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Opportunities, Transitions, and Risks: Perspectives on Adult Literacy and Numeracy Development in Australia

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This chapter provides an account of the development of adult literacy and numeracy in Australia. As with any attempt to capture a history in a few pages, it is selective and partial.⁵⁶ We aim to convey a flavor of the major national events and influences that have shaped adult literacy and numeracy, particularly those we believe have contributed to Australia's international reputation as an innovator in this field (Coben & Chanda, 2000; McKenna & Fitzpatrick, 2004a). The trajectory of adult literacy and numeracy's development in Australia is uneven, reflecting changes in government priorities, the varying beliefs and commitments of practitioners, external

⁵⁶Indeed, as readers may discern, the personal experiences of the four authors of this chapter result, sometimes, in shared interpretations and, at other times, in different ones.

influences, and the complexity of how this area of work is organized and experienced. As the priorities and influences shifted, so did the nature of adult literacy and numeracy provision.

A recurrent theme through this account is how purposeful actions by literacy and numeracy advocates helped ensure that adult literacy and numeracy survived and grew through a volatile Australian policy environment over the last 15 to 20 years. With specific reference to adult numeracy, we present some of the distinctive characteristics of adult literacy and numeracy's beginnings, and explore the conditions enabling its move into mainstream postcompulsory policy and provision from the late 1980s, when it became an integral part of the broader vocational education system. What brought adult literacy and numeracy from the "billabong to the mainstream" (Kell, 1998)⁵⁷ in Australia was a complex array of events and circumstances; among them particular constellations of coalitions and advocacy networks, a reformist Labor (Democrat) government, a radical education and training minister, and the impact of external influences such as the Organization for Economic Cooperation and Development (OECD) and World Bank reform agendas and the United Nations Educational, Scientific and Cultural Organization (UNESCO) International Literacy Year in 1990.

The first national survey of adult literacy and numeracy skills in Australia (Wickert, 1989) also played an important role in this change-ready environment, not only by virtue of the data reported, but also because the report articulated some substantial arguments for change (Brock, 2001). Eight years later, under a newly elected conservative federal government and falling on less fertile ground, the International Adult Literacy Survey (IALS) data (Australian Bureau of Statistics [ABS], 1997) had less impact than might have been expected in furthering adult literacy and numeracy policy and provision (Hagston, 2002; McKenna & Fitzpatrick, 2004b), As a result, influences shaping Australia's adult literacy and numeracy policy and practice differ from those of many other English-speaking OECD nations (e.g., Ireland, England, and New Zealand) where the IALS data have spurred governments into action.

Positive influences on adult literacy and numeracy's development that we explore in this chapter include the following:

⁵⁷A billabong is a pool or waterhole formed by a side channel of a river during the wet season.

- The federal Labor government's adoption of the 1991 Australian Language and Literacy Policy (ALLP)⁵⁸ (Department of Employment, Education and Training [DEET], 1991b).
- A coordinated ALLP implementation strategy based on extensive consultation on the ground and the presence of key influencers in decision-making roles.
- A strong community of practice linked via various networked coalitions around activities such as research, professional development, and advocacy.
- A "policy literacy"⁵⁹ (Lo Bianco, 2001b) among advocates, exemplified in a willingness to adapt to change, try new approaches, and grab opportunities to lock numeracy and literacy into mainstream policy initiatives and priorities.
- A history of activism in relation to equity initiatives and to language and literacy policy (Lo Bianco, 2001a; Wickert, 2001).]

The development of adult literacy and numeracy in Australia is typically regarded as occurring in three 10-year eras—starting roughly in the mid-1970s (Kell, 1998; McKenna & Fitzpatrick, 2004b; Searle, 1999). We follow this tradition here and characterize the three periods as (a) the mid-1970s to mid-1980s, "at the margins: emerging from the ground up"; (b) the mid-1980s to mid-1990s, "into the mainstream: building a national infrastructure for growth"; and (c) mid-1990s to present day, "intensification, integration, and fragmentation: living with tensions and contradictions."

We identify some key defining characteristics of each of these decades and make specific reference, where appropriate, to adult numeracy as a distinctive aspect of Australian adult education. In this way, we aim both to explain this distinctiveness and show how numeracy's development was influenced by broader events. We draw attention, especially, to events in the middle era (mid-1980s to mid-1990s), described by some as Australia's "literacy decade" (McKenna & Fitzpatrick, 2004b, p. 66), and to three transformative documents that have made a strong impact on how Australia understands and manages adult literacy and numeracy practice.

⁵⁸A list of acronyms can be found in the Appendix.

⁵⁹Lo Bianco (2001b) described policy literacy as "a critical understanding of the policy process" which, he argued, "brings about a more reflective and full participation in the processes of public policy making" (p. 212).

We conclude with some observations about how adult literacy and numeracy are currently positioned in relation to broader government priorities. To set the scene, we first provide a very brief and selective impression of Australia and its population.

ABOUT AUSTRALIA

Australia is a vast island continent of 7,686,850 square kilometers, similar in size to the mainland United States. Its population of approximately 19.2 million is concentrated on a narrow strip of the east coast, with smaller cities and communities on the south and southwest coasts. Inland Australia is largely dry and arid. It is here that you see the colors of the Aboriginal flag, the red ochre of the earth, the black night sky, and the burning gold of the sun. The colors also symbolize the history of the indiginous Black population since the White, mainly British, invasion: the blood shed during massacres of whole clans, such that only 2% of the indiginous population remained at the end of the 19th century, and the loss of traditional lands, rights, and languages.

Colonial rule, which commenced with the transportation of convicts and later encouraged free settlers to take up land, resulted in small settlements across Australia becoming independent colonies. Subsequently, in 1901, these colonies formed a federation that adopted a three-tiered system of government: national (commonwealth), state (six states and two territories), and local. Adult literacy and numeracy policy is generally developed and implemented at both the national and state or territory levels. Although overarching policy directions and associated funding may be set at the commonwealth level, local policies, strategic initiatives, funding, and implementation also occur at the state or territory level. The focus in this chapter is largely on national directions.

At the beginning of the 20th century, Australians believed that the nation would be secure and prosperous, with a substantially increased population. However, there was a net decline in birth rates during World War I and World War II and the Depression of the 1930s. Immigration patterns reflected concerns that Australia was too thinly populated to ensure its security, provide the labor required to build major infrastructure projects, and develop its industrial and economic potential, which was then mainly dependent on extractive industries and agriculture.

However, the "White Australia" policy, in place during the first half of the 1900s, sharply restricted the admission of non-White immigrants and

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immigrants largely came from southern Europe and the United Kingdom to fill a shortage of manual labor. More recent immigrants have predominantly come from Southeast Asia (Vietnam, Hong Kong, and Taiwan). Australia also accepts a limited number of refugees, mainly from Africa and the Middle East. As of 2000, 23% of Australians were born overseas. Immigrants born in mainly English-speaking countries represent 9.2% of the Australian population; immigrants born elsewhere comprise 14.4%. To provide an indication of the makeup of the immigrant population in 2003, 26% of immigrants were from the United Kingdom (compared with the peak of 67% in 1947), 28% from other European countries, 13% from Southeast Asia, and the remaining 33% from a wide range of other Englishand non-English-speaking countries (Department of Immigration and Ethnic Affairs, 2003). Indiginous Australians make up a mere 2.4% of the Australian population (ABS, 2004).

According to the 1996 IALS survey in Australia (ABS, 1997), larger proportions of people whose first language was other than English were at the lowest skill levels on each of the three scales compared with people whose first language was English. Whereas 42% of those with English as their first language scored at Levels 1 and 2, and 58% at Level 3 and above, the figures for those for whom English was not their first language were 72% and 28%, respectively (ABS, 1997).

Data about the English-language literacy levels of indiginous populations is patchy. The ABS survey excluded certain remote areas of Australia. Almost 50% of Aboriginal and Torres Strait Islanders live in nonurban or remote areas, and up to 50% of these may not speak English as their first language (Kral & Schwab, 2003). Eighty-eight percent of the urban Aboriginal and Torres Strait Islander population people speak English. Of the indiginous peoples in the 1996 IALS sample, significantly greater proportions were at low literacy levels compared with other people who spoke English as their first language. Forty-one percent were at Level 1 on the prose scale, compared with 14% of the rest of the sample, for whom English was their first language. Different education experiences contribute in large measure to results like this, as the secondary school completion rate for Indiginous students is less than half that of the non-Indiginous student population.

As with other industrialized countries, Australia now requires a more highly skilled workforce, with strong literacy and numeracy skills. Globalization, competition, and environmental concerns have forced much manufacturing to overseas countries where there are cheaper sources of labor. The subsequent rise in service industries, communications, and other technologies in Australia have led to skill shortages in these areas. These workforce changes have influenced the nature of adult literacy and numeracy provision such that early emphases on citizenship, individual rights, inclusion, and remedial education have given way to a stronger focus on work preparation and vocational competence.

PHASES OF ADULT LITERACY AND NUMERACY IN AUSTRALIA

Introduction: Setting the Context

Scholars interested in comparative studies of adult basic education (ABE) often ask for quantitative data. How much provision? How many students? How much government funding? Such questions are almost impossible to answer with any degree of accuracy in relation to Australia for at least four reasons: (a) Australia's federated system, with at least nine education and training bureaucracies, has no consistent national system of categorization and reporting of all participants or programs; (b) the long history of immigration and the many different kinds of support programs that emerged for immigrants during the latter half of the 20th century implicitly incorporate literacy and numeracy skills development, but they do not report on this aspect of their work; (c) deliberate moves to integrate or embed literacy and numeracy learning in vocational education, workplace training, and programs for specific groups (e.g., women returning to work or adults with disabilities) means that there is overlap between basic education and broader educational programs so it is difficult to separate basic education; and (d) the increasing number of private and nongovernment providers in this market, for whom information about basic education is deemed "commercial-in-confidence," which means that accurate data cannot be compiled. Also, despite some commonly held misconceptions, provision does not neatly divide into programs for immigrants and for those with English-speaking backgrounds.

Rather than attempt to engage the reader further in these complexities, the material in this chapter relates predominantly to what is conventionally referred to as adult literacy and numeracy or ABE. Although this may include many adults from non-English-speaking backgrounds, for a number of reasons such as differing funding arrangements or priorities, it does not include provision specifically targeted at newly arrived immigrants or specified groups, such as women or Indiginous communities.

The Mid-1970s to Mid-1980s: At the Margins—Emerging From the Ground Up

As in much of the Western world, in Australia in the 1970s, social movements demanded a better situation for many previously marginalized citizens. Adult literacy and numeracy provision in this early period depended on the initiative and energy of committed individuals—often working in isolation under considerable physical and financial constraints, typically with strong humanist, political, or religious convictions—to assist adults who lacked access to education and other social capital. During this time, programs made extensive use of volunteers along with paid teachers, many of whom identified strongly with the principle of literacy as a fundamental human right.

In the mid-1970s, the newly elected Whitlam Labor government, fired up with a reformist, social justice zeal, charged the Technical and Further Education (TAFE) system with responsibility for adult literacy (Zimmerman & Norton, 1990). This was in line with a highly influential report (Kangan, 1974) that resulted in the reorientation of postcompulsory education toward addressing equity and access concerns alongside its traditional industry training focus. By the end of the 1970s, education and training authorities implemented affirmative-action policies and broadened their focus to embrace previously disadvantaged or equity groups such as women, Indiginous people, people from non-English-speaking backgrounds, and people with disabilities, all of whom were underrepresented in the broad spectrum of training programs.

Along with this widening of their charter, many TAFE colleges established learning centers to provide individual assistance with English and mathematics to students who needed extra support to succeed in their vocational courses. Gradually, teachers in these centers reached out to the wider community and offered specialized sessions in mathematics to the public, some following individualized tuition models, others providing a more social learning atmosphere. The Mathematics Workshops in New South Wales were just one example of this approach, where a small group of adults "came together to learn through understanding and to foster pleasure in mathematical experience" (Thiering, 1981, p. 1).

Many of the early adult literacy and numeracy pioneers considered themselves part of a larger education and social movement (Nelson, 1981; Searle, 1999; Wickert, 2001). They formed statewide professional voluntary organizations, an influential national council active in political advocacy and professional formation, and local networks of practitioners such

as the Numeracy Network in Victoria in the early 1980s, an arm of the local state adult literacy council. These state and national voluntary professional associations continue to provide important forums for literacy and numeracy practitioners. Also, during the early 1980s, a number of states established professional support agencies to provide assistance to volunteer tutors and others, and to refer adults seeking help to appropriate literacy programs. These agencies operated as "strong networks for practitioners in the field, hubs of activity and ideas" (Hazell, 2002, p. 49). They conducted professional development, developed literacy and numeracy resources, and maintained unique libraries of material for teachers to use. They were the places where a numeracy or literacy teacher who felt isolated might meet people of like mind and passion.

The strengths of this era of emergence "from the ground up" rested on enthusiasm, conviction, and student-centeredness in an environment in which there were no formal literacy and numeracy curricula, few articulated pathways for student progression, and little system accountability. Indeed, one senior bureaucrat described the field in the late 1980s as "isolated and marginalized" with "largely unqualified practitioners," "limited" infrastructure and a "virtually nonexistent" research base (Elwell-Gavins, 1994). Securing a sustainable future for adult literacy and numeracy was the major challenge for the next decade.

Australian Adult Numeracy's Distinctive Beginnings

In Australia, adult numeracy is so often paired with literacy that it might be assumed that this has been the case since ABE provision began to integrate numeracy into instruction in the 1980s. However, literacy has not been numeracy's only—or even its most crucial—influence. Like literacy, social justice and equity concerns of the 1970s spurred and shaped the provision of numeracy. However, unlike literacy, the strongest impetus for numeracy's initial and ongoing development grew out of the specifically feminist commitment of many of its advocates, a fact that has had important repercussions for its development.

In the mid-1980s, the newly elected Hawke Labor government's commitment to equity supported improving the position of women in relation to education and training. Vocational training, science, and technology-based courses that required mathematical skills were almost entirely male domains. The limited female presence was partly attributed to the fact that

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girls tended to opt out of mathematics in compulsory education earlier than boys. Mathematics avoidance (Willis, 1989) among women and teenage girls became the subject of much study.

Women with mathematics teaching backgrounds joined and lobbied Equal Opportunity committees, resulting in funding for more women's courses. In 1985, funding for a Women Who Teach Women Maths and Science conference in Victoria allowed many teachers to share their pioneering experiences. Discussion centered on alternative teaching methodologies and curriculum approaches, and identified the need for new instructional materials, because nothing "reflecting the lives, needs, and interests of adults—particularly women—was available" (Marr & Helme, 1990, p. 82). Working in a spirit of collectivity and cooperation engendered through past experiences in the women's movement, interested women backed by affirmative action funding came together to develop a teaching resource. This Teaching Mathematics to Women Project team investigated existing courses for adult women in Australia and established a framework and activities for successful learning, and ideas for related teaching activities (Marr & Helme, 1987).

Enthusiastic teachers also designed courses to meet the needs of other socially disadvantaged groups. These efforts brought a multiplicity of voices—including those from mathematics education, from adult learning theory, and from vocational education—to conversations that shaped the early approaches to adult numeracy education, its definitions, its curriculum and professional development, and its teaching materials. As its proponents worked to carve out numeracy's distinctiveness from remedial mathematics and functional literacy, numeracy evolved into a concept that involved social and cultural practices, as well as skills (Tout, 1990).

The period of networking and creativity prior to numeracy entering the mainstream in accredited courses pushed the issue into the social and public realm, where the needs of the less numerate adults could be translated into demands for government provision and programs. It politicized the numeracy needs of adults. Along with success in getting government funding for numeracy programs, however, came the requirements and regulations of government.

Late 1980s to 1995: Into the Mainstream—Building a National Infrastructure for Growth

The crash of the U.S. stock market in 1987 resulted in worldwide financial instability. In Australia, the Hawke Labor government chose to respond

through microeconomic reform aimed at transforming the nation from "the complacent Lucky Country to an [active] Productive Country, the Innovative and Hard-Working Country" (Hawke, cited in Kelly, 1992, p. 386). From a myriad of state- or territory-based arrangements, the Commonwealth government formed a national training system designed to provide greater flexibility and national consistency, including nationally accredited qualifications. The associated restructuring of industrial awards linked wages to national qualifications, 60 a move that strengthened the vocational education and training sector. Over the next few years, each industry determined the specific skills, knowledge, and attitudes required for workers to operate effectively at each level of employment. These became reified as competency standards, made up of units of competency.⁶¹ Some working in adult literacy and numeracy were concerned that the push for training to be driven by competency standards related to employment and training outcomes put at risk previous funding commitments to programs oriented to social justice, access, and equity (Sanguinetti, 1999; Searle, 1999). Others saw the focus on preparation for work through a range of targeted programs as an important equity initiative and a welcome shift from the protective gatekeeping that some considered characterized too much adult literacy and numeracy teaching practice (McKenna, 1997; Wickert, 1988). This kind of well-meaning, but perhaps shortsighted, perspective saw some students reenrolling in the same programs over many years, with little evidence of literacy and numeracy learning outcomes. Such learning environments were perhaps more oriented to instilling a sense of security and belongingness with students than challenging them to more actively move from welfare to work.

This period of major change to industry structuring and training coincided with UNESCO's declaration of an International Literacy Year in 1990. The coming of International Literacy Year prompted a small but significant policy commitment to adult literacy in 1987 through the National Policy on Languages (Lo Bianco, 1987), which, for the first time in

⁶⁰An award is a legally enforceable decision, made by industrial tribunals, that sets out the wages and conditions employees are entitled to receive from their employer. At the time of writing, new industrial-relations legislation is passing through the Commonwealth government that will radically change the Australian Industrial Relations system of awards.

⁶¹Competency (also competence) means the ability to perform tasks and duties (generic and occupation-specific) to the standard expected at different levels of employment. A competency standard is the description of the tasks and duties at these different levels.

Australia, provided some resources for a small number of strategic projects aimed at better understanding aspects of literacy and numeracy need and raising awareness and appreciation of the issue, including a substantial Adult Literacy Action Campaign in the build-up to 1990. A watershed event during this time was a gathering, organized through the auspices of the Australian Council for Adult Literacy, that galvanized the attention of key opinion leaders in industry, the union movement, social advocacy organizations, and senior bureaucrats about the place of adult literacy and numeracy in economic and workplace reform (Gilding, 1999). In addition, Australia, along with other OECD countries during this period, was aligning itself with the OECD Active Society policy initiative, which strongly endorsed job-seeker participation in welfare-towork programs in line with an expectation that welfare recipients work, or actively show intent to develop the capacity for work, in exchange for welfare payments (OECD, 1989). In Australia, this policy approach is known as *mutual obligation* (Curtain Consulting, 2000).⁶²

Advocacy groups successfully used these hooks to bring adult literacy in from the margins by persuading government and industry leaders of the integral place of literacy and numeracy in these reforms (Gilding, 1999; Lo Bianco, 1997). A Commonwealth government policy discussion paper on literacy policy (DEET, 1991b) provided the vehicle for this persuasion by delivering a policy commitment to adult literacy in the ALLP (DEET, 1991a), which was more comprehensive than the earlier National Policy on Languages. The ALLP consolidated a number of previously fragmented and uncoordinated language and literacy programs across, for example, work-based provision and assistance for the unemployed.

Forcing a closer connection between language and literacy in the ALLP caused concern about a weakening of distinct ESL provision, particularly for specialist ESL providers such as the Adult Migrant English Service (Moore, 2001). Positioning numeracy as part of literacy, although strategically useful as described later, also caused similar concerns. The parallel and strengthening government commitment to deregulation⁶³ and the

⁶²In Australia, there is a specified range of mutual obligation options available to welfare recipients. One of these is attendance at literacy and numeracy programs.

⁶³Deregulation is the removal of regulations that control or restrict the operation of an industry or enterprise. Previously, Commonwealth government-funded adult literacy and numeracy programs were delivered through government agencies. Now, provision is open to a competitive tender process, and private agencies also deliver services.

associated managerial and contractual requirements were further sources of disquiet for adult literacy and numeracy educators concerned about the potential threat of these policy moves to the professionalization, stability, and quality of the field (Lo Bianco & Wickert, 2001). We discuss these concerns later in the chapter. Nonetheless, the achievement of a specific policy commitment from the Commonwealth government was a major milestone and provided a not-to-be-missed opportunity to consolidate the place of adult literacy and numeracy in national mainstream policy priorities for economic, industry, training, and welfare reform.

Positioning Numeracy

The term *numeracy* was first officially acknowledged in the Australian Council for Adult Literacy's 1989 *Policy Statement*, which stated categorically that "literacy . . . incorporates numeracy":

Literacy involves the integration of listening, speaking, reading, writing and critical thinking. It incorporates numeracy. It includes the cultural and social knowledge which enables a speaker, writer or reader to recognise and use language appropriate to different social situations. (www.acal.edu.au)

This influential definition was adopted for International Literacy Year and was reflected in the companion volume to the ALLP. Clearly, though, the exact definition of numeracy is open to interpretation in such a statement. This move to "incorporate" later created some tensions for adult numeracy educators who were advocating a greater prominence for numeracy education and became concerned about a loss of visibility for numeracy in policy and practice.

However, the Australian Council for Adult Literacy's strategic move of incorporating numeracy in its definition of literacy gave numeracy an acknowledged place in subsequent policy and program development and widened the opportunity for numeracy teachers and researchers to access resources for numeracy programs, teaching materials, research, and professional development. During the 1990s, numeracy progressively appears alongside literacy in the naming of government programs, professional activities, and publications, thus legitimizing it as a distinct but complementary field.

Although the incorporation of numeracy still left numeracy officially undefined, by the mid-1990s, numeracy teachers in Australia had developed

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a common working language. They had debated the concept of numeracy and how to teach and assess it, and they had questions to ask about its relationship to literacy, mathematics, and vocational education. One definition argued that being numerate means "being able to situate, interpret, critique, use, and perhaps even create mathematics in context, taking into account all the mathematical as well as social and human complexities which come with that process" (Yasukawa, Johnston, & Yates, 1995, p. 2). Although several definitions did appear in relation to various initiatives, in 2004 the literacy definition used in the tender documents for federal government programs for job seekers was the same as the 1989 Australian Council for Adult Literacy definition, although with the important elaboration of numeracy as "the ability to use mathematics effectively to meet the general demands of life at home, in paid work and for participation in community and civic life" (Department of Education, Science and Training [DEST], 2004, p. 4).

Recognizing the place of adult literacy and numeracy in economic reform, providing new funding, and realigning previously unrelated initiatives within the framework of the ALLP had several important consequences. Adult literacy experienced rapid growth across a variety of types of provision, such as literacy and numeracy assistance for the unemployed, and literacy and numeracy support for participants in vocational education and training, on and off the worksite. Although still a small commitment given the extent of need, federal funding for adult literacy and numeracy provision approximately tripled, to over \$30 million (Australian).⁶⁴ State governments, keen to win tenders for such provision and build their market share, threw themselves into the task of developing competency-based curricula and getting them onto a national register of approved, accredited literacy and numeracy courses to be eligible for Commonwealth funding. As this was an area of education unfamiliar to many bureaucrats, the increased funding available to the states and territories provided a "once-in-a-lifetime" opportunity (Gilding, 1996, p. 1) for a network of insider literacy and numeracy advocates to gain influential and strategic positions within government agencies and advisory bodies.

⁶⁴Note comments earlier about the difficulty of capturing exact expenditures given the variety of programs and various ways of categorizing population groups.

A number of these people became members of the National Adult Literacy Taskforce, created by the Ministerial Council of State and Territory Ministers of Education and Training to oversee implementation of the ALLP. In 1993, this Taskforce achieved agreement from Commonwealth, state, and territory governments to a National Collaborative Adult English Language and Literacy Strategy (Australian Education Council and Ministers of Vocational Education, Employment and Training, 1993). The strategy was strong and ambitious, providing a blueprint for the Commonwealth, state, and territory governments to work with the industry, community, and research sectors to develop and deliver an integrated national language and literacy program. The National Strategy (as we refer to it here) proposed several areas for action that defined the basic frame of reference for implementation. These included (a) setting nationally consistent directions for policy and program management, (b) diversifying and expanding provision, (c) ensuring quality outcomes and equitable access, and (d) demonstrating value for money. The national focus on these priority areas resulted in the creation of many of the initiatives that continue to shape adult literacy and numeracy in Australia today, three of which we now describe: the first, a framework of learner competence; the second, a system for reporting; and the third, a framework for professional development.

The National Framework of Adult English Language, Literacy and Numeracy Competence. The National Framework of Adult English Language, Literacy and Numeracy Competence (the National Curriculum Framework; Australian Committee for Training and Curriculum, 1993) aimed to provide an educationally defensible approach to describing adult English language, literacy, and numeracy competence in ways that could guide curriculum development and reporting across a range of learning contexts (Luke, 1995). The National Curriculum Framework makes available a common point of reference for the identification and development of language, literacy, and numeracy competence in differing contexts of use, such as in public life, at work, or in the home. Recognizing that states or territories have different ABE curricula, it also provides a means of describing, with common terminology, student progress in ways that can be applied to these various curricula. The seeds of the approach lay in an ABE accreditation framework under development in Victoria at the time (State Training Board, Victoria, 1992), although the National Curriculum Framework project was also, in part, an attempt to provide theories of language, culture, and learning to inform and deepen the rather technical and monodimensional competency-based approaches embraced in vocational training.

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Rather than a skills-based approach, the authors of National Curriculum Framework advanced notions of language, literacy, and numeracy as both constructing and arising from sociocultural contexts of use. So, because language, literacy, and numeracy gain meaning through widely different and ever-changing contexts of use, they argued that it should be possible for curriculum models to build profiles of competence (and curricula and assessment) related to context; that is, "to move educators' and employers' attention to workers' cultural and gender resources, and to prescriptively shift their attention towards broader repertoires of effective social activity [that defied single-digit assessment of individuals], as opposed to narrow definitions of psychological and behavioural skill. . . . By definition this richer model demanded of educators more complex, multicultural and multilingual descriptive assessment rather than 'single-shot' testing" (Luke, 1995, pp. 91–92).

The multidimensional hexagonal framework design of the National Curriculum Framework (shown in Fig. 8.1) thus departs from traditional notions of literacy represented either as a unitary construct or as a linear developmental progression. It conveys the more complex notion of language, literacy, and numeracy as socially and culturally context-dependent practices. The construct denotes, first, a view of competence that connects performance with social goals in particular contexts, described as *aspects* of communication. These six aspects are (a) performing tasks (procedural), (b) using technology (technical), (c) expressing identity (personal), (d) interacting in groups (cooperative), (e) interacting in organizations (systems), and (f) interacting with the wider community (public).

The second dimension reflects the reality that at any one time a person's literacy and numeracy performance may require one or a combination of these aspects in one of three modes. These ways are described as *stages* of learning, but as well as reflecting stages of learning, any one mode could be adopted at any level of literacy and numeracy competence. The stages are performing with assistance, performing independently, or performing collaboratively. These various modes are also likely to be context specific. For example, a person might work for the most part independently when using technology, but might have to refer to a manual or ask for assistance. At other times, a person may work collaboratively to produce a report. The third dimension of the National Curriculum Framework is that, within each aspect, allowance is made for *phases* of learning; that is, through four "moments of pedagogy": (a) reflecting on experience, (b) engaging in activities, (c) broadening applications, and (d) critically reviewing (see Fig. 8.2).

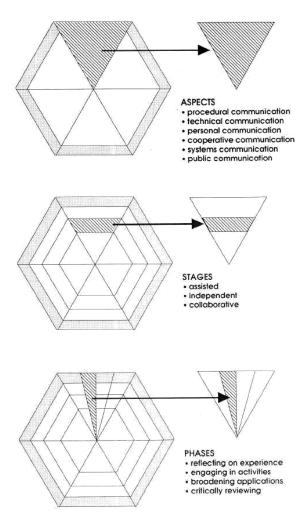
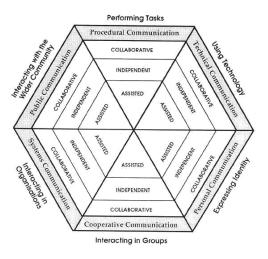


FIG. 8.1. The National Framework of Adult English Language, Literacy and Numeracy Competence. Note: Reproduced with permission from The National Framework of Adult English Language, Literacy and Numeracy Competence (Australian Committee for Training and Curriculum, 1993, p. 16).

This complex "multi-leveled and multifaceted model of competence" (Luke, 1995, p. 92) project was not without its critics. Although well received by many literacy and numeracy experts, others thought it conceptually confusing and some practitioners did not find it easily accessible. Its impact on curriculum development has varied across states and territories. Although not often explicitly referred to these days, its ongoing

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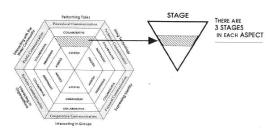


FIG. 8.2. The relationships between the aspects, stages, and phases of the National Framework of Adult English Language, Literacy and Numeracy Competence. Note. Reproduced with permission from The National Framework of Adult English Language, Literacy and Numeracy Competence (Australian Committee for Training and Curriculum, 2003, p. 18).

influence is still evident in some recently designed or reaccredited⁶⁵ statebased curriculum documents. Despite this mixed impact, we consider it to be an important legacy of this period. It provided a strong counter resource for adult literacy and numeracy practitioners during a time of

⁶⁵Accreditation is the formal recognition of a course by the state or territory course accrediting body in accordance with the Standards for State and Territory Registering Course Accrediting Bodies (Australian National Training Authority, 2001). Courses are accredited for a set period of time. Once accredited, they are placed on a national register and available for use throughout Australia.

intense production of narrow, decontextualized lists of competencies as standards for industry training. Most significant, perhaps, is its influence on the National Reporting System (NRS), which currently guides how the Commonwealth government manages the provision of Commonwealth-funded adult literacy programs.

Putting the Frameworks Into Action: Numeracy Curriculum and Reporting

ABE courses in the 1980s began to include mathematics as well as literacy. By the early 1990s, after much debate in the field, programs and practitioners began to use the concept of numeracy, rather than the traditional concept of math. Curricula derived from the National Curriculum Framework, such as the Certificates of General Education for Adults (Adult, Community, and Further Education Board, 1996; Butcher et al., 2002), clearly differentiate numeracy from school mathematics, stressing the application aspects of numeracy, which keep realistic, whole-task situations uppermost in the specified learning outcomes, indicators, and examples of assessment tasks. The approach works to counteract the limited vision of numeracy as number calculations, broadening it to encompass a wide range of practical functions, from measurement and design to data analysis, and from money manipulation to map navigation. Such curriculum documents, therefore, incorporate most strands of formal mathematics—space and shape, measurement, chance and data, and not just number—within a contextualized approach. Evaluative research into the "Mathematics and Numeracy" section of the Certificate of General Education for Adults (Wallace-Clancy, Smith, Halliday, & Goddard, 1998) found that most teachers had expanded the scope of their numeracy teaching because of this inclusion. The research also found that the numeracy component was well received by new and experienced teachers alike, possibly because continuous input and feedback from experienced adult numeracy teachers during the developmental process ensured that it was based on existing good practice.

To promote more holistic and realistic learning opportunities, these curricula offered an integrated approach to teaching adult numeracy and literacy that has proven to be an enormous strength when undertaken by teachers with knowledge and confidence in both areas of teaching, or by teachers from both disciplines working as a team. Note that without these conditions, and without supportive professional development for new teachers, numeracy is in grave danger of being invisible in an integrative approach.

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The strength of curriculum documents such as the Certificate of General Education for Adults for supporting numeracy instruction is apparent. They allow sufficient flexibility for teachers to design their own learner-centered programs within the broad parameters of the curriculum frameworks. They also keep assessment in the hands of teachers, acknowledging the importance of ongoing observation and formative assessment in both the learning and assessment process. They support built-in systems of moderation and verification, ⁶⁶ rather than centrally set tasks or tests. The assessment strategies include such things as teacher observations, performance of practical tasks, oral explanations, portfolios of tasks and investigations, self-assessments, and student journals. These are far removed from the common assessment strategies of short-answer tests and rote-learned processes applied to sets of abstract exercises too often used in more traditional mathematics teaching contexts.

The National Reporting System. In 1994, the Commonwealth government commissioned a project to develop a mechanism for reporting learner outcomes of Commonwealth-funded language, literacy, and numeracy programs. The resulting NRS (Coates, Fitzpatrick, McKenna, & Makin, 1995) is a reporting, rather than a curriculum, framework. It is mainly used for reporting entry and exit standards for learners supported through Commonwealth government funding schemes. Unlike its U.S. counterpart, and despite its name, the NRS is not an overall program reporting system in that it only refers to English language, literacy, and numeracy competence rather than to a wider range of learner outcomes or provider impact, such as getting a job or provider performance. The Australian NRS provides indicators of competence at five levels covering reading, writing, oral communication (listening and speaking), numeracy, and learning strategies.

The theoretical underpinnings for development through the five levels take into account text and task complexity of language and literacy activities; the interplay between identifying and doing mathematical activities and the language and critical reflections associated with numeracy tasks and texts; student familiarity with contexts and variables

⁶⁶Moderation refers to meetings of teachers in which they compare samples of their locally designed and customized assessment tasks and resulting student performance to ensure consistency of interpretation of the framework descriptors. Verification is similar to moderation except that samples of tasks and student work are sent to an external verifier for judgment and written feedback.

such as the participants involved in the numeracy activity, the mode of communication, and the learner's background knowledge; and information on the maximum types of support an individual might require to perform an activity.

The NRS construct incorporates the six aspects of the National Curriculum Framework in that these provide a set of domains for contextualizing language, literacy, and numeracy performance—a horizontal axis. Other elements of the National Curriculum Framework are evident in the indicative performance conditions, features, and learning strategies described at each level of the NRS, such as the complexity of the text and task with which people engage; the nature of their role in the activity; and the conditions, including degree of support, under which the task is carried out. In summary, a report of a person's competence is meant to derive from the interplay between the chosen activity, the features of the text or task, and the context and level of support under which the activity is carried out.

In most cases the NRS is used alongside the state or territory curriculum frameworks that contain more detail to assist teachers in planning their teaching content, practice, and assessment methods. To assist the teachers, most states have published an equivalence "mapping" between their own frameworks and the NRS.

Using the NRS

At each of the five NRS levels are four indicators: one dealing with locating information, one about selecting strategies and applying strategies, another regarding the evaluation of results in context, and finally, an indicator relating to communication of mathematical processes using appropriate language and symbols. These change in their level of complexity and familiarity as they progress from level 1 to 5.

For example, numeracy indicators at the second of the five levels are:

- 2.9 Locates relevant mathematical information in a familiar real-life activity or text.
- 2.10 Selects and uses straightforward mathematical actions in familiar and predictable contexts.
- 2.11 Uses estimation and prior experience to examine purpose and check reasonableness of the process and outcomes of a mathematical activity.
- 2.12 Uses oral and written informal and formal language and representation including some symbols and diagrams to communicate mathematically.

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The indicators place emphasis on a logical, mathematical approach to real-world tasks involving mathematical skills and reflection on the outcomes in real-world terms. All of these are seen as important features of good numeracy teaching and learning, as opposed to traditional mathematics teaching practices.

The indicators are supported by descriptors of conditions of performance, which specify degrees of support, available models, and familiarity of tasks expected at each level. These are further elaborated by a page of "Numeracy Features and Performance Strategies" subdivided into strategies for meaning making, problem solving, mathematical knowledge, and representation. Some examples include:

- Relies on personal experience and prior knowledge within context to make predictions and check reasonableness (a meaning-making strategy).
- Uses a blend of personal "in-the-head" methods and pen-and-paper calculator procedures (a problem-solving strategy).
- Begins to include symbols and diagrams in producing written records of tasks (mathematical representation).

The mathematical knowledge section indicates the scope of numeracy expected, with items such as:

- Interprets, compares, and calculates with natural numbers and money in personal and some unfamiliar contexts.
- Uses coordinates in a variety of contexts (e.g., street directories, games).

Further assistance is provided by a selection of sample assessment tasks, for instance:

- Uses a street directory to find a route to a familiar place (e.g., locates own street and shows route to local shops).
- Calculates with time (e.g., how long until tea break).
- Uses timetable and fare information to compare different ways of making the same journey (e.g., cost, time taken, convenience in using different forms of transport for a familiar journey; Coates et al., 1995, n.p.).

The Certificates of General Education for Adults (Adult, Community and Further Education Board, 1996; State of Victoria, 2002), which several Australian states and Corrections Education Service use, were developed after the NRS. The writers, having learned from the NRS development

process and the strengths and weaknesses of the resulting descriptors, created a document that described the expected numeracy skills and knowledge in sufficient detail for teachers while retaining the flexibility to cater to local and individual needs and interests. Rather than attempting to describe all numeracy at a given level with one compact set of indicators, the document describes seven or eight separate outcomes at each of four levels. For example, one second-level outcome is:

Numeracy for Practical Purposes—Measuring

Can use straightforward measurement and the metric system to estimate and measure for the purpose of interpreting, making or purchasing materials in familiar practical situations.

This is then elaborated by a list of assessment criteria including:

- Interpret and use the concept of length, mass, volume, and temperature.
- Make initial estimates of measurements.
- Choose appropriate measuring instruments and use them correctly to measure.
- Choose and perform arithmetic operation where appropriate.
- Interpret the measurement in terms of the purpose of the practical situation (Butcher et al., 2002, p. 250).

Currently the two major Commonwealth-funded programs use the NRS to report progress: (a) the Workplace English Language and Literacy Program, and (b) the Language, Literacy and Numeracy Program (LLNP) for unemployed job seekers. A recent analysis of the use of the NRS reveals that it is not widely used as a reporting tool other than for these two Commonwealth-funded programs (Perkins, 2005). State and territory providers tend to report on student progress in relation to particular curriculum modules, as this is how they are funded. The Perkins report confirms, however, that when used well, the NRS framework does provide "the scaffolding upon which many things can be built" (Perkins, 2005, p. 9) and that, because the construct can be used for a range of purposes, its impact is wider than might initially be thought. For example, it is used for identifying and naming literacy and numeracy competencies in industry standards and identifying how to integrate literacy and numeracy into the vocational education and training system.⁶⁷

⁶⁷For examples, see www.nrs.dest.gov.au.

Perkins (2005) proposed that a simpler version may increase use and thus inform the vocational education and training system and its literacy and numeracy providers more effectively than at present. A major national project is currently underway following Perkins's recommendation, as captured in the title of her report about the NRS: *Reframe, Rename and Revitalize* (Perkins, 2005). Its effect on shaping adult literacy and numeracy provision is likely to grow as governments increase pressure for evidence of the impact of programs.

The National Framework for Professional Development of Adult **Literacy and Basic Education Personnel.** In February 1992, the TAFE National Staff Development Committee (a body representing all states and territories as well as the Commonwealth government) published the National Framework for Professional Development of Adult Literacy and Basic Education Personnel (National PD Framework; TAFE National Staff Development Committee, 1992), following a funding commitment in the ALLP for professional development activity. This was based on a national agreement, reflected in the National Strategy, to clarify the skills necessary to be a competent adult literacy or numeracy teacher (later published in Scheeres, Gonczi, Hager, & Morley-Warner, 1993) and to develop a more systematic, nationally coordinated, and improved approach to teacher professional development, recruitment, and induction. The National PD Framework targeted particular skill areas, such as working with Indiginous students, numeracy, managing volunteers, competency-based training and assessment approaches, and using information technology. Adult Numeracy Teaching, referred to in the next box, and its sister course, Adult Literacy Teaching, were two of the many influential professional development products associated with this National PD Framework. States and territories used these resources heavily over the ensuing 5 or 6 years. Unfortunately, the current emphasis on cost reduction and the subsequent increase in the employment of staff on short-term or casual contracts, who are considered to be responsible for their own professional development, has significantly reduced the subsidized provision of professional development support (McKenna, 2002; McKenna & Fitzpatrick, 2004a).

The National PD Framework was intended to provide a nationally coordinated mechanism that would embed national policy priorities in the work of adult literacy and numeracy educators. According to the National PD Framework, competency-based training, for example, was to be the major vehicle for enabling a more open market for vocational education and training provision, and for providing more flexible and "transportable"

approaches to assessment. If adult literacy and numeracy were to be effectively integrated or embedded in vocational units of competence, as strongly argued in a major report published by the National Board for Employment, Education and Training in 1993, they would need to be constructed in the competency-based language of industry standards.

Constructing these professional development products required the assistance of experts, and although the projects to develop the training products were put to open tender, in reality there were few outside the existing fields of adult literacy and numeracy who had the appropriate expertise to apply for them. Winning these tenders and the substantial funding that accompanied them was one of the great opportunities for influence available during the 1990s, as illustrated later in relation to numeracy.

Building Up to a Professional Development Strategy for Numeracy

The publication resulting from the Teaching Mathematics to Women Project, Mathematics: A New Beginning—A Resource Book for Teachers of Adults Returning to Study (Marr & Helme, 1987), reflected numeracy's history of collective processes of development and innovation. The publication encouraged gender-inclusive strategies to reintroduce adults to learning, and it included many ideas drawn from the practical constructivist methodologies espoused by school mathematics reformers of the time, both in Australia and overseas (e.g., http://equals.lhs.berkeley.edu/). Small-group activities and problem solving were adapted to suit adult environments, and mathematical problems were framed in adult contexts. Aware that many teachers of numeracy would not necessarily have strong mathematics backgrounds, the authors included advice about mathematics content, as well as about teaching strategies. Experiential workshops engaged participating teachers in the group work and hands-on activities described in the resources and proved to be highly popular with adult numeracy and literacy teachers eager for new ideas. The Teaching Mathematics to Women team later documented their professional development principles, processes, and activities in a kit, Breaking the Maths Barrier: A Kit for Building Staff Development Skills in Adult Numeracy, thus disseminating their approach across Australia's dispersed adult teaching population and enabling others to conduct the professional development themselves (Marr & Helme, 1991).

Johnston and Tout (1995) carried these principles forward into an 80-hour teacher-education program, Adult Numeracy Teaching, that grew from

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consultation with educators and an investigation of existing good practice. As with the earlier professional development resources, the Adult Numeracy Teaching project team designed the course for a range of teachers, from those with mathematics backgrounds but no adult-teaching skills, to those with literacy teaching backgrounds and little mathematics. Adult Numeracy Teaching's goal was to help participating teachers move from an understanding of numeracy as doing basic mathematics, to being comfortable with mathematics, and further, to an understanding of numeracy as a bridge connecting mathematics to the real world. In the words of the program, "Numeracy is not less than maths but more" (Johnston & Tout, 1995, p. 378). The Adult Numeracy Teaching program was piloted in two states in 1994, and its publication, as part of the National PD Framework, ensured its wide dissemination.

Under the National PD Framework, opportunities for professional development for teachers expanded, resulting in a significant professionalization of the field. At the same time, there was an explosion of research and development activity, much of it policy-related research linked to the implementation strategy of the ALLP. Importantly, the Commonwealth DEET established the Adult Literacy Research Network during this period, initially with a strong focus on teacher development through action research⁶⁸ (Shore, 2004). By the mid-1990s, the adult literacy and numeracy field had established a "culture of training." Teachers expected access to professional development and teacher-education programs, and they expected to receive recognition for their participation in them (Wickert, Scheeres, & Ward, 1994). By the mid-2000s, for a number of reasons, the opportunities for professional development and, thus, teacher expectations, diminished significantly at all levels of training, from university courses to short workshops (McKenna & Fitzpatrick, 2004a). Explanations for this decline are strongly associated with changes to program funding introduced by the Commonwealth government for their literacy- and numeracy-related programs, which we explore in more detail in the next section. In brief, the changes included:

⁶⁸The Adult Literacy Research Network was later renamed the Adult Literacy and Numeracy Australian Research Consortium and its research program gradually became more closely tied to national vocational training agendas. Funding ended in 2002, but its publications are available at www.staff.vu.edu.au/alnarc/.

- Changing patterns of employment for teachers, with more shortterm and casual appointments associated with less support from employers for professional development.
- A decline in career opportunities, or at least predictable work, for literacy and numeracy teachers, which has reduced the incentive for teachers to pursue further study.
- A reduction in entry-level qualifications for workers in vocational education and training.
- A profit, rather than a service, motive for some of the new providers entering the training market.

These developments confirm one commentator's prediction in 1997 that a "separate notion of adult literacy and numeracy provision *with infrastructure support* can no longer be assured" (McKenna, 1997, p. 21).

Mixed Reponses to the Developments of the Middle Era. Not everyone in the field supported the developments of this era. Some (as reported by Lo Bianco, 1997; Sanguinetti, 1999) saw the National Strategy and its implementation mechanisms as a betrayal of the origins and core values of adult literacy and numeracy in Australia, but its supporters were strongly committed to a more strategic and managed approach, particularly managers and bureaucrats in the states and territories who struggled daily with the competing pressures of federal and state priorities and directions as they tried to manage change (Gilding, 1995, 1996; Persson, 1995). These people were convinced that the future for adult literacy and numeracy and the ongoing recognition of literacy and numeracy as a strategic priority for the development of the strongly emerging national vocational education and training system required a consistently articulated position across systems, providers, and industry. This was hard work and one of these activist bureaucrats, Gilding (1995) remarked: "Adult literacy has now been in constant national focus since 1989. It has been measured, criticised, strategised and publicised constantly. It has been much more self-conscious and detailed about quality than required. . . . It has posed more intellectual challenges to itself than any other field" (Gilding, 1995, p. 83).

The nature of politics often means the dissolution of the initiatives of previous administrations as other policy priorities take over. Such was the fate, following a change of federal government in 1996, of the National Adult Literacy Taskforce and the ongoing implementation activities of the ALLP. However, through its brief existence, the Taskforce had:

- Achieved a national coordinated policy position.
- Garnered attention to literacy and numeracy in state and Commonwealth funding agreements, in industry training plans, and in industry competencies.
- Established numeracy as an entity in its own right.
- Supported a well-funded, albeit short-lived, national professional development strategy that provided a sound basis for a sustained program of development.
- Instituted measures to tackle issues of quality control and the impact of deregulation.
- Created new providers and new relationships between existing providers (Castleton & McDonald, 2002; Gilding, 1996; McKenna & Fitzpatrick, 2004a).

The mid-1990s was probably the high point to date for adult literacy and numeracy in Australia, with the big boost in funding and greater confidence as a result of the new recognition—in mainstream policy objectives and strong professional networks—of the importance of adult literacy and numeracy (Black, 1990; Gilding, 1995; Kell, 1998). In particular, the National Collaborative Adult English Language and Literacy Strategy set the scene for the development of the frameworks that helped to build mechanisms for consolidating the place of adult literacy and numeracy in training and welfare policies. Our vignettes about numeracy's development reflect not only the significance of these enabling mechanisms as vehicles for sustainable action, but also the confidence and the energy such actions can create for change.

1996 to 2005: Intensification, Integration, and Fragmentation—Living With Tensions and Contradictions

Welfare to Work. After 13 years of a Labor government, the federal election in 1996 delivered a conservative government under the leadership of John Howard. The changes to training and welfare policy and programs initiated under the previous Labor government intensified, with a greater focus on deregulation, competition, and user-pays, such that Australia is now said to be a world model in its restructuring of welfare and employment services, including the creation of a "deep-seated competition culture" (OECD, 2005, p. 2). Successive welfare-to-work strategies have strengthened the links

between literacy and numeracy learning and welfare payments, stated baldly in *The Australian* daily national newspaper as "learn to read or lose the dole" (cited in Australian Broadcasting Corporation, 1999). Deregulation of the training market continues to open up the provision of adult literacy and numeracy programs to competitive tendering, with cost an important factor in securing a contract. This has enabled both private and welfare (or not-forprofit) organizations not previously associated with adult literacy and numeracy provision to be successful in tendering for programs.⁶⁹ As with all organizations, public and private, the quality of these new providers is mixed; some bring new energy and ideas into the field whereas others offer little support for staff, some of whom have minimal adult literacy and numeracy qualifications and experience (DEST, 2005a). A recent unpublished internal review of the literacy and numeracy program for job seekers has confirmed earlier findings (Rahmani, Crosier, & Pollack, 2002) that the Commonwealth LLNP for job seekers is not delivering expected literacy and numeracy outcomes. Starting in 2006, new quality guidelines for tenderers will substantially strengthen requirements regarding appropriate course content and the use of adequately trained staff (DEST, 2005b), although additional resources to support this are unlikely to be made available.

The present LLNP provides literacy and numeracy training for eligible job seekers whose skills are below the level considered necessary to secure sustainable employment or to pursue further education and training and who are assessed as "having the capacity to benefit" from a literacy and numeracy program (DEST, 2005b, p. 7). The Commonwealth government is using the NRS to tie funding to performance targets, albeit in a simplified form. A DEST evaluation of the LLNP (Rahmani et al., 2002) suggests that the requirement for job seekers to leave the program when they find employment undermines the potential for learning benefit, as the majority exit before completing 200 out of a current maximum eligibility of 400 hours. Reported low success rates may also be due to job seekers being placed on long courses when shorter intensive tuition may be more appropriate. Pressure on providers to deliver better outcomes for LLNP participants is likely to increase following a further (unpublished) DEST evaluation and a comprehensive internal national review in 2004–2005, as are the number of eligible hours (DEST, 2005b).

⁶⁹Further changes embodied in both welfare reform and industrial relations legislation going through Parliament at the time of this writing in late 2005 are expected to intensify pressure on providers to reduce costs.

Funding for adult literacy and numeracy programs is increasingly tightly managed and incorporated within other, broader welfare changes. Provision is more mediated through employment brokers who are now major purchasers of adult literacy services. Funding is increasingly performance based, with limited resources apportioned to successful contractors for staff training and development of teaching resources.

Training Reform. Since the Hawke Labor government initiated the National Training Reform Agenda in 1987 (Dawkins & Holding, 1987), three national vocational education and training strategies have set the directions: Towards a Skilled Australia (1994–1998), A Bridge to the Future (1998–2003), and Shaping Our Future (2004–2010). Each one has confirmed the importance of adult literacy and numeracy skill development within mainstream vocational education and training and built this into the vehicles for change.

Industry-specific "training packages" and progressive refinements of quality standards for training organizations are the vehicles for the reform of vocational education and training. Training packages are not a program of work, a course, or a folder of resources, but a package of units of competence that can be tailored to meet the specific needs of the employer or the trainee. Training packages are made up of three components: (a) specific competency standards, (b) industry qualifications (certificates and diplomas pertaining to a specific industry), and (c) assessment guidelines that are formally agreed on at a national level for each industry. Each package thus provides an industry with nationally agreed-on benchmarks for training and assessment. Registered training organizations⁷⁰ use these packages for designing their training and assessment strategies.

Industry-related literacy and numeracy competencies are meant to be built into the competency standards at each level of training, referred to as the "built-in, not bolted on," or integrated, approach (Wignall, n.d.), although there are mixed anecdotal reports that question how consistently this is being applied. Registered training organizations must meet a number of specified quality standards to deliver this nationally accredited

⁷⁰Registered training organizations are providers of training who are registered by state and territory training authorities to deliver nationally recognized training; that is, training that has been accredited to meet the needs of a particular industry, and training that results in a qualification that is part of the Australian Qualifications Framework. A registered training organization can be a government department or a private enterprise, and training does not have to be its core business.

vocational education and training. Recent revisions to the Australian Quality Training Framework,⁷¹ which was established in 2002, clarify the standard that relates to the capacity of a registered training organization to deliver literacy and numeracy assessment and assistance. Workplace assessors and trainers must complete an accredited Certificate in Assessment and Workplace Training (National Training Information Service, 2005) that, starting in 2005, offers more assistance to them to develop this capacity.

Some decry the influence of industry on literacy and numeracy provision, expressing concern that integration threatens the visibility of adult literacy and numeracy as a distinct field, and that it increases the risk of literacy and numeracy needs not being adequately addressed in vocational education and training (VET; e.g., Sanguinetti & Hartley, 2000). Some numeracy educators have voiced similar concerns about the integration of numeracy with literacy in general education courses (McGuirk & Johnston, 1995). Anecdotal evidence and recent research suggest that there is great variability in expertise and confidence about how to embed literacy and numeracy learning alongside vocational skill development (Fitzpatrick & McKenna, 2005; Marr & Morgan, in press). When literacy, language, and numeracy become integrated in VET competencies and are delivered by poorly trained trainers, the threat of invisibility is very real. Despite the availability of a number of literacy and numeracy teaching resources in the last decade designed to strengthen the capacity of providers to integrate literacy and numeracy skill development with vocational and workplace training, there remains a need for focused, thorough, face-to-face professional development.

Despite these reservations, through strongly advocating the "built-in, not bolted on," or integrated approach since the early 1990s, the adult literacy and numeracy field has taken advantage of the possibilities brought about by industry and training reform in Australia. Several successful examples exist of creative and successful responses to such possibilities (Sanguinetti & Hartley, 2000; Wickert & McGuirk, 2005). For instance, there are examples of literacy workers who specialize in the context and culture of a particular industry and build effective partnerships with that industry, thus enabling the industry trainers to embed appropriate literacy and numeracy skills development throughout the organization and thus into the community.

⁷¹The Australian Quality Training Framework sets out the conditions that an organization must meet to be accepted as a registered training organization. See www.dest.gov.au/sectors/training_skills/policy_issues_reviews/key_issues/nts/aqtf/standards_2005.htm

Inevitably, the intensification of welfare and vocational education and training changes under the Howard government has had a major impact on literacy and numeracy practitioners. In some states, long-standing government providers with certified staff award structures and industrial agreements could not compete financially with small private providers that were often formed in response to funding opportunities. Government providers quickly recognized the financial risks inherent in these developments and moved to manage this risk by reducing the number of programs, offering voluntary early retirement to some teachers, and moving toward short-term teaching contracts for others. In many places, full-time practitioners have been replaced by less experienced contract staff required to conduct short-term courses at low cost with very challenging clients, such as disaffected young people who are required to attend literacy and numeracy classes in return for welfare benefits. Ironically, this period also saw the closure of the professional support agencies referred to earlier.

Many teachers left the field. Some became private providers, paradoxically, to retain some control over their pedagogy, and have now become important leaders in their area of specialization. However, others have taken up the challenges of new ways of working and have become corporate or industry-based educators, often driving innovation in relation to adult literacy and numeracy integration as they do so. Still others are taking their expertise to community and welfare organizations working with specific disadvantaged populations (Wickert & McGuirk, 2005).

In these ways, ABE professionals in Australia have demonstrated their ability and willingness to be flexible. They fill new roles as case managers, industry trainers, consultants, and brokers; they have caseloads and clients. They work at multiple sites and actively continue to develop strategies for positioning adult literacy and numeracy in VET and welfare policy and practice.

CONCLUSION

The adult literacy field in Australia developed principled and informed initiatives and responses to legitimate demands for accountability and quality. These initiatives continue to influence and shape this field and its practices in complex ways, affected in part by how the particular histories and commitments of early literacy and numeracy advocates inflect the work of everyday numeracy teaching practice. Without this intensity of engagement, peppered with the pragmatism of experienced advocacy, it is possible that, following the change of federal government in 1996,

Australia's groundbreaking approaches to adult literacy and numeracy in vocational and workplace training and to provision for job seekers may have seriously faltered.

In relation to numeracy in particular, teachers, professional educators, and researchers in Australia have worked hard to keep numeracy on the agenda. As with literacy professionals, they have worked both to develop practical theoretical conceptualizations of numeracy and to construct new approaches to adult numeracy teaching that draw on a wide range of theories and practices (Kelly, Johnston, & Yasukawa, 2003). These two perspectives to numeracy, one articulating theory and the other supporting practice, have informed each other, resulting in a strong and theoretically based teaching practice. As we have shown in this chapter, in the examples of the development of the field of adult numeracy in Australia, it is these two perspectives—the understanding of what numeracy is, and the careful, imaginative, and grounded development of teaching practice and resources—that are the foundation of Australia's achievements in adult numeracy (Coben & Chanda, 2000; Johnston, 2002).

Positioning of literacy and numeracy programs within the mainstream vocational education sector has brought with it ever-increasing pressures related to time, money, standard quality-assurance systems, and accountability, sometimes with little awareness by regulators of the underpinning philosophies of the field and the nature of its students. Although the previous Labor government set these directions (Pratt, 1994), much stricter control of entitlement to provision and registration of providers has reengineered those aspects of adult literacy and numeracy that are funded directly by the Commonwealth government. There is an ongoing sense of professional fragmentation following the impact of these policy moves. Consequently, not all people who work in the field share the claims of strategic success, despite sustained increases in funding. Some agree with Lo Bianco, author of the 1987 National Policy on Languages who wrote in 1997, 6 years after the adoption of the ALLP, that provision:

although greater, is fragmented and insecure, the workforce has become increasingly casualised,⁷² professional networks have been damaged by competitive tendering processes, infrastructure support has dematerialised, working conditions have worsened, curriculum has been "colonised" by competency-based approaches and in the eyes of many, adult literacy has come to be "sublimated to a centralised, controlling, assessing, monitoring, information-demanding mechanism." (Lo Bianco, 1997, p. 6)

⁷²Casualization refers to a process whereby previously fixed-term or permanent jobs become short-term and dependent on the employer winning government contracts.

There is some legitimacy and accuracy to these concerns, yet despite this, the quantity and variety of provision has grown, Commonwealth funding has been maintained, and literacy and numeracy are built into mainstream welfare and training reform. In relation to quality, however, there are renewed fears that legislation currently going through Parliament will intensify the risks to quality provision, pay, working conditions, adequate support, and defensible notions of literacy and numeracy.

In this chapter, we have demonstrated some of the most important ways in which Australian adult literacy and numeracy have weathered the move from adult literacy as a right to basic skills as an economic imperative to the current stage in which both Commonwealth and state or territory governments are beginning to talk again about adult literacy and numeracy in terms of social capital and community capacity building, albeit within a more closely bureaucratically managed funding environment (Balatti & Falk, 2002; Wickert & McGuirk, 2005). This may be an opportunity for a revitalization of the traditional concerns of many literacy and numeracy educators, as indicated next. The reemergence of a policy interest in notions of community provides some new possibilities for adult literacy and numeracy policy and practice, and Australia's involvement in the international Adult Literacy and Lifeskills survey in 2006 will provide an important opportunity for influence at all levels of government.

Part of an International Community

In July 2005, Australian numeracy practitioners and researchers hosted and organized a conference that they had been looking toward for many years, the first-ever national conference on adult numeracy and adults learning mathematics, called "Connecting Voices: Practitioners, Researchers and Learners in Adult Mathematics and Numeracy." It was, in addition, an international gathering—more than a quarter of the participants came from overseas—with substantial representation from every state and territory in Australia. Sessions focused on, for example, disputing narrow conceptions of "the basics," considering mathematical literacy as a civil right, addressing issues concerning Indiginous adults, exploring maths in current events, social justice issues, and bridging maths. The success of the conferencethe number, quality, and variety of the presentations; the national and international strategies that were proposed; and the excitement that was generated in a time of low funding and little professional support—sparked hope for a new generation of creative and energetic practitioners and researchers, building on the strengths of the past.

As in other countries (e.g., Bateson, 2003; Cowan, 2006) there is growing agreement in Australia on the need for a collaborative, multisectoral approach to adult literacy and numeracy as all levels of government face the policy conundrums of health, aging, adequate personal finances, information technology, and the social and economic exclusion of rural and remote communities (Australian Public Service Commission, 2004; Castleton, Sanguinetti, & Falk, 2001; Council of Australian Governments, 2003; DEST, 2005b). There are major challenges ahead if there is to be a real broadening of the scope for collaborative action across sectors. Recent independent advice to the Commonwealth (Innovation and Business Skills Australia, 2005; McDonald & Goodwin, 2005) is suggesting the term *essential skills* offers greater policy potential opportunities than the term *adult literacy and numeracy* and proposes a new national approach to planning for adult literacy and numeracy based on a coordinated strategic planning and implementation framework.

We have tried here to convey the volatility of the policy environment of adult literacy and numeracy in Australia. Maybe, as we have successfully argued for the incorporation of literacy and numeracy into so many aspects of postcompulsory education and training, we have contributed to its fragmentation, both as a field of practice and as a construct. On the other hand, perhaps this apparent fragmentation provides new opportunities for influence. The flexibility of adult literacy professionals and their experience in working across sectors enables them to bring a special kind of expertise to collaboration in provision as government agencies now struggle to find innovative and "joined up" approaches to policy issues as challenging as that of low levels of literacy and numeracy skill in the adult population.

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APPENDIX: ACRONYMS

- ABS Australian Bureau of Statistics
- ALLP Australian Language and Literacy Policy
- ANTA Australian National Training Authority
- COAG Council of Australian Governments. COAG comprises the Prime Minister and premiers of all Australian states and territories.
- DEET Department of Employment, Education and Training
- DEST Department of Education, Science and Training
- DIMEA Department of Immigration and Ethnic Affairs
- ESL English as a second language
- IALS International Adult Literacy Survey
- LLNP Language, Literacy and Numeracy Program. The LLNP is a federally funded program that provides basic skills training for eligible job seekers (up to age 64) whose skills are below the level considered necessary to secure sustainable employment or pursue further education and training.
- NRS National Reporting System. The NRS provides a uniform, national framework for reporting on the language, literacy, and numeracy outcomes of students. It is based on five levels of competence, each

signifying an increase in the complexity of literacy and numeracy involved, the broadening of contexts in which these skills are used, and the increasing independence with which a person tackles a range of tasks. The NRS identifies five distinct skill areas: reading, writing, oral communication, learning strategies, and numeracy.

OECD Organization for Economic Cooperation and Development

PD Professional development

TAFE Technical and further education. This phrase refers mainly to places of learning (TAFE colleges). It used to refer to the system of post-compulsory education and training. This is now known as the Vocational Education and Training System. This includes some, but not all, adult and community education as much of the funding in adult and community education is tied to vocational outcomes.