

## Executive Summary

Education affects people's lives in ways that go far beyond what can be measured by labour market earnings and economic growth. Important as they are, these social outcomes of learning (SOL) – such as the impact of education on health – are neither currently well understood nor systematically measured. This “synthesis” report is a first pass at bringing together some promising developments in this area. (See Chapter 1 for a full explanation of the report's sources.) It is part of a process aiming to produce policy-relevant tools and analysis on the links between learning and well-being.

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### *Background and rationale*

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Our current understanding of these links rests on a relatively weak knowledge base. If educational investment is ever to reflect the assumed importance of these linkages, we must first develop coherent models for understanding them. Such models should aim to enable governments and publics to set about answering the following questions:

- *Accountability*: what do individuals actually learn as a result of societies' investment in education and training? And what follows then, not just in terms of individuals' earnings and economic growth but in the wider context of individual and social well-being?
- *Competition for public expenditure*: what is the evidence to support the case for funding education in the face of competing demands on the public purse? For example, the ageing of societies could see education funding squeezed in favour of care for the elderly, even though learning may be important to helping people remain healthy into old age.
- *Recognising values*: what is the role of education in instilling values to do with well-being and social cohesion, as well as employment? How far is the goal of active citizenship recognised and implemented in educational practice?

- *Intersectoral linkages*: how can we promote integrated thinking and delivery across sectoral boundaries to maximise benefits? For instance, education promotes health, but the reverse is true too. How could enhanced dialogue between these sectors work to strengthen the benefits of these interactions?

Two broad domains were chosen to form the focus of the first phase of SOL work – *health* and *civic and social engagement (CSE)*. They are areas of significant current policy concern, raising a mix of social and economic issues. They allow both general overviews across the field as a whole and specific investigation of particular aspects.

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### *Developing a framework*

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Learning does not occur just in school – it is both “lifewide” (*i.e.* it occurs in multiple contexts, such as work, at home and in our social lives) and “lifelong” (from cradle to grave). These different types of learning affect each other in a very wide range of ways. Their impact in terms of the outcomes of learning is equally complex – whether it is in the economic and social spheres, the individual and collective, the monetary and the non-monetary.

Further complicating the picture are substantial gaps in our knowledge base on a number of issues, including the following:

- The *cumulative* and *interactive* impacts of lifewide and lifelong learning.
- The potential impacts of *informal* learning, *later interventions* in adulthood, or even different types of formal education.
- And the impacts of *different curricula* (general, academic, vocational) and impacts of learning at different *ages and stages*.

To make sense of these relationships, it is useful to develop a framework for building models and analyses that will be applicable in a range of contexts. In addition to emphasising the importance of addressing issues in a *multi-level* way, three key elements to the framework are reviewed briefly here.

1. *The ARC set of models*: a threefold mechanism, involving *absolute*, *relative* and *cumulative* effects of education.

The *absolute model* states that education has a direct effect on the individual. The model implies that more education is better and that an overall expansion of education may lead to an overall increase in the

particular outcome to which it is being applied. The net effect of an expansion is *positive-sum* – in other words, at least some groups gain while none are worse off. However, education can also have intrinsic negative effects at the individual level, by for example injuring self-confidence.

The *relative model* stipulates that education has an effect by changing the position of the individual in the hierarchy of social relations. It is also referred to as the sorting or positional model. Education generates benefits for some but in doing so places others in a worse position. The model suggests that an expansion of education does not necessarily lead to an overall increase in net benefits, but is *zero-sum* – there are losers as well as winners.

The main premise of the *cumulative model* is that the individual's peer group matters. How the individual fares depends on the average level of education of his or her peers or surrounding groups (including spouses/partners). Certain outcomes associated with education are only likely to materialise among groups with similar levels of educational attainment, and the prevalence of the outcomes increases with the average level. This model is the most difficult to apply empirically but as a foundation for arguments sustaining education as a public good, it is potentially significant.

2. The *Self-in-Context* approach: education can matter for social outcomes through its effects on the self, particularly the capabilities of individuals and their agency – their capacity to make choices in life and follow through on them. The approach allows more in-depth accounts of how education can affect people in everyday social interactions, either in family, work, community or broader societal contexts. Education also influences the choices of contexts that people come to inhabit or their opportunities to choose among contexts.
3. The third element of the framework is the *qualitative dimension of learning experiences*. An overdependence on volume- and qualifications-based measures of educational participation neglects how effects of education depend on the nature and quality of learning provision as much as on the number of hours or years spent in schooling. To move beyond these limitations requires consideration of *educational contexts* (the level and type of education); *educational content* (the curriculum and pedagogy); and the *ethos* of educational settings. The focus of this discussion is on compulsory schooling. Further work is needed to extend these considerations to other types and levels of education.

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*Investigating the social outcomes  
of learning*

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This report uses these constructs to examine two aspects of the social outcomes of learning – *health* and *civic and social engagement (CSE)*. In CSE, some original data analysis which applied the ARC set of models to the European Social Survey and European Values Survey data is reviewed. In health, the self-in-context model is used as a framework for structuring an elaborate review of the evidence of the causal effect of education on health. There is scope for more in-depth application of the framework to both health and CSE but also to a range of other domains such as crime, anti-social behaviour and poverty.

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*Health*

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The health benefits of learning are potentially extremely large. With the costs of delivering healthcare services set to rise substantially for demographic and technological reasons – essentially, the ageing of most OECD populations and the development of new forms of treatment. There is a clear *cost containment* aspect here. Governments need to understand better the potential savings resulting from policy interventions that relate to investments in learning, not only for school-aged children but also for adults.

Secondly, there is the more positive aspect of the *enhancement of well-being and the quality of life*. As well as preventing illness or enabling its more efficient treatment, education may enable people to live more positively healthy lives. This aspect is harder to quantify, but arguably even more important.

However, despite the growing evidence for a causal link between education and health, it is not at all clear how great or consistent this effect is or how it can be harnessed. The report reviews a number of alternative possibilities. In summary, education can positively help people to lead healthy lives by making healthier lifestyle choices and can help to mitigate ill-health by enabling people to manage better their illnesses and prevent further ill health occurring. There are three major sets of effects:

- *Indirect* effects of education on health, such as those via income.
- *Direct* effects, such as changes in individual competencies and abilities, changes in attitudes to risk and changes in self-efficacy and self-esteem.

- *Intergenerational* effects of educated parents on the health of their children.

More years of schooling are substantially associated with better health, well-being and health behaviours. In some cases, the evidence is robust and suggests causality.

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### *Civic and social engagement (CSE)*

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Education is generally positively associated with CSE, but while education levels have been rising, many countries share a concern about declining levels of voter participation and about the state of civic participation generally. Policy makers have a direct hand in designing and overseeing education systems, so it is logical to look to schools as a means to enhance the CSE of young people.

Learning experiences can foster CSE in number of ways:

- By shaping what people know – the content of education provides knowledge and experience that facilitate CSE.
- By developing competencies that help people apply, contribute and develop their knowledge in CSE.
- By cultivating values, attitudes, beliefs, and motivations that encourage CSE.
- By increasing social status – this applies to forms of CSE that are driven by the relative position of individuals in a social hierarchy.

However, it would be wrong to imply that more years in education automatically mean higher levels of CSE. The linkages are more complex than that, as can be seen when we apply the ARC set of models. For example, more competitive forms of political engagement, such as belonging to a political party, fit the relative model best, whereas less competitive forms, such as marching in demonstrations, fit the absolute model best.

Another important finding is that merely offering more schooling or more citizenship studies is a limited and partial response. More promising is to address the quality of learning experiences and approaches to learning both inside and outside formal school settings. The curriculum, school ethos, and pedagogy are key variables that shape CSE. 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.

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### *Valuing the outcomes*

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Putting a quantitative and then a financial value on social outcomes is a tricky business. It is generally more appropriate for health than CSE, but in any case estimates have to be treated with sensitivity and caution. A few examples of rigorous analyses exist. Using QALYS (quality of life years) a Dutch study suggests that an additional year of education improves the health state of men by 0.6% and of women by 0.3%. A more specific example is a UK simulation analysis which concluded that raising the level of adult women without qualifications to a basic qualification level would reduce the risk of depression at age 42 from 26% to 22%, saving an estimated £200 million annually.

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### *Conclusions and agenda*

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There are a number of areas suggested for action as the SOL project moves to the next phase:

- *A review of the public objectives of education:* scrutinising the extent to which objectives such as improving health or encouraging civic participation are stated as explicit goals of education and, if so, the criteria and measures that are used to monitor progress.
- *Strengthening the knowledge base:* SOL is an area with a weak basis of theory and evidence. Key areas for development are the conceptual constructs for analysing social outcomes, policy indicators and other measures, and the application of cost-benefit analyses.
- *Enriching data analysis:* more work could be done with existing datasets. Further construction and application of longitudinal data, experimental designs, biographical analysis and in-depth studies of learning processes are high priorities.
- *Exploring the implications for pedagogy, assessment and qualification systems:* adult and informal learning play a big part in social outcomes, but often are unacknowledged. SOL work calls for further development of the understanding of how learning achievements of different kinds are recognised and valued.

- *Widening the range of literacy benchmarks:* extending the range of educational achievement measures to take into account aspects such as health and civic literacy.
- *Fostering intersectoral dialogue:* crossing sectoral boundaries is always desirable but rarely realised. Using SOL results to promote dialogue across these boundaries would be a useful first step.