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# The Economic & Social Cost of Illiteracy

*A snapshot of illiteracy and its causes  
in the UK and a global context*

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**Interim Report from the World Literacy Foundation**

January 2012

## 1. Executive Summary

Over the years, there have been many attempts to place an economic value on the cost of illiteracy to the UK. There are disputes about the methodologies used to calculate such figures. But the fact remains that it costs the UK economy billions of pounds each year because up to one in five adults in the UK struggle with illiteracy<sup>i</sup>.

Functional illiteracy means a person may be able to read and write simple words, but cannot apply these skills to tasks such as reading a medicine label, balancing a chequebook, or filling out a job application<sup>ii</sup>. The number of UK adults who are functionally illiterate is estimated at 6 to 8 million<sup>iii</sup>.

Globally, more than 796 million people in the world cannot read and write<sup>iv</sup>. About 67 million children do not have access to primary school education<sup>v</sup>. The cost of illiteracy to the worldwide economy is estimated at 2% of global GDP<sup>vi</sup>.

The findings of this interim report include:

- An estimated total of £81.312 billion is lost to the UK economy each year amounting to 3.75% of the nation's GDP<sup>vii</sup>.
- Individuals and businesses lose a total of about £58 billion through lower personal income or business earnings due to poor literacy (and this does not include the opportunity cost of possible wealth creation closed to people with poor literacy and numeracy skills).
- It costs UK taxpayers an estimated £23.312 billion that is spent on benefits and social programmes. A high proportion of recipients of unemployment benefits and prisoners struggle with reading and writing. Illiterate people make poorer health choices because they struggle to access, read and understand information related to their health thus placing a higher burden on the health system.

Possible solutions and projected costs and impacts on reducing illiteracy will be included in the final report to be released at the World Literacy Summit from 1-4 April 2012.

## 2. Introduction

The purpose of this interim report is to highlight the economic and social cost of illiteracy to the UK and global economy. It will discuss the causes and issues surrounding illiteracy, the direct link between poverty and illiteracy and how tackling literacy has a very real and measurable impact on the growth of an economy.

## 3. Discussion

### 3.1 Definition of illiteracy

Complete illiteracy means a person cannot read or write at all. Of equal relevance is the concept of functional illiteracy, which means an individual may have basic reading, writing and numerical skills but cannot apply them to accomplish tasks that are necessary to make informed choices and participate fully in every day life. Such tasks may include:

- Reading a medicine label
- Reading a nutritional label on a food product
- Balancing a chequebook
- Filling out a job application

- Reading and responding to correspondence in the workplace
- Filling out a home loan application
- Reading a bank statement
- Comparing the cost of two items to work out which one offers the best value
- Working out the correct change at a supermarket.

Poor literacy also limits a person's ability to engage in activities that require either critical thinking or a solid base of literacy and numeracy skills. Such activities may include:

- Understanding government policies and voting in elections
- Using a computer to do banking or interact with government agencies
- Calculating the cost and potential return of a financial investment
- Using a computer or smartphone to look up and access up-to-date news and information; communicate with others via email or social networking sites; or shop online, read product reviews and user feedback, and get the best prices for goods and services
- Completing a higher education degree or training
- Analysing sophisticated media and advertising messages, particularly for get-rich-quick scams
- Assisting children with homework.

UNESCO defines functional illiteracy as “measured by assessing reading, writing and mathematical skills in the various domains of social life which influence individual identity and insertion into society. From this perspective, literacy involves not only reading and writing but also the acquisition of the skills necessary for effective and productive performance within society”<sup>viii</sup>.

### **3.2 Cost of illiteracy in economic terms**

#### **3.2.1 Lost earnings and limited employability**

Around the world, the impact of illiteracy on personal income varies but it is clear earning potential is limited. Illiterate people earn 30%-42% less than their literate counterparts and do not have the literacy skills required to undertake further vocational education or training to improve their earning capacity<sup>ix x</sup>.

One study shows the income of a person with poor literacy stays about the same throughout their working life. However, individuals with good literacy and numeracy skills can expect their incomes to increase at least two to three times what they were earning at the beginning of their careers. And young people who do not complete primary schooling are less likely to obtain jobs good enough to avoid poverty<sup>x1</sup>.

In the UK, people with poor literacy have the lowest levels of employment and are more likely to be in manual jobs. Also, improved literacy rates show that (all data from the National Literacy Trust<sup>xii</sup>):

- The likelihood of employment and higher wages increases
- The likelihood of a person using a computer at work (an indicator of a job role requiring more professional skills) rises from 48% to 65%
- The likelihood of a man owning a home (an indicator of earning capacity) increases from 40% to 78%.

#### **3.2.2 Lost business productivity**

The cost to business in lost productivity and profitability due to poor literacy and numeracy includes<sup>xiii</sup>:

- The cost of fixing incorrect orders or processing refunds
- Customers lost due to poor communication

- Difficulty and cost of finding adequately skilled staff
- Resolving internal problems and issues arising from miscommunication or misunderstandings.

One survey of employees found that about 70% of respondents said their organisation had made noticeable cost savings through language and literacy training. Benefits of the training included:

- Direct cost savings
- Access to further training
- Improved participation in teams and meetings
- Promotion opportunities and job flexibility
- Higher morale.

The Leitch report indicated that if the UK is to compete effectively in the global economy, it would need to invest heavily to improve its basic skills base. This includes a direct challenge to address the fact that 20% of the UK adult population is functionally illiterate. The report said 95% of the population must be functionally literate by 2020 to bring the UK in line with the upper quartile of OECD countries.

This is certainly a challenge given that 70% of people who will be in the workforce in 2020 have already left school<sup>xiv</sup>. And although there are programmes in place to skill up existing workers, the big gap is how to improve the literacy of people who are not in the workforce.

### 3.2.3 Lost wealth creation opportunities for individuals and business

The opportunity cost of lost wealth creation for individuals is very real. Typically, a family will purchase a home using a mortgage and work many years to pay off the house. Many such “home owners” do not understand the bank loans they take out although they sign legally-binding documents to get them<sup>xv</sup>. They are not capable of establishing a personal financial plan or evaluating financial investments to provide themselves with a retirement income. They do not understand how to use equity or investment loans to acquire and manage income-producing assets.

Even those who do have good general literacy and numeracy skills are filled with terror at the prospect of securing their own financial wellbeing. Although this is a significant barrier to overcome, financial literacy cannot be accomplished without good basic literacy and numeracy skills.

There is also a cost to businesses which employ people who have poor financial management skills. This includes the cost of employee time wasted on money problems, lower absenteeism due to stress or needing to deal with financial issues, processing advances on paycheques for “emergencies”, lower level of workplace violence and thefts<sup>xvi</sup>.

For businesses, poor literacy and numeracy skills make it harder for business owners and entrepreneurs to understand and apply business finance concepts such as management and allocation of capital to increase shareholder value<sup>xvii</sup>. This is very different from ensuring that income exceeds expenses. The difference is often what separates big business from small.

### 3.2.3 Lower technology skills capacity in future

The definition of literacy has traditionally been limited to the ability to read, write and sum numbers. In particular, the definition of reading has meant perusal and analysis of printed texts such as books and newspapers.

Employees in today’s workforce are expected to create, edit and read numerous documents on a computer<sup>xviii</sup>. The more literate an individual, the more likely they are to be in a job role that requires the use of a computer. Yet most school curricula do not integrate technology literacy into a broader definition

of literacy. This is despite the fact that many young people today experience literacy outside of school almost entirely on computer screens.

Young people most frequently read technology-based materials, with nearly two-thirds of children and young people reading websites every week, and half of children and young people reading emails and blogs/ networking websites every week<sup>xix</sup>. But often this is not counted as reading.

UNESCO indicates that education improves understanding of new technologies and facilitates their diffusion and implementation – factors which also promote economic growth<sup>xx</sup>. But if the literacy being taught in schools does not include technology-based texts, there is little incentive for young people to master literacy skills which they feel are irrelevant to them.

Without solid literacy and numeracy skills, technological literacy is hard to achieve. Those people who have strong basic literacy and numeracy skills combined with advanced functional literacy are valuable human capital to their nations and the global economy. Without such expertise, it is impossible to compete effectively in the global marketplace.

### **3.3 Cost of illiteracy in social terms**

#### **3.3.1 Health**

Illiteracy significantly limits a person's ability to access, understand and apply health-related information and messages. This results in poor household and personal health, hygiene and nutrition.

Illiterate people, particularly mothers, are more likely to adopt poor nutritional and hygiene practices in their homes. This leads to a higher rate of disease, accidents and other health issues, which in turn raises demand for medical services and causes job absenteeism (due to illness on the part of either the parent or the children). If unchecked, these health issues can lead to permanent disability or death.

Literate people demonstrate better hygiene practices, have better access to preventive health measures (such as vaccination and medical check-ups) and can acquire better nutritional knowledge to feed their families.

Illiteracy also increases the likelihood of high-risk sexual behaviour, due to lack of awareness about sexual and reproductive health and inadequate or no use of contraception. One study showed literate women are three times more likely than illiterate ones to know that a person in seemingly good health can be infected with HIV.

Unawareness of contraceptive methods increases the likelihood of unplanned and adolescent pregnancy. In turn, young new mothers are more unlikely to undertake further education or enter the workforce.

Employees with poor literacy are more likely to have work-related accidents because they cannot read or understand written health and safety regulations and warnings or instructions on how to safely operate machinery. This puts both themselves and their co-workers at risk, increases the need and cost of medical services, leads to higher absenteeism and damage long-term productivity<sup>xxi</sup>.

#### **3.3.2 Crime**

The link between illiteracy and crime is clear. In various countries around the world, studies show that a majority of prison inmates have poor literacy skills. Also, amongst juvenile delinquents, up to 85% are functionally illiterate<sup>xxii</sup>.

In the UK, about 80% of prisoners have reading and writing skills below basic levels. Those who are still illiterate upon release have a high probability of re-offending<sup>xxiii</sup>. This is a high cost to the economy in

terms of maintaining prisons, administrating the courts and running the justice system. In fact, the estimated cost of a re-offender going back inside is £250,000<sup>xxiv</sup>.

### 3.3.3 Welfare

Illiterate people are more likely to be on welfare or unemployment benefits having dropped out of school or being unable to find work<sup>xxv</sup>. High school dropouts are more than three times as likely to receive welfare than high school graduates<sup>xxvi</sup>. Low income earning potential (discussed earlier) due to illiteracy also makes a higher number of welfare dependants<sup>xxvii</sup>. This puts a heavy burden on the social security system of any nation. In the UK alone, 21.8% of GDP is spent on welfare<sup>xxviii</sup>.

The good news is that adult literacy programmes, especially those that includes job searching skills and a focus on finding employment, can be successful in reducing or eliminating dependence on welfare recipient<sup>xxix</sup>.

### 3.3.4 Education and the role of the family

Illiterate parents tend to have lower expectations and aspirations regarding education for themselves and their children. Poor families often place work before education and the children of parents who have failed to complete primary education tend to do the same. When parents are uninvolved in their children's education, young students are more likely to display behavioural problems, get poor school results, repeat school years or drop out of school<sup>xxx</sup>.

Illiterate parents cannot read to their children, nor encourage a love of learning. When illiterate adults improve their literacy skills, this has a flow-on effect to their children. With these new skills they can help a child with homework, read notes and correspondence sent home from school, understand the school system their children engage in, and guide and encourage them<sup>xxxi</sup>.

Children from the poorest homes are almost a year behind their middle class counterparts by the time they start school. And children with parents who hold professional jobs had heard more than 33 million words by the time they began school compared with 10 million words for children from more disadvantaged groups. This had a significant impact on vocabulary growth and standardised test scores during a child's early years<sup>xxxii</sup>.

### **Literacy and poverty**

Improving literacy skills is a key first step in overcoming the obstacles shown in the diagram that lock individuals into a cycle of poverty and disadvantage<sup>xxxiii</sup>.

Education has been cited as the best means of overcoming poverty caused by illiteracy<sup>xxxiv</sup>. This needs a two-pronged approach – encouraging families to place a higher value of education and getting illiterate adults into literacy programmes<sup>xxxv</sup>. In particular, encouraging the completion of higher levels of education and therefore a higher level of literacy is crucial in ensuring the next generation do not inherit their parents' illiteracy.

### **Current initiatives to address literacy**

The final report will address this.

### **Benchmarking the UK against other countries**

The final report will address this.

## **Recommendations**

Full recommendations included in the final report.

## **Conclusion**

In this report, an estimate of over £81 billion has been put on the cost of illiteracy to the UK. One can put figures on the social cost in terms of welfare payments or the burden on the health system. But the real opportunity cost will never be known. These are the costs of lost opportunities to create individual financial wealth, encourage entrepreneurs, build healthier and more stable families whose members can make a productive contribution to all areas of society (political and cultural as well as economic).

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