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A tale of IALS's influence (or not) in the UK

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Since my early involvement at NFER in monitoring levels of attainment in reading, writing and oracy in schoolchildren from 1981-90, I have been publishing on trends in standards of literacy (and numeracy) attainment over time since 1992. While I was not involved in IALS in Britain (1996), I knew key people who were. When contracted to direct the Basic Skills Agency (BSA)'s Progress in Adult Literacy study in England and Wales (1998-99), I led the search for a suitable test. After the search revealed no single suitable instrument, we fixed on a (cobbled-together) set of tests. These contained the simplest IALS items, plus others. We used Yamamoto's ETS statistical program to analyze the data. I recognized that the boundary between UK Entry level and Level 1 reading in the new BSA Standards for Adult Literacy (2000) had been raised (relative to the previous standards) and was aligned with the IALS Level 1/Level 2 boundary. This enabled us to translate the reading results of the BSA study into IALS-equivalent levels. I presented to the Moser committee on the BSA and IALS results and other evidence on standards of attainment in adult literacy and numeracy. I was a member of the expert group which discussed the pros and cons of Britain taking part in ALL. After joining the University of Sheffield in 2001 and playing a key role in NRDC, I was involved in discussions about Britain participating in the second round of ALL, in criticizing the Skills for Life survey in England, and in the decision to commission the conceptual mapping exercise. I have tracked all relevant developments in the field.

The background and context of IALS in the UK

All four parts of the UK took part in the second round of IALS in 1996. The three parts of Great Britain (England, Scotland, Wales) took part as one jurisdiction (Carey *et al.*, 1997), and Northern Ireland separately (Sweeney *et al.*, 1998).

Before 1991, only two very basic surveys of adult basic skills had ever been carried out in the UK (reading in 1972, arithmetic in 1981). However, surveys of children's reading attainment had been going on since 1948, and a more comprehensive system for monitoring the levels of attainment of schoolchildren in England, Wales and Northern Ireland was established in 1975, under which surveys of various curriculum areas, including English and mathematics, were carried out between 1978 and 1989. This seems to have created the atmosphere in which, in the 1990s, there were twelve adult literacy and numeracy surveys in total in the UK (see Brooks, 2009, which I can supply). So levels of adult literacy and numeracy were hot topics here in the 1990s, and IALS was part of this.

The proximal reason for the UK taking part in IALS was (I think; I do not have the evidence to prove it) that three national surveys in the early 1990s had given estimates for less than functional literacy of 15%-19% and for less than functional numeracy of 15%-23%. The UK government took the opportunity to see how we compared with other developed countries by taking part in the first comparative international survey.

Shock

The UK government and public were appalled at the finding that, in all three domains, 22%-23% of adults, implying about 7 million people in England alone, were within IALS Level 1, and therefore considered to have less than functional literacy (and numeracy, via the "quantitative literacy" domain).

The influence of IALS, 1: Use of items and statistical model

The first influence of IALS in Britain is little known. In 1998-99 the Basic Skills Agency (BSA) funded a *Progress in Adult Literacy* study in England and Wales (Brooks *et al.*, 2001). We had to scratch around for items to use, since it was clear that most of the participants in the survey would have very low levels of literacy. In the event, we used the simplest prose and document items from IALS, plus some from an item bank which had been devised for the BSA by the National Foundation for Educational Research in England and Wales a year or so earlier, and even some from a school-level test; as far as I know, there have been no further attempts to use IALS items in the UK.

We also, with some difficulty, adapted the IALS statistical model to analyse our data; this enabled us to report our results in terms of IALS levels (see below). Our main results were ready by late summer 1999, and they, and those from IALS, fed into the second and much better-known influence of IALS in Britain.

The influence of IALS, 2: Moser and *Skills for Life*

The most important result of IALS in Britain was the Moser Report (Great Britain. Department for Education and Employment, 1999), whose impact was huge. Vast and unprecedented sums of money were committed to adult basic skills under the *Skills for Life* initiative from 2001 onwards: funding rose from £137m in 2000/01 to £420m in 2001/02, and then even higher amounts, e.g. £680m in 2005/06, so that the total expended between 2003 and 2010 is said to have been £5 billion (annual outlay has been reduced since the change of government in 2010). From 2002 there were also unprecedented sums for research in the area, mainly channelled through the National Research and Development Centre for Adult Literacy and Numeracy (NRDC). In each of the financial years 2002/03-2008/09 NRDC received a core grant of £2.5m from central government (and nil since then).

The influence of IALS, 3: Standard-setting

As part of the preparation for *Skills for Life*, national curricula for adult literacy and numeracy were devised, and a new set of Standards against which achievement could be assessed. Within this was a less remarked, but profound, third influence of IALS in Britain. Under the previous BSA standards for Communication and Application of numbers, the boundaries between levels were set locally, but in 2000-01 a decision was made (by, I deduce, the BSA, at the behest of government) to align the boundaries between British levels with those between IALS levels; this had the effect of raising the British boundaries from just below IALS boundaries to (intended) exact correspondence with them (Brooks *et al.*, 2001, pp.120-1). There was no empirical evidence of the need for this – the decision was purely political. This, rather than folk memory of the IALS results, could be seen as the most enduring influence of IALS in Britain.

N.B. International oddity: The numbering systems of IALS and British levels are out of synch by one: IALS Level 1 is British Entry level, IALS Level 2 is British Level 1, etc.

In terms of the *Progress in Adult Literacy* survey (Brooks *et al.*, 2001), the re-alignment got us out of a difficulty: we had been casting around, unsuccessfully, for a theoretically justified way of relating our results to standards or levels, and the link to IALS provided a simple,

pragmatic solution – though of course it evaded the question of how the IALS levels themselves were justified.

The influence of IALS, 4: Standard-moving

An odd piece of confirmation of the implementation of the new boundaries is the following. In 1996-97 the BSA carried out a survey of adult literacy and numeracy needs throughout England (Basic Skills Agency, 1997); the results showed that

- 15% of adults aged 16-60 had literacy below Level 1 of the BSA Communication standards, based on the threshold for BSA Level 1 being defined as 19 out of the 22 items in the test having been answered correctly;
- 33% of adults aged 16-60 had numeracy below Level 1 of the BSA Application of number standards, based on the threshold for BSA Level 1 being defined as 14 out of the 18 items in the test having been answered correctly.

These results were also available in time to influence the Moser Report and subsequent developments. But the figures were out of line with IALS, lower for literacy but higher for numeracy. Following the re-alignment of boundaries, the BSA re-issued the results of its 1996-97 survey with the thresholds for UK Level 1 and the results changed (Basic Skills Agency, 2001):

- for literacy, the threshold was raised to 20 answers correct out of 22: now the proportion of adults having literacy below the new UK Level 1 was 24%, very close to the IALS figure of 22%;
- for numeracy, the threshold was lowered to 13 answers correct out of 18: now the proportion of adults having literacy below the new UK Level 1 was 24%, almost exactly equal to the IALS “quantitative literacy” figure of 23%.

This legerdemain illustrates powerfully the fragility of some estimates of poor literacy and numeracy. It seems particularly odd that the large discrepancy between the estimates for literacy and numeracy disappeared; the change in the criteria which brought this about seems to have been motivated solely by the wish to bring both figures in line with IALS. I know of no conceptual justification for it, and the discrepancy is actually more like the (unmassaged) result from the *Skills for Life* survey (see below).

Critique

Others will summarise the criticisms of IALS expressed around the world, including statistical issues (and it would be particularly interesting to hear about the reaction in France). The principal critics from Britain, Hamilton and Barton (2000), made three points: that IALS provided only a partial picture of literacy; that culture was treated as bias; and that the test items did not represent the real-life items as claimed. In effect, they claimed that the survey was invalid, and therefore that its results were also. Whatever may be thought of this, it appears to have been of no comfort to the UK government, which backed away from international adult basic skills surveys for more than a decade.

The influence of IALS, 5: Why did the UK not take part in ALL?

Detailed discussions on whether the UK (England in particular) should take part in ALL took place in 1999. Some analysts assessed the cases for and against and recommended participation (Carey and Morris, 1999), but in early 2000 the British government decided not to, and instead put the money into the *Skills for Life* survey of 2002-03 in England (Williams *et al.*, 2003). NRDC produced a paper (Howard *et al.*, 2004) which was heavily critical of the *Skills for Life* survey, mainly on the grounds of inadequate piloting and reliability.

One of the reasons for Britain not taking part in ALL seems to have been the government's disquiet at the UK's poor showing in IALS, and its fear that our performance in ALL might be just as bad. However, even while the decision not to take part in ALL was being played out and leading to the *Skills for Life* survey, NRDC was asked how the poor IALS figures could be replaced in, or deleted from, international databases and therefore, by implication, show the UK in a less poor light. Brooks and Wolf (2002) said, in brief, that the IALS figures could not be deleted, and could be replaced only by taking part in a new international survey.

So from about 2002 the influence of IALS in Britain began to wane; we went off on a different track. In particular, the *Skills for Life* survey used no IALS items, and used computer administration rather than paper-and-pencil. The results turned out rather differently too: 16% (rather than IALS's 22%) were deemed to have literacy skills at or below Entry level (= at or below IALS Level 1), but 47% (rather than IALS's 23% for 'quantitative literacy') were deemed to have numeracy skills at or below Entry level. The British government was not too displeased with the literacy figure, but the alarmingly high numeracy figure led it to set a new preferred criterion for "less than functional numeracy", namely "at or below Entry level 2". This took the figure for poor numeracy down to 21%, much more acceptable, and much closer to the IALS figure. But this too seems to have been a purely pragmatic decision, without theoretical justification.

There is no principled way of estimating where the boundary between UK Entry levels 2 and 3 falls within IALS Level 1 (which does not have subdivisions), so it is impossible to know how the new UK criterion for poor numeracy maps to IALS. It is also impossible to know whether the differences in estimates for less than functional literacy and numeracy between IALS and the *Skills for Life* survey are genuine, or artefacts of the different items and modes of administration.

Two attempts at re-convergence

In 2003 there was discussion in Britain of taking part in the second wave of ALL. A "Second Wave Launch Meeting" was held in May, in October Scott Murray came over from Canada to discuss participation with government and NRDC staff, and NRDC produced a discussion paper (Howard *et al.*, 2003) which posed so many problems that it probably reinforced the government's doubts about participating.

Instead, in 2004 an attempt was made to see if the literacy tasks and levels in ALL and the *Skills for Life* survey could be mapped to each other. The hope seems to have been that, if this could be done, the *Skills for Life* survey result for literacy could be aligned with the IALS/ALL framework and thereby become the new internationally recognised literacy level for England. The conceptual mapping exercise (Horner and White, 2004) relied on a prior

exercise called C-Bar (Culturally Balanced Assessment of Reading) which had been set up to analyse similarities and differences between frameworks and tests for the assessment of reading at school level in several countries and languages across Europe. C-Bar required the mapping of assessment instruments onto the C-Bar framework so that the degree of comparability could be estimated.

Horner and White looked at reading tasks in ALL and in the *Skills for Life* survey, and concluded that it would be reasonably possible to map a number of reading tasks from ALL to the C-Bar framework, but that the reading tasks in the *Skills for Life* survey could not be mapped to C-Bar or to ALL. At this point all UK government interest in IALS and ALL apparently ceased, and there is then a gap of several years in the story of IALS in the UK.

But in the new decade ...

England (alone) mounted a repeat *Skills for Life* survey in 2010, using (I hear) all or most of the items from 2002-03; the results will be public some time late in 2011. I have no idea whether this survey avoided the flaws of the first one. Also, all four parts of the UK, our previous government decided, would take part in PIAAC this year. One reason for mounting both surveys is certainly to monitor progress. I surmise that another for taking part in PIAAC is that it is long enough since IALS for younger politicians not to care about the embarrassment, and be interested enough in renewed international comparisons. Our trajectory is therefore re-converging with IALS and its successor-but-one survey. I think it can be confidently predicted that the England-only, and especially the PIAAC results, whatever they are, will bring this whole topic back into public awareness here.

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