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## 2. POLICY MAKING AT A DISTANCE

*A Critical Perspective on Australia's National Foundation Skills Strategy for Adults*

### INTRODUCTION

2012 marked a milestone in adult literacy and numeracy policy making in Australia. In September of that year, at an electronics factory outside Adelaide, South Australia, the Parliamentary Secretary for Higher Education and Skills unveiled a National Foundation Skills Strategy (NFSS) for Adults (Standing Council on Tertiary Education, Skills & Employment [SCOTESE], 2012), the first major national policy initiative in adult literacy and numeracy in over 20 years. Although there was little media fanfare surrounding the release of the Strategy, it was nevertheless more than two years in the making from the time the initiative for the Strategy was first made public.

The Strategy is a 32 page document, with a Foreword by the then Minister for Tertiary Education, Skills, Science and Education, Christopher Evans, whose opening remark is:

More than 7.5 million Australian adults do not have the literacy and numeracy skills needed to participate fully in today's workforce. (p. i)

He then states:

We know that the jobs of the future will increasingly be highly skilled and will require higher levels of training and education.

We know that it is imperative that more Australians are able to access quality training to improve their language, literacy, numeracy and employability skills. (ibid.)

Further on in his Foreword he states that the national, state and territory governments "have set a target that by 2022, at least two-thirds of working age Australians will have the literacy and numeracy skills needed to take full advantage of opportunities afforded by the new economy" (ibid.). He concludes by stating that the Strategy "will guide national, collaborative and jurisdictional efforts to equip the Australian workforce for the future Australian economy" (ibid.) and complement efforts underway in other education sectors.

The Strategy emerged as a response to a demand for policy renewal by a wide range of stakeholders, through numerous public consultations and lobbying, and support from some of the most powerful stakeholders. By the time the Strategy was released, a high level of consensus had been reached among some of the most influential stakeholders about what was needed to achieve the literacy and numeracy target in the Strategy. Indeed several of these stakeholders had already made significant investments, with government support, in research and development to ensure that their shared interests could be met. Why then does the Strategy have the effect of alienating some stakeholders in the field of adult literacy and numeracy, including the authors of this chapter? This chapter is in part our effort to understand this sense of alienation, not only towards the Strategy, but the discourse surrounding it. We aim to examine and explain what is in ‘dispute’ between how the Strategy represents the meanings and values of adult literacy and numeracy, and the meanings and values that we hold based on our own professional engagement in the field and research. In doing so, we show the construction of the unequal power relations involved in this dispute.

In the next section, we provide a brief explanation of who ‘we’ are and the perspectives that we bring to the work we do in adult literacy and numeracy, and outline the kinds of disagreement we have with the view of literacy and numeracy projected by the Strategy and the views informing not only our own work, but of those who share similar or complementary perspectives. In the third section, we outline some theoretical resources for investigating this disagreement, including Boltanski and Thevenot’s (1999) work on ‘orders of worth’ in different social worlds. The Strategy represents the achievements of a number of stakeholders coordinating their approaches and mobilising new tools and resources that leave little room for contestation. We introduce the theoretical resources that enable us to examine these tools and resources; these include Latour’s (1987) Actor Network Theory (ANT) concepts of ‘centres of calculation’ and ‘immutable mobiles’, Bowker and Star’s (1999) work on classification systems, and Thevenot’s (1984) work on the significance and consequences of investing in ‘forms’. In the fourth section, we trace key actors (people, groups, events, documents, technologies) in Australian adult literacy and numeracy from the time when the international Adult Literacy and Lifeskills (ALL) survey results for Australia were released in 2007 to the creation of the Strategy and its supporting resources (Australian Bureau of Statistics [ABS], 2007, 2008). The final section seeks to identify some lessons learned and discusses how an analysis such as this may begin to offer an effective counter discourse.

#### VOICES FROM THE MARGINS

So who are these alienated authors who are writing this chapter, and why is it so difficult for them to acquiesce to the dominant discourse on adult literacy and numeracy? Both of us are in privileged positions at the time of writing this of working in a University – Keiko as a teaching and research academic, and Steve as

a researcher. While Keiko is involved in the teacher education of people entering the field of adult literacy and numeracy, neither she nor Stephen are under pressure to implement and comply with the instruments of the discourse represented by the Strategy.

In relation to the international adult literacy and numeracy research community, we are strongly informed by socio-cultural perspectives on literacy and numeracy as social practices. New Literacy Studies (NLS) ('New' has increasingly been dropped in recent years) which has evolved from works by researchers such as Street (1984), Baynham (1995), Barton and Hamilton (1998) and Baker (1998) have been significant influences in pointing us to ways of researching local literacies and numeracies in the particular situations where they are produced and used. Studies of practices as activity systems in the recent reformulations of Cultural Historical Activity Theory (CHAT) (Engeström, 2001) have also afforded us with further critical perspectives on literacy and numeracy, in particular as practices in activity systems in workplaces (Yasukawa, Brown, & Black, 2013, 2014) and vocational education and training (Black & Yasukawa, 2013).

The view of literacy and numeracy – or rather literacies and numeracies, that are produced, shaped and reshaped by people in their local practices in the home, community, workplaces as well as but not exclusively within formal educational institutions sits uncomfortably with initiatives that treat literacy and numeracy as something whose worth can be measured objectively. An example of an 'objective' measurement of literacy and numeracy is the International Adult Literacy Survey (IALS) which has now been conducted three times across many Organisation for Economic Co-operation and Development (OECD) countries, and has been the subject of critique by NLS scholars (see for example: Atkinson, 2012; Hamilton, 2001; Hamilton & Barton, 2000; Hamilton & Pitt, 2011). A key element of our alienation with the tenets of the Strategy stems from the all too eager appropriation of the results of the 2006 IALS – the Adult Literacy and Lifeskills (ALL) survey as the rationale for policy and policy-related responses. Aligning ourselves with those researchers cited above who have critiqued the IALS, we fail to see that such surveys can tell the story about the meaning of literacy and numeracy in people's lives.

As we will show in greater detail, the ALL survey has been largely responsible for spurring the review and realignment of a national assessment framework for adult literacy and numeracy, as well as new national competencies for adult literacy and numeracy teachers, trainers and assessors and also a new set of national competencies for learners in the vocational educational and training system. We will illustrate how the Strategy encapsulates the propensity by the literacy and numeracy 'industry' to build a unifying system of equivalences between the different instruments that the Strategy has spawned. This enables, for example, an internally consistent mapping of an adult learners' assessment using one tool to be mapped to levels used by another tool, that is, an equivalence between the ALL survey levels and the national assessment framework (known as the Australian Core Skills Framework – the ACSF). The question that is critical for us is not whether they are equivalent, but

why it is important to achieve these equivalences, and what do these equivalences mean beyond achieving internal consistencies within the policy framework. What do these equivalences enable, and for whom? Why is it troubling while at the same time difficult to challenge?

#### RESOURCES FOR INVESTIGATING THE DISPUTE

##### *Equivalences and Their Attractions*

Boltanski and Thevenot (1999) provide a framework for analysing disputes and disagreements. When people are in dispute, they bring items and facts that each party tries to show is more worthy than what the other party brings. But they say that the worthiness that each party argues “must be justified with reference to a principle of equivalence which clarifies what they have in common”, and this principle rests on the “mode” or “regime of justification” (1999, p. 361) that is assumed to be operating in the dispute. They argue that in analysing disputes, we need to recognise the particular kind of social world in which they are situated: each type of social world is characterised by the kinds of human qualities that are valued, the social relations that matter, the format of the valued information and the underlying measure of ‘worth’. They identify, without claiming they are exhaustive, six social worlds: the world of inspiration, the domestic world, the civic world, the market world, and the industrial world. Each of these worlds has different regimes of justification that come to the fore in dispute situations, and worthiness of arguments is evaluated within the relevant regime. We summarise their characterisations of dispute settling in the industrial world in particular because as we argue, the Strategy and the surrounding resources operate on the basis of establishing equivalences according to the modes of justification of the industrial world.

Boltanski and Thevenot (1999) explain that in the industrial world, the mode of evaluation of worth is based on the notions of productivity and efficiency. In the industrial world, worthy people are those who are professionally competent and expert in their industry, the kinds of social relations that matter are those that establish and sustain functional links, and the information used by parties in the industrial world often take the form of criteria and standards that are measurable.

The valuing of standardised forms in the industrial world is examined closely by Thevenot (1984). He focuses on the creation of industrial instruments that are codified for the purposes of managing labour, for example, occupational codes and industrial awards. He argues that organisations may make investments in standard forms because in doing so, equivalences are more easily determined – for example, a person’s job is described by a particular occupational code which is used to determine the rate of pay they should receive. Investment in standardised form, he argues, increases circulation as well as the lifespan of the form whereas localised forms have less investment value because they cannot be used to make comparisons across organisations. It is for these same reasons, that standardised forms may be

resisted, or the extent of standardisation limited by those who feel that their existing ‘above standard’ conditions may be reduced to the lowest common denominator. The trajectory of localised forms becoming absorbed (with or without resistance) into standardised forms may be understood by understanding these objects as ‘boundary objects’.

The concept of ‘boundary object’ was developed by Star and Griesemer (1989). When Star (2010) reflects on the concept later as it gets taken up, she explains that “[b]oundary objects are a sort of arrangement that allows different groups to work together without a consensus” (p. 602). The dynamics of this are as follows:

The object (remember, to read this as a set of work arrangements that are at once material and processual) resides between social worlds (or communities of practice) where it is ill structured.

When necessary, the object is worked on by local groups who maintain its vaguer identity as a common object, while making it more specific, more tailored to local use within a social world, and therefore useful for work that is NOT interdisciplinary.

Groups that are cooperating without consensus tack back-and-forth between both forms of the object. (pp. 604–605)

Boundary objects can take different forms, and there are four different types identified by Star and Griesemer (1989), one of which is particularly relevant to our study: the ‘standardised forms’:

These are boundary objects devised as methods of common communication across dispersed work groups ... The advantages of such objects are that local uncertainties ... are deleted. (p. 411)

When a collection of boundary objects that are circulating across intersecting communities are brought together to facilitate cooperative work at a larger scale, they become ‘boundary infrastructures’ that can form standards that have wider ranging consequences on local practices – creating equivalences across a wider set of domains and erasing the textures and particulars of local practices (Bowker & Star, 1999, p. 241).

But what are the mechanisms by which certain boundary objects come together and become standards, and others are left out and rendered “residual categories” (Star, 2010, p. 615)?

### *Making Equivalences Count*

Science and Technology Studies (STS) offers us some valuable theoretical resources to follow the development of new technologies from a socio-cultural perspective, including symbolic technologies such as policies and ‘forms’. We employ the theoretical resources of Actor Network Theory (ANT) developed by

Latour (e.g. 1987), Callon (e.g. 1987), Law (e.g. 1987) and others to trace how a particular powerful discourse about literacy and numeracy has emerged, and other discourses have been rendered invisible in the national policy context in Australia. A central idea of ANT is that of ‘translations’ – the transformation of claims made by stakeholders into ‘facts’ in such a way that the ‘facts’ serve the interests of the actors that are going to be part of the project, for example of constructing policies and other symbolic artefacts (or indeed material artefacts). Through enrolling more actors into a network formed around compatible interests, the ‘facts’ that are constructed gain legitimacy and greater resistance to contestation from outside the network. ANT’s ideas of ‘centres of calculation’ and ‘inscription devices’ are key concepts to guide our analysis of the means by which a particular and singular discourse of literacy and numeracy accumulated purchase power in Australia.

Prior to the emergence of ANT, STS scholars challenged earlier theses of technological determinism (that technology, once developed takes a life of its own) with social constructivist theses that theorised technology as a construction of society, created to respond to and reflect socio-cultural values and needs of the creators. Thus the determinists saw society being shaped by autonomous technologies, while the social constructivists saw technologies as being the product of social endeavours. ANT’s significant contribution was the blurring of the distinction between humans and technology, and viewing them as mutually constitutive. Thus, ANT takes into account the determinists’ view that technologies do in fact have both anticipated and unanticipated effects on society, while also recognising the range of cultural, economic and social conditions in which certain technologies (but not others) evolve at a particular time in a particular place under particular social conditions.

Employing ANT in educational research, and more specifically in adult literacy policy research is not an original contribution of this study. Hamilton (2011, 2012) and Hamilton and Pitt (2011), for example, employed ANT to examine the making of an adult literacy policy in the United Kingdom (UK). Given adult education policies in the UK and Australia share some similar histories of ideological shifts and tensions, sharing ANT as a central resource for investigation will necessarily yield similarities between Hamilton’s studies and this study.

One of the key theoretical constructs in ANT is that of an ‘inscription’ which Latour (1999) defines in the following way:

A general term that refers to all the types of transformations through which an entity becomes materialised into a sign, an archive, a document, a piece of paper, a trace. Usually but not always inscriptions are two-dimensional, superimposable, and combinable. They are always mobile, that is, they allow new translations and articulations while keeping some types of relations intact. Hence they are also called “immutable mobiles”, a term that focuses on the movement of displacement and the contradictory requirements of the task. (pp. 306–308)

A policy is an example of an inscription. Policies are documents that are applied in a number of relevant contexts, interpreted and translated into local and specific strategies, and articulated in practice – for example, education policies are articulated in teachers’ classroom practices. Latour (1987) also introduces the notion of ‘inscription devices’, those instruments, which can be anything from a thermometer to a government statistical institution that produces the inscriptions. The inscriptions that are produced ‘at a distance’ through distinct means may be translated and combined at a centre for calculation, while operating as ‘immutable mobiles’ in the wider sphere.

Star and Griesemer (1989) also draw on ANT, and acknowledge that what they call ‘standardised forms’ are akin to what Latour calls ‘immutable mobiles’. Crucial to the possibility of making calculations with a number of immutable mobiles is the assumption that some sort of conversion or transformation can be made between the different inscriptions. Thus the notion of ‘equivalence’ is critical for centres of calculation. Being able to draw equivalences, Latour (1987) argues, increases the mobility and combinability of the inscriptions. Inscriptions that undergo a number of translations become immutable mobiles – objects that carry with them some features that are immutable, while at the same time subject to articulation in different social worlds.

In this study we will examine how literacy and numeracy are iteratively re-represented into measurable forms that can then be combined and equated with other calculated entities to produce new equivalences. ANT leads us to examine these iterations of ‘translating’ literacy and numeracy interests as ways of expanding the network that the centres which are performing these calculations can influence and control, thus transforming disparate boundary objects into more robust boundary infrastructures.

#### CREATING POWERFUL STANDARDS (AND RESIDUAL OBJECTS IN THE PROCESS)

We examine the creation of powerful standards in the lead up to the release of the NFSS by considering the activities of some key actors (humans and symbolic artefacts), and media activities and reports surrounding them. We will see how some of these actors become important boundary objects that circulate in and through certain social worlds to build a boundary infrastructure that strongly privileges an economic perspective of literacy.

##### *The Adult Literacy and Life Skills Survey*

We commence our ‘archaeology’ of the Strategy in 2006, the year when an international survey of adult literacy, the Adult Literacy and Lifeskills (ALL) survey was conducted in Australia. This survey was coordinated by the OECD and

Statistics Canada and conducted in twelve countries. Our choice of excavating no further back than 2006 is partly a pragmatic one; nothing is completely ahistorical but there has to be reasonable limits to how far back we can go in one small study. But also, the representation of literacy and numeracy in the reporting of the ALL survey proved significant in the building of the Strategy; all representations of literacy and numeracy in the boundary objects that emerged since the ALL survey have a translation back to the release of the ALL survey results. In direct contrast to the findings of the first national adult literacy survey in Australia that there was *No Single Measure* of adult literacy (Wickert, 1989), the discourse that is now gaining increasing power is aimed to ensure that there is and must be a single measure to which all other measures of literacy and numeracy can be equated (Black & Yasukawa, 2014).

The ALL survey results for Australia were first released in 2007 (and re-released in 2008) by the Australian Bureau of Statistics (Australian Bureau of Statistics [ABS], 2008). The Media Release on 28 November, 2007 accompanying the results introduced the results by stating:

There were fewer Australians with literacy assessed as being in the lowest category than there was a decade ago ... The 2006 Adult Literacy and Life Skills Survey of Australians aged 15 to 74 years assessed prose literacy (e.g. ability to read newspapers), document literacy (e.g. ability to use bus schedules) as well as numeracy and problem solving skills, and the ability to understand health related information (e.g. first aid advice).

Approximately 17 percent (2.5 million) of people were assessed at the lowest prose literacy level (down from 20 percent in 1996), while 18 percent (2.7 million) were assessed at the lowest document literacy level (down from 20 percent in 2006).

Comparisons between the ALL survey results and the earlier results for Australia in the 1996 International Adult Literacy Survey (IALS) is thus the first point of interest that the reader of this Media Release (ABS, 2007) is drawn to.<sup>1</sup> The rest of the one-page Media Release lists a selection of findings, including:

Just over half (54 percent) of Australians aged 15 to 74 were assessed as having the prose literacy skills needed to meet the complex demands of everyday life and work. Results were similar for document literacy with 53 percent and numeracy with 47 percent achieving this level ...

Internationally, Australia was ranked in the middle across the different types of literacy with results closely aligned with those from Canada. (ABS, 2007)

Other findings that are listed make comparisons of literacy levels according to gender, employment status, income levels, educational qualification levels, and language backgrounds. There are many observations that can be made just from this Media Release. The first is that a mechanism for making statistical comparisons



of prose and document literacy levels was already in place when the ALL survey results were released. In Star's (2010) terms, the IALS could be seen as a 'boundary infrastructure' that affords comparisons of levels to be made across time, as well as across countries and demographic groups.

Secondly, the Media Release suggests that equivalence relations exist between the ALL survey performance and people's ability "to meet the complex demands of everyday life and work". The ABS explains that level 3 is regarded by the survey developers as the "minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy" (2008, p. 2). The ABS cites a Statistics Canada report for this equivalence between the ALL survey level 3 and the "minimum required", and as we shall see this translation of the ALL survey level 3 has been a significant boundary object in the history of the Strategy. One could legitimately ask how anyone could determine such a minimum, not to mention the contestability of what the complex demands are, and the definition of a 'knowledge-based economy' (see Black & Yasukawa, 2014 for an investigation into the obscure origins of the level 3). However, the equivalence between the level 3 and the "minimum required" appears to be an immutable mobile, or in Star and Griesemer's (1989) terms, a 'standardised form' of boundary object where local uncertainties about the actual meaning of the level 3 are deleted in the way it is used.

The release of the ALL survey results was promulgated with emotive media headlines. The day after the Media Release, a South Australian newspaper reported:

Half of Australians illiterate.

Survey shows many school leavers and adults struggle with basic tasks such as reading a map or bus timetable.

Almost half of Australian adults do not have the basic reading and writing skills needed for everyday living and have difficulty finding information in newspapers, using a bus timetable or understanding directions on medicine labels, a new report reveals ... (Hiatt, 2007)

On the same day, another newspaper reported that:

We're the ninny state: Report says Victoria must boost adult literacy.

VICTORIA is in danger of becoming the dunce state, with half of our adults unable to read or count well enough to get through daily life.

Victoria only beats Tasmania in the adult literacy stakes, and ranks above the Northern Territory and Tasmania in numeracy.

Australian Bureau of Statistics results released yesterday show just over half of Australians had the literacy skills to meet the basic demands of everyday life and work. ... (Metlikovec, 2007)

Here we see a reference made to the level 3 as the minimum needed “to meet the basic demands of everyday life and work”. Other papers responded on the same day, and we also see a league table being constructed by states and territories – the Australian Capital Territory (Canberra) at the top, and Tasmania at the bottom:

Tasmania bottom of the class. (Killick, 2007)

Canberra leads way in life and literacy. (Rudra, 2007)

Within a fortnight, in South Australia, examination of the state’s performance lead to the media declaring a:

LITERACY CRISIS: Half of us lack basic life skills. Daily tasks a struggle, says study. (Novak, 2007)

The corpus of the media responses to the Media Release from the ABS suggests that a consensus is developing that it is a ‘fact’ that half of the Australian adult population are in deficit in relation to ‘the minimum level of literacy and numeracy’. There are in fact two powerful ‘facts’ being constructed – that of a ‘deficit’ population, and that there is a ‘minimum’ level that can be measured and below which a person ‘can’t cope’ with the demands of life and work.

#### *The Australian Economy Needs an Education Revolution*

Only a few days before the release of the ALL survey results, another arguably more significant event took place in Australia. After over a decade of a conservative government, The Australian Labor Party won government and Kevin Rudd assumed the Prime Ministership. Early in the election campaign, he and another Labour politician, Stephen Smith had released the policy position paper *The Australian economy needs an education revolution: New Directions Paper on the critical link between long term prosperity, productivity growth and human capital investment* (Rudd & Smith, 2007). This paper made a strong case for investment in education at all levels in order to secure its economic returns. This policy position paper, with its heavy human capital orientation, is another boundary object in the history of the Strategy to which many later developments can be traced back. Within a month of the release of the ALL survey, the media, and then later industry peak bodies began speculating about the impact of the ALL survey on the economy:

Basic skills deficit hampering growth.

AUSTRALIAN Bureau of Statistics (ABS) figures show literacy and numeracy skills crucial for business growth are inadequate. ...

An OECD comparison of 14 countries estimated that a one percent increase in a nation’s average adult literacy level led to a 2.5 percent increase in labour productivity and a 1.5 percent rise in GDP per capita. (“Basic skills deficit hampering growth”, 2007)

Thus a new equivalence is introduced that adds to the economic rationale for literacy: 1 percent increase in literacy level = 2.5 percent increase in productivity = 1.5 percent increase in GDP.

Others media reports followed, such as the one in January of the following year:

Half lack skills to live in “knowledge economy”

... 46 percent of the population, or seven million people, would struggle to understand the meaning of newspaper and magazine articles or documentation such as maps and payslips.

And 53 percent reached just the second of five levels in a practical numeracy test, while 70 percent, the equivalent of 10.6 million people, only managed to progress to level 2 in a series of problem-solving exercises. “Level 3 is regarded by the survey developers as the minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy,” said the ABS report, *Adult Literacy and Life Skills*. (Lunn, 2008)

We begin to see the ALL survey level 3 criterion representing ‘the minimum’ marrying well with the government’s human capital agenda of the ‘education revolution’.

More actors start to join the economic discourse of literacy. In February 2008 the Australian Broadcasting Corporation posted a report quoting Dave Tout, the spokesperson for the Australian Council for Adult Literacy, the peak professional body of adult literacy and numeracy practitioners:

We talk about skills shortages and having to upskill our workers, well if they don’t have the core skills of literacy and numeracy then my argument would be, how can they undertake their training to improve their workplace skills?

So it carries implications for the workplace as well. (Roberts, 2008)

In the same news report, the then Deputy Prime Minister and Minister for Education, Julia Gillard is quoted as follows:

We understand that people who are of working age need to be literate and numerate for the rest of the training that they may receive to be meaningful, she said.

I mean I think we all intuitively know that if you can’t read and write then learning other things is very difficult indeed.

That’s why in designing these training packages we’re making sure that we’re focused on those people who are locked outside work now because they lack basic skills. (ibid.)

The ‘education revolution’ also starts to unfold in skills sectors. Within six months of winning government a new policy advisory organisation, Skills Australia was established by an Act of Government in 2008 with a mission to:

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provide independent and high quality advice to ensure the government's investment in education and training promotes the development of a highly skilled workforce, increases workforce participation (especially among less advantaged groups), meets the needs of industry and increases Australia's productivity. (Australian Workforce and Productivity Agency – <http://www.awpa.gov.au/about-us/Pages/History.aspx>)

### *Anticipating a New Strategy*

The emergence of the representation of literacy as a resource for productivity and economic growth is accelerated when on 30 August, 2009, Heather Ridout, the Chief Executive Officer of the peak industry organisation, the Australian Industry Group (AIG) announced Federal Government funding awarded to an AIG project to examine the impact of 'low literacy and numeracy' on businesses, citing the previously referred equivalence relations in a media release:

The OECD has estimated that a one percent increase in a population's literacy skills will lead to a 2.5 percent increase in labour productivity and a 1.5 percent increase in per capita GDP. Considering that ABS data ... has found that almost half of working Australians have less than the minimum literacy and numeracy levels required to meet the demands of everyday work, there is a huge potential to lift productivity. (AIG, 2009)

By the next day, a number of voices supporting the AIG project were heard in the media:

Australian Council of Trade Unions (ACTU) president Sharan Burrow welcomes the programme and says improving workplace safety is paramount.

Most professions rely on capacity to communicate, to make sure that work processes – particularly where there are dangerous goods or dangerous equipment – that those communication processes are absolutely clear.

But beyond safety, it is also an issue of opportunity, capacity to anticipate and productivity really for the employers themselves, so all round literacy is a key issue. (Herbert, 2009)

By March 2010, the AIG was supported by Skills Australia which launched *Australian Workforce Futures: A National Workforce Development Strategy*. This report made an explicit recommendation for the development of "a national adult literacy and numeracy strategy" (Skills Australia, 2010, p. 41) as one of its 12 recommendations. Although the recommendation is elaborated in ways that suggests broader benefits than just economic returns, the first point made is to "reframe language, literacy and numeracy as central to participation and productivity" (p. 41).

A clear government endorsement of the recommendation is made public when on 10 May, 2010, the Federal Treasurer in his Budget speech said:

... I announce tonight a new Skills for Sustainable Growth strategy.

A strategy that will invest \$661 million in the skills of our workforce and ensure our education and training systems are flexible and responsive to our economic needs. ...

It will improve the quality and accessibility of training – strengthening the link between training and business needs.

And it will provide greater access to training in core foundation skills such as literacy and numeracy.

Mr Speaker, infrastructure investment is a key driver of productivity.

(<http://www.budget.gov.au/2010-11/content/speech/html/speech.htm>)

The 2010–2011 budget allocated an extra \$100 million over four years for a ‘Foundation Skills’ package of initiatives including a significant expansion for job seeker and workplace programmes, and a commitment that:

The Government will also develop a National Strategy for Foundation Skills in consultation with the States and Territories by the end of 2011. The National Strategy will provide a framework for foundation skills provision across all jurisdictions for the next decade. ([http://www.budget.gov.au/2010-11/content/bp2/html/bp2\\_expense-08.htm](http://www.budget.gov.au/2010-11/content/bp2/html/bp2_expense-08.htm))

To advance the development of the Strategy, the National Centre for Vocational Education Research (NCVER) hosted a conference in September, 2010 to explore what the Strategy should focus on, bringing a number of stakeholders including representatives from the practitioner peak bodies, educational economists, government representatives and specialist consultants together (NCVER, 2011). Listed in the main points emerging from the conference was:

Measure success.

What we are measuring and how we are measuring it are important considerations.

The longer-term outcomes of language, literacy and numeracy programs, from both a workplace and individual perspective, also need to be investigated. Having both pre- and post-assessment would assist in determining longer-term outcomes from programs.

Greater awareness of the applicability and utility of the Australian Core Skills Framework is required to enable wider use of it. This is particularly important for teachers and service providers. (Note that NCVER is currently conducting a mapping exercise between the Australian Core Skills Framework and ALL survey.) (NCVER, 2011, pp. 43–44)

Here we see reference made to the Australian Core Skills Framework (ACSF), a ‘standardised form’ of assessment in the adult literacy and numeracy field in Australia. It is described as a framework which “provides a rich, detailed picture of real life performance in the five core skills of learning, reading, writing, oral communication and numeracy” (Department of Industry, Innovation, Science, Research and Tertiary Education, 2012, p. 2) and is a compulsory instrument for assessment and reporting learner outcomes in Commonwealth funded job seeker and workplace literacy and numeracy programmes. The ACSF manual says that it:

has been developed to facilitate a consistent national approach to the identification and development of the core skills in the diverse personal, community, work, and education and training contexts. It offers:

Shared concepts and language for identifying, describing and discussing core skills.

A systematic approach to benchmarking, monitoring and reporting on core skills performance. (Department of Industry, Innovation, Science, Research and Tertiary Education [DIIRS RTE], 2012, p. 2)

Thus the reporting of the NCVER conference outcomes foreshadows the creation of an equivalence relation between the ACSF, which measures, monitors and reports on individuals performance in the ‘core skills’, and the ALL survey which measured the performance of different populations in similar skill areas. This leads to an initiative to further standardise the form of the ACSF so that it is more widely applicable, to the extent of making it comparable with the OECD population survey levels. This had, in fact, already been anticipated nearly two years prior, in an Agreement by the Council of Australian Governments (COAG) which specified that the proportion of the working-age population with literacy and numeracy levels at ALL survey levels 1, 2 and 3 be monitored (COAG, 2008).

Although the ACSF claims to be a tool for supporting development not only in work, but also education and training contexts, its significance in the human capital discourse of literacy and numeracy becomes increasingly evident. In August, 2010, a researcher in the Productivity Commission, a research and policy advisory body of the Australian Government, released the report *Links Between Literacy and Numeracy Skills and Labour Market Outcomes* which used econometric models with the ALL survey results:

to formally estimate the effect of functional literacy and numeracy skills on labour force participation and on hourly wages (which is an indicator of productivity). (Shomos, 2010, p. 67)

Key findings from the study included:

Results confirm previous research in the human capital literature – that improving literacy and numeracy skills has a positive, statistically significant effect on labour market outcomes.

More specifically, it was estimated that an improvement in literacy and numeracy skills from level 1 to level 3 would:

- increase the likelihood of labour force participation by about 15 percentage points for women and about five percentage points for men
- increase hourly wage rates by about 25 and 30 percent for women and men respectively. (Shomos, 2010, p. viii)

This was followed in early 2011 with the release of the *National Foundation Skills for Adults Consultation* paper (Foundation Skills Working Group, 2011). The proposed definition of foundation skills: “language, literacy, numeracy and employability skills in the information age” (p. 4) confirms the positioning of the Strategy in the human capital discourse of the ‘education revolution’: this is primarily about literacy and numeracy for producing an economically productive workforce.

The Strategy as a human capital agenda is further strengthened on 4 April, 2011 when the 11 Industry Skills Councils (ISCs) jointly published the report *No More Excuses: An industry response to the language, literacy and numeracy challenge* (ISC, 2011). They make a call for action within the vocational education and training system, and for the COAG to establish a blueprint for action. This is supported later in the year by Skills Australia (2011) in their report *Skills for Prosperity*. A year earlier Skills Australia Chief Executive Robin Shreeve, had said in relation to foundation skills, “the most important first step is getting all the key players “singing off the same hymn sheet” (“Literacy and numeracy are holding Australia back”, 2010), and by mid 2011, Government, policy makers, economists and industry representatives were doing just that. In Latour’s (1987) terms, a ‘centre of calculation’ has been built linking the Government and its policy advisors and industry representatives, all ready to produce inscription devices that would help measure and calculate the productivity benefits of literacy and numeracy.

#### *The Release of the Strategy*

Before the Strategy was even released, much of what the Strategy would call for had been implemented. In early 2012, a new ACSF was released, and the project was well underway to map the ACSF levels against the ALL survey levels (Circelli, Gillis, Dulhunty, Wu, & Calvitto, 2013). A number of foundation skills ‘products’ that had earlier been anticipated in a paper entitled *Foundation Skills in VET Products for the 21st Century* (National Quality Council, 2010), such as a new training package for foundation skills delivery and clarification of the relationship between employability skills and foundation skills were under development before the Strategy was released. Thus when the Strategy was finally released on 28 September, 2012, there were few surprises, no announcements of additional funding, and little that was picked up by the media. The Strategy could be seen by many in the field as a summary of all of the initiatives that were already in place.

In January, 2013, the report of the project to map the levels of the ACSF and the ALL survey was published as *Does 1 = 1? Mapping measures of adult literacy and numeracy* (Circelli et al., 2013). The report states:

So, does 1 = 1? This study has shown there to be a close alignment in the complexity of Level 1 reading and numeracy constructs between the Adult Literacy and Life Skills survey and the Australian Core Skills Framework. However, the alignment between each performance level across the two frameworks was not as direct for higher skill levels. For example, as we have seen, for the reading construct, ACSF exit Level 3 appeared to be more similar to ALLS Level 2 than ALLS Level 3, and ACSF exit Level 4 was more closely aligned to ALLS reading Level 3.

... as the results are suggesting, ALLS Level 3 in reading and numeracy is approximately equivalent to ACSF exit Level 4, then adult literacy and numeracy programmes that are delivered and reported against the ACSF may need to specify ACSF exit Level 4 as the desired outcome if the implied workforce skills development objective is to be met. (p. 14)

From this project, there are now equivalences between the ALL survey levels and the ACSF, and the ALL survey level 3 that played a large role in marrying literacy and numeracy with the productivity agenda can be substituted by the level 4 of the ACSF, the widely used assessment and reporting framework in Australia.

Has the centre of calculation finished its work? The mapping report suggests otherwise:

The results from this study could be used to map other similar frameworks or programmes onto the Australian Core Skills Framework and/or the Adult Literacy and Life Skills survey. For example, the Adult Migrant English Program (AMEP), if considered to have similar constructs in terms of reading/numeracy, could also be mapped onto the Reading and/or Numeracy complexity scales developed in this particular study.

Similarly, the new, yet to be released Core Skills for Work Framework (CSFW; ITHACA Group, 2012), which has been designed to have five developmental levels across ten skill areas (to complement the ACSF), could also be empirically validated using a similar methodology to that employed in the current study ... In addition to empirically validating the framework in terms of its architectural structure etc., it may also be desirable to map certain skills sets within its framework to the ACSF. (Circelli et al., 2013, p. 16)

There is more that will keep the centre of calculations busy for another little while. Less than six months after the release of the NFSS, the preliminary results of the most recent OECD survey Programme of International Assessment of Adult Competencies (PIAAC) was released, and immediately, the Australian Council for



Educational Research (ACER) issued a media release, quoting a senior research fellow of the Centre, David Tout:

The preliminary PIAAC results from 2011–12 show that about 7.3 million or 44 percent of adult Australians achieved in the lowest two bands for literacy, while about 8.9 million or 55 percent achieved in the lowest two bands for numeracy.

Of significance for employers and those in the VET sector, PIAAC also shows that 38 percent of employed adults achieved in the lowest two bands for literacy, while 48 percent achieved in the lowest two bands for numeracy.

“This is an *alarming result* for a country that needs to lift the skill levels of its population to ensure a healthy society and a robust economy,” Mr Tout said. (ACER, 2013, emphasis added)

#### REFLECTIONS ON THE EXCAVATIONS

The national Strategy is a product of the cooperation of a number of different actors both inside and outside the Australian adult literacy and numeracy industry. Indeed it is when cooperation started to extend to other industries and internationally that the work flourished and established a powerful centre of calculation. The centre calculated equivalences that enable an individual’s literacy and numeracy levels to be interpreted in relation to the literacy levels of populations in OECD countries. The impetus for such calculations could be found in the productivity driven agenda of the Government’s ‘education revolution’. Similar impetus could be found in policy work in other OECD countries such as Canada (Employment and Social Skills Canada, 2013) and the United Kingdom (see for example discussion in Wolf & Evans, 2010), hardly surprising with the globalisation of the economic system. As Walker (2009) argues, OECD policies on lifelong learning, while espousing a rhetoric about social inclusion are biased towards education that creates “worthy citizens” who are employable, productive and wealthy (p. 348).

One observation that can be made from retracing the evolution of the Strategy using the theoretical resources from ANT is the amount of ‘investment in forms’ that was made. These are the kinds of forms that Star and Griesemer (1989) call ‘standardised forms’ that are designed to eliminate local uncertainties. Even prior to the development of the Strategy, instruments such as the ACSF had been critical boundary objects between the practitioners, providers and government to report on and monitor learners and workers’ performance in literacy and numeracy. Referring back to the one national framework of levels of performance, the ACSF provided a communication tool between these different communities of practice. But projects like the “Does 1=1?” (Circelli et al., 2013) extend the circulation of the ACSF to the OECD by providing a mechanism for equating the different levels of the ALL survey

to the ACSF, making it easier to monitor the performance of learners in relation to OECD averages.

What is this all about? What kind of a world are we living in? The actors circulating in and out of the centre of calculation which produced the Strategy exist in what Boltanski and Thevenot (1999) characterise as the industrial world, where the mode of evaluating worth is in terms of productivity and efficiency and where relevant information for evaluating is statistical. When literacy and numeracy are captured as prominent actors in the industrial world, those who see literacy and numeracy in other social worlds, for example the civic, domestic or inspired worlds – if we are to use Boltanski's and Thevenot's (1999) categories, are using different 'regimes of justification' to discuss the value of literacy and numeracy. Such actors, and we include ourselves among them, may be valuing literacy and numeracy for the purposes of some collective interest in the community, or serving a role in life within the learner's family, or expressing one's creativity.

Literacy and numeracy do exist in different social worlds – and this is precisely what NLS research reveals: there are multiple literacies and numeracies that mean and are valued differently in different social contexts. But the industrial world has made strong investments in constructing standardised forms to enable the measurement and monitoring of the literacy and numeracy learning and productivity. There, a pluralist notion of literacy and numeracy is outside the regime of justification. It is not possible to even have a dispute about what 'counts' as literacy and numeracy unless it is framed in terms of productivity. This accounts for the alienation that we experience, as stakeholders in the field of adult literacy and numeracy, along with other researchers who view literacy and numeracy from a social practice perspective.

Many who consider themselves 'in the field of literacy and numeracy' – practitioners, researchers, as well as policy makers and industry representatives – held high optimism when discussions about a new Strategy commenced. The authors too expressed our optimism in our contribution to the NCVER Search conference (Black & Yasukawa, 2011) and in earlier discussions of 'foundation skills' (Black & Yasukawa, 2010). But the Strategy that emerged was a Strategy firmly located in only one social world, away from some of the other possible worlds where literacy and numeracy practices also exist. A Strategy is more easily evaluated within this one 'industrial' mode of evaluation, against one clear set of goals rather than within multiple modes of evaluation for multiple goals. And such a Strategy carries authority because it has roots in a very powerful centre of calculation that includes transnational organisations such as the OECD.

This chapter has provided an elucidation of why it is difficult to imagine how literacy and numeracy that exist in other social worlds can win a 'dispute' or even enter a debate with those who engineer literacy and numeracy in the industrial world. Such an analysis is not particularly empowering because it provides neither a way for alternative understandings of literacy and numeracy to co-exist as different but legitimate perspectives in the current policy space, nor a way for these alternative understandings to be strengthened in the absence of any policy support. These are

larger questions that we are not able to provide solutions to; however, we do believe that even if practitioners and researchers have to work with the current National Strategy and its implications for practice, it is important to know where this Strategy came from and what it was designed to achieve. Blindness to the political agenda of policy only strengthens the centre of calculation.

## NOTE

- <sup>1</sup> The summary report of the results (ABS, 2007) qualifies that the numeracy levels cannot be compared with the quantitative literacy levels of the 1996 IALS because numeracy was defined more broadly in the ALL survey than in the IALS.

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