

DOCUMENT RESUME

ED 472 114

CE 084 113

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TITLE Multiliteracies and Life Transitions: Language, Literacy and Numeracy Issues in Aboriginal Health Worker Training--An Investigation.
INSTITUTION Adult Literacy and Numeracy Australian Research Consortium, Alice Springs. Northern Territory Centre.
PUB DATE 2002-00-00
NOTE 50p.; Project was hosted by the Bachelor Institute for Indigenous Tertiary Education (BIITE) and supported by the Centre for Appropriate Technology. Supported by the Australian Department of Education, Training and Youth Affairs.
PUB TYPE Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS Aboriginal Australians; Academic Standards; Adult Basic Education; Adult Educators; Adult Literacy; Allied Health Occupations Education; Competence; Cultural Differences; Curriculum Development; Delivery Systems; Educational Improvement; Educational Research; Employment Qualifications; English (Second Language); Foreign Countries; Health Occupations; *Health Personnel; Health Services; *Indigenous Populations; Instructional Materials; Integrated Curriculum; Interviews; Life Events; *Literacy Education; Material Development; Needs Assessment; *Numeracy; Performance Factors; Postsecondary Education; Questionnaires; Records (Forms); Self Actualization; Standard Setting; Teacher Attitudes; Teacher Competencies; Teacher Effectiveness; Teacher Workshops; *Trainers; Training Methods; Training Objectives
IDENTIFIERS *Australia; Life Transitions; Multiple Literacies

ABSTRACT

The issues of language, literacy, and numeracy (LL&N) in Aboriginal health worker (AHW) training in Australia were explored to determine how these issues interrelate, overlap, and influence the types of literacy practices required in indigenous contexts. Data were collected through two workshops and formal and informal discussions with a sample of nine AHW trainers from four organizations. The study established that the lack of LL&N specialists in the field of training AHW has diminished LL&N being embedded in the AHW competency standards and that the introduction of AHW competency standards has reduced community ownership of the health service. The following were among the nine recommendations emerging from the study: (1) include substantial input from English language and literacy professionals in any rewriting or reworking of the units of competency for AHWs; (2) conduct further research on national and international models of "good practice" in multilingual, multicultural, postcompulsory education and training delivery and their implications for AHW training; and (3) fund programs of professional development in English as a second language and cross-cultural awareness for all teachers and trainers working in indigenous contexts. (The bibliography lists 29 references. The following items are appended: interview questions; study consent form; and list of the units of competency in the AHW certificate program.) (MN)

Multiliteracies and Life Transitions

Language, literacy and numeracy issues in
Aboriginal Health Worker
Training — an investigation

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Adult Literacy and Numeracy
Australian Research Consortium
(ALNARC) Central Australia

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Aboriginal Health Worker
Training – an investigation

**Researcher
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ISBN: 1 876768 42 8

Published for ALNARC by Language Australia Ltd.
The National Languages and Literacy Institute of Australia
GPO Box 372F
Melbourne VIC 3001

All enquiries in relation to this publication should be addressed to:
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Acknowledgements

This Northern Territory project was funded by the Department of Education, Training and Youth Affairs through the Adult Literacy and Numeracy Australian Research Consortium (ALNARC). The project was hosted by Batchelor Institute of Indigenous Tertiary Education (BIITE) and supported by the Centre for Appropriate Technology.

The Project Advisory Committee wishes to thank Anne and Metta for their commitment to the project. We also wish to thank all the health and literacy professionals who generously contributed their time and ideas to this project: to Inge Kral and Kath Curry for their professional advice and editorial assistance and Dr Sue Shore and Carolyn Ovens for their support for the project.

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Introduction

The delivery of language, literacy and numeracy (LL&N) training in the central Australian region of the Northern Territory is predominantly about delivery in Indigenous contexts. A number of recent reports (Northern Territory Department of Education, 1999; Kral & Ward, 2000) highlight the complexities and inadequacies of current systems of delivery. Two recently announced strategies — the National Indigenous English Literacy and Numeracy Strategy (2001–2005) (NIELNS), and Partners in a Learning Culture Strategy 2000–2005, Australian National Training Authority (ANTA) — prioritise improving educational outcomes for Indigenous people, particularly in the areas of English literacy and numeracy, over the next quadrennium. This strategic focus on improving the educational outcomes (particularly LL&N) of Indigenous people heightens the need for local and relevant research to inform just how and where improvements in teaching practice and learning outcomes can be achieved.

The issues that shape the language, literacy and numeracy needs of workers and learners in the Northern Territory are complex and varied. They include:

- geographic distances and isolation, inadequate basic infrastructure (buildings, water, electricity) as well as inadequate program resourcing;
- limited professional support for teachers working in remote and complex cross-cultural contexts;
- the relationships between literacy developments in second, third or fourth language contexts; and
- limited employment prospects or employment contexts where Indigenous people learn and are assessed in English, but are more often than not required to work using Indigenous languages (health clinics, schools, councils etc.).

Understanding how these complex issues interrelate, overlap and influence the types of literacy practices required in Indigenous contexts, and in those of the broader community context, is critical.

The advent of global communications, labour market flexibility, job insecurity, permanent unemployment and the restriction of social welfare provisions call for new forms of education and training to ensure that Australians will meet the challenges of change, and participate productively in the context of the opportunities which present. In

Indigenous contexts, the forms and delivery of education and training need not only to secure improved educational outcomes, but also to reflect the complexities, diversity and multiplicity of literacies required to operate both locally and globally. They also need to ensure that existing disadvantage is not further compounded. Literacy theorists have adopted the term 'multiliteracies' to cover the expanding range of literacies required in contemporary life.

It has been well documented that Indigenous people's educational achievements fall well behind that of non-Indigenous people (Northern Territory Department of Education, 1999; Australian Bureau of Statistics, 1994). Access to post-compulsory training remains low (particularly in rural and remote areas) and transition to the labour force minimal (Volkoff & Golding, 2001). Indigenous people are often employed by community based organisations where their language and cultural knowledge is utilised as a bridge between western health, education or management systems and local communities. How do the forms and delivery of education, particularly LL&N, support these unique contexts of employment and the sophisticated transitions required between different forms of literacies? This research project has attempted to address these issues.

This project has been designed to gather information on current practices and perceptions around language, literacy and numeracy issues in the context of Aboriginal Health Worker (AHW) training in the Northern Territory. It investigates the transition to national competency standards in AHW training, and makes recommendations about how and where improvements can be made.

Background to the issues

Health context

The disparity between Aboriginal culture and mainstream western culture appears to magnify the difficulties encountered in any cross-cultural health service delivery setting...The traditional health beliefs of Aboriginal people are interconnected with many aspects of Aboriginal life such as the land, kinship, obligations and religion. The sociomedical system of health beliefs held by Aboriginal people place emphasis on social and spiritual dysfunction causing illness...Sorcery and supernatural involvement are part of the perceived reality of Aboriginal life and in Aboriginal society explanations in terms of sorcery are often used.

(Maher, 1999:229)

In Indigenous contexts the concept of health is considered not just the physical wellbeing of the individual, but the social, emotional and cultural wellbeing of the whole community (Commonwealth of Australia, 1989). The provision of efficient and effective health services is critical for Indigenous Australians given that their life expectancy is 20 years less than for the non-Indigenous community, infant mortality rates are three times higher and the primary causes of death are chronic non-communicable diseases and injury. Historically, AHWs have played a core role in health service delivery. It is frequently stated that the role of AHWs is a primary health care role:

but more often it is a clinical role in treating what fronts at the clinic rather than prevention and education in the community. AHWs play a crucial role in the delivery of programs across a broad range of services and locations. However, their critical value is ensuring the acceptability of the service to Indigenous Australians and in providing a linkage between Indigenous patients and the non-Indigenous health professional.

(Commonwealth of Australia, 2000:96-97)

Currently, the majority of AHWs in the central Australian region are employed in both community controlled and government health clinics on remote communities. Their role is identifiably clinical and often reflects the health provision concept of 'triage' or health worker first. A majority of health workers are practising in their home communities or in communities with whom they have family ties and, more often than not, are fluent in the Indigenous language(s) spoken on the community. Significantly, many of the AHWs hold only the 'old' Basic Skills qualification, which has been superseded by the Certificate III Aboriginal Health Worker (Clinical) ("Certificate III").

The Basic Skills qualification included a combination of on-site bush training and Alice Springs based inservice training, and provided a pathway to registration and legal practice for AHWs in the Northern Territory. Trainee AHWs were selected by their communities. In the course document *Aboriginal Health Worker Assessment for Registration* (Department of Health, 1986) communities were "strongly urged to select literate trainees", with the following explanation:

Formal literacy/numeracy prerequisites are NOT imposed upon community nominees for AHW positions. However a Registered AHW needs a certain minimal level of literacy/numeracy in order to function properly in this role. The AHWTC does not have the

teaching resources to be able to guarantee all trainees will reach this level of literacy/numeracy. Although some assistance is provided through the AHWTC Literacy tutor, trainee AHWs and the communities who select them must accept the final responsibility for AHW literacy/numeracy. [Emphasis in original.]

(Department of Health, 1986)

With the adoption of national competency standards for health workers, and a version customised for the Northern Territory (see Appendix C), some AHWs are currently participating in clinical upskilling and/or LL&N tuition. Some are being required to undertake on-the-job assessments in order to gain recognition of competence at Certificate III and Certificate IV levels. There is some anecdotal evidence that the self-assessment and on-the-job assessment processes are perceived as unwieldy and intimidating, with some AHWs electing not to participate in on-the-job assessments.

A submission to the House of Representatives' *Health is Life: Report into Aboriginal health* makes a pertinent comment regarding this:

There are health workers in communities in Central Australia and in the Northern Territory who have limited English literacy and numeracy who may never reach registration in the Northern Territory. There is a registration board that looks at Health Worker practice and these health workers are not likely to reach registration for safe practice. But they play a vital role. There does not seem to be any way for those health workers to be recognised in their role.

(House of Representatives, 2000:99)

It would seem that the English language, literacy and numeracy requirements within the competency standards, and how these have been and are being translated into curriculum and training packages, has the potential to both transform and jeopardise the nature of Aboriginal health work in the Territory.

Community context

Within the Northern Territory, only around 30% of Aboriginal people use English as a first language. The corresponding figure for non-Aboriginal Territorians is close to 90%.

(Northern Territory Department of Education, 1999:127)

Two major factors contribute to the enormous and problematic expectations of both teachers and learners in Aboriginal Health Worker

training. Firstly, the majority of Indigenous Territorians speak English as a second or third language. The other issue is the recent identification of *a generation of people who have come out of the school system over the past one or two decades with very poor levels of literacy and numeracy.*

(Ibid: 112)

In many countries in the world multilingualism predominates and “the cumulative evidence from research...demonstrates conclusively that cognitive, social, personal, and economic benefits accrue to the individual who has an opportunity to develop a high degree of bilingual proficiency when compared with a monolingual counterpart” (Tucker, 1999:3). However, research also points to “the belief that bilingualism might be good for some but not for others” (Hakuta, 2001:9). Where speakers of a minority language are struggling to learn the dominant language, as is the case with Indigenous students, their existing bilingual fluency is often positioned as problematic and interfering. Bilingual and two way learning methodologies in Indigenous contexts in the Territory have also been compounded by the lack of trained English as a Second Language (ESL) and/or bilingual teachers as well as high staff turnover, endemic in both schools and post-compulsory educational institutions.

Chris Sidoti (2001:1), the former Human Rights Commissioner, has recently described the right to education of Indigenous peoples, particularly in rural and remote areas, as the “most abused [right] of all”. Instead of “leading Australian policy development and pedagogy in the use of Original Australian languages in education” (Northern Territory Department of Education, 1999:127) at Territory and Federal levels the emphasis is turning towards English first methodologies with literacy proficiency as a key indicator of educational achievement. The implications of the Australian Qualification Training Framework and industry driven competency standards with their implicit and, indeed, assumed levels of English literacy and numeracy proficiency, impacts mostly at the interface of cultural and workplace contexts. In remote Indigenous communities, the implementation of competency standards in one of the few areas of available employment, Aboriginal health work, risks consolidating deficit models of training and marginalising issues of culture and language. Indeed, cultural protocols and Indigenous languages increasingly become positioned as the barriers to be overcome rather than accommodated or embraced in health service delivery.

Training context

With the 'built-in' model, language, literacy and numeracy skills are conceived as underpinning industry competency standards. To a degree, how 'literacy' is interpreted as a component of training packages depends on the industrial environment and workplace contexts in which training and assessment are being carried out. There is a tendency, therefore, for 'literacy' and 'numeracy' to be constructed as functional skills. Those who lack basic literacy and numeracy skills might be unable to acquire and demonstrate competence in the required industry standard because of that lack. (Sanguinetti & Hartley, 2000:32)

Research conducted by ALNARC in 2000, highlights many problems with the built-in or underpinning approach to literacy and numeracy competencies within national competency standards and associated training packages. There is an assumption that English language, literacy and numeracy operates at a functional level. The ability to perform certain work tasks through demonstrating a level of fluency in spoken and written English belies the fact that literacy is a way of thinking, doing and acting in the world specific to particular discourses of knowledge and cultural contexts. Doctors, for example, develop fluency in medical terminology and have particular ways of documenting patient records and writing scripts, as well as the ability to access and participate in highly technical academic discourses. This fluency is achieved after a minimum of six years immersion in the ways of doing, thinking, acting and knowing in medical contexts. Many of the skills the AHWs bring to their work stem from their knowledge of ways of thinking, acting, doing and knowing in their own language/s and within their familial and community contexts. They also develop a range of skills and knowledge in the course of their training and work experiences, but increasingly a gap between ability and requirements in "functional" skills in English literacy and numeracy is becoming problematic in the current employment and training contexts.

The built-in approach to literacy and numeracy in competency standards and training packages has been critiqued for making invisible the required LL&N skills. However, little attention has been paid to the similarly built-in approach to considering "culture" as evidenced in the Northern Territory (NT) customised standards for AHWs. Tacked on to the end of each unit, under the heading Generic Range of Variables Statements, is the following comment about cultural context:

The Competency Standards are based upon acknowledgment and support of the diverse cultural and traditional values of communities the health worker works in. Health workers are upholders of traditional and cultural values. Their behaviour and practice must be culturally sensitive and supportive of traditional healing and health knowledge and practices.

(Community Services & Health Training Australia, 1996)

What this actually means or requires, when transposed to a training context, is problematic. There is an implicit assumption that those using and interpreting the competencies have the knowledge and understanding of “diverse traditional and cultural values” to be able to both customise training delivery and assess the ‘culturally sensitive and supportive’ behaviour and practice of AHWs. The textual separation of “cultural” from “traditional” and the emphasis on “values” rather than practices, ways of knowing or ways of living and speaking, renders the notion of “culture” obscure. It also lends itself to be read as reinforcing the essential “otherness” of Aboriginal culture, the view constructed through anthropological discourses of race. The absence of any mention of the dominance and diversity of Indigenous languages in the NT is glaring.

Numerous and relatively recent reports and reviews (Northern Territory Department of Education, 1999; ANTA, 1996a, ANTA, 1996b) have identified the lack of, or the “sentimental and unrealistic” (ibid, 1999:84) nature of cross-cultural training available for remote area educators. Certainly, the unique cultural contexts and locations where each AHW may work needs to be recognised and incorporated into training. However, the reality is that there are very limited resources to provide this level of customisation in institutional delivery in remote and isolated contexts. Workplace delivery, on the other hand, also lacks the requisite resources to support a training culture which satisfies the level of quality assurance for a registered training organisation. The difficulties presented by communicating across differing cultural paradigms and different and numerous languages (Walpiri, Arrernte, Amatyerre, Katyeye) remain buried in the “too hard” basket.

Methodology

This report is based on information and evidence collected from “multiple sources” (Yin, 1984:97). The methods used were informal discussions, an interview questionnaire, documents and two workshops. As Merriam writes, “[t]he use of multiple methods of collecting data is one form of what Denzin calls triangulation. Methodological triangulation combines dissimilar methods such as interviews, observations, and physical evidence to study the same unit” (Merriam, 1988:69). This approach is advocated because of the efficacy of minimising the deficits of any one method, and harnessing each method’s strength enabling the observer to “achieve the best of each, while overcoming their unique deficiencies” (ibid).

Two workshops, formal interviews and informal discussions were the main methods of gathering information for the project. Both Indigenous and non-Indigenous people participated. The first workshop was held with AHW trainers and the second was held with AHWs – a number of whom were senior health workers and trained workplace assessors. The workshop methodology was supplemented by conducting individual interviews (see Appendix A). These were in the form of a questionnaire. In order to ensure that the conclusions drawn from the survey questions attempted to reflect the context accurately, informal discussions were held with people in the profession before formulating the survey questions. Reliability and validity of interpretation of the data were addressed by tape recording and transcribing the interviews (Bell, 1997:100). The interviewees received a copy of the transcript so that they could make any changes they felt were necessary before the interviews were collated. In order to further enhance the validity and reliability of future related research, it is suggested that Indigenous researchers or research assistants be employed to work with or alongside non-Indigenous researchers.

There were 31 questions asked of a sample of AHW trainers from four organisations. Both open and closed questions about teaching to the competencies in the Certificate III in Aboriginal Health Work (Clinical) NT customised version were used. In addition, questions focused on the kinds of literacy and numeracy issues encountered in this process. The interviews are referred to numerically in the report.

Sample

The sample of trainers and AHWs who participated in the interviews and workshops were drawn from organisations in central Australia involved in AHW training and assessment and health service delivery. The organisations included government and non-government organisations involved in managing and delivering medical services to Aboriginal communities, as well as Registered Training Organisations (RTOs) delivering certificate, diploma and advanced diploma courses aligned to the Aboriginal Health Work Competency Standards (NT). The nature of training and assessment methodologies and delivery strategies differed amongst the organisations depending largely on whether the focus was upgrading the skills and qualifications of practising AHWs, or training individuals wishing to become AHWs. On-the-job training and assessment by appropriately qualified health professionals (including senior AHWs) was the primary strategy being employed to upgrade skills and qualifications of current AHWs, and to enable their progression through the new career structure with access to pay increments tied to recognition of current competence. Mixed-mode delivery strategies were used in AHW training. These strategies include intensive campus based workshops supported by self-paced study and work placements on communities.

Management

The requirements of ethics approval, training commitments of participants, including remote area work and protocols within Indigenous organisations, reduced the planned number of workshops by one, and the number of individual interviews and discussions increased to provide similar coverage.

A number of factors have influenced the data. According to Bell (1997:95), “[t]here is always the danger of bias creeping into interviews” and the interviewer’s “manner may have an effect on the respondents”. This applies to the workshops, as some of the questions posed to the trainers and health workers could well have been leading. Indeed, Bell writes “[i]t is even easier to ‘lead’ in an interview than it is in a questionnaire” (ibid). In addition to this mediating factor, a number of the AHWs spoke English as a second or third language. Comparisons were made through the use of a set of standard questions asked of all the participants. Further analysis was undertaken on this rich data and themes drawn. Furthermore, conducting individual interviews enabled the

interviewees to discuss issues as they perceived them. This was important given the length of time practitioners had been in the AHW training field varied from four (4) months to five (5) years.

Ethics

The content and scope of all research undertaken in Indigenous contexts must explicitly address ethical issues. Benefits in both the short and long term need to be identified through the ethics process. Short term issues include the process and methodology of research. The authenticity of the information gathered and its confidentiality must be assured. The project continued to focus on identifying further English language, literacy and numeracy demands required by the transfer of AHW curriculum to learning resources aligned to the AHW Competency Standards (NT), and to explore the effects of this on the health service and educational institution and their employees. Another consideration is the extent to which the AHW Competency Standards (NT) accounts for cultural knowledge and protocols of AHWs and how this in turn might improve health outcomes for Indigenous people. To achieve improved health outcomes in remote and rural communities, the impact on and value for Aboriginal Health Workers need to be taken into account when developing strategic systemic products as competency standards, and the learning resources which align with associated qualifications. The rationale behind this reform must improve the Aboriginal health service by ensuring that the education and training system facilitates learning and skill development. Care needs to be taken to ensure that the national training system does not create barriers to improving Indigenous health.

The power relationships between the researcher and the informants must be addressed. This is particularly the case when conducting research in an Indigenous context where Indigenous people have been traditionally observed without due regard to respect and protocols. With this research history, participation in the workshops and interviews was voluntary. Taping of the interviews was with the permission of the informant. One interview was not taped at the request of the interviewee. The tapes were transcribed, and the interviewees received a copy of the transcription so that they could make any changes they felt were necessary before the interviews were collated, or refuse their permission to use the data. The notes taken from the workshops were circulated in order to ensure that what was discussed had been accurately interpreted, and participants could elect to have their contribution omitted.

Ethical processes required by the Batchelor Institute of Indigenous Tertiary Education were implemented. This entailed submission of an outline of the project to the Ethics Committee. All participants signed consent forms as required (see Appendix B). In accordance with the ethics process for products of research, the data and tapes will be archived in the Curriculum Research Unit of the host Institute.

The anonymity of the organisations where the participants worked has been preserved through using only interview numbers as an identifier in the report. All attempts have been made to ensure anonymity of the participants.

History of AHW training

During the 1970s, AHWs in the NT received Basic Skills education focusing on the acquisition of clinical skills, underpinning knowledge of anatomy and physiology and concepts of primary health care. AHWs were selected through processes in their community. They were employed as trainees and thus skills were learnt on-the-job (Abbott, Fry, Ahmat & Elliot, 1998:23). This system changed in 1990. The combination of the National Training Reform Agenda which influenced vocational education and training throughout the 1990s (Bradley, Parker, Perisce & Thatcher 2000:2) and the drive to improve the standards of AHWs training led to the development of the Aboriginal Health Worker and Torres Strait Islander Health Worker National Competency Standards. These were introduced in 1997 and the model was adopted fully in 2000. Their introduction has led to a system of nationally recognised training and assessment, a career path and an aligned structured pay system. The NT government exercised its right to legislate for relevant vocational courses and required enhancements of the AHW competency standards for additional clinical procedures in urban and remote contexts in that state. This has led to significant differences in the approved work performed in the NT and other states and territories in Australia. The NT is the only jurisdiction where AHWs carry out clinical practice and as a consequence there are an extra seven clinical competencies additional to the nationally endorsed 16 competencies. Participants must also complete one elective subject.

With the introduction of the competencies, the entry level for AHW training is Australian Qualifications Framework (AQF) Level III. Characteristics of AQF III include “breadth, depth and complexity of knowledge” in “selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership

in resolution of specific problems” (1999:8). In addition, at AQF III, a worker is required to perform

a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in the selection of equipment, services or contingency measures and within known time constraints.

(1999:8)

Many AHW trainers have commented that the learning requirements of Certificate III is aligned with AQF Level IV across the competencies, and that its current classification should be reviewed. The AQF classification is a measurement of the “technical” difficulty of the skills required and does not acknowledge the embedded English language and literacy needs required in cross-cultural contexts.

In the late 1990s, when the competencies were being customised for the NT the Central Australian Barkly AHW Association lobbied the authorities not to prioritise literacy for attainment of units of competency. The Association argued that valued remote community based AHWs may not have the literacy levels to achieve competence, and this requirement would impact on those communities. The Association was not able to convince the authorities of these effects. The resultant career structure has meant that to advance, current AHWs must be assessed against the competencies (Personal comment 2001).

AHW job role

The role of the AHW is to improve the health of individuals and their communities. While their daily tasks differ considerably depending on location and resources, the role of all AHWs is to “provide direct services to individuals and families, plan to meet future needs, promote wellbeing and prevent ill health” (Batchelor Institute of Indigenous Tertiary Education, School of Health Studies 1997:19). The training program for AHWs includes nutrition, child health, mental health and geriatric care.

They are required to:

- assess, treat and refer where appropriate;
- provide people with the ability to make their own decisions (informed consent);
- induce the motivation and incentives for good health;
- aim for optimal health for themselves and their communities;
- plan and conduct preventive programs;
- plan and conduct health promotion activities.

(ibid:20)

One of the most vital and essential aspects of the work of the AHW is that of cultural brokering. AHWs are “primarily responsible to their local community and may have responsibilities to integrate western and traditional health approaches and to manage difficulties emerging from this integration” (ibid:19). They need to have skills to support their community to become involved in health issues and be able to identify key people and agencies involved with specific and general health issues. Their own background and position in the community enables their clients to feel that they are entering a culturally safe environment. Furthermore, they can support non-Indigenous people in incorporating ways of working from their perspective, rather than maintaining only non-Indigenous work practices. Considering the communities’ culture and requirements, the role of the AHW is “one of the most important factors in efforts to improve Aboriginal health status” (ibid:20).

AHWs work primarily in either urban or remote Aboriginal-controlled medical services, government health services, or hospitals. An Aboriginal Health Worker Registration Board regulates the calling of an AHW. Whilst registration requirements for AHWs remains the Basic Skills qualification or Certificate III in Aboriginal Community Health or equivalent, there are shifts towards introducing on-the-job assessments against the competency standards as part of the registration requirements. For example, in the government health services appropriately qualified project officers have been engaged to assess the currently registered AHWs using the nationally endorsed and locally enhanced competency standards. Training plans to address individual and group deficits aligned to the competency standards are being developed. The vocational education and training endorsed by state/territory Training Authorities and by ANTA provides for a range of organisations to become registered to deliver training. The assessment must be undertaken by a qualified workplace assessor employed by an RTO with relevant coverage and scope in the industry. A worker who has already been assessed as competent for the particular competencies being assessed may assist an assessor who may not have the industry/organisational specific knowledge. This context allows for flexibility so that workers may be assessed in their relevant environment. On the face of it, this would appear to offer an environment which is sensitive to AHW requirements. The Aboriginal-controlled medical services are beginning to implement workplace assessment. Currently, there is a need for a training and employment pathway at levels below AQF III, to retain those AHWs in the health services who will be unable to meet the requirements of the

competency standards and the innovative assessment procedures which are promoted in vocational education and training.

The fundamental barrier to AHWs being assessed as competent at Certificate III or against specific units of competency in the workplace, are their educational backgrounds, English language requirements in the competencies, literacy and numeracy competence, as well as the organisational resources to support such flexibility in isolated settings. Levels of education and school engagement vary in the participants from primary education through to Year 12. In addition, for AHWs in remote communities, English is a second language.

Assessment of the AHWs whose second language is English is highly complex. Multiliteracies must be taken into account, and individual assessment is demanding more of the work than exists in the workplace, where often practice is within a socialised context with shared responsibility for a diversity of skills. All participants, including the educators and AHWs, are under pressure now with the current registration requirements. The high demand of the LL&N skills required in the competencies has forced stringent selection processes causing fewer Indigenous people access to AHW careers. Currently, experienced AHWs with Basic Skills education employed in the health service may be excluded because they do not have the required LL&N skills of the AHW competency standards. AHWs may choose or be forced by their low educational levels not to register and, consequently, they are prevented accessing their employment, career paths and involvement in the improved health standards in their communities as health professionals. An alternative career structure, as well as an expanded concept of competency in remote health services, needs to be developed to address this dilemma.

Some AHWs have not achieved the requisite competency standard because of low achievement in embedded LL&N. An example of this dilemma arises with giving an opportunity to enter the process through a self-assessment event.

One trainer commented that:

when they do their self-assessment 'are you ready for an assessment?' They tick a box to say yes. It's just one sentence, but it really doesn't say what you are required to do here.

(Interview 2)

Not only do trainers and assessors need to understand and read all the units of competency, their range of variables and evidence guides, but there is an emphasis on AHWs also being able to decipher and engage in

the very complex discourse which is emerging within the competency standards regime. This makes AHWs feel exposed and ashamed because it unnecessarily reveals English language, literacy and numeracy inadequacies. The self-assessment itself may prevent further progress because of the English language and literacy demands of the self-assessment tool. The AHWs are not in a position where they can expose the tool to scrutiny and require a user-friendly process. Whilst the rationale behind self-assessment may have been to enable Aboriginal ownership of the process, research for this project suggests that it also has engendered fear in some AHWs, and may be a contributing factor in them leaving their profession.

Trainers themselves are unable to exercise influence over these outcomes for their Indigenous clients. Resources do not permit the time required for quality LL&N training for their clients, and their pressing need to be deemed competent in work they are performing. Moreover, AHW trainers are not experts in the LL&N field, but are required to address embedded LL&N.

The NT AHW competency standards were developed for high levels of 'technical' expertise in the clinical domain, as required in remote health services. However, the level of the embedded LL&N in the units of competency makes assessing competency in the current workforce extremely difficult, and may point to a fundamental inadequacy in the link between workforce requirements and the system which is designed to reflect practice through documenting competencies. The following discussion describes the complexities of embedded LL&N in a range of units of competency.

Workplace communication skills

AHWs are required to use a demanding range of workplace communication skills. These skills cover English language, literacy and numeracy, technical languages (medical discourse) as well as Indigenous languages. AHWs are required to display fluency in the communication demands of the workplace and in bridging the communication divide between western medical systems and local beliefs, perceptions and protocols about health and healing. In addition, understanding the social and cultural contexts in which literacy practices occur is a critical aspect of the communication skills required by AHWs in the workplace.

Workplace communication skills are an integral part of any workplace and encompass "the language skills of speaking, listening, reading and writing, and numeracy" (Goulborn & Alexander 1999:17).

The term “workplace communication” is used because “it is more inclusive of all employees and does not have the possible worker deficit connotation of ‘language, literacy and numeracy skills’” (Bradley et al. 2000:3). However, in this report both terms are used interchangeably.

Ironically, one of the important qualities of NT AHWs working in remote settings with the endorsement of their communities, is their ability to communicate in the local language/s. Whilst this was identified as important by trainers, there are a multitude of other skills that are essential. Indeed, trainers had serious concerns about the issues of the LL&N embedded in the units of competency and the communication skills used in the workplace. The important issue is that the units of competency require AHWs to operate in Standard Australian English. The expectation that AHWs perform the essential tasks in their role, and be individually competent in all embedded LL&N and workplace communication skills, is extremely demanding and could exceed the workplace requirement. However, the embeddedness of the workplace communication skills is not an issue that pertains solely to AHW competency standards. In a report investigating the inclusion of literacy and numeracy standards in training packages, it was suggested that there is a need “to explore ways of making underpinning literacy and competencies more visible and more explicit in the endorsed components of training packages” (Sanguinetti & Hartley 2000:3). The fact that the workplace communication skills are not explicitly described makes it very challenging for trainers who have no specialist expertise as literacy practitioners.

This situation requires trainers and assessors to check:

- Is the language, literacy or numeracy activity a discrete unit of competency?
- Is language, literacy or numeracy an element of a competency?
- Are there language, literacy or numeracy “signals” in the performance criteria?
- Is language, literacy or numeracy information given in the range of variables and the evidence guide?
- What is the centrality of a language, literacy and numeracy skill?
- What degree of independence is required in the language, literacy or numeracy component of a task?
- What support materials are available?

(Bradley et al. 2000:17)

The ability to fulfil these training package requirements demands specialist skills. The assumption is made that trainers and assessors,

regardless of their field, have the ability to do this, and the resources of support. In isolated settings, this is not the case.

Currently, Aboriginal Health Worker qualifications are being developed within the Health Services Training Package. The move towards a Training Package based system has elements that some trainers identified in the interviews as positive, particularly the opportunity for on-the-job assessment. However, the communication skills AHWs need, and which are embedded in the units of competency, is an issue that still needs to be dealt with by the Training Package developers. In particular, whether the identifiable English language, literacy and numeracy skills remain implicit and embedded in the “built-in” model, or whether a separate, explicit workplace communications skills unit is “bolted on”. Within the Training Package discourse choice would seem to be limited to these two options. Additional units would perhaps enable an explicit focus on developing LL&N fluency in specific workplace contexts, but would not address the expertise necessary in training to these competencies nor the implicit tensions between required Standard Australian English fluency and the cultural brokerage role required of AHWs.

English language

There is now an expectation of competence in a wide range of oral genres in English. These may function to push people beyond their usual level of ability, particularly when AHWs are using English as a second, third or even fourth language. The requirement in some units of competency is oral proficiency in Standard Australian English. As the main focus of the NT customised version of the competency standards is on clinical skills, integral to clinical practice is the appropriateness of diverse discourses. Medical terminology embedded in the units of competency has also been identified by trainers as one of the biggest difficulties. There are a multitude of other kinds of language skills that AHWs have to be adept in, and the competency standards are silent in these areas.

Utilising the appropriate oral communication style can be a significant hurdle for AHWs, especially when the breadth of skills required and the strategies to support skill development are not embraced in training delivery. An important issue related to this is that the majority of trainers speak English as a first language, and do not necessarily have any support or professional development around working with ESL learners. Often the assumption is made that trainers innately have these skills, or that trainees can informally acquire them. The trainers do not

necessarily recognise that effective workplace communication is comprised of a multitude of skills, such as different registers, tone, and the ability to translate concepts into clear and meaningful language. As trainers generally come from a health background only, they may not necessarily recognise that such language skills have to be specifically learnt. Moreover, the trainees can usually perform the required workplace tasks, but the units of competency do not elaborate the embedded LL&N. No endorsed materials to support the competency standards exist to assist trainees to acquire these skills, or to assist trainers in teaching these skills.

Literacy

The introduction of the competency standards with the embedded LL&N has increased the previous requirements to work as an AHW, whilst understanding of the social and cultural contexts in which literacy practices occur, critical to effective communication, has not been acknowledged. However, the demand for literacy competence, as reiterated throughout this report, is complex and goes beyond a simple autonomous, technical skills approach to literacy. That is,

...those who have a sense of being literate readily acknowledge that their capabilities extend beyond recognising and recreating (either orally or in writing) words, sounds, and letters to include presentation of self-in-revision interdependent with other speakers and readers as well as with a variety of written texts.

(Heath 1991:5)

At this level, AHWs must have

...ways of thinking, cognitive abilities, facility in logic, abstraction and higher order mental operations [that] are all integrally related to the achievement of literacy.

(Barton 1995:21)

Literacy educators and theorists currently view literacy in terms of its connection to cultural, social and historical events. Walton (1996) notes how descriptions of literacy in a cross-cultural context are best understood within their “socio-cultural and historical contexts”. This challenges the ‘autonomous’ model of literacy, which constructs it as a neutral independent variable or tool responsible for all sorts of social, economic and cognitive consequences (ibid:82). Similarly, Barton (1994) takes an “ecological approach” to understanding literacy. That is, rather than “isolating literacy activities from everything else” it is more useful

to try to understand "...how literacy is embedded in other human activity, its embeddedness in social life and in thought, and its position in history, language and learning" (ibid:32). Further, Barton (1994:34) describes literacy both as "a system of representing the world to ourselves – a psychological phenomenon" and also "a system for representing the world to others – a social phenomenon".

Heath (1991), like Barton, goes beyond the confines of discussing literacy in terms of skills that allow one to understand or produce a text only, and extends the discussion into the notion of "literate behaviours". She writes that the "sense of being literate derives from the ability to exhibit" such behaviours and through these, individuals can compare, sequence, argue with, interpret, and create extended chunks of spoken and written language in response to a written text in which communication, reflection, and interpretation are grounded (ibid:3).

This "social literacies" approach allows us to see LL&N competence as continuous over a lifetime. The practice of AHW assessment does not acknowledge "social literacies" as impacting on the work. It is then unjust to require AHWs to only provide evidence of one particular LL&N aspect, ignoring the access to complex conceptual and cognitive literacy skills required by the medical and health discourses embedded in the competency standards. Furthermore, short-term literacy tutoring may not be a solution in the face of such demands.

Analysis of the data

The data was collected from two workshops; one with Aboriginal Health Worker trainers and another with Aboriginal Health Workers. Additional to the workshop data, further material was provided from nine (9) interviews with Aboriginal Health Worker trainers and assessors (see Appendix A). The following analysis is drawn from an amalgamation of these sources.

The interview questions were designed to elicit specific responses from the trainers/assessors regarding English language, literacy and numeracy issues, keeping in mind that this group of health professionals does not have a background in English LL&N, so their primary focus is on health rather than the complexities of the LL&N field. It became apparent through the interviews that many of the AHW are not reflecting on their LL&N practice, as it has not been an issue until the introduction of flexible delivery and the competency standards. It is unrealistic to expect otherwise, yet given the importance of LL&N to effective delivery of the AHW competency standards, it highlights the need for LL&N

practitioners and literacy teachers to be working alongside the health professionals in delivery. Through the course of the interviews it became clear that the lack of LL&N specialists in the field diminishes LL&N being embedded in the competency standards. If this continues the training hurdles will remain opaque and insurmountable.

Language, literacy and numeracy as gatekeeper

Prior to the introduction of the competency standards, AHWs were chosen by their community. This resulted in community ownership of the health service. Over the intervening years many AHWs increased their level of expertise with further training. With the introduction of the AHW competencies standards and its associated curriculum, there appears to be an increase in the recruitment of the AHW outside community processes in selection. Moreover, some people who may previously have been selected by their community to be AHWs are now unable to do so because of the emphasis on LL&N skills. The high LL&N demand in the competency standards and their embedded LL&N requires Registered Training Organisations with finite resources to select those students who can meet the higher LL&N requirements.

As one trainer said:

I suppose from our perspective we've had to pick, so to speak, people who are going to be able to cope rather than setting up people to fail...

(Interview 2)

Recruiting AHWs through a training system based on English LL&N, which does not admit social and psychological literacies in its assessment, will impact on the role that AHWs have historically played as cultural brokers and community representatives. Indeed, it was felt very strongly that using AHW competency standards as a basis for learning resources may lead to experienced AHWs being cut out of the system — particularly in cases where in the past they have used their knowledge and community awareness to assess a client or situation holistically. Consequently, the field may lose a number of older, experienced AHWs. This can be attributed to a lack of information about the innovation which has such an impact on their careers. It can also be said that the processes for consultation with AHWs and their communities were not attentive to advocating essential modifications to the system to accommodate the needs of the health service and Aboriginal communities.

When I was with [my former organisation] we actually had 135 health workers and by the time I left...there were only 84 health workers on our books that were registered and working in the clinics.

(Interview 2)

There is also a trend towards people being replaced by interstate AHWs who can meet the narrow interpretation of LL&N in the AHW competency standards.

Referring to a colleague, one AHW reported:

He forgets that a lot of the Top End mob have been to interstate schools. Our mob haven't been, and he gets a lot of helpers coming over from interstate and they've got that literacy level to be able to give him the system where our mob have been left behind. No one's really considering that.

(Workshop 2)

While there are some AHWs who have taken on the new system as a challenge and have seen it as a means of improving their skills, an opportunity to prove to others, and to themselves, that they can do the work, others are fearful and suspicious.

These competencies have caused much more difficulty for the registered health workers than for the trainee health workers. As they were already registered, they see themselves as having a profession and felt like they achieved what was necessary, whereas students are just working to achieve it once.

(Interview 1)

Some have worried that they might lose their jobs, others have actively avoided being assessed against the competencies. As mentioned previously, the deep concern amongst trainers is that some people have been so fearful of the assessment process that they have left their jobs after working in the profession for some time. Given the poor state of the health of Indigenous people, and the critical role AHWs play in health service delivery, this is very much a matter of concern.

Interpreting the competencies

The majority of the trainers reported that the units of competency are open to interpretation. This applied to content and level of achievement.

It is difficult to know how much to teach and what level of understanding do I want the students to achieve? Sometimes you

feel like you are making your own interpretation and other people interpret it differently. There have been a number of times that I have added things because I think they are important, but it is not clearly stated in the competency.

(Interview 1)

Another trainer commented on the issue of differences in interpretation:

It's interesting, we might have agreement in our organisation, then you talk to someone at [another organisation] and they go "we did that totally different" or "thank God, we did that the same too". Even though it's supposed to be standardised...In reality it's not...because each organisation interprets things differently.

(Interview 2)

The fact that the units of competency do not explicitly describe what kinds of tasks can be undertaken in order to "pass" or to be deemed "competent" or "not yet competent" is an ongoing cause of concern for the trainers. The focus is on making certain that the skills stated in the performance criteria are achieved, rather than ensuring that underpinning skills and knowledge are acquired.

Clinical versus other competencies

The majority of trainers reported that the clinical units of competency are the easiest to teach. These refer to "technical" skills — in other words much of the learning is based on demonstrations and modelling rather than LL&N proficiency. In contrast to this, many of the other units of competency require people to have well-developed conceptual skills and a high level of culturally specific background knowledge. It can be very difficult for trainees to grasp concepts, not from a lack of intelligence, but because the concepts are culturally inappropriate and may not relate to health work in their community.

For example, in the unit, *Deliver Counselling*

to sit and [pose] open-ended questions and "have an intimate discussion", especially when it involves younger students, "is just not done out in the community".

(Interview 4)

Another example is in the unit, *Deliver Environmental Health Care*. A trainer commented that:

you need a degree in environmental health care if you're going to pass that competency in reality. They haven't really looked at what AHWs actually do in communities.

(Interview 5)

Another trainer noted that:

teaching the unit Deliver Health Education and Health Promotion demanded a conceptual understanding of an issue in a way that learning a skill like giving an injection doesn't.

(Interview 1)

Cultural knowledge and issues

There is acknowledgement of cultural considerations in the units of competency. For example, *Deliver Men's Health* and *Deliver Women's Health* are separate, and the trainees work only with their own gender.

Nevertheless, a female AHW noted that:

Men's health is a really touchy subject you know, and men's health that cultural side is that the western way wants to dig into that particular area.

(Workshop 2)

Another impact of the introduction of the AHW competency standards is that 'two-way learning' cross-cultural opportunities and processes have been threatened. As one AHW pointed out:

In the early days of training what we did was get the doctors to teach us anatomy and physiology, but then we'd say you've got to learn our way now, there's a lot to learn about Aboriginal anatomy and physiology and language.

(Workshop 2)

It was felt that there is now not enough time for people to work in this way. It is more task focused and less support is offered to the AHWs by the other medical staff in the clinics. High staff turnover amongst non-Indigenous health professionals, limited cross-cultural training, and increased pressures on improving health outcomes for Indigenous people influence the learning environment. In addition to this, the increased demands the new training and assessment systems place on small workplaces, such as health clinics, along with the increasing emphasis on mainstream knowledge and practice, including the use of the dominant language in workplace cultures tends to displace and devalue cultural knowledge and traditional health practices, as well as the use of local languages.

Related to this, the AHWs who were interviewed said that:

Whilst traditional healers are very much part of "cultural practice", they are no longer being used and "doctors or nurses rarely recognise or use [traditional medicine]".

(Workshop 2)

Qualities of an effective AHW

Trainers were asked to describe what they thought were the qualities of a good AHW.

The kinds of attributes they identified were:

- motivation
- intuition
- a good understanding of issues that impact on an individual's and a community's health
- working with a patient holistically
- a good understanding of what the key Aboriginal health care issues are
- ability to work and communicate across cultures
- empathy
- good clinical and health promotion skills
- resilience to deal with complex situations that require their knowledge, skills and support
- confidence
- ability to communicate in the local language
- community knowledge
- ability to pick things up quickly
- patience
- high stress tolerance
- ability to be supportive of client
- mediator.

Many of these essential qualities are not reflected in the units of competency within the AHW Competency Standards (NT). The ability to work with people holistically in a complex environment, where cultural knowledge and clinical skills are required, is vital. It is the cultural aspects of the AHW role that are integral to the job but “multiliteracies” are not apparent in any detail. A point made about cultural context under the “Generic Range of Variables Statements” is inadequate. Whilst a number of trainers referred to the *Social and Emotional Wellbeing* unit of competency as addressing relevant Aboriginal cultural knowledge, it is not considered to be enough.

As one trainer said:

I would like to see that they get rid of this as a standalone unit, and that it is underpinning for every single unit of competencies because I don't think it does give much regard to Aboriginal

cultural knowledge, practices and that sort of thing. But it is quite reflective because the majority of people writing these competencies are not Indigenous in the first place and I think that is quite apparent throughout the whole document. All of a sudden they've tried to stick in one unit of cultural knowledge and it doesn't work. It has to be an underpinning of everything because...it all has got to do with culture, and knowledge of culture and practices, and behaviour in culture before you can do anything else.

(Interview 2)

Medical terminology

Using and comprehending the specific medical terminology was the most frequently cited literacy difficulty. Health, medical, anatomical and physiological language is a particularly difficult genre of English deriving as it does from Latin and Greek. Indeed, a number of trainers pointed out that learning the medical terminology is like learning another language.

One trainer said:

Specific health, medical, anatomical, physiological language is another layer above just knowing English. As health professionals they need to know it.

And

Much of the vocabulary around health, especially to do with drugs, is quite inaccessible to the general public. If someone is coming in with English as a second language they are working on making sure their English is okay. But there is another layer that any health professional has to learn which is the health language – all the words that people use about diseases and body parts and procedures etc.

(Interview 1)

A number of trainers reported that during their own training they found learning medical terminology challenging:

Everyone starts out like that whether you're a nurse or whether you're a health worker.

(Interview 5)

The fact that the trainees and AHWs find it difficult can influence their interactions with clients. One trainer said:

understanding information so that they can tell the client what the disease is they're having the needles for can be difficult, or explaining what the side effects of the immunisation might be to get informed consent.

(Interview 9)

Another trainer described that LL&N impacts when they are talking to a client:

I have noticed in a number of circumstances that they have great trouble explaining to clients in a way that is reasonable because they can't often pronounce the words properly. They can't ask questions of the client in a way that he/she can understand. Things like do you live with someone who has an immune deficiency? Or, do you have leukaemia? They may not know what these mean. These are all questions you are meant to ask someone before you give them a vaccination to make sure it is safe and appropriate for them.

(Interview 1)

Often this situation is addressed by trainees using “plain English” or colloquialisms in their interactions with clients. One AHW described medical terminology as follows:

We know what they are, that thing there, that big word. We know what it is, but it's the little word we [bring] it down to. The people at the community that can't read and write, I wonder how they get on? But like the sphygmometer – that's one big word you know. They know it's for testing blood pressure and stuff like that but they see it written and...

(Workshop 2)

However, this may be problematic as there is no guarantee that the subtlety of meaning can be accurately conveyed unless the big words are used.

Oracy and cross-cultural communication

Another significant difficulty is that many Aboriginal speakers of English speak Aboriginal English. Ways of describing can be very different in Aboriginal English compared to Standard Australian English, and can lead to misunderstandings on both sides. For example, as one of the AHWs reported:

Maybe sometimes a 'yes' might be a 'yes' I hear what you are saying, but it is not 'yes' I agree with what you are saying.

(Workshop 2)

This poses problems with issues of informed consent and whether patients understand what it is that they are being told. One trainer said:

that there have been times we have misunderstood people who have English as a second language because of their limited vocabulary.

(Interview 1)

According to one trainer, oral communication difficulties differ according to location:

spoken English, in remote areas anyway, it's very different from community to community. So, you might be able to say that the more remote the community, the harder it is for spoken English. Some people are very good at spoken English and you've got levels ranging from very little spoken English to really good spoken English, but it depends on the remoteness.

(Interview 3)

Understanding oral language is not just a matter of whether the trainers understand the trainees and AHWs, it is also a matter of whether the trainers themselves are being understood. One trainer described this:

Out bush I think I'm understanding people, but it probably takes a little bit longer I suppose to really be sure. I think because we've had to explain the competencies and the kind of outcomes that have been achieved in the training sessions I've done out there it would seem to me people had understood me. But is that to do with just my spoken word or demonstrating something? I don't know. I can understand their English for sure, but I don't know if they're understanding me.

(Interview 6)

Lack of support for literacy and numeracy difficulties

The demands placed on trainers to deliver the units of competency and to achieve outcomes with the emphasis placed on trainees acquiring clinical skills means that there is little time to deal with trainees' literacy and numeracy difficulties. Trainers do employ a range of strategies in training delivery, but many make the point that they are not trained in this field,

and so do not necessarily feel confident with the strategies they are implementing.

Amongst the strategies are:

- employing a tutor
- classroom demonstrations
- large font for written resources
- use of big colourful pictures
- use of flow charts like in the Central Australian Rural Practitioners Association (CARPA) Standard Treatment Manual assisting trainees to create a glossary of medical terms
- text analysis.

There is, however, a limit to what trainers can do, and it is difficult to accommodate people wanting to enrol in the course who have low literacy levels. This is described below:

We had a student who really wanted to be a health worker. However, in her literacy assessment she was barely a Level I, wanting to do a Level III course. We counselled her and enrolled her in a literacy course. But come the next workshop there she was sitting in our classroom. It just brought tears to our eyes. I had to take her over to the literacy classroom. Some of the other students have the literacy but not the motivation. And you sort of think if you reduce your numbers you could have someone like her in the classroom; you could give the extra support needed and get her to where she wants to be, but the system just doesn't allow for that.

(Interview 2)

Literacy and numeracy support is also needed for currently registered AHWs. One senior AHW said:

There needs to be more support and training and education for health workers in the workplace to bring up their levels of numeracy and literacy. More support so they can feel confident and competent in the workplace and not feel like it's a threatening thing. You're still empowered, you know the knowledge and you know how to do it.

(Workshop 2)

In both cases there are serious implications for people who have the motivation and desire to work in the field, and there is clearly a need for a concentrated effort to incorporate LL&N in the training and workplace, rather than streaming individuals into literacy courses. Whilst this is an issue of delivery rather than the competency standards *per se*, the LL&N

hurdles buried within the competencies are manifesting as significant gatekeepers. This functions to lock out people who previously would have been able to pursue their chosen field, more often than not, at the behest of their community.

Inadequate LL&N clearly exists in the national training system, as well as the Indigenous community. Misunderstandings arise from the bureaucratic language and processes, as well as people using English as a second, third or fourth language. The LL&N challenges in achieving competency in the skilful use of medical terminology create difficulties for, and may exclude, people wanting to be AHWs. Moreover, the expectation that trainers deal with such complex issues as LL&N, as well as having to focus on teaching conceptual and clinical skills, is onerous indeed.

History

Staff turnover impacts on the acceptance and familiarity of the role of AHWs by newly recruited non-Indigenous staff. With appropriate training, nurses can undertake assessment within the AHW competency standards. However, it was felt that it would be preferable to have

[a]n old experienced health worker or a doctor who was in the old system [because] they know where you are coming from and what you have been trained in.

(Workshop 2)

One AHW said that:

It was different training wasn't it with the old training scheme? It was more supportive and everything else.

(Workshop 2)

Flexible delivery

Whilst on-the-job assessment was seen as positive by some trainers, a number pointed out its potential difficulties. Indeed, there is a combination of factors contributing to the difficulties of access to assessment. These include travel time to remote clinics, access to vehicles, resources, student attendance, and clinic approval.

One trainer described the potential problems:

The assessment process is quite difficult at times because of other commitments. For example, last year we would have had another five students completed in the year except that [in] certain communities, every time a lecturer organised plans to travel to that

community to do an assessment, something was happening so that you couldn't go. The health worker or student was sick. Therefore you can't just rearrange your whole timetable to then go back and fill those gaps...because there are twenty other students in your region that you're looking after, and your own timetable is so stringent that there isn't the flexibility in it.

(Interview 2)

Another potential complicating factor to on-the-job assessment is that it can be difficult to guarantee that the skills to be assessed will occur in the workplace. One trainer said:

Most remote clinics [where you are] teaching the competencies are always very busy and you don't always get a chance to see everything. You might only be out there for a week and you mightn't have the appropriate situation. Some of the competencies might require accident and emergency care. You mightn't get an accident and emergency [situation] in that week so it's sometimes limited in what you can actually assess.

(Interview 5)

Language, literacy and numeracy — some challenges

The first workshop included a session on analysing selected units of competency and breaking down the perceived workplace communication requirements. Examples arising from this discussion with AHWs in regard to multiliteracies embedded are set out below.

In the unit, *Provide a Screening Service*:

<i>Element 1:</i>	<i>Obtain Information</i>
<i>Performance Criteria 1.1</i>	<i>Client/significant others are interviewed/consulted for obtaining informed consent</i>

An AHW is required to obtain informed consent. In order to do this effectively, health workers need to fully understand the issue they are dealing with. The difficulty is how to gauge understanding in a cross-cultural context. This means that if they are dealing with an illness then they have to fully understand what the significance of the illness is, understand its possible effects, have the oral competence to impart the correct information, and make certain that the client understands. They also have to grapple with competing perspectives around causality.

Western systems dismiss spiritual causalities that underpin many traditional beliefs about health and healing.

In the unit, *Deliver Counselling*:

Performance Criteria: Information is accurate and easily accessed by the community. Further information is obtained as needed. Information is adapted and delivered in a way the community understands.

A number of skills are involved in these tasks. AHWs have to deliver the information accurately and in a way that is easily understood. It means they have to fully understand the information so they can effectively communicate it. This may require good translation skills because their clients may not speak English. Analytical skills are required in order to know if further information needs to be obtained and the AHWs need the ability to present the information in a form that is comprehensible for the community. These same Performance Criteria are in other competencies.

In the unit, *Deliver Health Education and Health Promotion*:

Element : Assess whether the health promotion and/or education service is appropriate to the community, using community processes

Performance Criteria are: Relevance of existing health promotion programs is discussed with community. Community feedback is relayed to the organisation or service provider

There are numerous skills involved in effectively performing these tasks. The capacity to assess the appropriateness of the health promotion for the community is essential, as is the ability to assist people to identify which aspects of a current program is useful or beneficial. The ability to understand the information enough, and have the language skills to be able to pass it on to the relevant body, is also necessary.

The health workers need to show that they have competence in each of these elements. There is nothing in the competencies that show how to do this. They are expected to ask, refer and report using appropriate register, tone and language. If AHWs do not have the underpinning prerequisite English language, literacy and numeracy competence, then achieving the workplace competencies will be hindered. Moreover, trainers and assessors may be unable to pinpoint the gaps.

The element *Maintain accurate client records* in the unit of competency, *Maintain Records*, has the following performance criteria:

Client information, assessment and referral records are maintained in accordance with organisational procedures

Written reports on client are prepared as required

Client details are maintained including contact and other relevant details

Procedures to protect client confidentiality are followed.

The detail required to maintain accurate records, and the ability to transfer information that may have once been communicated orally, require proficient literacy skills. They need to have underpinning knowledge of organisation guidelines and policies and government legislation.

The element *Compile Information*, in the unit *Collect Information on the Community's Health*, has the following performance criteria:

Information is compiled in appropriate systems and formats

Reports are developed

Emerging trends and issues are analysed and documented

Co-ordinator/researcher is consulted to ensure information is compiled appropriately.

The health workers are expected to gather and record information on a community's health for developing a specific program or project, or for creating a community health profile. Analytical skills and developing reports are two complex tasks that cannot simply be performed without considerable underpinning knowledge. The kind of report is not specified.

Pharmacy is the main clinical competency and has a multitude of numeracy tasks. It was necessary to have such a competency incorporated in the Northern Territory customised version of the competencies, because of the reality of the work undertaken by AHWs. This competency is rigorous because the potential legal ramifications of administering medicine to patients is so great.

Element 5: Dispense and administer medications.

Performance Criteria are:

Medications are dispensed and administered in accordance with workplace policies and procedures

Medications are administered by appropriate methods

Ability to calculate correct dosages is demonstrated

Appropriate records are maintained.

The ability to calculate correct dosages involves many complex numerical tasks, such as counting accurately, reading the marks on a syringe, and being able to convert from millilitres to milligrams. There is an embedded assumption that the health workers have the capacity to deal with these complex numerical tasks.

AHWs working in the field for a considerable period of time have demonstrated their ability to do many of the practical tasks required of the job. However, the units of competency in the AHW Competency Standards (NT) assume that current AHWs also have acquired the underpinning concepts related to each task. The ability to undertake a practical task under direction is quite different from performing the type of complex, cross-cultural, problem-solving activities that are described in the document. While the project of producing such highly skilled workers is a noble one, those working with the units of competency need to recognise the increased demand on AHWs, many of whom have worked successfully for a number of years. Furthermore, training institutions need to recognise that, with the increased demands on AHWs come increased demands on trainers, and these increased demands included a strong knowledge of English LL&N pedagogy and methodology.

Conclusion

It may be expecting too much that issues around the embedded English LL&N in vocational competency standards will be addressed substantially in the Indigenous adult vocational education and training sector in the near future. This must be carried out acknowledging other factors that impact on language and literacy acquisition, such as improved educational outcomes generally in the Indigenous population. If one takes a social literacies approach, then the kind of literacy acquisition that is needed to cope with written discourses encountered by AHWs in the medical world, may take a life time to acquire. If we consider many AHWs may come from non-literate home backgrounds, have poor primary schooling and minimal secondary schooling, the expectations may be unrealistic. The improvement of outcomes is also dependent on intergenerational shifts in literacy “behaviours” and practices. Improved outcomes in primary and secondary Indigenous education must be realised, and the employment goals for Indigenous adults must be attainable and realistic so that the motivation to acquire literacy is rewarded.

Recommendations

The following recommendations are made:

- That further research be conducted to measure whether the units of competency required by AHWs gaining Certificate III and IV in Aboriginal Health Worker (Clinical) — NT are of a higher level than for qualifications in other language and human services fields.
- That further research identifies whether current competencies of long-term AHWs can be facilitated and mapped within the current competency standards arrangements.
- That any rewriting or reworking of the units of competency for AHWs includes substantial input from English language and literacy professionals.
- That further research be conducted on national and international models of “good practice” in multilingual, multicultural, post-compulsory education and training delivery, and their implications for AHW training.
- That considerable resources be dedicated by DETYA and ANTA to the development of language and literacy curriculum support materials to resource the delivery of AHW training.
- The AHW competency standards be altered to specify that those units of competence which have a strong LL&N component be delivered by suitably qualified LL&N professionals, working in cooperation with health professionals, and that training providers be funded to meet this requirement.
- That a specific unit of competency, Workplace Communications Skills, be “bolted on” to the proposed AHW qualifications within the Health Services Training Package to ensure that specific LL&N is apparent, and cannot be missed by being embedded.
- That DETYA fund a program of professional development in the area of English as a Second Language methodologies for all teachers and trainers working in Indigenous contexts where English is a second or other language.
- Similarly, that DETYA fund a program of professional development in cross-cultural awareness for all teachers and trainers working in Indigenous contexts.

References

- Abbott, K., Fry, D., Ahmat, C., & Elliot, (1998) *CARPA Newsletter, Vol. 28 November 98*.
- Australian Bureau of Statistics (1994) *National Aboriginal and Torres Strait Islander Survey*. AGPS. Canberra
- Australian National Training Authority (2000a) 'Partners in a Learning Culture: A Blueprint for Implementing the National Strategy for Aboriginal and Torres Strait Islander People' in *Vocational Education and Training 2000-2005*.
- Australian National Training Authority (2000b) *National Indigenous English and Numeracy Strategy 2000-2005*.
- Australian National Training Authority (1996a) *Ways of Working: Exploring the professional development needs of remote area educators*. National Staff Development Committee. AGPS. Canberra.
- Australian National Training Authority (1996) *Adult Literacy & Basic Education: A report on professional development for teachers working with Aboriginal and Torres Strait Islanders*. National Staff Development Committee. AGPS. Canberra.
- Australian Qualifications Framework (1999) *Implementation Handbook, Second Edition 1998*, Australian Qualifications Framework (AQF) Advisory Board. Carlton.
- Barr, R. et al. (Eds.) (1991) *Handbook of Reading Research Vol 2*, Longman. New York and London.
- Barton, D. (1994) *Literacy: An introduction to the ecology of written language, Oxford and Cambridge*. Blackwell. Massachusetts.
- Batchelor College, School of Health Studies (1997) *Procedure Manual*. unpublished manuscript.
- Bell, J. (1997) *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science*. Open University Press. Buckingham.
- Bradley, S., Parker, P., Perisce, S. & Thatcher, J. (2000) *Built in not bolted on*. http://www.anta.gov.au/PUBS/BuiltIn/Built_In_not_Bolted_On.pdf

- Collins, B. (1999) *Learning Lessons: An independent review of Indigenous education in the Northern Territory*. Northern Territory Department of Education.
- Commonwealth of Australia (May 2000) *Health is Life: Report on the Inquiry into Indigenous Health*. House of Representatives Standing Committee on Family and Community Affairs.
- Commonwealth Department of Health (1989) *A National Aboriginal Health Strategy*. AGPS. Canberra.
- Community Services & Health Training Australia (July 1996) *Aboriginal & Torres Strait Islander Health Work - Final Draft - National Competency Standards*.
- Department of Health (1986) *Aboriginal Health Worker Assessment for Registration*. NT Department of Health
- Goulborn, B. & Alexander, A. (1999) *A New Assessment Tool: Incorporating language, literacy and numeracy skills into Training Packages*.
- Hakuta, K. (2001) *Bilingualism and Bilingual Education: A research perspective* <http://www.tc.edu/enemeth/biling/focus1.html>
- Heath, S. B. (1991) The sense of being literate: Historical and cross-cultural factors. In R. Barr, M. L. Kamil, P. Mosenthal and P. D. Pearson (Eds.) *Handbook of Reading Research Vol. 2*. New York: Longman.
- Kral, I & Ward, D.(2000) *Report on the Review of Education and Training in the Ngaanyatjarra Lands*, Ngaanyatjarra Council, Alice Springs.
- Maher, P. (1999) A review of "Traditional" Aboriginal health beliefs in *Australian Journal Rural Health* 7, 229-236
- Merriam, S. B. (1988) *Case Study Research in Education. A Qualitative Approach*. Jossey-Bass Publishers. San Francisco and London.
- Sanguinetti, J. & Hartley, R. (2000) *Building Literacy and Numeracy into Training: A synthesis of recent research into the effects of integrating literacy and numeracy into training packages*, ALNARC. Melbourne.
- Sidoti, C. (2001) *The A. W. Jones Lecture*.
http://www.adelaide.edu.au/5uv/awjones/lecture_script.html

- Tucker, R.G. (1999) *A Global Perspective on Bilingualism and Bilingual Education*. <http://www.cal.org/ericcll/digest/digestglobal.html>
- Volkoff, V. & Golding, B. (2001) "Drowning, not Waving: Equity Target Groups in the Marketplace" in *Learning Communities: International Journal of Adult and Vocational Learning*.
- Walton, C. (1996) *Critical Social Literacies*. NTU Press. Darwin.
- Yin, Robert K. (1984) *Case Study Research. Design and Methods*. Sage Publishers. Newbury Park.

Appendix A

Interview Questions

- 0 What are your professional qualifications?
- 1 How many years' experience do you have in the health field
separate from training?
- 2 Can you tell me what those health positions were?
- 3 How long have you been an Aboriginal Health Worker Educator/
Trainer?
- 4 What was your prior experience in Aboriginal health?
- 5 Do you have an adult literacy teaching qualification?
- 6 If so, how long have you taught/did you teach adult literacy?
- 7 When did you first start training using the AHW Units of
Competence (Certificate III)?
- 8 Were you familiar with Competency Based Training before you
started using the AHW Units of Competence (Certificate III)?
- 9 Have you been given any inservicing or Professional
Development in CBT?
- 10 Have people been specially chosen to be AHWs or can anyone do
it?
- 11 Can you tell me the positive aspects of the Certificate III AHW
training/assessment system?
- 12 Can you tell me the negative aspects of the Certificate III AHW
training/assessment system?
- 13 Can you tell me how these competencies have affected registered
health workers?
- 14 What sorts of things have been easy for the trainees?
- 15 What sorts of things have been difficult for the trainees?
- 16 How easy are the units of competence to read and understand?
- 17 How easy are the units of competence to develop teaching plans
and resources for?
- 18 Is it clear what the trainee will need to know to achieve
competence and at what level?
- 19 Which units of competence are the easiest to teach? Why?
- 20 Which units are more difficult to teach? Why?
- 21 Could you describe situations where trainees have had difficulty
with the literacy demand?

- 22 Could you describe situations where trainees have difficulty with the numeracy demand?
- 23 What sort of spoken language difficulties do trainees have?
- 24 How would you describe the English literacy skills of most trainees?
- 25 How would you describe the numeracy skills of most trainees?
- 26 For how many trainees is English not their first language?
- 27 How would you describe the schooling of trainees?
- 28 In your experience what sort of qualities does a good AHW have?
- 29 Do you think the Units of Competence give sufficient regard to relevant Aboriginal cultural knowledge?
- 30 When you encounter a literacy difficulty what strategies have you implemented to deal with this?

Appendix B

Consent form

I
(participant's name) _____

Of (locality) _____

Hereby consent to be a participant of a research study undertaken by the Central Australian ALNARC research project.

I understand that:

- The Adult Literacy and Numeracy Australian Research Consortium (ALNARC) is funded by ANTA through DETYA to promote research activities nationally in adult literacy and numeracy. The members of the steering committee are: Inge Kral (education consultant), Metta Young (Centre for Appropriate Technology), Evelyn Shaber (Batchelor Institute), Tony Thorpe (Batchelor Institute), Jo Caffery (Batchelor Institute), Ann Davis (Batchelor Institute) and Steve Eggleton (Centralian College). The research assistant is Anne Every.

The overall aims of the project are:

- to identify the complexities of literacy practices in the contexts of Aboriginal Health Worker training/employment in Central Australia
- to build a picture of how curriculum (and training package) delivery could better support the forms of literacy required both in local contexts and in the broader context of social, technological and economic change.

In this workshop some of the literacy issues which arise from assessing against the competencies will be looked at. This workshop will be scribed.

- I understand the aims, methods, anticipated benefits of the research study, which have been explained to me.
- I understand that I voluntarily and freely give my consent to my participation in such a research study.
- I understand that I am free to withdraw my consent at any time during the study, in which event my participation in the research study will immediately cease and any information obtained from me will not be used.

- I understand that where my participation has formed the basis of the research study, my knowledge will be kept absolutely confidential and my name and address not used for publication purposes without my permission.
- I understand that the results of the research will not be published in a form that permits my identification without my consent.
- My contribution will not be used for any purpose other than that for which consent was gained, unless further permission is given and, the return, storage or destruction of data has been negotiated with the participant.

I understand the points raised above and I freely and voluntarily participate in this project.

Participant's signature: _____

Date: _____

Appendix C

Units of Competency: Certificate III in Aboriginal Health Work (Clinical)

Stream	Core Units	Optional Units
Clinical Care	<ul style="list-style-type: none"> • Provide First Aid • Provide accident and emergency care • Provide general health care • Provide a screening service • Use medical equipment • Pharmacy • Respond to medical emergencies 	<ul style="list-style-type: none"> • Deliver health care to old people
Specific Care	<ul style="list-style-type: none"> • Deliver health care to other specialist health care • Deliver health care to children • Deliver health care to men OR • Deliver health care to women • Deliver nutritional health care 	<ul style="list-style-type: none"> • Deliver health care to youth • Deliver health care to people with disabilities • Deliver substance abuse/misuse care • Deliver mental health care
Community Care	<ul style="list-style-type: none"> • Deliver Counselling • Respond to community emergencies • Deliver environmental health care • Deliver health education and health promotion • Deliver interpreting service 	<ul style="list-style-type: none"> • Social and emotional wellbeing
Management and Teams	<ul style="list-style-type: none"> • Advocate for the rights and needs of individuals and families • Demonstrate safe working practices • Work with others to deliver effective health outcomes • Provide informal training 	<ul style="list-style-type: none"> • Implement disaster plan
Administration	<ul style="list-style-type: none"> • Maintain records • Use office equipment and technology 	<ul style="list-style-type: none"> • Produce written communication
Research	<ul style="list-style-type: none"> • Collect information on the community's health 	

Workers at this level are required to have competency in all 23 core units and 1 elective/optional unit.

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