

1. Introduction

Understanding the social outcomes of learning

By Richard Desjardins and Tom Schuller*

The educational systems of OECD economies continue to grow and with this the total amount of resources dedicated to the total learning effort is reaching unprecedented levels. Are the resources organised and used in a way that fulfills what society intends educational systems to achieve? Do the educational systems provide the right forms and types of learning opportunities? Are the learning opportunities offered at the right time and distributed over the lifespan in the best possible way? Answers are necessary for both public and private officials to effectively guide and manage education and training systems, including the design and implementation of effective and well-informed educational policies.

The effects of education extend beyond the economic sphere. Most agree that the total benefits to society from education are greater than the sum of what individuals earn as a result of their educational attainment. Besides providing the knowledge and skills necessary for economic participation, the schooling system is the primary agent of socialisation in modern societies. Education at all ages plays an equally important role in sustaining economic, social and personal well-being. Accordingly there is now a growing consensus that the links between personal, social and economic well-being and education need to be understood better and communicated to policy makers and the wider public (OECD, 2001).

Policy concerns such as mental and physical health, active citizenship and social cohesion have assumed greater prominence on the political agenda, including as potential benefits of education. But this interest precedes theoretical development and a good information base to make sound policy decisions. While human capital theory links education to economic outcomes and offers a robust framework for scientific investigation and policy analysis, there is to date no widely accepted theory linking education to social outcomes. We need coherent models for understanding better these relationships; for gathering and synthesising what we know and what we want to know; and for drawing out their implications for policy (Behrman and Stacey, 1997; McMahon, 1998, 2000; Schuller *et al.*, 2004).

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The Social Outcomes of Learning (SOL) project

In 2005 the OECD's Centre for Educational Research and Innovation (CERI) in cooperation with the OECD INES Network B (responsible for devising indicators on the outcomes of education) launched a project entitled "Measuring the Social Outcomes of Learning" (SOL). The SOL project is designed to inform economic and social policy that relates to education and lifelong learning. It involves in depth investigations into the nature of the link between learning and well-being, and how such linkages, if warranted, could be used as policy levers to improve well-being through education, and to achieve greater equity in the distribution of well-being. Thirteen countries have so far taken active part in the SOL project.¹

The project seeks to:

- Develop a framework to investigate these various links.
- Improve the knowledge base for policy decisions on private and public benefits.
- Contribute to more integrated policies across education and other policy domains.
- Foster the gathering and application of evidence on SOL.
- Enable thinking about interactions between economic and social outcomes.

The project is initially focusing on two domain areas: **Health (physical and mental) outcomes of learning**; and **civic and social engagement outcomes of learning**. Two cross-cutting themes are also considered: intergenerational effects of learning via the family and home environment; and distributional effects of learning: how different social groups benefit from education.

The work to date (summer 2006) has achieved a number of things:

- It has been a substantial ground-clearing exercise, ranging over a wide array of existing quantitative studies at national and international level.
- It has explored the issues involved in developing an understanding of the causal relationships in this field; in other words, how to go beyond simple associations between education and social outcomes in order to understand how education directly or indirectly affects them.
- It has developed models for understanding the data better.
- It has begun the work of developing robust indicators which will help us lay the basis for better empirical data and understanding.
- It has begun to sketch out policy implications.

There are a number of general issues which remain to be addressed:

- The material gathered to date does not include qualitative studies which may give important insights into the causal processes. An equally rigorous overview of this material is important.

¹ These countries include: Austria, Belgium (Flemish), Canada, Japan, Luxembourg, the Netherlands, New Zealand, Norway, South Korea, Sweden, Switzerland, the United Kingdom (England and Scotland) and the United States.

- The analyses to date have concentrated on schooling, primarily because this is where data are most readily available. Serious attention needs to be paid to learning later in life, and to informal and non-formal modes of learning.
- We need to build on the current work by differentiating more between types and modes of learning, so as to understand the range of educational effects (including where there is no impact).
- These steps will enable a more developed set of policy implications to be drawn out.

This volume

This volume, which includes major papers on the two principal social domains and a series of responses to them, is the first published output from the SOL project. It will be followed in early 2007 by the publication of a synthesis report which will draw together the different strands of evidence and arguments, and develop policy implications, and include some country papers which will analyse the position in different countries in specific detail.

Two major papers, one for each domain mentioned above, were commissioned directly:

- *Health outcomes and learning experiences*, by Leon Feinstein *et al.*, Director of the Centre for Research on the Wider Benefits of Learning, Institute of Education, London University.
- *Civic and social engagement outcomes and learning experiences*, by David Campbell, Department of Political Science at University of Notre Dame, United States.

The purpose of the two papers was to review concepts, theories, and empirical evidence within the two broad domains. An important aim was to draw out some of the most salient implications for policy and further research, as well as for indicator development. Specifically, the papers aimed to:

- Improve our understanding of the web of relationships that link learning experiences and social outcomes.
- Gather and summarise empirical evidence on the impact of learning experiences.
- Provide a basis for developing strategies that can empirically assess the impact of learning experiences on social outcomes and the channels by which this impact is realised.
- Identify policy levers, and the basis for policy intervention (if any).
- Provide a basis for developing cross-nationally comparative indicators which can inform policy priorities.

Another paper was commissioned by the Social Policy Division of OECD and partly in coordination with the SOL project: *Social disadvantage and education experiences*, by Steve Machin, Professor of Economics, London School of Economics. The paper relates closely to the cross-cutting themes of the SOL project, namely the distributional and

intergenerational effects of learning. It is published separately as an OECD working paper (Machin, 2006).

To review these and other expert papers and consider their policy implications, CERI and INES Network B convened an international symposium on “Measuring the Social Outcomes of Learning” in Copenhagen, on March 23 and 24, 2006, which was hosted by the Danish University of Education. The symposium brought together both individual experts and country representatives.

This volume brings together the two major overviews of the key domains of health and civic and social engagement (CSE), and a number of responses which were commissioned as inputs to the symposium. All these papers were revised for publication following the symposium. The Symposium also discussed papers by Jon Lauglo and Tormod Øia, *Education and Civic Engagement: The Case of Norway*, and Florian Walter, *Political Participation and Education: the Case of Austria*. These are currently being prepared for publication separately.

CSE outcomes of learning

Policy context

The domain of civic and social engagement (CSE) is a broad one. In our definition, it covers both behavioural aspects, for example to do with voting, and attitudinal issues, for example levels of tolerance. The paradox is that education levels have been rising; education is generally positively associated with CSE; and yet most countries share a concern about declining levels of voter participation, and about the state of civic participation generally. The effects of education on CSE are not easily untangled, and unlike health it barely makes sense to put a monetary value on them. However if the rhetoric about education supporting vibrant democratic systems is to be substantiated, we need to understand the patterns more clearly.

Overview of contributions

The overview by **David Campbell** draws together much of the evidence, focussing especially on schooling. It confirms the strong association between education and CSE, and begins to unpack the multiple relationships by means of a framework which distinguishes between absolute, relative and cumulative effects (see below). Campbell’s analysis shows how different aspects of the education-CSE relationship are explained by one or other of these models. This framework, applied here to CSE, could be a powerful one for analysing the effects of education in general. For example the education-earnings relationship is subject to the very same alternative mechanisms encompassed within this framework.

As with all the responses, the paper by **Tom Healy** considers some of the gaps and further questions that arise from Campbell’s work. Among other points, he elaborates on why we should be interested in CSE outcomes of learning, summarises what we know so far and considers what it is policy makers could do with such information. A major point that he draws our attention toward is that many CSE outcomes of learning are not easily observed or quantified.

John Andersen and **Jørgen Elm Larsen** make a link between Campbell’s paper and the social capital literature. They point out the importance of taking into account the wider socio-political context of a nation because this can imply important differences in the quality and purpose of social capital in different national contexts and hence the CSE outcomes that societies are interested in. They also offer a series of reflections regarding a possible multi- and mixed-method approach to further research, including possible ways of measuring school ethos.

Christine Maignet and **Ariane Baye** elaborate on some of the key elements that are necessary to take into account for developing a framework of indicators relating to CSE. This work is now being carried forward by the OECD INES Network B (see overview by Hudson and Andersson).

Pascaline Descy contributes a small paper that presents select research results on the macro social outcomes of education and training. The results derive from work commissioned by the European Centre for the Development of Vocational Training (CEDEFOP). It illustrates relationships at the macro-social level between educational and income inequality and social outcomes such as general trust, crime and feeling of community safety.

Some key messages

- In general, other things equal, higher levels of schooling contribute to higher and better levels of civic and social engagement.
- A discussion of the social outcomes of learning is useful in recognising the multiple roles that formal education plays from economic to social, cultural and personal.
- Schooling interacts with factors such as social class, gender, ethnic status – understanding of these inter-relationships is still very limited.
- Even so, as David Campbell shows, socioeconomic status is not the only determinant of civic outcomes – looking at civic engagement within and across various social groups shows that some generic lessons and applications are possible.
- Some forms of learning seem to work better than others in fostering CSE – learning environments that stress responsibility, open dialogue, respect and application of theory and ideas in practical and group-orientated work seem to work better than just “civics education” on its own.
- Many other factors impact on CSE as well as schooling – schooling is not a panacea.
- Not all forms of CSE are socially desirable.

Health outcomes of learning

The policy context

As with CSE, research suggests that the relationship between learning experiences and health outcomes is pervasive but the policy context is somewhat different. Spending

on health and healthcare in most OECD countries has risen dramatically over the past five years. All OECD governments are under continuous pressure to reconcile economic and health concerns because the public purse funds the bulk of health spending in most countries. Accordingly, it is increasingly important for government spending departments to understand better the potential savings resulting from policy interventions that relate to investments in learning.

The association between education and health is typically interpreted as a marker of socioeconomic status, because differences in health by levels of education and income often mirror each other. However, the evidence shows that sizable differences in health are partly due to the effects of education and not solely to differences that precede or explain education, such as socioeconomic status. This potential effect raises two important issues that relate to education and health policy:

- A need for a better understanding of the return to investments in learning, and in particular the impact of education on health costs, including public health expenditures.
- A need for a better understanding of the determinants of equity in access and use of health care, and in particular the channels by which education can have an impact on health.

Separately, understanding equity in access and use of health care is a key health policy issue. Income-related inequalities in the use of health care are documented and given due attention. But education has an important impact on economic factors such as income and employment, which in turn affect health outcomes. Moreover, the empirical literature suggests that the role of education is more pervasive than this. It identifies two other possible channels that link education and health outcomes, namely the impact of education on health-related behaviours and psycho-social factors such as self-esteem and empowerment. Additionally, intergenerational factors link parental levels of education and their children's health, independent of income-related effects. Accordingly, it is important to gain a deeper understanding of the nature and extent of the impact of education on health and the channels by which health is affected by learning experiences.

Overview of contributions

The paper by **Leon Feinstein** and colleagues surveys a wealth of evidence, and links it to different types of illness or health domain. This opens up the way to a more detailed understanding of the specific kinds of benefit which education might produce; but also to a potentially powerful set of cost-benefit results, where investment in education can be seen to pay off for society as well as for individuals. The main conclusion is that there exists a stable and statistically significant association between education and health, and that further it is highly plausible to assume that at least part of this association reflects a genuine *causal* effect of education on health. The paper also contributes substantially by considering in detail the possible causal mechanisms behind these effects.

The response paper by **Wim Groot** and **Henriette Maassen van den Brink** considers the size and hence the potential importance of the effects of education on health. They introduce key concepts relating to the measurement of health benefits, such as QALYs (Quality Adjusted Life Years), and make some calculations of the effects. The estimates are tentative at best since a number of assumptions are required, but they nevertheless indicate that the potential health returns to education are substantial and that

this warrants a more comprehensive and integrated policy approach to education and health.

David Hay critiques the omission by Feinstein *et al.* of the many models in the social epidemiological and public health literatures that outline the determinants of health. In those models, education is one among many other determinants. Hay reminds us that reliably sorting out the relative importance of determinants is a key task. He also reminds us that the single best predictor of current health status is prior health status and thus highlights the importance of including the temporal dimension in the investigation of these relationships.

Laura Salganik also mentions the importance of grounding the relationships of interest into a broader framework, since this in her opinion would make transparent the competing hypotheses for how correlations between health outcomes with other factors are generated. She also makes an important link between this work and the OECD work on the Definition and Selection of Competencies (DeSeCo). The material compiled for the DeSeCo project provides a theoretical and conceptual foundation that makes the link between individual behaviour and health outcomes more explicit. In particular, the concept of competence offers a potentially promising way forward in trying to understand further the potential role of education in producing health outcomes.

Some key messages

- Overall, international evidence shows very strong links between education and determinants of health such as health behaviours and preventative service use. Many of these links are causal, *i.e.*, even with rigorous controls the effects go beyond the associational.
- The benefits of education to health go beyond that of schooling. Learning in later life can have substantial effects on health. One study estimates that for every 100 000 women enrolled in adult learning we might expect 116-134 cancers to be prevented.
- Education affects mortality. One US study shows that an additional year of study reduces the probability of dying in the next 10 years by 3.6 years; another Swedish study shows that an additional year reduces the risk of bad health by 18.5%.
- Although precise calculations have to be very tentative, some of these benefits can be costed. A UK study estimates that taking women without qualifications to a Level 2 qualification would lead to a reduction of 15% in their risk of adult depression; with an estimated cost of depression of £9 billion a year, this would lead to a saving of GBP 200 million.
- The health productivity of learning requires considerably more attention from policy makers. Measurement of education depends too heavily on quantity and qualifications. More emphasis should be placed on qualitative evidence which can illuminate how education benefits health, so that policy conclusions can be drawn in relation to curricula and pedagogy at different ages and stages.
- Not all learning is good for health! At a collective level education can increase inequalities, with negative health consequences; and can raise stress levels.

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