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What are the wider benefits of learning across the life course?

Future of Skills & Lifelong Learning

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What are the wider benefits of learning across the life course?

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Contents

1. Overview	4
2. Summary of Broad Benefits.....	5
3. Challenges and Propositions.....	8
4. Work and 'careers'	9
5. Health services and effective consumption.....	10
6. Social wellbeing and crime reduction	12
References	14

I. Overview

Lifelong learning involves people of all ages learning in a variety of contexts, in educational institutions, at work, at home and through leisure activities. This review focuses on adults returning to organised learning rather than on their initial period of education or later incidental learning. It starts by proposing that the benefits of lifelong learning and skills development go beyond economic productivity; adult learning can also indirectly improve wellbeing and lead to positive outcomes in health and socially positive attitudes and behaviours. These benefits are realised unevenly across the life course and are accrued to different degrees by individuals, households, employers, localities and the nation. This review will evaluate the evidence demonstrating some of the wider benefits of adult learning.

Secondly, the paper suggests that the impact of learning depends not only on the quantity of the experience and qualifications achieved, but also on the quality and nature of the learning, including its appropriateness to the individual and the individual's engagement throughout the learning process.

These arguments present a challenge for policy formation, because adult learning contributes in different ways to the realisation of a number of policy objectives. For example, it increases skills and qualification levels, and in the right circumstances contributes to economic productivity and social wellbeing. It does this in ways which vary according to the learners' point in their working lives and more generally their stage in the life course. Metrics that are both reliable and efficient to collect can reduce visibility of the breadth and depth of the very diverse contributions that adult learning can make. A wide range of tools and approaches is, therefore, needed to capture the true impacts of adult learning.

This review identifies three core challenges to developing suitable public policy regarding adult learning:

1. Work and 'careers'
2. Health services and effective consumption
3. Social wellbeing and crime reduction

For each challenge a series of testable propositions are given, which describe emerging ways in which a broader understanding of the benefits of adult learning across the whole life course can enhance the appreciation of its public value, as well as considering how these benefits may be measured.

2. Summary of Broad Benefits

Over the last two decades, there has been a considerable growth in evidence for the benefits of learning beyond that which occurs during and prior to compulsory or initial education.

Admittedly, this growth was from a small initial base: because these benefits are often indirect, and are the result of complex interactions with other factors, they can be hard to identify and demonstrate.

Adult learning is commonly divided into three types: formal, informal and non-formal¹. Learning may be for job/work reasons; for personal development; or for academic purposes. Most of the evidence for the benefits of adult learning relates to formal learning as the effects of informal learning are the hardest to capture.

There are two key aspects that need to be considered when examining the evidence for the effects of adult learning. First, there are both direct and indirect effects. The most direct effects are from programmes that are designed to produce a specific outcome and are thus easily measurable. In contrast, some learning which is more general has a particular if unintended effect. An example of this would be literacy provision, which improves confidence and therefore employability. Indirect effects need to be included alongside direct ones in order to provide a fuller picture of the overall effects of adult learning, but are inherently harder to capture.

Second, the effects vary according to level: from individual, through household, to community/organisation, and finally to overall population. These overlap – what benefits the individual is likely to benefit their family – and the interaction is not necessarily straightforward. Many of the benefits of learning are cumulative, and operate at more than one level. However, when looking at different levels, the opposite can be true: what is a positive benefit to one individual may not always benefit the wider community (OECD, 2007).

Note on longitudinal analysis (LA)

Analysis from longitudinal studies, especially large-scale cohort studies, is arguably the most powerful evidence in this field, even when it reports associations rather than causality. The University of London's Wider Benefits of Learning Research Centre, perhaps the single most fertile source of evidence for the benefits of learning, has drawn extensively on the UK's rich set of cohort studies, especially the 1958 and 1970 studies, for its publications. The Research Centre on the Wider Benefits of Learning has also used results from other types of research, including case studies and randomised control trials. This paper includes evidence from several types of study, mostly but not always from the UK.

¹ Formal learning is organised and structured, and has learning objectives. Informal learning has no set learning outcomes and is not intentional from the learner's standpoint. Non-formal learning happens as a by-product of more organised activities, whether or not the activities themselves have learning objectives.

In considering the magnitude of the effects, it is important to bear in mind the diversity of the adult population. Different levels of benefit may accrue according to a learner's age, ethnicity, gender and other factors. Contextual factors such as high levels of inequality or particular community or workplace cultures also often have a strong influence on potential effects (Desjardins, 2017); they can constrain, or even distort, potential benefits. For example, income returns for women's education can be reduced in cultures that are unfavourable for women's career development (Schuller, 2017).

Despite this diversity, there is strong evidence of the positive benefits of learning and skills. For the purposes of this paper, these benefits have been grouped under three over-arching headings (see UNESCO, 2016 for a recent global overview): health, employment, and social and community.

1. Health

Physical health: Longitudinal studies have shown that adult learning is linked with smoking cessation, amount of exercise taken and life satisfaction (Feinstein and Hammond, 2004); an increase in the probability of using cervical screening (Sabates and Feinstein, 2004); better nutrition (Westergren and Hedin, 2010); lower risk of coronary heart disease, especially for those with the fewest qualifications at the time of leaving school (Chandola et al., 2011); and a reduction in drug abuse (Rochdale Borough Council, 2015).

Mental health: It has been shown that adult learning fosters: a sense of identity, an ability to cope and a feeling of purpose in life (Hammond, 2004); a greater level of wellbeing (UK Office of National Statistics, 2012 LA), especially in older adults (Jenkins, 2011); an increase in life satisfaction (Duckworth and Cara, 2012 LA); and positive changes in mental wellbeing and a sense of purpose (Manninen et al., 2014). Rossor and Knapp (2015) also argue that continued education throughout life contributes to a 'cognitive footprint' which may delay the onset of dementia.

Feinstein et al. (2006) provide an extensive list of evidence regarding the effects of all education (not just adult learning) on different aspects of health, notably mortality, self-rated health and obesity. Their overview examines the degrees of robustness in the evidence. As participation in adult learning is associated with achievement in initial education, the effects of the two are hard to disentangle, especially in relation to health.

The education of adults positively influences the educational achievement of their children and their children's health (Schuller and Desjardins, 2006; NIACE, 2011a). Adults who participate in learning themselves are more likely to engage in their children's education, improving outcomes. Intergenerational effects are particularly strong where levels of inequality are high, and thus may accentuate the effects of inequality and exclusions (OECD, 2016).

2. Employment

Adult learning can have an effect on employment and the workplace on a number of levels. At the individual level, there are gains from learning and skills acquisition for seeking, getting and keeping a job; increasing earnings; raising aspirations; and job satisfaction (Department for Business, Innovation and Skills, 2013 and 2016; Learning and Work Institute, 2016). At the organisation level, there are gains in productivity, which are accompanied by higher employee commitment and lower labour turnover (Jones et al., 2008). At a national level, there are gains

in output, employment levels and tax revenues and a greater acceptance of innovation (Stiglitz and Greenwald, 2015).

Contextual factors that influence the impact of learning and skills acquisition include companies' market strategies and the degree of recognition of individual competences (Desjardins, 2017).

3. Social and community

Social capital: Adult learning is associated with higher levels of interpersonal and social trust, social connections and community engagement (Bosche and Brady, 2013; Feinstein et al., 2008). Learning in this context includes community learning programmes but also extends to vocational training.

Social cohesion and integration: Adult literacy and numeracy provision has a particularly positive impact on communities (Vorhaus et al., 2011; NIACE, 2011b); and can lead to greater tolerance of diversity and a higher degree of trust in people of different religions and nationalities (World Values Survey, Post 2016).

Community involvement: Adult learning fosters civic participation (Preston, 2004), in particular local involvement and volunteering (London Economics and Ipsos MORI, 2013 and Harding and Ghezelayagh, 2014, both quoted in Department for Business, Innovation and Skills, 2016; Learning and Work Institute, 2016). This effect is evidenced especially with older people (Grut, 2013, quoted in Hyde and Phillipson, 2014).

Democratic participation: Adult learning, through civic education programmes, has been shown to positively improve individuals' political understanding, feelings of empowerment and levels of political participation (Finkel, 2014). These findings are based on a study assessing the impact of nine USAID-sponsored programmes relating to voter education, local-level community problem solving, political engagement, and rights awareness. It is not clear if such benefits might arise from adult learning not focussed on civics.

Workplace citizenship: Adult learning fosters a capacity to be assertive and to collaborate with others in the workplace (Billett, 2014).

Crime and antisocial behaviour: Adult learning that engages in employability education and cognitive behavioural techniques can reduce reoffending rates for a number of categories of prisoner, including those with short-term sentences (Ministry of Justice, 2013).

3. Challenges and Propositions

The outline above lists the kinds of evidence currently available from the literature on the effects of adult learning. Some of the benefits of learning can be demonstrated *instrumentally*, sometimes in quantifiable form and, in a subset of cases, in monetary form. But there are far wider *intrinsic* effects, which are fundamental but cannot plausibly be demonstrated in this way. This broader range of effects is sometimes given the label *public value* (Moore, 1995) or more recently *social returns on investment* (SROI).² This section brings forward the available evidence in order to develop three sets of propositions surrounding contemporary social challenges where adult learning could add public value.

² Annex 2 of The Green Book (HM Treasury, 2011 edition, pp. 56-57) gives guidance on the valuation of non-market impacts of public policies and projects through social cost-benefit analysis tools and also on the use of a 'subjective wellbeing' approach.

4. Work and 'careers'

People are working longer and living longer after work. The Department of Work and Pensions' (2015) analysis of the Labour Force Survey shows that the employment rate for people aged 65 and over has doubled over the past 30 years, from 4.9% to 10.2%, an increase of 5.3%. For women aged 60-64, the rate grew from 17.7% to 40.7% over this period. The average number of years lived after completing a 'working life' has already reached 19 years for men and 23 for women in OECD countries.

As people remain longer in work they need to retrain. The benefits of their lower rates of turnover and their potential role as repositories of expertise and as mentors need to be factored into models of return on investment. Increasingly important, in the general debate on productivity, is for how long people's skills and experience (especially those of women) are actually used across the whole life course.

A 'lifelong' perspective means looking in a new way at what is meant by 'career', and must consider unpaid work, including that carried out outside the period of paid employment. This opens up a new field for research on learning in later life to support extended economic and physical independence.

Propositions:

1. *Investment in older workers' skills will have benefits/pay-offs but these benefits and pay-offs need a new approach for their measurement.*
Labour market changes mean that standard tools for analysing returns on investment in training and learning risk being based on weak assumptions.
2. *Engagement in learning enhances older people's contribution to civic, social and cultural life - 'Third Age careers'.*
Learning enables and encourages older people to be active volunteers, as grandparents, carers or the preservers of culture; or even councillors, school governors or prison visitors. The social and economic values of such roles could and should be given due weight.

5. Health services and effective consumption

Evidence from the USA (Chandola and Taylor, 2014) suggests that as little as 20% of health outcomes can be attributed to the clinical care a patient receives. Health behaviours account for 30%; physical environment 10% and a significant 40% of health outcomes can be attributed to socio-economic factors. Lifelong learning can indirectly affect health behaviours as well as outcomes. Two very significant current health issues are diabetes and obesity, the economic implications of which are discussed below. Learning can help contribute to prevention or mitigation of the effects of these and other illnesses, both directly (by individuals learning to better self-manage illness) through targeted interventions and, to a lesser extent, indirectly through general lifelong learning (through individuals gaining confidence, employability, etc.).

An estimated £14 billion a year is spent on treating diabetes and its complications. Much of this is due to the costs of absenteeism (£8.4bn) and the costs of early retirement (£6.8bn). The number of cases of diabetes is expected to rise to four million by 2025. Annual inpatient care is estimated to cost between £1,800 and £2,500 per patient and outpatient costs are between £300 and £370 per patient (Kanavos, van den Aardweg and Schurer 2012). Reducing the costs related to diabetes by even 0.1%, by, for instance, enabling more patients to be treated as outpatients, would yield estimated savings of £14 million.

The direct costs to the NHS for treating overweight and obese people in England were estimated to be £4.2 billion in 2007; indirect costs (for example due to loss of productivity) were estimated to be £15.8 billion, and these are projected to rise to £27 billion by 2015. In 2006/07, the cost of inpatient stays in England related to obesity and obesity-related illness was estimated to have cost £148 million. Similarly to diabetes, if more inpatients could be treated as outpatients there is potential for savings to the tune of £25 million.

Demography is also a significant factor: the prevalence of long-term health conditions increases with age, and according to a 2010 estimate made by the Department of Health, such conditions account for 70% of total health and social care spending in England. Adult learning could help in the management of long-term health conditions in the elderly. An SROI analysis of a 'Learn2b' scheme in Northamptonshire, which gave care home residents with mild to moderate mental distress access to different types of learning, showed average reductions of 25% in residents' anxiety and depression. The interventions cost £65 per participant, which is significantly less than the £364 required for a year's supply of anti-depressants (NIACE, 2011c). Such modest learning interventions, introduced on a wider scale, could potentially result in significant savings.

Propositions:

1. *Lifelong learning can enhance an individual's capability for self-management of health (enabling healthier behaviour).*

The effects of lifelong learning may be seen both directly (learning to self-manage a specific illness such as diabetes for example) and indirectly (fostering self-efficacy).

2. *Lifelong learning can improve the efficiency of the relationship between health services and their users.*

Although the impact may be minor, lifelong learning has been linked to improved trust and communication skills. Confident patients can articulate their concerns, and have a better capability to read and understand what doctors and nurses are telling them. The effects would be efficiency savings, greater life satisfaction for patients and job satisfaction for medical staff.

3. *Enabling people to maintain their independence for as long as possible is an intrinsic good with financial implications for society and the economy.*
Learning that sustains people's ability to live independently and look after themselves in later life has economic and psychological consequences beyond the individual. This in turn removes the burden on health and social services as well as unpaid carers, who may have been forced to leave employment in order to care for a relative, (NIACE, 2011c).

6. Social wellbeing and crime reduction

Although crime rates are falling, the prison population in England and Wales has increased to more than 85,000 (Ministry of Justice, 28 October 2016), a rise of 90% since 1990. Annual resource expenditure on prisons in England and Wales is around £2.8 billion (Ministry of Justice, October 2015), and recidivism rates are high.

The annual cost per inmate in English and Welsh prisons has been calculated by the government to be £33,291 (Ministry of Justice, 2015). Other estimates (which include court costs and indirect costs such as lost productivity) are considerably higher. A small reduction in recidivism rates would lower these costs, even when fixed costs are taken into account. It has been calculated that a 1% reduction in recidivism rates would lead to an estimated annual saving of £130 million, and a 2.5% reduction would lead to a saving of £325 million (Schuller and Watson, 2009). If more people were diverted from lifetime careers of crime the effects would be multiplied.

A Ministry of Justice review concluded that education in prisons is one of the pillars of effective rehabilitation. It is argued that education builds social capital and improves the wellbeing of prisoners during their sentences (Coates, 2016). Public value/SROI analyses should also take account of the effects on children of not having a parent in prison (150,000 children currently have a parent in prison) and include the cumulative cost over the child's lifetime. Other aspects to consider are the effect on individuals and communities of a lower level of crime and the effect on prison staff's job satisfaction and competences.

A Unionlearn/Prison Officers' Association project promoted health capability in prisons by focusing upon healthy living, diet and nutrition with embedded literacy, language and numeracy skills. The project aimed to improve both the current health of prisoners and their post-release prospects (Learning and Work Institute, 2016).

Propositions:

1. *Individuals engaged in learning stand a better chance of changing their career path away from crime.*
The cumulative effect of costs and losses over lifetimes means that an intervention which enables an individual to move away from a career of crime has a lasting pay-off. The evaluation of return on investment in learning depends heavily on the timescales considered; longer timescales raise the returns from learning.
2. *Families, especially sons, can be given the chance to escape from the cycle of crime.*
It has been shown that two out of three sons of prisoners will commit an offence themselves during the course of their lives (three times more likely than the wider population). Reducing these odds is a matter of efficiency as well as justice, and providing learning opportunities for offenders is one way of making such a reduction.

The effectiveness of different types of learning programmes requires further rigorous evaluation. Public Value and Social Return on Investment methodologies continue to develop in scope and rigour. This type of evaluation generally requires a mixed methods approach, for example combining contextual information, pre- and post-questionnaires, case study visits and longitudinal monitoring. Some analyses have produced extremely exact figures for the returns

What are the wider benefits of learning across the life course?

from adult learning; for example, one study ascribed a value of £658 per individual from an adult learning programme to improve social relationships (Dolan, Fujiwara and Metcalfe, 2012). Such precision may be misleading. However, ballpark figures indicate savings of, for example, £2.10-3.50 for each pound invested by a local authority in adult learning. An evaluation of a Citizens' Curriculum initiative found that only 49% of these savings were realised by the local authority; 34% went to the Department for Work and Pensions and 11% went to the National Health Service. Other beneficiaries included the police (2%), courts and legal aid (2%), HMRC (1%) and other criminal justice system organisations (1%) (Learning and Work Institute, 2016, p. 53).

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