

The Impact of Lifelong Learning on Poverty Reduction



IFLL Public Value Paper 1

Ricardo Sabates

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promoting adult learning

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Foreword

This is the first of the Inquiry into the Future for Lifelong Learning's Public Value papers. This series of papers will grapple with a range of questions about how we should understand the effects of lifelong learning. The 'public value' of lifelong learning resides in the benefits it brings, not only to the learners themselves, but to wider society. If learning makes individuals healthier, for example, that is good for them, but also for their family, their community and for the health service and the taxpayer. It signals a general uplift in the quality of life. This is public value.

The notion of public value is easy to grasp but not so easy to measure. For many of us it is almost self-evident that lifelong learning brings personal and social benefits as well as economic ones. Yet we need to examine the evidence as rigorously as we can: what actually are the effects; can we get an idea of how big they are; and what is the process by which they occur? We know that we cannot produce perfect answers to these questions. But by assembling a range of responses, the Inquiry aims to fill in much more of the picture than is currently available; to give a clearer focus to the policy options involved; and to prompt further reflection and debate.

Ricardo Sabates' paper is an excellent one to lead off the series. It tackles one of the biggest public value issues of all: poverty reduction. Reducing poverty of course most directly affects poor people, but the presence of poverty diminishes us all. The standards for measuring poverty go up all the time, so eradicating it is a moving target; nevertheless, it is simply shocking that poverty is so persistent in rich countries such as the UK. Better schooling must be part of the answer, giving people from all backgrounds a fair start in life. Countries which do this also tend to have lower levels of poverty. But schools cannot do it on their own, and improving schooling comes too late for adults, who have passed that stage.

So what contribution does lifelong learning make to reducing poverty? And how might that contribution be strengthened? Sabates takes a cool look at the evidence on the effects of lifelong learning, not just on material poverty but on the things that accompany poverty, notably poor health. He draws only on rigorous studies based on large-scale quantitative evidence (which is not, incidentally, to say that rigorous qualitative studies do not also have powerful results). He includes studies where there is as yet no evidence of any effect – this is not a mere forensic exercise to demonstrate how positive lifelong learning is. But the overall conclusions are very clear: participating in adult learning can help substantially to reduce poverty. It does this materially, through enhancing employment prospects; it also improves the health levels of poorer people, and gives them a better chance of acquiring the tools needed to run their own lives.

There are many aspects of this that are still unclear: exactly how learning has its effect, and which types of learning are most effective. Sabates points to the gaps which still exist in our knowledge base. But we are building solid ground on which to rest the positive case for lifelong learning.

A key aspect of the analysis is the way different facets of the issue interconnect. Poorer parents find it more difficult to give their children a good start in life. So enabling adults to acquire basic skills will help them gain employment and better themselves materially. But it will also – and here is one of the main public value pay-offs – help them to help their children achieve better at school, and so reduce their risk of poverty. These are the kinds of win-win effects that all of us – politicians, analysts, teachers and so on – want to see. This paper helps us understand better the processes that bring this about.

The key messages from this analysis of the evidence are summarised in the paper itself, and do not need repeating here. We want only to emphasise that the overall aim of the Inquiry is to help bring about a culture of lifelong learning, underpinned by strong convictions and developed through robust arguments. This paper contributes substantially to that aim.



Tom Schuller
Director

IFLL



Sir David Watson
Chair

IFLL Commissioners

Executive summary

This review summarises research-based evidence concerning the impacts of lifelong learning on poverty reduction. It is a contribution to an empirically based understanding of the complex mechanisms through which education impacts on poverty reduction.

We start by providing a definition of poverty and set the scene for learning opportunities for poor people in the UK.

We review literature on the income effects of adult education, the impact of financial literacy, the employment and health effects of adult learning, basic skills and health literacy and the impact of lifelong learning on reducing child poverty.

Headline messages

- 1. The impact of learning on employment possibilities is a key area for poverty reduction. For individuals in employment, improved income has been the result of continuing learning and training opportunities.*
- 2. Adult education with provision of financial literacy and support to access public funds can help fill the gap in financial services for low-income, disadvantaged families.*
- 3. There are important health benefits of adult learning. Particularly important for the poor are the benefits of health literacy and numeracy.*
- 4. Improving the education of adults is not just about them but also about their children. Upgrading adult skills can bring large returns for their children.*
- 5. There is a lack of studies investigating the net impact of lifelong learning on poverty reduction in the UK and on the possible multiplier effect of educational policies with other initiatives. There is a particularly strong need for continuing longitudinal studies.*
- 6. Lifelong learning should be part of any approach to reducing poverty, but it will only be fully effective in interaction with other policies.*

1. Introduction

In the UK, the government has implemented a range of policies designed in particular to tackle poverty (both at the level of the household and for individuals within households, particularly children), worklessness, and area and neighbourhood deprivation since 1997. While it has sought to use tax credits and increasing employment rates to tackle poverty, it has looked beyond income poverty to notions of a wider social minimum through a focus on social exclusion and deprived neighbourhoods. Improving educational opportunities for adults has featured in a number of these approaches, most notably through the Skills Strategy and the National Strategy for Neighbourhood Renewal.

This review focuses on the nature of poverty and the impact of adult education on some of its different manifestations. We are interested in whether increasing participation in adult education and improving skills has been accompanied by reductions in poverty for the population. To do this, we focus on some of the manifestations of poverty (namely, low income, high unemployment and ill health) and review empirical literature on the impact of adult learning. While adult education could have a role to play in the poverty reduction agenda, its effectiveness depends on how far it is supported by broader policies and structures.

The review is organised as follows: Section 1 provides a definition of poverty and describes access to learning and training opportunities for the poor in the UK. We believe that the review into the impact of learning on poverty reduction will carry no weight unless poor people have learning opportunities. Section 2 is the core of the review of empirical evidence which focuses on income poverty, employment, health and child poverty. Section 3 describes the gaps in the literature and Section 4 outlines the main messages for the Inquiry.

1.1. Definition of poverty

Poverty is a multifaceted concept that includes economic, social and political elements. It can be seen as absolute or as relative and is associated with lack of income or with failure to attain capabilities.¹ It can be chronic or temporary, and is sometimes closely associated with inequality (Lok-Dessallien, 2000). Poverty is a dynamic concept, changing and adapting according to consumption

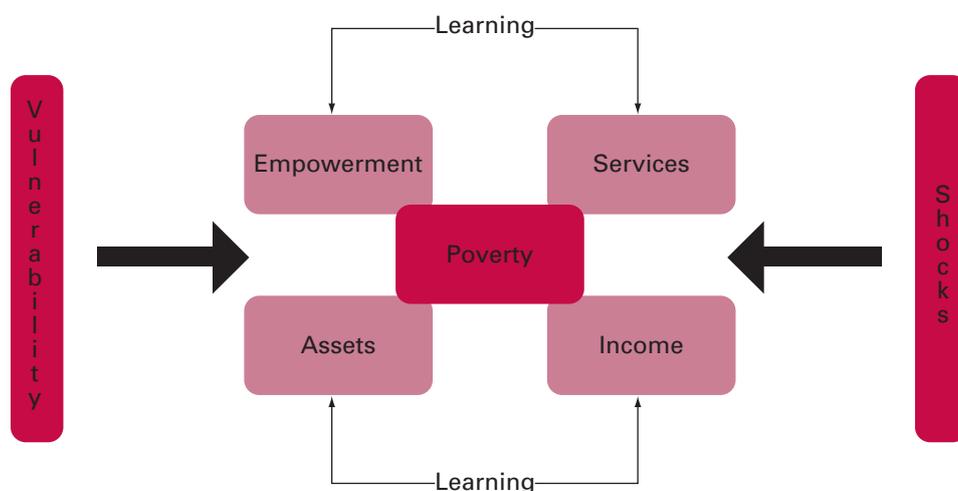
¹ Relative poverty has been challenged by Joseph and Sumption (1979). They argued that “a person who enjoys a standard of living equal to that of a medieval baron cannot be described as poor for the sole reason that he has chanced to be born into a society where the great majority can live like medieval kings (1979: 27).” Still, the term relative poverty has been widely used in the UK and other countries.

patterns, social dynamics and technological change. For example, today's poverty measure in the UK includes the lack of a mobile phone, while 20 years ago this was considered a luxury good.

Poverty is often correlated with vulnerability and social exclusion, but it is not the same as these (Atkinson, 1998). As explained by Walker (1995), chronic poverty brings very few opportunities for people to escape from it. This can disengage individuals from their community, which explains why the experience of poverty is closely related to social exclusion. Such a broad understanding of poverty implies that any given method used in its measurement may be incapable of reflecting its many dimensions and types.

Figure 1 presents a simple framework for understanding the different dimensions of poverty and why risk (shocks) and vulnerability are so closely related to it. The concept of poverty is multidimensional, pointing to exclusion from or lack of *empowerment* (for example, political say, confidence and dignity); *access to services* (national healthcare, education and training); *assets* (financial, human capital and social capital); and *income*. Take, for instance, a family where one parent is unemployed and the other works part time, living in an overcrowded household; both lack confidence and have low levels of literacy and numeracy. This family has very few resources across all dimensions of poverty, which makes it very vulnerable to negative changes in their circumstances.

Figure 1: Schematic representation of the poverty framework²



² Based on the Livelihood Framework developed by Ian Scoones (1998) "Sustainable rural livelihoods: A framework for analysis". *IDS Working Paper 72*. Sussex: Institute of Development Studies.

Figure 1 also introduces the concept of vulnerability. There are individuals whose current situation makes them more vulnerable to fall into poverty than others. In the UK, vulnerable groups are characterised as having a disability or long-term illness, as single parents with children, and include some minority ethnic groups, illegal immigrants and refugees, and the elderly.

What triggers these vulnerable groups to fall into poverty is the presence of unexpected shocks, or what is also referred to in the literature as risk. These shocks may be economic crises, intra-family conflict that may end up in separation or divorce, or disease or natural disaster. Take again the case of the household described above as living in poverty (low levels of literacy, overcrowding, part-time employment and lack of confidence) and compare it with a non-poor household. Both families face parental divorce. Although there are both positive and negative consequences of divorce, the household with higher resources is more likely to be able to use them to outweigh the negative aspects. Money, social networks, housing and access to solicitors could be used by the non-poor household in order to cope with the shock. This may not be the case for a poor household and the presence of shock can have devastating consequences for poor households.

Lifelong learning plays a key role in this framework, as learning has the capacity to positively affect many dimensions of poverty. Empirical studies have shown that learning can increase individuals' access to financial services and their financial assets; learning can also empower individuals and provides them with the means to know and demand their perceived rights to receive services from the government. Learning can improve individuals' health and health behaviours, and as suggested by the human capital theory, learning can also increase income.

1.2. Measurement of poverty

The most common method for measuring poverty is to define a poverty line, based on living standards, and then to calculate the percentage of a population that has an income below that line (poverty rate) and how far below the poverty threshold individuals are (poverty gap). There are a variety of methods for establishing the poverty line (or thresholds). Among the most common are relative income or expenditure, budget standards concerned with physical necessities, relative deprivation and subjective poverty (Saunders, Bradshaw and Hirst, 2002).

According to this method there has been an overall reduction in poverty in the UK. The reduction in poverty between 1996 and 2001 was 1.4 per cent

using income before taking into account housing costs, and two per cent after housing costs (Piachaud and Sutherland, 2002). The highest incidence of poverty was among people in lone parent families, particularly when measured after housing costs. The biggest falls occurred among families with children, whether couples or lone parents.

Other very important indicators of poverty are not just defined in terms of income, but also include other dimensions such as health, education, access to employment and housing conditions, among others (Sen, 1976). Finally, other non-material conditions have been included in the definition of poverty, such as discrimination, exploitation, lack of power and shame (Lok-Dessallien, 2000).

1.3. Access to adult education and training opportunities for the poor

In the UK, adult learning opportunities for adults expanded significantly when the New Labour government came to power in 1997 and implemented a widening participation strategy to offer more adults access to adult learning opportunities to help achieve the twin priorities of reviving the economy, and social and civic regeneration. The then Secretary of State, David Blunkett, put forward a broad definition of adult learning that encompassed learning for cultural and social enrichment as well as economic development:

“As well as securing our economic future, learning has a wider contribution. It helps to make ours a civilised society, develops the spiritual side of our lives and promotes active citizenship. Learning enables people to play a full part in their community. It strengthens the family, the neighbourhood and consequently the nation.” (DfEE 1998:7)

The new Learning and Skills Council was charged with widening participation and allocating funding for adult learning, and colleges were encouraged to expand their work with adult learners. This led to a blossoming of adult learning opportunities in many communities and many used creative strategies to attract and entice more adults into different forms of learning, including higher education, especially those who had the fewest opportunities to access learning in the past.

Arguably, over succeeding years the economic imperative became increasingly dominant at the expense of the social and cultural priorities, culminating in huge funding cuts and the loss of around 1.5 million adult learners in the last two years. At the same time, rising concern about immigration, integration, and the threat of terrorism has stimulated renewed policy attention to social cohesion and the contribution education can make.

The provision of educational opportunities for adults in the UK is hugely diversified. Adult learning is not a sector like other sectors; there is a very wide range of providers, with very ranging quality, provided for very different reasons and with a very different ethos, funded from different mechanisms and with various methods of accountability (Feinstein and Sabates, 2008).³ Participation in adult learning seems to have increased since the *Skills for Life* strategy (Bathmaker, 2005). However, there is a considerable attrition rate between enrolment, completion and achievement of qualifications. As a result, although more learners were embarking on learning between 2001 and 2004, proportionally fewer were completing and achieving (Bathmaker, 2005). Those adults who had a positive learning experience were more likely to return to learning and had positive learning outcomes. For example, Brooks and Pilling (2007), using data from 1,649 adult literacy, ESOL and numeracy learners during 2004-06, found that there were modest but statistically significant improvements in adult language, literacy and numeracy and also in ESOL for learners who return to learning compared with non-learners of similar characteristics.

³ This is not exclusive of the provision of educational opportunities for adults in the UK. In the US, for example, the low-income adults have been served by a mixture of local programmes, including adult schools administered by K-12 districts, usually offering Adult Basic Education, Adult Secondary Education leading to a GED, ESL, citizenship training, and sometimes limited vocational courses leading to entry-level occupations (Grubb, Badwey and Bell, 2003). In some states, vocational schools provide adult courses, usually in short programmes (15 weeks or less), leading to poorly paid entry-level jobs. Job training programmes have been available to welfare recipients under the Welfare to Work Act. In most local communities, there has been a wide spectrum of education and training alternatives, in most cases poorly coordinated with offerings in the educational system, but providing potential routes into employment for the working poor, for immigrants, for dislocated workers, and for welfare recipients (Grubb and McDonnell, 1996).

2. Review of evidence

In this section we briefly review evidence on the impact of adult learning on income (Section 2.1), followed by the wider impacts of financial literacy (Section 2.2). We also review the impact of adult learning on employment and health (Section 2.3), and issues around adult learning and child poverty (Section 2.4).

2.1. Adult learning and income poverty

Traditional economics of education literature couches its analysis of poverty in terms of income and wage determinants of adult learning. The underlying micro-foundations of these models are that undertaking adult learning will lead to an increase in productivity, which will yield a higher return in the labour market (Card, 1999). Many empirical papers have focused on estimating income returns to adult education. For example, Blundell, Dearden and Meghir (1996), and Feinstein, Galindo-Rueda and Vignoles (2004) estimated economic returns to work-based training. Booth, Francesconi and Zoega (2003) estimated returns to work-based training for unionised workers and Dearden, et al (2002) and DeCoulon, Marcenaro-Gutierrez and Vignoles (2007) investigated the economic returns to adult basic skills. Blundell, Dearden, Goodman and Reed (2000) investigated the impact of higher education on wages for mature students by gender.

Most of this evidence points to important wage returns to mature students in higher education (HE), to undertaking work-based learning, and to employer-provided on-the-job and off-the-job training. In particular, work-related training can have a significant impact on the wage prospects of individuals in employment with intermediate levels of qualifications. However, these individuals are also less likely to receive training. Training leading to lower or middle vocational qualifications appears not to increase earnings for those individuals already in employment. There is evidence that basic skills have important economic returns and that improvements in basic skills during adulthood improve earnings potential.

The asset-building approach to poverty alleviation rests on the assumption that a key component of economic well-being lies in the ability of individuals to acquire assets such as home, business or financial assets that lead to better job opportunities (Rohe, Gorham and Quercia, 2005). A growing body of research suggests that asset ownership has various positive effects. These

benefits may include a reduction in the transfer of poverty from one generation to the next, an increase in educational attainment, enhanced household stability, a decline in high-risk behaviours, an increase in expectations about the future, and a longer-term planning horizon (Scanlon and Page-Adams, 2001). In the US, individual development account programmes have been promoted to provide incentives to save and convert those savings to assets, and these programmes have an important learning element (the programme also provides general and financial education, as well as asset-specific training such as buying a home or opening a small business. According to Rohe, Gorham and Quercia, effective case management and economic literacy training contributed to the success of individual development account programmes, whereas job loss and financial emergencies contributed to the dropout rate.

2.2. Financial literacy/financial capability

We focus on the role of financial literacy, defined by Noctor et al (1992) as the ability to make informed judgements and take effective decisions regarding the use and management of money as a potential tool for poverty alleviation. More recently, research and policy has focused on the concept of financial capability (Atkinson, et al, 2007). This concept has four domains: managing money, planning ahead, choosing products and staying informed. It goes beyond literacy, as it includes several elements beyond reading and writing skills that are important for individuals to make judgements and take action about their finances.

There are three reasons for reviewing financial literacy here. First, there has been a shift from public to private provision of pensions, which implies that individuals will have to make financial decisions. Second, these decisions are likely to affect individuals when they are old and vulnerable. Third, low income households require financial literacy to understand income tax credits and how to access other publicly available allowances.

Access to financial services is not equally spread across the UK population. According to Atkinson, et al (2007) nearly 26 per cent of the 5,328 individuals interviewed for a national survey in 2006 had not personally been involved in purchases of any financial products since 2001. From the rest of the respondents, individuals showed levels of financial capability in some areas but not in others (for example, choosing financial products, keeping track of finances, keeping track of money and expenditure and planning ahead). About 36 per cent of the respondents had good knowledge in all areas, and these

were typically older, better educated individuals. On the other hand, around three per cent had difficulties in all areas of financial literacy, and these were more likely to be families with young children living on below-average incomes.

Low levels of financial literacy are also found in other developed countries (OECD, 2006). In Japan, for example, 71 per cent of adults surveyed knew nothing about investment in equities and bonds, while surveys in the US and Korea found that high school students failed a test designed to measure students' ability to choose and manage a credit card or save for retirement. Further more, consumers often overestimate how much they know. In an Australian survey, 67 per cent of those taking part claimed to understand the concept of compound interest, but only 28 per cent could find the correct answer to a problem using the concept.

Financial literacy is a crucial service to low-income families that provides access to resources that families can use to create their financial futures (Mills, 2004). For example, the Earned Income Tax Credit (EITC) is a US programme provided to low income families. A single mother with one child living in New York, with an adjusted gross income of \$12,850, could receive combined federal and state refunds totalling \$8,527. The major barrier to accessing these funds is that many low-income wage earners do not know that these funds exist, have little or no skills in preparing tax returns, and are often forced to rely on disreputable, usurious tax preparation agencies to complete their forms. Even though they are eligible, 230,000 people who work in New York City do not receive federal or state EITCs. For example, only five per cent of eligible, low-income, non-US-citizen Hispanics have ever received the EITCs.

Financial literacy has also been important for asset building. Programmes aimed at helping low-income households to save and invest in housing or start a new business contain an important learning element. Rohe, Gorham and Quercia (2005) used data on 21 individual development account programmes in the US and found that the main factors that contributed to the success of programmes were effective case management by programme staff, the personal motivation of programme participants, the effectiveness of economic literacy training, and the incentives provided by the matching funds. Peng et al (2007) found that participating in a college personal finance class improved investment knowledge and saving rates among high school and college students. These results are in accordance with research by Sanders, Weaver and Schnabel (2007) who found that financial self-efficacy is an important outcome of financial literacy programmes. Therefore, personal motivation or participant and programme effectiveness can promote financial self-efficacy which can empower low-income individuals to take charge of their financial matters.

In the UK, a growing empirical literature is emerging about financial capability, which includes the definition of this concept (Kempson, et al, 2005), the distribution of financial capabilities across individuals with different levels of educational qualifications (Atkinson, et al, 2006; Atkinson, 2007) and identifying people at risk of becoming over-indebted (Kempson and Atkinson, 2006). According to these investigations, there is a general lack of capability for planning ahead across the UK population, particularly for adults with low levels of literacy and numeracy. These adults are also less likely to keep informed about financial products. Highest qualifications achieved by individuals were associated with differences in financial capability. In particular, individuals without qualifications were less able to choose financial products.

According to Kempson, et al (2005):

“People require a basic body of knowledge and understanding, upon which they can draw when managing their financial affairs. This knowledge will be acquired in different ways: through experience; through education and training; and through passive receipt of information from different sources such as family and friends, the media and information materials produced by the financial sector.”

This quote is also linked to another important area which is the lack of knowledge and understanding of consumer rights and responsibilities for the adult population. A sample of adults in the UK completed a consumer rights questionnaire investigating attitude, knowledge and critical thinking ability (Kitson, Dislere and Harrison, 2003). Results showed that the group overall were not confident that they knew enough about consumer rights and legislation or how to resolve consumer problems and were unsure about their consumer responsibilities. Levels of knowledge were poor, leaving adults vulnerable to exploitation in the marketplace, uninformed about their responsibilities to voice dissatisfaction about goods and services, and unaware of how their consumer behaviour can affect the wider community. These results indicate the need for consumer education as part of adult learning provision.

2.3. Employment and health

An income approach to poverty analysis, as used in the traditional models, provides only partial analysis of the possible outcomes of adult learning in terms of poverty reduction (McCulloch and Joshi, 1999). This is because evidence used to assess the impact of adult learning on wages is based on individuals in employment. For individuals not in employment, it is impossible

to assess the impact of adult learning on income without first exploring the likelihood that these individuals will obtain employment as a result of the learning experience. It is also important to assess the impact of adult learning on other dimensions of poverty such as health. These three spheres – employment, health and education – intersect and interact with each other in complex ways.

Employment

The effect of adult learning on the likelihood of employment has been investigated by Blundell, Dearden, Goodman and Reed (2000), McIntosh (2004), Jenkins et al (2003), and Jenkins (2006), whereas the effects of basic skills on employment probabilities were investigated by DeCoulon, Marcenaro-Gutierrez and Vignoles (2007).

McIntosh (2004) focused on employment-related benefits for the acquisition of vocational qualifications during adulthood using information from the UK Labour Force Survey.⁴ Results show first that very few individuals who left school without qualifications at age 16 acquired high-level qualifications. However, vocational qualifications at all levels were associated with an increase in the probability of employment for those individuals who left schooling without qualifications. In particular, men who left school without qualifications and acquired vocational qualifications at Level 1 during adulthood were four percentage points more likely to be employed in 2002 than men who left school without qualifications and did not acquire any further qualifications. Equivalent estimates of ten percentage points and 12 percentage points were found for men who acquired vocational qualifications at Level 2 and 3, respectively. For women, compared with women who left without qualifications and did not acquire any further qualifications, those who achieved Level 1, 2 and 3 vocational qualifications were 16, 19 and 19 percentage points (respectively) more likely to be employed in 2002.

According to Jenkins et al (2003), NCDS cohort members who were engaged in learning leading to qualifications between 1991 and 2000 had a higher probability of being in employment in 2000. In particular, males who were not in employment in 1991 who undertook occupational courses were 22 percentage points more likely to be in employment in 2000 than men who did not participate in adult learning. Women who were not in work in 1991 and who took vocational qualifications or occupational training were,

⁴ Data used by the author is not a panel in the sense that the same individuals were re-interviewed in consecutive years, but a pseudo-panel that assumes that the representative population of 15-year-olds sampled in 1999 would be the population of 17-year-olds sampled in 2001.

respectively, 19 and 12 percentage points more likely to be in employment in 2000 than women who were not involved in adult learning. Jenkins (2006) investigated the benefits of adult learning for women who were members of the 1958 British Cohort Study (BCS), who were out of work in 1991 and who subsequently made the transition into work in 2000. His measure of adult learning was achievement of qualifications between the ages of 33 and 42 and his models allowed for the timing of the learning episode. His main finding was that learning leading to qualifications strongly influenced women's transition into employment between 1991 and 2000.

Of key importance is the link between lack of basic skills and unemployment. According to Bynner (2008) there is a strong tendency for young people whose basic skills were poor to leave education at the earliest opportunity and to have patchy labour market experiences with frequent stretches out of employment. Using the BCS70 cohort, he found that by the age of 34 men at Entry Level 2 were 20 per cent less likely than those at Level 1 to be in employment. By age 34 half of the women with skills at Level 1 or above were still in employment compared with only one fifth of women at Entry Level 2. Furthermore, the jobs done by these cohort members were typically in such areas as plant maintenance and other forms of low-paid unskilled work. Work-based training and promotion were rare or non-existent (Parsons and Bynner, 2007).

DeCoulon, Marcenaro-Gutierrez and Vignoles (2007) also investigated the employment impacts of basic skills for men and women using data from the BCS70. Results including a rich set of controls indicate that an increase in literacy basic skills is associated with a 3.5 percentage points higher probability of being in employment by age 34 for women. This is not the case for an increase in numeracy skills. For men, the opposite associations were found. An increase in men's numeracy skills is associated with a two percentage points higher probability of being in employment by age 34.

In summary, there are consistent results about the benefits of adult learning in terms of remaining in employment or getting a job. There is also evidence that an increase in basic skills during adulthood is associated with the higher probability of being in employment. In particular, vocational qualifications are associated with an increase in the probability of employment for those individuals who left schooling without qualifications. For men not in employment in 1991, occupational training was associated with an increase in the probability of having a job in 2000, whereas for women not in employment in 1991, both vocational qualifications and occupational training were associated with an increased probability of being employed in 2000.

Health

Health and health behaviours are other important dimensions of poverty that can be impacted upon by adult learning. Feinstein and Hammond (2004) used the 1958 cohort to examine the contribution of adult learning to a wide range of health and health behaviours. Hammond (2004) carried out a fieldwork study to investigate the impacts of adult learning upon health. Hammond and Feinstein (2006) demonstrated that those who participate in adult learning have positive transformations in well-being, optimism, efficacy (perceived control over important factors) and self-rated health. Sabates and Feinstein (2006) investigated the effects of adult learning on the uptake of cervical screening for British women. Hammond and Feinstein (2005) used both quantitative and qualitative methods to investigate the links between participation in adult learning and self-efficacy, particularly for the subgroup of adults who had low levels of achievement at school.

Other literature has documented that health literacy skills, which encompass the ability to process and understand basic information needed to make appropriate health decisions, are strongly associated with health-related outcomes. Those with poor health literacy skills are less knowledgeable about health (Gazmararian et al, 2003; Williams et al, 1998), receive less preventive care (Scott et al, 2002), have worse chronic illness control (Schillinger et al, 2002), poorer physical and mental health function (Wolf, Gazmararian and Baker, 2005), and have higher emergency department and hospital utilisation (Baker et al, 2002, 2004). Numeracy skills are the strongest predictor of comprehension about hospitals (for example, which hospital is cheaper, complies with regulations, has more beds, etc.), followed by health literacy (Hibbard et al, 2007). Low health literacy is associated with worse disease control in patients with diabetes, but lower literacy patients are still willing to take action in the management of their disease (Powell et al, 2007). Individuals with low health literacy are more likely to wait until the later stages of their illness to seek medical attention (Prasauskas and Spoo, 2006).

2.4. Child poverty

During the 1980s Britain experienced a huge surge in child poverty. According to Bradshaw (2002 and 2003), the proportion of children living in households with incomes less than 50 per cent of the average equivalent (after controlling for the needs of families of different size) income after housing costs increased from ten per cent in 1979 to 31 per cent in 1990/91. During the 1990s there was a further slight increase and the child poverty rate peaked in 1998/99 at 35

per cent. By 2001, child poverty started to fall. For example, the proportion of children in families dependent on Income Support in Britain fell from over 25 per cent between 1993 and 1995 to 18.1 per cent in 2001.

Child poverty is heavily spatially concentrated (Bradshaw, 2003). There are 11,090 wards in the UK. In 2002, four wards in Scotland (in Glasgow City) each had child poverty rates over 80 per cent. The top three wards with the highest child poverty rates in Northern Ireland were in Derry and the top three wards in England were all in the North West region. For the UK as a whole the highest 20 per cent of wards had poverty rates of 44 per cent or above, while the lowest 20 per cent of wards had child poverty rates of 12.5 per cent or less. The risks of child poverty are concentrated in certain types of household.

The following information is taken from Bradshaw (2003):

- 49 per cent of poor children live in households with no one employed and 80 per cent of children in such households are poor;
- 44 per cent of poor children live in lone parent households, 55 per cent of children in lone parent households are poor, but only 12 per cent of children are poor if the lone parent is employed full time;
- however, 53 per cent of poor children live in one- or two-child families;
- the presence of a disabled adult or a disabled child also increases the risk of child poverty;
- half of all poor children are living in families receiving Income Support or Job Seeker's Allowance and the risk of poverty is highest in such families;
- over 80 per cent of poor children are white. However, the risk of child poverty is higher in all minority ethnic groups, but especially in households of Pakistani or Bangladeshi ethnic origin.

Research has shown that child poverty is strongly associated with a higher probability of dropping out of school, being convicted of committing a crime, misbehaving at school and attaining lower educational qualifications (Hobcraft and Kiernan, 1999). Also, child poverty is related to low scores on health assessments, cognitive development, school achievement and emotional well-being (Brooks-Gunn et al, 1997).

In this section we focus on the role of adult learning on reducing child poverty. We focus only on evidence linking the direct impact of adult learning on two indicators of child poverty, health and educational attainment. We do not discuss evidence around the impacts of adult learning on child poverty via other factors such as income, employment or family life, as these are covered in Sections 2.1 and 2.3.

Direct impact of adult learning on reducing child poverty: health and educational attainment

There is a considerable body of evidence that parents' education impacts on child anthropometric measures. For example, Grossman and Joyce (1990) obtained a direct estimate of schooling on birth weight for the black population in New York City in 1984. Meara (2001) found that a rise in maternal education from 11-12 years was associated with a 1.37 percentage point decrease in the probability of low birth weight for white mothers, 1.1 percentage points for black mothers. A move from less than a high school degree to some college learning was associated with a 2.7 and 2.2 percentage point decrease in the probability of low birth weight for white and black mothers, respectively. Anderson, Butcher and Levine (2003), using the National Longitudinal Survey of Youth (NLSY), estimated years of schooling to be associated with a reduction in the probability of the child being overweight.

Currie and Moretti (2002) estimated the effect of maternal education on birth outcomes. Results indicated that an increase in education of one year would reduce the probability of low birth weight by about 0.5 percentage points. The effect on the probability of a preterm birth was smaller, 0.44 percentage points. Chou, Liu, Grossman and Joyce (2007) investigated the effect of maternal schooling on children's birth weight in Taiwan. For mothers aged 0 to 11 in 1968, an additional year of mother's schooling reduced the probability of low birth weight, very low birth weight and prematurity by 1.66 percentage points, 1.13 percentage points and 1.65 percentage points, respectively.

Family learning is a significant contributor to children's resilience when parents work with children in problem solving (Drummond, et al, 1996). Good communication skills by adult family members are likely to contribute to children's adaptation in different contexts (Greenwald, 1990). Good communication and problem solving within families increases the length of time parents play with children, enhances proximal parenting processes (Drummond, et al, 2005) and reduces or prevents psychological and behavioural disorders in children (D'Zurilla and Maydeu-Olivares, 1995).

Another important set of empirical studies has investigated whether investment in schooling for one generation will lead to increasing schooling of the next generation (see Holmlund, Lindahl and Plug, 2006, for a recent review of empirical studies). Most of these studies have found robust evidence to show that parental education, measured by highest qualifications attained, staying in compulsory schooling or completing college education, has a robust statistical association with children's school attainment. Evidence has also shown that

adults with poor literacy and numeracy skills have children who fare worse than the rest of the children in their classroom (Bynner and Parsons, 2006). There is, however, an important gap in the UK literature, namely the lack of empirical evidence on the intergenerational effects of adult learning.

In the US, Kaestner and Corman (1995) associated young children's improvements on tests of reading and mathematics, two years apart, with increases in their mothers' formal education over this period. They found no effect of increased maternal education on children's achievement scores. Rosenzweig and Wolpin (1994) looked at differences in test scores between earlier-born and later-born pairs of siblings, relating these differences to increases in their mothers' formal education over the intervening period. They found that an additional year of maternal education has a modestly positive and significant effect on their children's achievement in reading and mathematics tests, although not on a measure of verbal IQ.

In the UK, studies have evaluated the gains of working with parents under different adult learning projects. The project Realising Early Achievement in Literacy involved parents in reflecting on their role of supporting children's development as well as teachers and parents sharing information about children's learning. The children in the family learning group made significantly greater gains in test scores than those in the control group (Heydon and Reilly, 2007). The evaluation of another family learning programme, the Family Literacy Pilot Project, also showed that improvements in children's reading attainment were likely to be linked to improvements in the parents' literacy levels (Brooks et al, 1996). Other programmes have proven to have important benefits for parents – for example the Adult Minorities Breaking Educational Restrictions and SHARE (a school programme where parents work with children at home) – but the benefits for children's educational attainment have not been evaluated.

3. Gaps in evidence

- Although the UK population has experienced important improvements in income and reductions in poverty since the Labour government took office in 1997, to our knowledge there is no empirical evidence demonstrating the overall impact of the investment in improving educational opportunities for adults on poverty reduction.
- Broader definitions of poverty include non-material conditions such as discrimination, exploitation, lack of power and autonomy, and shame. There is a lack of empirical evidence investigating the role of lifelong learning in providing individuals with autonomy, power and a sense of control over their lives.
- Material factors are obviously central to the impact of learning on poverty reduction. But subjective poverty and subjective measurements of income are also central to the poverty debate. The impact of learning on subjective poverty could be an important part of evidence on the impact of learning on well-being.
- Although there is robust evidence on the intergenerational impact of education, measured as highest educational qualifications, staying on in education or having basic skills, there are very few longitudinal studies investigating the impact of adult learning on child development.
- What forms of learning generate higher benefits for adults (i.e. flexible, structured, supported, taught, self-taught, formal, informal)? What is the multiplier effect in learning along with other interventions to alleviate poverty? More evidence is required to investigate these issues.

4. Conclusions: headline messages for the Inquiry

In light of the evidence presented above, we conclude that lifelong learning has an important potential contribution to make to poverty reduction. Individuals engaged in lifelong learning are more likely to improve their livelihoods through better employment opportunities, higher income, broader understanding of financial markets, better health and healthier behaviours, access to health services, knowledge of health conditions, among others. However, the effectiveness of lifelong learning in reducing poverty is very much dependent on its integration with other policy measures.

The following are the key conclusions of this review:

1. The impact of learning on employment possibilities is a key area for poverty reduction

The changing nature of the labour market means that personal attributes, such as poor educational achievement, which presented no significant barriers to employment in the past, now predict marginalisation in the labour market (Bynner, et al, 1997). Until the mid-1970s, the large numbers of people in the UK who left the education system lacking qualifications were recruited into the numerous semi-skilled and unskilled jobs that existed then. As this kind of work declined, employers were demanding ever-higher levels of skills and qualifications from new recruits, forcing many without them into casual work and unemployment.

There is an important role of adult learning in (i) maintaining the skills of the current workforce; (ii) upgrading the skills of those with the greatest needs to increase their employability; and (iii) allowing adults to re-skill to find employment in other areas. The benefits of learning in terms of employment have been demonstrated, both for attainment of qualifications as well as for improvements in basic skills.

2. Adult education with provision of financial literacy and support to access public funds can fill the gap in financial services for low-income, disadvantaged families

Financial literacy is important, not only in terms of the current use of private financial services and planning for future social security (pensions), but also for accessing the welfare state. For low-income households these issues are particularly salient. The OECD's recommended principles and good practices for financial education, notably targeting certain groups, capacity building and personalised learning, are relevant here.

3. There are important health benefits of adult learning. Particularly important for the poor are the benefits of health literacy and numeracy

Evidence on the health benefits of adult learning has demonstrated an important link between individuals' participation in learning during adulthood and subsequent changes in their health and health behaviours. In particular, there is evidence that adult learning is associated with better self-reported health status. Furthermore, adult learning can transform well-being, optimism, efficacy and self-rated health during adulthood.

Health literacy and numeracy are important generators of knowledge about own health, improved uptake of preventative medicine, and make health control more effective. They are also important for understanding how the health service sector works, and rights and responsibilities for patients and practitioners.

4. Improving the education of adults is not just about them but also about their children. Upgrading adult skills can bring a large return for their children

There is a considerable body of evidence showing that parents' education impacts on children's health, educational attainment and future income.

5. There is a lack of studies investigating the net impact of lifelong learning on poverty reduction in the UK and on the possible multiplier effect of educational policies with other initiatives

Although the UK population has had important improvements in their income and poverty levels have been reduced significantly since 1999, it is unknown what proportion of the reduction in poverty can be attributed to investment in education and learning for adults. Some simulations have been done to investigate the impact of government benefits in reducing poverty, and although these benefits may carry an element of learning or improving skills, the analysis does not separate the impact attributed to each element.

6. Lifelong learning may be part of any approach to reducing poverty, but it will only be in interaction with other policies

There are important individual and collective benefits from lifelong learning that can aid the poverty reduction agenda of the UK. Learning is important for individuals' employment and their health, but also for the well-being of the family and the community. But policies to reduce poverty should not only rest

on the educational element, as poverty is a complex phenomenon and multiple and multilayer initiatives are usually needed to lift people out of poverty.

Moreover, the interaction between the benefit system and educational policy is crucial. If lifelong learning involves changes to poor people's benefit status, it will be regarded as risky and probably threatening, and is therefore likely to be shunned.

7. For individuals in employment, improved income has been the result of continuing learning and training opportunities

Most of the evidence on the income return to lifelong learning points to important wage returns to mature students in higher education, to undertaking work-based learning, and to employer-provided on-the-job and off-the-job training. In particular, work-related training can have significant impact on the wage prospects of individuals in employment with intermediate levels of qualifications. It is important to highlight that this evidence is based on employed individuals who reported their income in national surveys.

8. Need for continuing longitudinal studies

The changing foundation of poverty implies the need for longitudinal studies to keep track of these changes and of the factors that impact upon these changes.

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