incentives for university staff relative to the amount of work involved. It could also be associated with a perception that studying abroad is a 'tourist' activity. Variations in curricula were not seen as a particular obstacle – except in relation to language proficiency.

There has been much optimism that the new technologies might overcome geographical limits to education provision. However, as we saw earlier, the reality is somewhat different. Despite the potential of virtual learning environments to dissolve geographical boundaries (VLE), most initiatives have not done so. Collaboration was stronger at the intra and inter university (national) level than it is at the European level (independent of whether it is a university/university or university/industry collaboration) and are generally monolingual. The difficulties of EU-wide developments arise from differing academic calendars, curricula and language barriers (IVETTE).

Policy implications

The research suggests that European 'convergence' and integration will only progress if strategic attempts are made to tackle political and cultural barriers.

The need to harmonise entitlements is particularly acute for migrant families and their children. Part of the difficulty of identifying the progress and needs of immigrant children arises from lack of consistent information. *Clear guidance and policies on definitions and monitoring procedures at European level would facilitate this.* It might also be beneficial to *harmonise entitlements to welfare for incoming children and families across the EU.*

In terms of encouraging and facilitating mobility between European universities, there is a need to improve information systems about current provisions*. Credit transfer could be further facilitated *through instigating a centralised body for the recognition of modules and courses. There may also need for greater consistency* of academic terms and quality assurance procedures*.

Measures to reduce barriers to mobility could include *improving language training.* Although proficiency in English is sought after, the EU should also *support training in less spoken European languages.* In order to foster international citizenship, the EU and national and local governments *should continue to promote and fund international exchanges.*

Finally, what is also clear from the research is that simply developing policies at European level will not ensure their implementation in local contexts. Policies need to be adapted to local and national circumstances and cannot simply be 'applied' universally. Even where there is convergence at the national level, education professionals will need to be brought on board. For instance, in view of the commonly expressed concerns about literacy levels within Europe, it is worth investing time to *develop consensus around the goals and dynamics of literacy education*. There also needs to be greater professional understanding of what valuing diversity actually means within the classroom. Measures should be taken to ensure that *all EU countries regulate for the provision of cross-cultural competencies within teacher education*. There may also be a case for *harmonising this provision across the EU.*

2.6. OVERVIEW OF RESEARCH, POLICY AND FUTURE DIRECTIONS

In undertaking this synthesis, it has become apparent that there are a number of generic policy issues that need to be confronted. Some of these are to do with what the research indicates are common issues of policy implementation across different facets of education. Some are to do with tensions between different policy agendas. Some stem from the limits of contemporary policy discourses and some derive from the gaps in our knowledge. Each of these will be considered in turn.

Policy implementation issues

Implementation of change

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 (discussed later).

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. In education, tradition carries prestige. In general, the more ancient the school or the university, the more archaic its rituals, the greater its standing. The most prestigious schools, universities, colleges and courses have relatively little need to innovate (see for instance, IVETTE). Those that do need to innovate are often those of lower status - which, by default, further endorses the superiority of 'tradition'.

Even if the prestige of tradition could be overcome, the research reviewed here clearly demonstrates that *the implementation of change requires considerable thought, resource investment and time*. 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 (e.g. SCIED, CLN).

Scope and pace of change

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 part of a larger problem within education policy – <u>overambition</u>. Given that education systems contribute to a widening of inequalities rather than a narrowing, it seems perverse to believe that they could simultaneously reduce disparities. Even if we reject the pessimistic view that education will inevitably contribute to inequality, it is impossible to see how it could compensate for deep-rooted material disadvantages on its own. All of the projects that have focused on the experiences and attainments of marginalised groups (e.g. CHICAM, CHIP, OPRE ROMA & PARTICIPATE) reveal that their difficulties arise from a complex interplay of cultural and economic injustices. Reducing educational inequalities will require articulation across other areas of policy – housing, health and other benefits.

Tackling inefficient and unequal provision will also take time. Policy-makers' timescales are often too short. The benefits of early investment may not be evident until at least a decade later – by which time it is often assumed that the policy has 'failed'. Expecting schools and universities to change quickly is not only unrealistic; it can also lead to disillusionment.

Tensions in contemporary policy directions

It is hardly surprising, in view of the scope of ambitions and severity of challenges, that education policy is a complex and contested area. Although, as mentioned earlier, there is broad consensus about general directions, there is considerable debate about the effectiveness and impact of specific policies and the extent to which they privilege one educational ambition over another. Although in theory, the ambitions may not be incompatible, in practice, much of the research evidence indicates that they often pull in opposite directions. These tensions can be summarised as:

Centralisation versus decentralisation

This tension is evident within national systems and at European level. At national level, research (e.g. EGSIE, NGMPE) indicates that the move towards devolving financial control to local levels has been matched by increasing centralised control and monitoring. Increased centralised control is effected through increasing standardisation of curriculum and assessment with a view to evaluation of performance. Although at European level, the subsidiarity principle means that moves towards 'convergence' are recommended rather than enforced, the tension between centralised benchmarks and local responsiveness remains. *The move towards what is sometimes called the 'auditisation' of society has privileged those aspects that are more easily quantifiable* – outcomes related to qualifications, social inclusion indicators and other performance outcomes – and those ambitions connected with 'woolly' areas, such as personal fulfilment, cultural transmission and citizenship have lost ground.

Quality versus equality

Although theoretically not incompatible, in practice, the emphasis on assessing institutional and system improvement through specified quality indicators sometimes has negative equity effects (e.g. REGULEDUC). Particularly when there are strong incentives not to 'under perform', *educational institutions develop a range of organisational strategies for ensuring that targets are met which often have damaging consequences for disadvantaged populations.* These can include, for instance, the targeting of resources at 'borderline' individuals to boost achievement and the relative neglect of the lowest achieving learners. Research also shows that the move towards local management can have negative equity implications. Although it promises greater organisational effectiveness, as budgets and decision-making are increasingly devolved, often down to institutional level, there are fewer mechanisms to monitor and redress local variations in resources. These are likely to be exacerbated when private investment is used to bolster public funding.

Standardisation versus diversification

Attempts to 'harmonise' provision and to evaluate effectiveness through relatively narrow yardsticks is in *danger of stifling innovation and driving out experimental forms of learning* that carry risks. Research shows that innovation is particularly difficult to develop in education systems, which are often conservative in their values and orientation and experience shortfalls in the necessary resources and skills to implement change. Although moves to standardise provision and evaluate indicators of progress (e.g. through attainment targets or availability of ICT equipment) may provide mechanisms to 'drive' reform, they do not effect cultural change or encourage experimentation or diversity. Indeed, in spite of the overwhelming body of evidence which suggests that we need diverse forms of provision to cater for the needs of different communities, religions and individual aptitudes, diversification is unlikely to flourish in a context which emphasises common standards.

Cultural enrichment versus economic competitiveness

European education systems have traditionally emphasised the importance of learning for individual and social betterment. It has been argued (e.g. DELILAH) that there is a 'fundamental clash' between such liberal-humanist values of education and the ascendant neo-liberal agendas for education. Although policies may mention the cultural importance of education, the overwhelming emphasis within policies at EU and national level is on the economic gains of education (EURONE&T).

In view of these competing policy directions, it is important that policy makers *consider the combined consequences of policies (both within education and across other areas) rather than see them as isolated strategies.*

The limits of contemporary policy discourse

One means of resolving the tensions of policy and building consensus around the competing aims of education has been the development of a discourse of change that captures diverse facets without actually resolving the dilemmas. Policy pronouncements, including those from the European Commission, tell us, for instance, that if we are to take full advantage of the 'information age', we will need to develop a 'learning society' in which everyone engages in 'lifelong learning' through 'widening participation'.

This kind of language is problematic because it usually overstates the pace of change, overemphasises the extent to which benefits will be widely distributed and glosses over contested territory.

In relation to 'widening participation' for instance, it is difficult to disagree that more should not benefit from extended educational opportunities. However, widening participation in itself will do little to redress educational inequalities. The issue of access is not only one of gaining entry, it is of having equal entitlement to high quality provision (e.g. ADULT). Disparities in the resourcing and prestige of educational institutions – particularly at secondary and tertiary levels – mean that relative advantages and disadvantages are reproduced even though the overall level of qualifications has been increased.

Similar issues arise with concepts such as 'the learning society'. As with 'widening participation', it is hard to take objection to such an ideal. However, precisely what it is that society should be learning is left vague. Rather than encourage debate, this kind of discourse tends to build consensus without critique. It can lead to the domination of economic imperatives at the expense of socio-cultural objectives (EURONE&T). A learning society founded on a narrow-skills driven agenda is not only a restricted notion of education, but an abandonment of the rich liberal-humanist traditions which have characterised European education in the past. There may be problems with such traditions, but replacing them with a narrowly-defined economically-driven agenda is unlikely to be an improvement.

What is needed is a political discourse that encourages debate and reflection on the fundamental principles of education and brings together policy-makers, academics and professionals to explore how the traditional strengths of European education systems can be reframed to meet contemporary economic *and* social challenges.

Gaps in knowledge

Although research has revealed much about the limits and tensions of current policy directions, there are still significant gaps in our knowledge. If we are to enter into an informed debate about the future of European education, we need to develop a much more robust and comparative research base about the Member States' education systems.

As already mentioned, all of the projects referred to in this report have commented on the need for system level data that will enable robust comparative and diagnostic research on European provision and outcomes. There is, for instance, relatively little standardised data across Europe on participation in pre-school education, on the destinations of school, college and university graduates, on student and employee mobility between and within Member States.

It is important to note, though, that the development of a more comparative research base should not comprise only large scale quantitative databases. This would only tend to endorse the current trends towards narrowly defined and easily measurable educational outcomes. Data on participation rates and performance outcomes are needed, but what is really missing is a thoroughgoing understanding of variations and commonalities in the socio-cultural dimensions of European education.

One of the repeated themes in the research reviewed here is the context-specificity of concepts, data, provision and the nature of learning itself. This context-specificity affects the reliability and validity of comparison. For example, what counts as being literate in one country is different from another. For some projects, this has meant that the comparative dimension of their research has been fairly limited - extending little further than revealing that definitions, processes and policies vary across countries. This is unfortunate as the variety of systems within Europe make it a fascinating arena in which to contrast and compare with a view to developing *explanatory* frameworks. In relation to some of the policy implementation issues and tensions discussed here, for instance, it should be possible to go much further in illuminating the reasons why some interventions are more or less successful than others.

In order for the comparative benefits of European research to be expanded, it is important that context-specificity should not be seen as an 'interference' in research and policy, but a source of illumination. In order to understand why some policies succeed and others fail, it is important to look at education provision in terms of systems – and the best way of understanding the characteristics of anyone system is through comparison with others. The differences between European education systems reflect not only contrasting amounts of resource investment and labour market opportunities – although these factors are important. More significantly, the differences arise from the sedimentation of different values, priorities and cultures. In order to understand system (and within system) level variables in educational processes and outcomes, we need to explore the various meanings, values and

significance that various communities attach to education. This is likely to involve more qualitative research on the significance of biography, locality and structure. It will involve exploring far more fully than hitherto how education is perceived and experienced by its intended beneficiaries – the students themselves. These qualitative explorations though need to be firmly embedded within an improving quantitative understanding of the patterns that arise from the processes. Education is essentially a socio-cultural engagement and unless we understand more fully the ingredients and dynamics (in terms of patterns *and* processes) of that engagement, our policies will be weak and ineffectual.

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