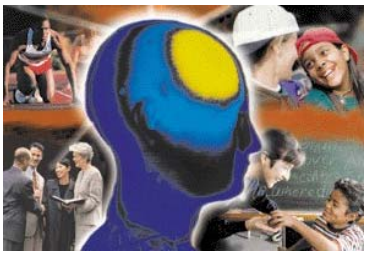

SELF Research Centre
Self-concept Enhancement and Learning Facilitation
Director Herbert W. Marsh
University of Western Sydney, Australia

Trekking Beyond: Re-imagining a Future Role of Evaluation for Making a Real Difference for Indigenous Students

Rhonda G. Craven
Self-concept Enhancement and Learning Facilitation (SELF) Research Centre, University of Western Sydney, Australia

Abstract

All Australian governments have acknowledged that Indigenous Australians remain the most educationally disadvantaged group of Australians. This dire situation has persisted for decades. Historically in Australia evaluation was used as a tool of oppression whereby, culturally biased tests were administered to validate Eurocentric misconceptions and stereotypes about Indigenous Australia. More recently evaluation has been used as a tool to measure whether Indigenous students are attaining educational outcomes commensurate with their non-Indigenous peers. The purpose of this presentation is to present a rationale for the proposal that evaluation has the potential to make a real difference to Indigenous students' lives and to re-imagine the form evaluation should take to achieve such a goal. It is suggested that evaluation needs to be culturally appropriate, diverse in target content and form, permeate all education levels, and be utilised to inform teaching, student mastery of tasks, and to demonstrate that education systems are ensuring that Indigenous students are attaining educational outcomes valued by Indigenous people at a commensurate level to their non-Indigenous counterparts.

Introduction

Today I want to talk about evaluation in relation to Indigenous Australian students. The nature of disadvantage experienced by Indigenous Australians and their population profile in Australia is different to many other regions. However I am hoping that some of the strategies I intend to suggest may be adapted to other specific circumstances.

I am not going to use fancy theories and words, rather I am going to explain my thoughts on what I think needs to be evaluated and why. I also intend to passionately advocate that evaluation should be conceptualised as a dynamic process for multiple purposes and as such take multiple forms that result in multiple tangible outcomes. I hope to demonstrate that no one form of evaluation is appropriate and evaluation must be reconceptualised to result in tangible outcomes.

I would like to start today by giving you a quick test. This test is called the KOORI IQ Test (see Appendix 1) and was developed by James Wilson-Miller. I am also going to evaluate your scores so you can see how well you have done on this test in comparison to norms. I have been told you are bright lot at this conference and I saw how well a New Zealander did on 'Who wants to be a millionaire' the other week so I am expecting to be dazzled by your results. It is a multiple choice test so just write down the question number and your answer to it on a piece of paper (see Appendix 1 for questions and answers).

Put your hand up if you felt ignorant or disempowered when you were doing your test? Put your hand up if you felt dumb when you got your score?

What this test clearly shows is that culturally biased tests do not produce reliable results. It also needs to be realised that culturally biased testing and assessment has served not to address Indigenous Australians' needs for generations. For example, in 1964 58% of Aboriginal school students in NSW were classed as 'Slow Learners'! What this test highlights is the need to develop culturally appropriate assessment tasks, and understand local Indigenous language usage when developing such tasks. The test also demonstrates that the question of what to evaluate needs to be carefully considered. Often what content is evaluated in relation to Indigenous Australians is culturally alien in nature and often does not tap into content that Indigenous Australians know well nor the skills Indigenous students bring to the classroom. Yet most assessment tasks that aim to evaluate learning processes could readily incorporate Indigenous content. It also needs to be noted that in order for Indigenous students to achieve equitable life opportunities, evaluation needs to result in Indigenous students' acquiring knowledge and skills commensurate to non-Indigenous peers. It is not enough to evaluate only Indigenous knowledge and skills to serve the interests of Indigenous students.

What then should characterise evaluation? Before attempting to address this question it is important to understand what Indigenous Australians strive for. To characterise this I would like to read you a poem written by one of Australia's leading Aboriginal educators – the late Oodgeroo Noonuccal – whom some of you may better know as Kath Walker. This poem Oodgeroo termed her most expensive poem as the first time she read this poem in a public forum her home was invaded and her possessions destroyed. The poem was considered a powerful tool at the time it was written and the message in this poem is as powerful today as it was when it was first written.

Aboriginal Charter of Rights

We want hope, not racialism,
Brotherhood, not ostracism,
Black advance, not white ascendance:
Make us equals, not dependants.
We need help, not exploitation,
We want freedom, not frustration;
Not control, but self-reliance,
Independence, not compliance,
Not rebuff, but education,

Self-respect, not resignation.
Free us from a mean subjection,
From a bureaucrat Protection.
Let's forget the old time slavers:
Give us fellowship, not favours;
Encouragement, not prohibitions,
Homes, not settlements and missions.
We need love, not overlordship,
Give of hand, not whip-hand wardship;
Opportunity that places
White and black on equal basis.
You dishearten, not defend us,
Circumscribe, who should befriend us.
Give us welcome, not aversion,
Give us choice, not cold coercion,
Status, not discrimination,
Human rights, not segregation.
You the law, like Roman Pontius,
Make us proud, not colour-conscious;
Give us the deal you still deny us,
Give goodwill, not bigot bias;
Give ambition, not prevention,
Confidence, not condescension;
Give incentive, not restriction,
Give us Christ, not crucifixion.
Though baptised and blessed and Bibled
We are still tabooed and libelled.
You devout Salvation-sellers,
Make us neighbours, not fringe-dwellers;
Make us mates, not poor relations,
Citizens, not serfs on stations.
Must we native Old Australians
In our land rank as aliens?
Banish bans and conquer caste,
Then we'll win our own at last.

(Oodgeroo Noonuccal, 1990, pp. 36-37).

Absolutely crucial to achieving the rights described by Oodgeroo is the need to address a critical social justice of our time – the need to ensure Indigenous people attain educational outcomes and ensuing life opportunities commensurate to their non-Indigenous peers. However it is highly unlikely that such an aim will be realised unless effective evaluation strategies are conceptualised and implemented. In this presentation I would like to pose and discuss some possible answers to the following questions:

- Whose interests should evaluation serve?;
- How should effective evaluation for Indigenous Australian students be conceptualised?;
- What should be evaluated? Why?;

- What expected outcomes should result from effective evaluation?; and
- What should characterise evaluation for the future?

Whose Interests Should Evaluation Serve?

National reports, and all Australian governments have acknowledged that Aboriginal people are significantly educationally disadvantaged (Hughes, 1988; Commonwealth of Australia, 1994; 1995; 1997; Johnston, 1991; Kemp, 1999) which has dire implications for further education, employment and life opportunities. In fact, "Indigenous people are the most disadvantaged group within Australia across the full spectrum of socio-economic indicators" (National Indigenous English Literacy and Numeracy Strategy (NIELNS), 2001, p. 1). Brendan Nelson our Federal Minister for Education, Science and Training has acknowledged:

> There can be no higher priority in a complex and broad portfolio than to improve educational outcomes for Indigenous Australians (Commonwealth of Australia, 2002, p. iii).

Clearly Indigenous Australians are not achieving educational outcomes at a commensurate level to their non-Indigenous peers. If we as educators are really concerned about social justice and equity then it is clear that it is time for evaluation to serve the interests of Indigenous people.

How Should Effective Evaluation for Indigenous People be Conceptualised?

For evaluation to meet the needs of Indigenous students the definition of evaluation needs to be re-conceptualised. Narrow definitions and applications of evaluation strategies will not serve as constructive tools for addressing Indigenous disadvantage.

Rather evaluation needs to be more broadly construed as a complex dynamic process that: targets a wide range of key variables (e.g. participation, individual learning, teaching strategies, learning processes, teaching programmes, policies, adaptive psychological functioning, family/community support), involves multiple participants not just students (e.g. teachers should be evaluating their teaching and the extent of Indigenous parent and community participation in the institution) and stakeholders (institutions, systems, governments), takes multiple forms (e.g. student self-evaluation, teacher self-evaluation, progressive evaluation, teacher evaluation, researcher evaluation, national evaluation of desirable educational outcomes also see Hargreaves, Earl, & Schmidt, 2002; Chinn, & Samarapungavan, 2001; Boud, Cohen & Sampson, 1999), draws on multiple research methods (e.g. sophisticated statistical analyses, descriptive statistics, narrative analysis, content analysis, alternative assessment (Davies & Wavering, 1999), formative assessment and summative assessment) such that the selected evaluation strategies match the targeted outcomes), is on-going in nature (e.g. informs daily practice, programmes of research, government policy) and most importantly serves the interests of Indigenous people by resulting in tangible equitable educational outcomes and life opportunities for Indigenous people (see Figure 1). Such a construing of evaluation as a dynamic process also involves evaluation being:

- culturally appropriate in content, form and administration procedures;
- flexible in nature so that specific evaluation strategies can be selected and adapted to suit local needs (e.g. a multiple array of different types of evaluation strategies should be drawn upon so that what was actually taught is actually evaluated);
- utilised by multiple stakeholders (e.g. individuals, parents, communities, educational organisations (pre-schools, schools, vocational education providers, universities), and other stakeholders (regions, education systems, and governments));
- utilised for multiple educational purposes that aim to improve educational outcomes for Indigenous students (e.g. enhance teaching/learning processes; evaluate programme effectiveness, enhance system and government educational policy, enhance knowledge of what leads to success, inform theory, research and practice); and
- recognised as a vital tool for enhancing a broad array of educational outcomes valued by Indigenous communities rather than solely as a tool for enhancing academic achievement and most importantly result in a multiplicity of tangible outcomes.

In short, the role of evaluation could be enhanced if it was defined as dynamic in nature and re-imagined to ensure that it is effective. Attesting to this need is the fact that the vast majority of past evaluation practices in Australia have simply failed to make a dent in Indigenous educational disadvantage.

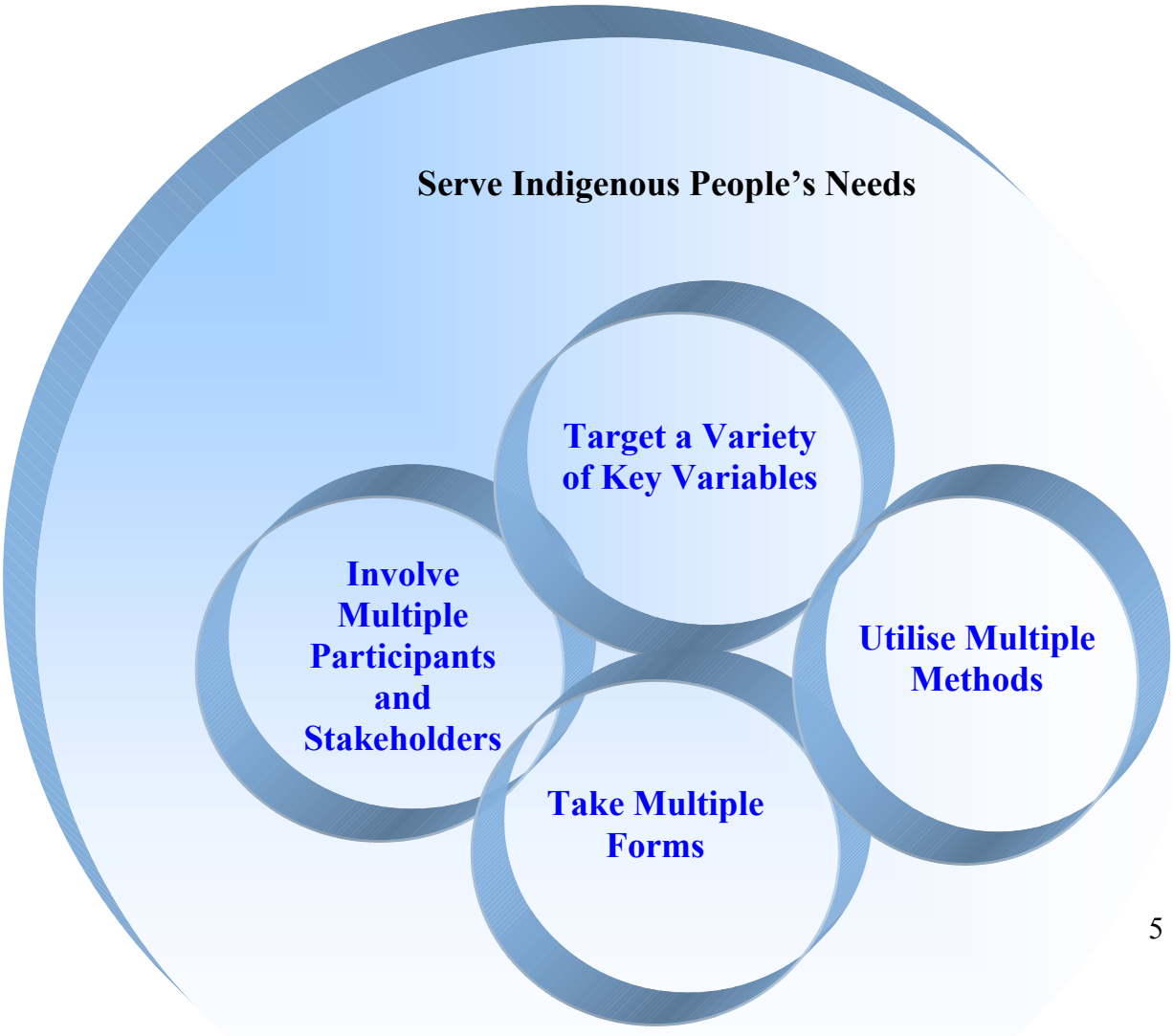

Figure 1. Reconceptualising evaluation as a dynamic process.

What Should Be Evaluated? Why?

Indigenous Participation in Education

Obviously it is highly unlikely that a student can do well in an educational environment if they do not fully participate. A large number of Indigenous students do not participate in education at all. In fact "13% of Indigenous 5-14 year olds are not attending an educational institution compared with 5% of their non-Indigenous peers" (Commonwealth of Australia, 2002, p. 30). Of the Indigenous students who do participate in schooling, attendance rates are of concern. In government and Catholic school systems in 2001 average attendance rates for Indigenous primary students rates varied between 75%-92% compared with 85%-95% for non-Indigenous students. Secondary rates were 70%-86% for Indigenous students and 86%-92% for non-Indigenous students (Commonwealth of Australia, 2002, p. xvii). Whilst completing Years 10 and 11 has been demonstrated to increase Indigenous students' chance of employment by 40% and completing Year 12 improves employment prospects by a further 13% the Commonwealth Government 2000 School Census quoted retention rates for Indigenous Students to Year 12 as 36.4% at less than half of non-Indigenous students at 73.3% (NIELNS, 2001, p. 1). Only 6% of Indigenous students participate in Years 11-12, whilst 13% non-Indigenous students participate (Commonwealth of Australia, 2002, p. xix). Hence present school retention rates for Indigenous students are still significantly lower than those of the general community. Indigenous students who stay at school are also "less likely than non-Indigenous students to achieve Year 12 Certificates that open up career or study options, generally 14%-23% of Indigenous Year 12 certificate holders achieved tertiary entrance qualifications compared with 49%-57% non-Indigenous students" (Commonwealth of Australia, 2002, p. xix). As such even Indigenous students who stay at school are less likely than their non-Indigenous peers to attain either Year 12 certificates or entry to University.

Recently, the number of commencing tertiary Indigenous students has also fallen by 16% between 1999 and 2001 (Commonwealth of Australia, 2002, p. 95). Of the Indigenous students who gained University entry in 2001 they accounted for 1.2% of all Australian tertiary students which is less than their population share of 2% (Commonwealth of Australia, 2002, p. 95). Furthermore of the Indigenous students who gain entry to University they are more likely to be enrolled in Arts, humanities and social science degrees (34.8%) and Education (30%) than in other fields of study (Department of Education, Straining and Youth Affairs (DETYA), 2000a, p. 11), less likely to studying at a Bachelor level (63.1% of Indigenous students in 2001 were undertaking a Bachelor's degree) and more likely to be undertaking courses below the degree level (27.1% of Indigenous students in 2001 were taking courses below the Bachelor level) (Commonwealth of Australia, 2002, p. 96). They are also less likely than their non-Indigenous peers to succeed and complete University degrees. For example, measures of the proportion of university units passed in a year compared to the total units enrolled in show that success rates for Indigenous students in 2001 were 68% compared with 87% success rates for non-Indigenous students (Commonwealth of Australia, 2002, p. 97). In regards to completion rates 62.7% of non-Indigenous students complete an award at the same institution compared to 32.9% of Indigenous students (Commonwealth of Australia, 2002, p. 97). Even of the Indigenous students who succeed at University they are less likely to undertake further postgraduate courses (DETYA, 2000, p. 12).

What these statistics show is that there is a lot of room for improvement on the Australian report card in relation to Indigenous people's participation in education. What they also demonstrate is that evaluation must be utilised to track and monitor Indigenous people's participation in schooling and further education. So important is this issue is that the Commonwealth of Australia has produced a National Report to Parliament on Indigenous Education and Training, 2001 (Commonwealth of Australia, 2002). This report is the first of a series of annual National Reports to Parliament that focuses on the education and training outcomes of the Indigenous Education Strategic Initiatives Programme (IESIP) which funds over 90% of Indigenous students in education and training in Australia. It is a baseline report against which future outcomes and improvements can be measured in the national context. Evaluating Indigenous participation at all levels of education is a necessary precursor to identifying problems, proposing solutions and monitoring whether solutions proposed result in tangible outcomes. Hence in relation to the question what should be evaluated? – Indigenous students' participation in all levels of education should be evaluated. This does not mean that governments alone should be responsible for evaluating participation and only statistics need to be gathered to achieve this purpose. Rather if we construe evaluation as a dynamic process it is also necessary for Indigenous students' participation to be monitored at all levels of the process, using a variety of evaluation tools, and a broader construal of what participation is. For example, teachers need to continuously evaluate the participation of Indigenous students in their classrooms – not just Indigenous students' attendance which can be monitored on a class roll but Indigenous students' participation in and engagement with learning in classrooms. For example teachers need to evaluate the types of lesson activities Indigenous students enjoy and fully participate in, the types of teaching strategies/learning tasks that foster Indigenous students' engagement, and the types of content Indigenous students find relevant and culturally appropriate. The purpose of such an evaluation can be seen to be not an end in itself but a dynamic interactive process that can serve to meet the needs of Indigenous students by finding out where problems lie, inform intervention implementation, and demonstrate tangible outcomes. It could be argued that if every teacher was fully evaluating Indigenous participation in an ongoing, consistent manner that many of the participation issues plaguing Indigenous students would be rectified and therefore there would not be a need for national reports to monitor whether we are 'closing the gap'. However, it also needs to be emphasised that evaluation is not solely a teacher's responsibility. Schools, educational regions, educational systems, and nation's should also be evaluating participation to inform both policy and practice in order to identify and share what works and track that tangible outcomes result.

It is also not enough to evaluate Indigenous student participation alone. In Australia we have found that the involvement of Indigenous parents and communities in education is vital to the successful participation of Indigenous students. As such parent and community participation in education also needs to be fully evaluated to ensure that: Indigenous communities are being listened to and responded to; opportunities are provided for Indigenous people to participate in the educational activities and educational decision-making; there is an Indigenous presence in education; and curricula is inclusive of Indigenous perspectives. Clearly what should be evaluated in relation to participation needs to be: construed far more broadly, multiple evaluation strategies need to be employed that match key factors being evaluated, and all levels of systems should engage in evaluation for one purpose and

that is to ensure that evaluation results in making a real difference to Indigenous participation (see Figure 2).

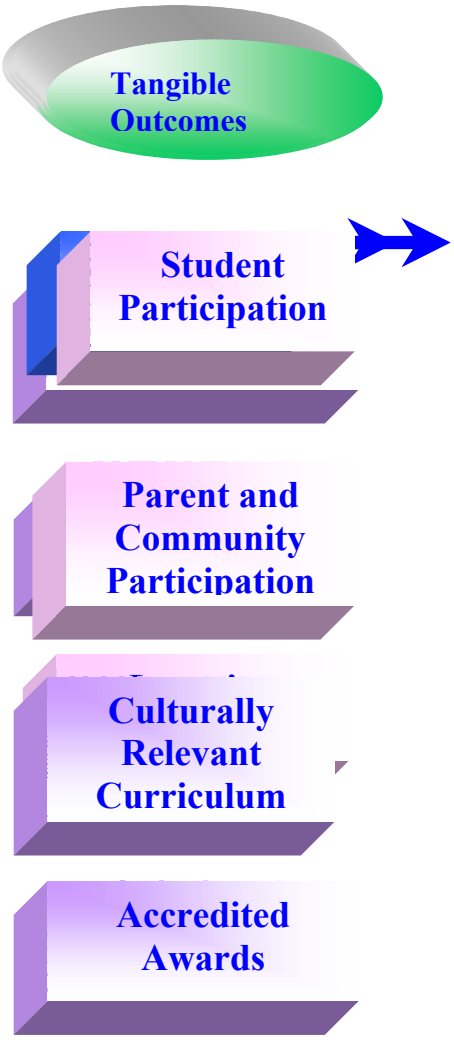

Figure 2. Construing aspects of the evaluation of Indigenous participation as a dynamic process.

Perceptions of Education

My research has led me to the conclusion that what educators perceive as taking place in educational environments may not be necessarily perceived in the same way by Indigenous students and parents. A cultural conflict can and often does exist. For example career education advisors have expressed that Indigenous students are not proactive when it comes to career education, in that they rarely make an appointment to discuss their aspirations. However, Indigenous students from the same schools have contended that the career advisor is not interested in advising them as is demonstrated by the fact that the career advisor does not approach them. In short there are two conflicting interpretations of a key issue. Based on a large-scale evaluation study (Craven, Tucker, Munns, Hinkley, Marsh, and Simpson, in press) we found that

career education strategies utilized by schools are often perceived as either irrelevant or inadequate by Indigenous students. Whilst non-Indigenous Australians are able to be more proactive in their approach to obtaining information relevant to their career choices, Indigenous Australians do not have the economic base, historical tradition, or human capital to draw upon. We also found that a number of career education programmes were weak in that they seemed to rely solely on students approaching the career advisor for advice rather than being devised to be a broad and informative career education programme. Consequently by evaluating Indigenous students' perceptions we were able to evaluate the nature and relevance of career education programmes for Indigenous students and on this basis suggest some new possibilities for solutions (see Craven et al., in press).

The above is just one example of research that has found that educators and Indigenous students' perceptions of the same issue differ. The latter is problematic as if we cannot accurately evaluate Indigenous students' perceptions then we cannot accurately identify problems never alone formulate solutions. What Indigenous students perceive to be taking place is often the reality they experience, and this same reality is what therefore can impact on educational outcomes. Hence it would seem important to evaluate Indigenous students' perceptions of education rather than assume other people's interpretations of such perceptions are accurate. Perceptions that could be useful to evaluate include Indigenous students' perceptions of: the value of specific educational programmes (e.g. career education, mentoring programmes) and new initiatives; the transparency, consistency and fairness of specific educational policies (e.g. school discipline policies); the relevance of specific aspects of the learning programme to their needs (e.g. specific subjects, subject matter covered, learning tasks); and the extent to which their knowledge and culture is valued in the educational setting.

Another perspective is offered by Chinn and Samarapungavan (2001), who recommend that teachers should begin to gather information about students' beliefs as well as their understandings in order to develop more accurate theories about the real learning process, which can involve changes in belief as well as changes in understanding of new ideas. They contend that by finding out about both, teachers will develop a much better understanding of the learning process and how to facilitate learning. Most theoretical and practical work has conceptualised learning as knowledge change. However, the conceptualisation of learning as changes in knowledge confuses changes in understanding with changes in belief. This confusion can lead to mistaken conclusions about how to plan instruction, and how to assess learning (Chinn & Samarapungavan, 2001). Hence evaluating student beliefs in relation to the learning process has the potential to benefit Indigenous students by enhancing learning. As such, I suspect if we spent more time evaluating what Indigenous students perceived to be occurring in educational environments we could expedite the identification of solutions and many of the latter could be generated from Indigenous people participating in such evaluations (see Figure 3).

Figure 3. Construing aspects of the evaluation of Indigenous perceptions of education as a dynamic process.

Individual Learning

The Teachers
For Mother, who was never taught to read and write

Holy men, you came to preach:
'Poor black heathen, we will teach
Sense of sin and fear of hell,
Fear of God and boss as well
We will teach you work for play,
We will teach you to obey
Laws of God and laws of Mammon…'
And we answered, 'No more gammon,
If you have to teach the light,
Teach us first to read and write.'

(Oodgeroo Noonuccal, 1990, p. 23).

Obviously effective evaluation needs to be underpinned by evaluating each student's learning. It never ceases to amaze me that some educators are not aware of individual Indigenous students strengths and weaknesses, yet such information is prerequisite to developing appropriately challenging tasks to extend the learning process. I would contend educators must be able to identify exactly what strengths Indigenous students bring to the classroom, what they already know, what skills they have mastered, what they need to learn next at each step of the learning process, and how best to expedite learning by meeting individual needs. This cannot happen in an information vacuum, rather progressive evaluation needs to take place at each phase of the learning process to monitor and check that each stage of the learning process has been mastered. Such progressive evaluation has the potential to inform and shape the learning process and can benefit Indigenous students by resulting in building a pattern of success. The latter is important in that a number of Australian education "providers have indicated that when students experience success, they are more likely to attend regularly, thereby enhancing their chances of further success" (Commonwealth of Australia, 2002, p. xix). Basically success fuels further success and impacts on a variety of desirable educational outcomes. As such evaluation needs to be construed to precisely monitor Indigenous students' achievements and skills.

Teacher knowledge of the learning process is not enough in of itself to enhance learning. Indigenous students also need to be made aware of what the next step in the learning process is, what the expected standard is, and encouraged to perceive that they can master the next step. It is also vital to communicate to Indigenous parents and communities this information to empower them to assist in facilitating students' learning. Effective teaching and learning is premised on the appropriate setting of challenging goals, the structuring of the situation to attain these goals most effectively, and the provision of feedback relevant to attaining the goals. This process is consistent with Black & Wiliam's (1998a) summary of five hundred and seventy eight articles, in which they concluded that that the provision of challenging assignments and extensive feedback lead to greater student engagement and higher achievement. Hence teachers need to evaluate the extent to which they communicate feedback to Indigenous students, parents and communities: What aspects of the

learning process have been successfully mastered, the nature of the next step in the learning processs, and what the expectations are for demonstrating that mastery is achieved. It is also vital that teachers listen to Indigenous parents' and community members' evaluations of the strengths and weaknesses of individual learners and foster such interactions.

Whilst teacher evaluation is vital it needs to be emphasised that in order to fully engage in learning Indigenous students also need to be empowered to self-evaluate. Self-evaluation can assist Indigenous students to de-mystify the learning process by helping them to comprehend aspects of the learning process they have mastered so that they perceive themselves as successful learners and to identify the next step in the learning process. Hence, self-evaluation has the potential to help Indigenous students see where they have been and map where they need to go next. Self-evaluation also helps Indigenous students recognise and reflect upon their successes. It can also assist Indigenous students to internalise their successes by attributing their successes to ability, effort and knowing the right strategy. Acknowledgement of success can serve to fuel further academic striving behaviours (e.g. persistence on tasks). As such self-evaluation has the potential to be a critical strategy for enhancing Indigenous students' learning (see Figure 4).

Figure 4. Construing aspects of the evaluation of individual learning as a dynamic process.

Teaching and Learning Processes, Programmes and Policies

Problems inherent in much current classroom assessment practice have been considered at length, and have been particularly addressed in one major review by Black & Wiliam (1998a) which found that assessments encourage rote and superficial learning, that in the questions that teachers use are not critical about what was being assessed, and that in the use of assessments the grading function is over-emphasised and the learning function underemphasised (Black, 2000). Studies reviewed showed that innovations which included strengthening the practice of formative assessment produce significant, and often substantial, learning gains (see Black, 2000; Leat & Nichols, 2000; Black & Wiliam,1998a; 1998b). Some of these studies also showed that improved formative assessment helps the (so-called) low attainers more than the rest, and so reduces the spread of attainment while also raising it overall (Black, 2000). Black & Wiliam (1998a) suggest that the concept of dynamic assessment incorporates all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged. For assessment to function formatively, the results have to be used to adjust teaching and learning; thus a significant aspect of any program will be the ways in which teachers make these adjustments (Black & Wiliam, 1998b).

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To serve Indigenous people's needs it is not enough to evaluate individual learning outcomes as other processes underpin such outcomes. For evaluation to be an effective tool it also needs to be utilised as formative assessment to evaluate: teaching to ascertain what works, learning processes to identify how best Indigenous students learn, programmes to ensure new initiatives result in intended outcomes, and policy to ensure that policies are resulting in tangible outcomes. As such evaluation should result in enhancing teaching and learning processes, ensuring programmes and policies are effective such that the latter result in tangible outcomes for Indigenous students (see Figure 5).

Figure 5. Construing aspects of the evaluation of teaching and learning processes, programmes and policies as a dynamic process.

Adaptive Psychological Functioning

Educational psychologists have found that adaptive psychological functioning impacts on learning. Self-concept is a key psychological variable that has been demonstrated to impact upon other desirable educational outcomes. High self-concept is also valued by Indigenous community members as an important outcome of schooling. For example, Charles Davison, President, New South Wales Aboriginal Education Consultative Group (NSW AECG) contends that:

> NSW AECG cannot think of a single problem plaguing Aboriginal children – from alienation from school, high rates of absenteeism, enjoyment of school, significant under-achievement, reduced educational and career aspirations, youth depression and suicide, conceptions about employment prospects and ability to secure rewarding, productive careers – that is not traceable, at least in part - to the failure of education systems to maximize our children's identity self-concepts as Aboriginal people, proactively enhance our children's academic self-concepts, and ensure our children in general feel good about themselves. We feel that maximizing Aboriginal children's self-concepts is absolutely fundamental to enhancing and ensuring as individuals they reach their full potential (quoted in Craven & Tucker, in press).

In fact, Indigenous Elders and communities have emphasised for decades that a vital outcome of schooling should be that children feel positively about themselves and their capabilities. Indigenous community members believe that children's self-concepts need to be enhanced in terms of identity and specific academic areas in order for Aboriginal children to attain academic outcomes commensurate with other Australians. "Members firmly believe that improving our children's self-concept directly impacts on and improves other desirable educational outcomes (e.g. academic achievement, school attendance, enjoyment of school, motivation to succeed, general optimism, undertaking further education and training) that are highly valued by Aboriginal community members" (Charles Davison, President, NSW AECG, quoted in Craven & Tucker, in press). Yet recent research has demonstrated that secondary Indigenous students' academic self-concepts (school, maths, verbal) are significantly lower than their non-Indigenous peers (Craven et al., in press). The results in relation to self-concept are of particular concern given positive academic self-concepts have been shown to causally influence academic achievement (Marsh & Craven, 1997; Marsh & Yeung, 1997; 1999, Marsh, 2002) and other desirable educational outcomes (e.g. school attendance, course selection, and going to university), and the development of a positive self-concept is one of the key goals of education (Ministerial Council on Education, Employment, Training and Youth Affairs, 1998). It is important to emphasise that research results in this area imply, that interventions that successfully produce changes in the appropriate area of self-concept and achievement are more likely to have long lasting effects than studies that focus exclusively on academic self-concept or academic achievement alone (Craven, Marsh & Burnett, in press; Marsh & Craven, 1997, Marsh, 2002). Furthermore, Marsh and Craven (1997) have emphasized that short-term gains in achievement are also unlikely to be maintained unless there are corresponding gains in academic self-concept and concluded that "enhancing a child's academic self-concept is not only a desirable goal but is likely to result in improved academic achievement as well" (p. 155).

Enhancing self-concept is also considered fundamental to maximizing human potential, from early development and school achievement, to physical/mental health and well-being, to gainful employment and other contributions to society. For over two decades, Marsh has undertaken a research program examining what makes a difference during adolescence. This research is based in part on the extensive educational "census-like" databases of nationally representative samples of 1000s of high schools and a diversity of educational and psychological variables collected on multiple occasions during high school and after graduation. This research program has shown that positive and negative effects of some critical life events on subsequent outcomes are mediated through their significant effects on self-concept. Marsh and colleagues have demonstrated that changes in critical outcomes variables (e.g., coursework selection (Marsh, & Yeung, 1997b) educational and occupational aspirations (Marsh, 1991), bullying (Marsh, Parada, Yeung & Healey, 2001), relations with parents (Marsh & Craven, 1991), locus of control (Marsh & Craven, 1997) were related to the effects of academic self-concept. The attainment of a positive academic self-concept has also been shown to mediate positive influences on multiple desirable educational outcomes including: academic behaviours such as persistence on academic tasks, academic choices, and educational aspirations (Byrne, 1996a; 1996b; Marsh, 1990; 1992; Marsh, Byrne, & Shavelson, 1988; Marsh & Yeung, 1997a; 1997b).

Whereas positive self-concepts enhance human potential, the effects of low self-concept stifle human potential. As such enhancing self-concept is important for addressing social inequities experienced by disadvantaged groups. National Board of Employment, Education and Training (NBEET) (1995, p. xi) concluded that Aboriginal students need to "develop a strong sense of personal identity and self-esteem" and the Australian Royal Commission into Aboriginal Deaths in Custody (Johnston, 1991) identified low self-esteem as a critical variable contributing to Aboriginal disadvantage and deaths. Also a recent study of Indigenous Australians commissioned by the Commonwealth found self-concept to be a critical variable (DETYA, 2000b). Hence, in Australia enhancing self-esteem has been acknowledged as a vital key to improve educational outcomes for Indigenous Australians. Given the significance of high self-concept evaluation needs to focus on identifying effective strategies to enhance Indigenous students' self-concepts, particularly in academic facets.

Research has also demonstrated that there are a range of other adaptive psychological functions that positively impact on learning. For example in a recent study Craven et al. (in press) found that successful Indigenous students had developed a number of adaptive psychological tools to facilitate the achievement of their aspirations in the teeth of enormous barriers. These psychological tools included the development of resiliency, high academic self-concept, and a determination to succeed. Based upon these findings the authors concluded that: "Implementing effective strategies to optimise student resiliency, academic self-concept, and determination to succeed would be beneficial for assisting Indigenous students to achieve their aspirations". In addition the educational psychology literature has emphasised other key psychological variables that include: motivation to succeed, resiliency, perceiving intelligence from an incremental theory (an ever growing body of knowledge and skills that can be learned) as opposed to an entity theory (perceiving intelligence as a

fixed entity that you are born with), and attributing success to ability and effort and failure to external causes. As such we already know a great deal about the value of these processes, however a great deal remains to be determined in relation to how this knowledge can be best utilised to enhance the psychological functioning of Indigenous students. As such, I would contend that serving the interests of Indigenous students must involve evaluating psychological functioning, ensuring Indigenous students' identity as Indigenous people is reinforced and promoted, identifying aspects of psychological functioning that need strengthening, and developing, implementing and evaluating potentially potent interventions to ascertain which interventions result in adaptive psychological functioning. This area of evaluation I believe has the potential to make a significant impact on Indigenous disadvantage (see Figure 6).

Figure 6. Construing aspects of the evaluation of adaptive psychological functioning as a dynamic process.

Family/Community Support of Learning

It is well-known that environments that are conducive to learning result in enhanced learning outcomes. Enduring disadvantage experienced by Indigenous Australians has resulted in many Indigenous families being ill-equipped on most social indicators to foster home environments that are conducive to learning. For example, in a recent Commonwealth Government commissioned study, my colleagues and I (Craven et al., in press) found that 52.7% of participating Indigenous students reported that to 'a great deal' the amount of support and encouragement they get from their family will

limit or stop them from achieving their aspirations; 39% of non-Indigenous students also responded in the same manner. Statistically significant effects were present between ratings of Indigenous and non-Indigenous students in relation to this variable whereby Indigenous students perceived a lack of family support as a greater barrier compared to non-Indigenous students. These results suggest that the amount of support and encouragement students perceive that they are receiving from family may limit students from achieving their aspirations. Other barriers identified by Indigenous students in interviews included: Substance abuse, domestic violence, family obligations, poor grades, internal conflict within their own communities, racism, pregnancy, lack of support, peer pressure and dysfunctional communities. Thereby barriers to success also included difficulties experienced within communities. The study also found that successful Indigenous students considered that family support was an important factor in their success. Furthermore, parents of Indigenous students participating in focus group interviews expressed a need for information that could assist them to be of further assistance to their children.

Implications arising from the study findings suggest that family support and encouragement is both a vital source of advice and support for Indigenous students and that a lack of such support can serve as an impediment to setting and achieving aspirations. In order to optimize family support and encouragement it is vital that evaluation is utilised to assist parents of Indigenous students to create conducive learning home environments. Evaluation could serve the needs of Indigenous people in this regard by being utilised to identify existing positive parenting strategies, and to develop and evaluate positive parenting programmes for parents of Indigenous students. In addition, educational institutions could serve an important role in helping to empower parents to assist with their children's learning and evaluate the extent of success (see Figure 7).

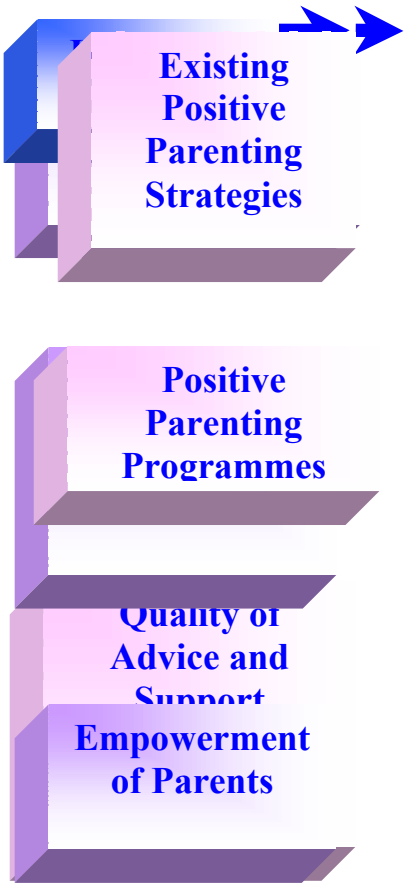

Figure 7. Construing aspects of the evaluation of family/community support as a dynamic process.

What Should Characterise Evaluation for the Future?

Evaluation needs to result in making a difference to Indigenous peoples' lives. Stakeholders who implement evaluation need to begin by being committed to making a real difference. To evaluate one must know what to evaluate. The setting of high standards and high expectations in relation to a multiplicity of desirable educational outcomes should be a precursor to evaluation. Evaluation should also be designed to foster desirable educational outcomes for Indigenous students that are commensurate with their non-Indigenous peers and result in demonstrating that such outcomes are attained. Both failures and successes need to be evaluated so that failure can be addressed and success built upon. As such evaluation needs to be conceptualised as dynamic in nature which as discussed above involves: a comprehensive approach, implementing evaluation at all levels of education, a wide range of participants being involved in the evaluation process, utilising a variety of evaluation strategies that address stakeholder needs (e.g. individual self-evaluation to enhance learning, teacher alternative assessment to enhance teaching, large-scale research to inform theory, research, practice and policy), and most importantly ensuring tangible outcomes result (see Figure 8).

Currently the vast majority of evaluation being conducted in Australia has not resulted in serving Indigenous people's needs. Evaluation for the future needs to be based on the strongest available research methodology. Bin-Sallik, Blomeley, Flowers, and Hughes (1994) in their seminal review of Indigenous Education research noted that much of the literature they reviewed was descriptive (1994a, p. 36); in general "there is almost no empirical research" (p. 7); and "a noticeable absence in the current literature, of analysis of how 'to get things done' " (1994b; p. 19). The authors also pointed out that even though 13 goals of the National Aboriginal and Torres Strait Islander Education Policy (Commonwealth of Australia, 1994; 1995) are related to schooling they found a very small number of references to the schooling sector. This absence of quality research in the schooling sector has contributed to severely impeding progress in developing theory, research and classroom practice to improve Indigenous Education in the formative years of schooling. Given that the Bin-Sallik et al. review was undertaken in 1994, it is disconcerting to note that they found at the time that nationally there was a dearth of research being undertaken in Indigenous Education; a decade later this is clearly still the case. Whilst there has been an increase in government commissioned reports that have produced important findings, even a cursory search of education databases demonstrates that Aboriginal Education research is not underpinned by a scholarly body of research findings. Very few researchers have undertaken a sustained programme of research in the area. Of the research that exists, this research typically is characterised by: 'one-shot' studies, weak research designs, a lack of empirical research based on large-sample sizes; unsophisticated research methodology that is not based on 'state-of-the-art' methodology; cross-sectional data rather than longitudinal data that would allow stronger tests to identify key variables and evaluate potentially powerful programmes for change; atheoretical approaches, and a lack of collaboration with Indigenous people. Also, of the intervention programmes designed very few have been empirically evaluated by sound empirical research to demonstrate that the stated aims of such programmes have resulted in the expected outcomes. Theory, research and practice are inexplicably intertwined and neglect in any one area will undermine the other areas. It also needs to be noted that many of the goals of our current educational policies have not resulted in the anticipated outcomes, and have failed Indigenous students. Such policies have been dominated by presumed successful strategies based on collective wisdom as opposed to successful strategies demonstrated by research to result in tangible outcomes and systemic change. Hence the failure of policy can be attributed to a lack of quality research to generate and underpin potentially powerful solutions. Finally there is little research on how some students succeed against the odds, yet identifying the factors underpinning success has the potential to uncover potentially potent solutions. As such there is a dire need to embark on a concerted national programme of Indigenous Education research to identify the keys to 'break the cycle'. Such a research programme could put to the test presumed successful strategies, and importantly draw from a body of established research to generate new solutions that are demonstrated to result in tangible outcomes.

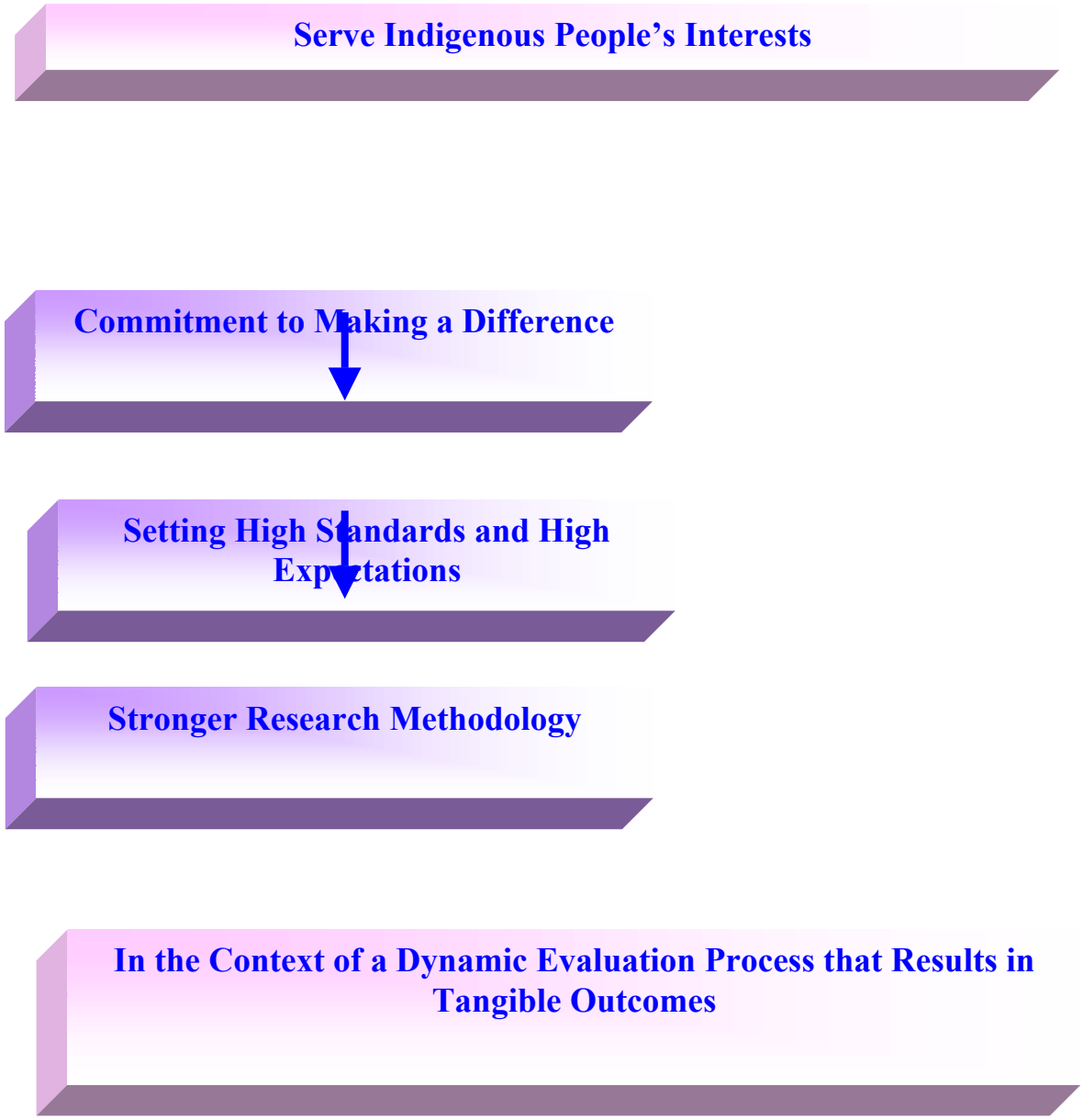

Figure 8. Enhancing future evaluation.

Future evaluation can:

- Look for local solutions to a national problem and base those solutions on real research, educational reform needs to be data driven;
- Strengthen collaborative research (eg with Indigenous people, between teachers, with experienced researchers),
- Capitalise on advances in theory, research and methodology;
- Employ a comprehensive approach to studying the overall education experience it is inadequate to just study achievement (e.g. Indigenous perceptions, teacher practices, school climate);

- Serve to prevent problems, personalise teaching programmes, establish genuine mutually beneficial relationships with parents, reform curriculum to be culturally appropriate, and identify and replicate programmes and practices that work;
- Enhance the learning process to result in learning perceived by Indigenous students as enjoyable, challenging and achievable;
- Empower Indigenous parents and communities to enhance Indigenous students' educational outcomes;
- Identify what helps successful Indigenous students succeed;
- Employ a rich array of assessments; and
- Result in Indigenous students achieving educational outcomes at a commensurate level to their peers.

Summary

In posing some questions and offering some potential solutions answers I have tried to suggest that:

- Evaluation needs to be construed as a dynamic process that results in serving the interests of Indigenous people;
- Evaluation is complex and needs to be construed as such;
- Good quality research is needed;
- There is a wealth of possibilities to explore to improve evaluation; and
- Evaluation can make a real difference.

I believe that going beyond the frontier in how we conceptualise and implement evaluation in a diversity of contexts has the potential to make a real difference to addressing one of the most critical social justice issues of our time. As James Wilson-Miller renown Aboriginal historian contends: "Australia is much better than it once was for Indigenous people, but not as yet as good as it might become". Importantly, trekking beyond previous evaluation practices by re-imagining the role that evaluation can and should make to making a real difference to Indigenous peoples' lives can help create a new dawn characterised by social justice and equality. I trust some of the thoughts I have shared with you today help to make this trek a reality. I would like to close with the words of Oodgeroo Nonnuccal.

The Dawn is At Hand

Dark brothers, first Australian race,
Soon you will take your rightful place
In the brotherhood long waited for,
Fringe-dwellers no more.

Sore, sore the tears you shed
When hope seemed folly and justice dead.
Was the long night weary? Look up, dark band,
The dawn is at hand.

Go forward proudly and un afraid
To your birthright all too long delayed,

For soon now the shame of the past
Will be over at last.

You will be welcomed mateship-wise
In industry and in enterprise
No profession will bar the door,
Fringe-dwellers no more.

Dark and white upon common ground
In club and office and social round,
Yours the feel of a friendly land,
The grip of the hand.

Sharing the same equality
In college and university,
All ambitions of Hand or brain
Yours to attain.

For ban and bias will soon be gone,
The future beckons you bravely on
To art and letters and nation lore,
Fringe-dwellers no more.
(Oodgeroo Noonuccal, 1990, p. 44).

Evaluation can and should facilitate the achievement of a new dawn. Thank you for inviting me today.

Appendix 1

'KOORI IQ TEST'

SPECIAL NOTE FROM JAMES WILSON-MILLER AUTHOR OF 'KOORI IQ TEST'

This test is an example of a deliberately contrived culturally biased test. It was devised for use with non-Indigenous university students and is not designed to be used with school children or Indigenous university students.

The **'KOORI IQ TEST'** is a contrived name that means the '**K**nowledge **O**f **O**perative **R**eflective **I**ntelligence'. This is a send-up of academic educational jargon.

Koori does refer to the term 'Koori' which some Indigenous Australian people use to identify themselves. However, it is nothing to do with 'measuring' the 'intelligence' of Koori or other Indigenous Australian people. It is an example of what such an 'IQ Test' might be if it were designed by Koori people – if Koori people were to subscribe to such testing.

The main point is to show non-Indigenous student teachers two things:-

- how the value of knowledge is culturally constructed; and
- what it is like to be assessed and graded on the basis of alien criteria.

For generations, Aboriginal and Torres Strait Islander children have been assessed, graded, and placed into classes of low achievement because of culturally biased testing principles commonly known as Intelligence Quota (IQ) testing. The 'intelligence' one needs is based on 'knowledge' of how to 'reflectively operate' in a social system pre-determined by a society's decision makers.

This test was first developed in 1982 and revised by me in 1996, 2001,2002 and 2003 to give people an idea of just one of the unequal components of 'special treatment' Aboriginal and Torres Strait Islander children have experienced for decades. When using this test with non-Indigenous people they gain some understanding of the impact of culturally biased tests.

The 20 questions within this test, would be known by the majority of Indigenous people in New South Wales over the age of twenty. The majority of non-Indigenous Australians would flounder. However, be aware that many non-Indigenous people have had contact and have worked in Indigenous communities in NSW for quite some time. They will score higher than people who have not had this experience. It can be and probably has already been adapted in other States and Territories.

Guidelines for delivery include:

- **Only administering the test to adults – it is not designed for administration to children;**
- **Administering the test in a humorous way – it is not designed to be serious; and**

- **Understanding that the test is meant to highlight 'cultural bias' not 'cultural racism'.**

HANDOUT: INTRODUCTION

This handout may be photocopied and distributed to student teachers and teachers with the kind permission of James Wilson-Miller.
Curator: Koori History and Culture
Powerhouse Museum
jamesm@phm.gov.au

THE KOORI IQ TEST

Revised August 2003
By James Wilson- Miller

The answers, scoring scale and information about the test are on Page 4. Do the test before you turn over. Time allowed: 10 minutes.

1. The late Mac Silva was famous for playing what?

   (a) flute
   (b) tennis
   (c) drums
   (d) golf

2. If someone referred to you as "Binghi", would it mean....

   (a) you're white
   (b) like a brother
   (c) you're a baker
   (d) you've got dough

3. If you saw a gungibal, would you be looking at a....

   (a) soldier
   (b) policeman
   (c) centrelink officer
   (d) gunsmith

4. Dr. Ruby Langford Ginibi is....

   (a) a Koori anthropologist
   (b) a film producer
   (c) a newspaper editor
   (d) an author

5. If you were called a Gubba, would it mean you were a....

   (a) white person
   (b) brother
   (c) Koori Elder

(d) government official

6. Narwan is....

(a) a narwhal
(b) a political party
(c) a football team
(d) a mythical being

7. Which is the odd one out?

(a) Wiradjuri
(b) Thungutti
(c) Womboin
(d) Gomilaroi

8. A Koori's meat is....

(a) a get together
(b) a leg of lamb
(c) sex appeal
(d) a totem

9. Where does Nathan Blacklock come from originally?

(a) Moree
(b) Boggabilla
(c) Tingha
(d) Guyra

10. From what language does the word 'Munyarl' come from?

(a) Yuin
(b) Wonnarua
(c) Bundjalung
(d) Thungutti

11. Who is Michael O'Loughlin?

(a) A NSL player
(b) A NRL footballer
(c) An AFL player
(d) A NBL player

12. If you were playing 'coon-can', would you be playing

(a) a card game
(b) the spoons

(c) a children's game
(d) a musical instrument made out of cans

13. What are munyas?

(a) money
(b) scabies
(c) head lice
(d) swollen feet

14. Deb Mailman is ….

(a) a postal worker
(b) an athlete
(c) a news reader
(d) an actor

15. Which colour is not on the Koori flag?

(a) red
(b) green
(c) yellow
(d) black

16. If a wharki caught you, what would have you?

(a) an old man
(b) a policeman
(c) an evil spirit
(d) a welfare officer

17. What would you do with a Wilcannia boomerang?

(a) throw it
(b) hang it on your wall
(c) tackle it
(d) paint it

18. Linda Burney is.....

(a) Chairperson of ATSIC
(b) President of NSW AECG Inc.
(c) Chairperson of NACCHO
(d) State Member for Canterbury

19. What organisation funds CDEPs?

(a) AEC
(b) DET

(c) ASA
(d) ATSIC

20. Where is Dodge City?

(a) near Singleton
(b) near Texas, Queensland
(c) near Brewarrina
(d) near Wallaga Lake

ABOUT THIS TEST

The test you have just done is the KOORI Test - The 'Knowledge Of Operative Reflective Intelligence' test.

This test has been devised by James Wilson-Miller to measure 'operative and reflective intelligence', within the specific parameters of an operative socio-cultural environment. Norms for this test are based on a sample of 2 000 university students. Comparison of student scores with normative archival data can reveal associated intelligence levels.

The following norms are statistically relevant. Five points were awarded for each correct response.

INTELLIGENCE RATING	SCORE	IMPLICATIONS
High intelligence between	85 to 100	A Gifted and Talented Student
Above average intelligence	70 to 80	Will readily comprehend difficult material
Average intelligence	55 to 65	May experience difficulty with higher order concepts
Below average intelligence	40 to 50	Remedial work needs to be introduced immediately
Severely below average intelligence	below 50	There is a place for this student in society but not here

ANSWERS TO TEST:

1.	(C)	8.	(D)	15.	(B)
2.	(B)	9.	(C)	16.	(C)
3.	(B)	10.	(C)	17.	(C)
4.	(D)	11.	(C)	18.	(D)
5.	(A)	12.	(A)	19.	(D)
6.	(C)	13.	(C)	20.	(C)
7.	(C)*	14.	(D)		

*** Womboin is a Wonnarua word for kangaroo the others are Indigenous Nations**

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