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**'Is lifelong learning making a difference? Research-based  
evidence on the impact of adult learning'**

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This chapter examines the evidence for claims that lifelong learning has a measurable impact on people's lives. It considers this evidence in three main areas: the economic impact, the impact on individual well-being, and the impact on the wider community. In particular, it focuses on recent studies that explore longitudinal data, following people's behaviour over time. It also tries to identify where those benefits flow, not least because it might seem reasonable to suppose that those who benefit might decide to share in meeting the costs.

We have, in recent years, seen a remarkable expansion in serious research attention to lifelong learning and its benefits (Schuller and Desjardins 2007). Many researchers and policy specialists find this work particularly persuasive because it is based on large scale longitudinal survey data (Field 2011). These surveys follow a sample of individuals over time, asking them periodically about different aspects of their lives; where the surveys ask for details about people's learning, the results can be correlated with other information about their lives. Much of this research is by British researchers, undertaken in two centres that were launched by the UK government in 1999 to investigate the economic and non-economic benefits of learning. The centres have attracted extensive international interest, and are widely recognised as at the leading edge of educational research. After summarising and commenting on this work, as well as findings from other countries where available, I then consider the implications for policy, practice and research.

### **The economic impact of lifelong learning**

Economic factors such as income and employment play an important part in lifelong learning. They can provide people with reasons for joining learning programmes, as well as featuring in policy decisions on financing provision. The direct economic effects of lifelong learning potentially include impacts on earnings, on employability, and on the wider economy. And since higher incomes or steady employment tend to have further effects on health, well-being and sociability, it also follows that the economic effects of learning have indirect outcomes.

Much recent research on the rates of return to learning has focused on the gains to the individual and less frequently the organisation (enterprise) rather than estimating the rate of return to the community. There has also been a very marked concentration on initial education. These problems are illustrated in the way that economists often use the number of years of schooling as an indicator of education investment, and formal qualifications as an indicator of output. Both are very crude

proxy indicators of what economists are seeking to measure, and both reflect a focus on the initial education system. Recent analyses of longitudinal data have therefore been important in turning attention towards the longer term effects of learning across the life span.

In respect of adult learning, most of the literature concerns work-related training. If we look at changes in wages in Britain between 1981 and 1991, employer-provided training leads to a rise in average earnings for men; the findings for women were not statistically significant. Courses leading to a higher vocational qualification (those rated as third level qualifications, whether gained through an educational institution, professional association or other means) produced an earnings gain of 8 per cent for men and 10 per cent for women; there are also higher returns for longer courses (Blundell, Dearden and Meghir 1996). Muriel Egerton (2000), using data from the British General Household Survey, found that graduates who achieved their degree later in working life had lower incomes than those who achieved their degree on leaving school. Jenkins et al (2002) found that acquiring a vocational qualification later in working life had no apparent impact on earnings levels. Two Swedish studies found little or no impact of adult learning on incomes (Ekström 2003, Albrecht et al 2007).

In the UK, researchers have paid particular attention to the effects of relatively low-level vocational qualifications. Within the UK, government has often favoured interventions designed to raise the number of workers with vocational qualifications at Level 2 within the national qualifications framework. This level is often compared with the schools examinations for 16-year-olds, and is slightly below the standards usually required of skilled workers who have completed an apprenticeship or similar training. Studies of workers who gained Level 2 qualifications during the 1990s showed that the wage benefits were extremely low or even negative (McIntosh 2004; Jenkins, Greenwood and Vignoles 2007). This may be because employers made rather negative assumptions

about workers whose highest qualification is an NVQ2 gained in adult life. A more recent analysis showed that men who gained an NVQ between 2000 and 2004 earned no more as a result, and that the same qualification was associated with a drop in women's wages. However, by this time those workers who had taken their NVQ2 between 1996 and 2000 were by now experiencing higher earnings, with a marked gain for women workers and a statistically insignificant gain for men (De Coulon and Vignoles 2003). This suggests a lag in the wage effects of lifelong learning, as well as a decidedly uneven effect for different workers. In respect of gender, possibly women tend to experience wage gains because they are more likely to work in sectors and enterprises where NVQ2 is valued, but it should be noted that qualifications of all kinds are generally more influential on women's wages than men's.

In general, then, work-based training is shown in some studies to be associated with higher wages, but this finding is not consistent across the literature. Nor can we be certain that it is the learning which has produced the wage effects. One group of scholars points out that as employers select those workers they think most capable for training, it is not clear whether it was the training or a manager's belief in the workers' ability which produced higher earnings (Vignoles, Galinda-Ruedo and Feinstein 2004).

Much less research has been undertaken into general adult learning. A Canadian study (Zhang and Palameta 2006) showed that among adult workers who participated in education, there were clear wage effects for those who received a certificate, but minimal returns for those who did not. This study also found that the wage benefits from certificated learning were clear for men of all ages and younger women, but that older women workers experienced higher hourly wages combined with static overall earning; the researchers attribute this to job-switching by women who were able to maintain earnings through shorter hours. Two British studies have examined rates of return on basic

skills improvements. Changes in numeracy and literacy test scores appeared to yield higher earnings for men, while self-reported improvements in basic literacy and numeracy appeared to produce higher earnings for both women and men (McIntosh and Vignoles 2001). A more recent study of participants in the 1970 British Cohort Survey showed significant gains in earnings associated with improved performance in literacy and numeracy tests, at broadly similar levels for both genders; moreover, the wage premium from basic skills has been increasing over time (De Coulon, Marcenaro-Gutierrez and Vignoles 2007). In an international context, though, the value of basic skills in the UK labour market is comparatively high, suggesting a relative scarcity of these skills as compared with other some other countries (Hansen and Vignoles 2005).

As well as wage effects, adult learning can also affect employability. Many governments recognise the importance of employment to social inclusion, particularly through training for unemployed people and other vulnerable groups such as single parents and people with disability. A British study showed that women who were inactive in the labour market and then obtained qualifications as adults were much more likely to find paid employment (Jenkins 2006). Another study showed a marked impact of education on moving out of non-employment into employment for women and men, along with a smaller impact on the tendency to remain within the workforce for women (Jenkins, Vignoles, Wolf and Galindo-Rueda, 2003). UK researchers have shown that acquiring an NVQ2 had no discernable effect on employability for women or men, though this is partly because most adults who take NVQ2 already have a job (de Coulon and Vignoles 2003). There is much more limited evidence on the impact of adult learning on the extension of working life – perhaps surprisingly, as this is an important policy goal of the European Union. However, one Swedish study found no evidence that adult education had any impact on older workers' decisions on retirement from the labour market (Luna, Stenberg and Westerlund 2010).

One recent study has examined the combined effects of learning on earnings and employability. The authors argue that previous studies have tended to examine each in isolation. Their work, based on longitudinal labour force data, shows evidence of an employability effect; people who learn are more likely to be in work, especially if they have been out of the labour market for some time. When taken together with wage effects, the employability benefits help produce quite significant increases in overall earnings (Dorsett, Liu and Weale 2010).

Most studies of the economic effects of adult learning, then, are broadly in line with what human capital theories might lead us to expect. That is, those who invest in new skills tend to reap a return in higher wages; however, the nearer they are to retirement, the lower the rate of return. Against these, a minority of findings suggests that learning can have a nil effect on wages, or even a negative effect. While it is tempting to dismiss these, in fact they might help us understand why human capital theory on its own is an insufficient explanation, even where wages are shown to rise after learning. The limited benefits from gaining an NVQ2 are probably best explained by seeing this qualification as a negative signal in the eyes of many employers, who appear to think it indicates low ability rather than the reverse. Conversely, it may be that employers value higher qualifications more for their screening effect than because they value the specific knowledge and skills that the qualification supposedly embodies: for employers, a higher qualification indicates that the holder is potentially capable of learning new and complex material. Human capital can take us part of the way, then, but it cannot explain all the findings of this new and powerful body of research.

### **Impact on well-being**

There are good reasons for considering well-being to be among the most important outcomes of adult learning, at least in its significance for the wider community as well as for learners themselves.

It is not just that well-being is desirable in itself; it also has further consequences, not least for learning. For learners, a positive outlook on the future and a sense of one's ability to take charge of one's life are indispensable to further, continuing successful learning. Well-being is also associated with better health, higher levels of social and civic engagement, and greater resilience in the face of external crises (Cooper et al 2010). Conversely, the absence of well-being is a cause for wider concern. The recent growth of research into lifelong learning and well-being is therefore an important development.

### *Social and personal well-being*

Researchers have long been interested in the influence of adult learning on personal development, while the impact of education on learner confidence and self-esteem are among the most frequently mentioned items in the professional literature. A considerable body of recent research has explored the relationship between adult learning and well-being. Some of this work examines the effects of adult learning upon factors directly relevant to well-being, such as self-efficacy, confidence or the ability to create support networks. Others address factors that are indirectly – sometimes rather loosely - associated with well-being, such as earnings and employability. In both cases, the accumulated evidence points to positive associations between participation in learning and subjective well-being, and between participation in learning and mental health. These are important findings, for even if the effects are comparatively small ones, they nevertheless offer policy-makers one possible way of influencing levels of well-being among the wider population. However, participation in learning also has a downside, and there is some evidence that for some people, in some circumstances, learning can be associated with stress and anxiety, and erode factors that have helped people maintain good mental health.

In a review of community learning, Veronica McGivney reported that participation in learning has positive consequences for mental health (McGivney 1999). One British study of people short-listed for adult learning awards found that almost nine out of ten reported positive emotional or mental health benefits, albeit among what is clearly a rather skewed sample (Aldridge and Lavender 2000). In one study, four-fifths of learners aged 51–70 reported a positive impact on such areas as confidence, life satisfaction or their capacity to cope (Dench and Regan 1999; see also Schleiter 2008). There is also some evidence from projects involving health providers in referring selected patients to learning opportunities (James 2004).

These findings have recently been supplemented by longitudinal studies. Feinstein and Hammond used the 1958 cohort survey to compare changes in the health behaviours of learners and non-learners between the ages of 33 and 42, showing that participation in learning had positive effects in terms of smoking cessation and exercise taken. The same authors also found a growth in self-rated health among those who participated in learning as compared with adults who did not (Feinstein and Hammond 2004, Hammond and Feinstein 2006). Sabates and Feinstein (2006) found that adult learning was positively associated with the probability of taking up cervical screening for women. While the effect sizes are small ones in all these studies, again it is important to note that adult values and behaviour rarely change much, so this finding is of consequence. Even though the size of the change was comparatively small, its importance is high. Accredited learning appears to protect individuals against depression, though it seemingly has little or no impact on happiness, and there may be some association (whether causal or not) between depression and leisure courses (Feinstein et al 2003). But qualitative research suggests that general adult education helps counter depression (Schuller et al 2004). Participation in learning does have an impact on adults' levels of life satisfaction, which is an important aspect of well-being, as well as showing gains among learners in optimism and self-rated well-being (Feinstein et al 2003, Hammond and Feinstein 2006).

Survey data demonstrate a close association between participation in adult learning and engagement in a variety of social and civic activities, though as these are cross-sectional survey findings they cannot show causation (Field 2005). Participation in learning tends to enhance social capital, by helping develop social competences, extending social networks, and promoting shared norms and tolerance of others (Schuller et al 2004). Both of these studies showed that participation in learning can also cause stresses to close bonding ties. A survey of over 600 literacy and numeracy learners in Scotland over time showed significant increases among females and older people in the proportion going out regularly; greater clarity about future intentions on community involvement; and a rise in the number who could identify someone they could turn to for help. The learners were particularly likely to have extended their 'bridging' networks, through contacts with tutors, other staff and fellow students (Tett and Maclachlan 2007). Hammond and Feinstein (2006), using longitudinal data, found that learners were more likely to report gains in self-efficacy and sense of agency (perceived control over important life choices) than non-learners.

Taken together, these findings suggest that adult learning has positive direct effects on well-being. This influence is measurable and the evidence is reasonably consistent. While most of the quantitative studies suggest that it is comparatively small, this is by no means to suggest that it is trivial. Given that policy-makers repeatedly find that influencing the behaviour of adult citizens is difficult, and sometimes downright impossible (as illustrated by the limited success of public health campaigns in many countries), it is highly significant that adult learning has these positive results, both for individuals and for collective groups more widely. Of course, these findings are usually at the aggregate level, and they tend to rest on bodies of evidence that take little account of the experiences of people who drop out along the way, or who are deterred from enrolling by poor provider behaviour. For some people, experiences of learning are deeply unsatisfactory, and the

next section explores this issue further. But we should not lose sight of remarkably consistent findings from research that suggests an overall positive influence of adult learning on the way people feel about themselves and their lives.

### *Negative effects of learning*

It is natural to focus on the positive consequences of learning, especially when so many researchers come from a background of practice. Nevertheless, participation in learning can sometimes have negative consequences; far from improving people's well-being, it can actively damage it. This is rather different from acknowledging that serious learning can be demanding, even painful, yet worthwhile in the longer term. The study of people nominated for Adult Learners' Awards – a sample that is likely to be biased towards comparatively successful learners – found that, while there were many benefits, most of their respondents also experienced 'disbenefits' such as stress, broken relationships and a new dissatisfaction with one's present way of life (Aldridge and Lavender 2000). One factor here is that adult education can evoke – even if unintentionally – unpleasant and stressful experiences from people's earlier lives. A study of adult basic education participants found that anxieties were particularly acute "if elements of the learning environment recalled people's previous negative experiences of education or authority, or other traumatic or painful events from their histories" (Barton et al 2007). Further, although learning can help extend some social networks, it can also disrupt existing ones (Barton et al 2007, Field 2009). This is inseparable from the processes of social mobility and change that learning produces. In particular, while it tends to extend those wider and more heterogeneous networks that some social capital analysts call 'bridging ties', it can also disrupt 'bonding ties', such as close kinship and neighbourhood connections. And while bonding ties can often form a barrier to social and geographical mobility, they can also provide access to types of social support that can be extremely important in times of trouble (Field 2008).

This can in turn increase vulnerability to ill-health, including poor mental health, and undermine resilience.

## **Conclusions**

The evidence is, on balance, persuasive. Adult learning influences people's income and employability, as well the attitudes and behaviours that affect people's mental well-being. In principle the benefits could be assigned an economic value, which could then be set against the costs of investing in adult learning. In practice, there are enormous data weaknesses, the relationship seems to be non-linear, and adults' life-courses are complex and highly context-dependent, so it is highly unlikely that a realistic cost-benefit analysis is feasible or even worthwhile (some might argue that it is better not to know, either because the answer might be inconvenient or because they think it tends to reduce everything to cash). Nevertheless, even if we cannot assign a simple economic value to the well-being that people derive from learning, in general the evidence suggests a clear positive relationship. These effects can be found for some general adult learning as well as vocational learning, and they are particularly marked for basic literacy and numeracy.

A number of qualifications need to be made. First, statistical analyses of longitudinal data can at best show evidence of probabilistic relationships. Their existence does not mean that everyone who takes a course will feel happier and better about themselves. And it is in the nature of longitudinal data that the findings are related to events and experiences that are now in the past; predicting the future on the basis of probabilistic findings is extremely shaky. Second, in all the studies reviewed above, the effect sizes are relatively small. Even so, the findings are reasonably consistent, and we know – for example from health promotion campaigns or health and safety training – that attitudes and behaviour in adult life are entrenched, so even small shifts are significant. Third, it is not possible to be confident about causation, as it is possible that unobserved factors might explain both

findings. This can only be clarified through further research. Fourth, much of the quantitative research takes learning as a given, and does not identify those features and types of learning that are particularly likely to promote well-being. Fourth, virtually none of the research on the benefits of learning identifies its costs. None of the studies I have seen even attempts to identify the costs of achieving a particular benefit. This reduces its value for policy makers, who are required to compare any potential intervention with other ways of achieving similar ends (Behrman 2010). Finally, there are some areas of well-being where there is no evidence – at least, not yet – of well-being effects from education and training. We do not yet have any evidence that learning prevents the onset of dementia (though it seems to delay the appearance of symptoms) nor that participating in adult learning can counter infant-acquired or genetic disabilities such as dyslexia or ADHD (though it is possible that it can help to address some of the problems that these disabilities produce). We should not over-state the case.

For some, of course, this whole debate is hotly contested. For some feminist and radical critics such as Tara Fenwick, the assumptions and techniques of performance measurement are embedded in, and more or less tacitly endorse, a managerialist and ultimately oppressive view of education and training (Fenwick 2004). The application of social statistics in adult education research has also been widely criticised. Interpretative and constructivist researchers note, reasonably enough, that quantitative data cannot tell us what people's responses actually mean to them, let alone how they construct and share the process of making meaning in their lives (Bagnall 1989). From a feminist perspective, it is argued that positivist research occupies a privileged status within both academic institutions and policy circles, allowing its exponents to pose as neutral and value-free when in reality their work is gendered and politicised, representing "regimes of truth that re/privilege masculinised, white racialised and Westernised ways of knowing" (Jackson and Burke , 26-7).

Despite these criticisms, and allowing for the gaps, I believe that the longitudinal studies represent a major advance in our knowledge of the economic, individual and social impact of learning. They provide a basis on which further work may develop. This remains, then, a ripe area for further research (Desjardins 2008). It has, of course, benefitted from an explosion of interest in empirical studies of learning and its benefits, and the reasons for this are worth bearing in mind. One concerns the nature of lifelong learning as a policy interest. Governments are promoting lifelong learning partly in response to a series of well-established policy concerns over competitiveness, innovation and growth; some governments also see lifelong learning as contributing to social cohesion and inclusion, as well as in the modernisation of public services. It therefore has a potentially important role to play in the shift towards a knowledge economy, and this has led to a more intensive analysis of education and learning throughout life. Second, a number of western governments have shifted away from a concern with providing services directly, and increasingly focussing instead on securing provision through a variety of actors; government concentrates on outputs, seeking to manage providers through the use of performance data. Information and measurement issues play a significant role in the 'new public management', which has generally been associated with the use of research evidence in policy-making (Barzelay 2001). Third, international governmental agencies have played a key role in promoting its adoption (Schemmann 2007). Two organisations have a particularly important role in the collection and publication of monitoring statistics: the European Union, especially since it adopted the so-called open method of co-ordination of member states' policies, and the Organisation for Economic Co-operation and Development (OECD), which pioneered the use of comparative educational indicators (Ioannidou 2004).

So policy interests will ensure that this field of research continues to thrive. In addition, technical developments in the social sciences have made it increasingly possible to process and analyse large amounts of data, qualitative as well as quantitative. Thanks largely to rapid technological

developments, it is now relatively easy to apply complex statistical techniques to large scale survey data, and analyse the findings in ways that control for other factors than educational participation. This allows researchers to identify causation, though such large data sets do not allow us to specify precisely what types of learning have which particular consequences – not yet, at any rate. This has proven a fruitful field of investigation, and although the findings need to be interpreted with caution, their significance for policy and practice is enormous.

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