

2015

Developing a culturally appropriate data quality framework for Aboriginal and Torres Strait Islander Higher education statistics: final report

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Publication details

Wilks, JL & Drew, N 2015, 'Developing a culturally appropriate data quality framework for Aboriginal and Torres Strait Islander Higher education statistics: final report', Office for Learning and Teaching, Sydney, NSW. ISBN: 9781760282967

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Developing a Culturally Appropriate Data Quality Framework for Aboriginal and Torres Strait Islander Higher Education Statistics

(SEED PROJECT SD13.2799)

Final report, August 2015

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Nulungu

Research Institute

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Support for the production of this report has been provided by the Australian Government Office for Learning and Teaching. The views expressed in this report do not necessarily reflect the views of the Australian Government Office for Learning and Teaching.



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2015

ISBN	978-1-76028-296-7	PDF
ISBN	978-1-76028-297-4	DOX
ISBN	978-1-76028-298-1	PRINT

Table of Contents

Table of Contents.....	3
List of Tables	4
Acknowledgements.....	5
List of acronyms	5
Executive summary.....	6
Main findings	6
Project outputs	7
Impact of the project: Outcomes to date and projected future impact	7
Project approach.....	7
Project context, including original project aim.....	9
Project approach, including methodology.....	10
Project outputs and findings.....	12
How the project used and advanced existing knowledge	12
Abridged Literature review	12
The core purpose of a culturally appropriate data quality framework.....	16
International models of data collection and interpretation frameworks exist in other countries with Indigenous populations. The	16
Disciplinary and interdisciplinary linkages.....	17
An analysis of factors critical to the success of the project approach and of factors that impeded its success	18
Key success factors	18
Key constraints that impeded success.....	18
Extent to which the approach/outcomes are amenable to implementation in a variety of institutions or locations	18
Project impact, dissemination and evaluation impact	18
Dissemination	19
Key strategies:.....	19
Evaluation	19
Appendix A.....	20
Certification by Deputy Vice-Chancellor (or equivalent).....	20
Appendix B	21
Bibliography	21
Appendix C	29
Project Team	29

List of Tables

Table 1: Aboriginal and Torres Strait Islander university commencements, total enrolments and completions, 2013.	13
Table 2: Indigenous higher education enrolments by state/territory, 2013.....	13
Table 3: Data Quality Issues.....	15

Acknowledgements

This was a national research project. The authors wish to thank the Office for Learning and Teaching for making this SEED project possible and for its ongoing support and advice during the life of the project. The research team members acknowledge and pay their deep respects to the Traditional Owners and Elders past and present across Australia of the lands upon which we have worked conducted research activities over the last three years. We give particular acknowledgment to: the Wadjuk people of the Nyoongar Nation, the Traditional Owners of the lands where Project Leader Professor Neil Drew, Carolyn Crook and Stephen Kinnane live and work; the Gumbaynggirr people, Traditional Owners of the lands where Project Leader Dr Judith Wilks and team member Katie Wilson live and work; and the Yawuru Nation the Traditional Owners of the lands where team members Adjunct Professor Lyn Henderson-Yates, Gillian Kennedy and Bruce Gorrington live and work.

We would also like to thank the Reference Group Members and the many participants who gave so willingly and generously of their time.

List of acronyms

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABS DQF	Australian Bureau of Statistics Data Quality Framework
COAG	Council of Australian Governments
EOI	Expression of Interest
HEDC	Higher Education Data Committee
HEIMS	Higher Education Information Management System
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
SCRGSP	Steering Committee for the Review of Government Service Provision
SCU	Southern Cross University
TEQSA	Tertiary Education Quality and Standards Agency
UNDA	University of Notre Dame Australia
UNPFII	United Nations Permanent Forum on Indigenous Issues
WINHEC	World Indigenous Peoples Higher Education Consortium

Executive summary

This project has addressed a gap in Aboriginal and Torres Strait Islander higher education research and development. It responded to Recommendation (35) of the *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander people: Final Report* (Behrendt, Larkin, Griew, & Kelly, 2012) for the 'Development of an Aboriginal and Torres Strait Islander higher education monitoring and evaluation framework' (p. xxv). It also aligned with a key priority in the OLT Grant Program for Innovation and Development which aims to improve Aboriginal and Torres Strait Islander people's higher education access and outcomes.

The project links with the OLT's Innovation and Development Grants Program Objective 'c', to produce effective mechanisms for the identification, development, dissemination and embedding of good individual and institutional practice in learning and teaching in Australian higher education.

The project's aims were to develop:

- (1) a discussion paper outlining key issues with data quality in the Aboriginal and Torres Strait Islander higher education sector (refer Part 1, Discussion Paper);
- (2) a draft data quality framework for Aboriginal and Torres Strait Islander higher education statistics (refer Part 1, Discussion Paper); and
- (3) a set of specifications and parameters to inform the development of a National Online Data Dictionary of standardised and accepted terms and protocols for data collection in higher education statistics (similar to those that exist in the area of Health) with particular reference to Aboriginal and Torres Strait Islander elements (refer Part 2, Discussion Paper). The need for this arose from consultations during the project where the absence of such a resource was identified as a significant gap in this area of data quality in higher education.

The project also aimed to identify the next steps in advancing discussion and promoting the adoption of the project's findings towards the development of a data quality framework and online data dictionary.

Main findings

Borrowing from the health field, we conceptualised the issues and complexities associated with data quality in higher education as upstream (those that derive from social structures and social policies, norms and practices), midstream (those that impact or emanate from the community) and downstream (those factors that have a direct impact). Details of these factors are provided in Part 1 of the discussion paper, however a summary is provided below:

Upstream	Midstream	Downstream
Data needs / scope	Data completeness	Data availability
Data misuse and abuse	Data collection methods	Data type
Data consistency	Data definitions	Data standards
	Data Appropriateness	Data storage and security
	Data levels of analysis	Data determinism
		Data changes over time

Project outputs

These include:

- A discussion paper on data quality issues in Aboriginal and Torres Strait Islander higher education Statistics.
- Draft principles to guide the development of a data quality framework for Aboriginal and Torres Strait Islander higher education statistics.
- Summary and presentation of a range of culturally appropriate quality indicators associated with the Aboriginal and Torres Strait Islander elements of a data dictionary in higher education.

Impact of the project: Outcomes to date and projected future impact

The impact of the project to date is limited. While there was wide consultation with a range of experts in this area, this was a seed project that aimed to develop a range of resources including the discussion paper, which have the potential to inform debate and development in this crucial area. One of the deliverables will be an expression of interest (EOI) for a larger scale research project to further research the development and implementation of a data quality agenda for Aboriginal and Torres Strait islander higher education statistics. A larger project would include extensive sector wide consultation, and could have the capacity to make a substantial contribution to improving policy, practices and procedures for managing Aboriginal and Torres Strait Islander data and statistics in higher education in a culturally appropriate and responsive manner. Additional dissemination activities are outlined in the section entitled Dissemination, below.

Project approach

The project was implemented in four phases. Phase 1 involved a desk audit of available

literature on data quality issues. Phase 2, expert panel consultation. A draft discussion paper was developed as a trigger document for an expert panel consultation. Indigenous and non-Indigenous experts in the fields of statistics, demography, economics, cultural issues, and higher education administration identified in the desk audit were invited to critically evaluate the findings of the draft paper. In Phase 3, a revised discussion paper was presented to Aboriginal and Torres Strait Islander higher education sector representatives and other stakeholders for comment, discussion and further revision. And in Phase 4, following publication of the report by the Office for Learning and Teaching, the discussion paper including the proposed draft data quality framework, will be made available for wider dissemination and feedback throughout the sector.

Project context, including original project aim

This project sought to address a gap in Aboriginal and Torres Strait Islander higher education research and development. It responded to Recommendation (35) of the *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander people: Final Report* (Behrendt et al., 2012) for the 'Development of an Aboriginal and Torres Strait Islander higher education monitoring and evaluation framework' (p. xxv). It also aligned with a key priority in the OLT Grant Program for Innovation and Development: *Improving Aboriginal and Torres Strait Islander people's higher education access and outcomes*.

The project also links with the OLT's Innovation and Development Grants Program Objective 'c', to produce effective mechanisms for the identification, development, dissemination and embedding of good individual and institutional practice in learning and teaching in Australian higher education.

The project team comprised Indigenous and non-Indigenous researchers most of whom had collaborated on an earlier OLT funded project S111-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014). This work provided the impetus for the current project. In the process of developing a statistical profile of Aboriginal and Torres Strait Islander students and population sub-groups we encountered several inconsistencies in data collection, and anomalies in the availability and presentation of statistics, prompting us to propose this new area of enquiry. In the current era of evidence-based policy making and data-informed decision making, (Allen, 2002) the quality of the evidence is critically important (Prout, 2010). In this project we identified a range of data quality issues permeating the Aboriginal and Torres Strait Islander data collection field in higher education. We developed a data quality discussion paper and a draft data quality framework as an important step towards the development of a nationally agreed and culturally relevant set of standards for Aboriginal and Torres Strait Islander data and statistics for the higher education sector.

The draft data quality framework provides a template for assessing performance across all areas in the higher education landscape by providing:

- Principles for quality standards for collecting, evaluating and interpreting data pertaining to Aboriginal and Torres Strait Islander access and participation in higher education.
- A basis for standardised improvements in statistical literacy for key stakeholders.
- Measureable and accountable improvements in the statistical underpinnings for evidence-based decision making.

Current practices and available data quality frameworks will benefit from a comprehensive analysis of the cultural dimensions that impact data collection analysis and interpretation. The proposed data quality framework has the capacity to inform the sector's data collection activities and storage practices in ways which systematically address the identified concerns and which, we believe, will significantly enhance statistical literacy in culturally sensitive and appropriate ways.

Project approach, including methodology

Sound evidence-based decision making depends on a high degree of shared statistical literacy. Statistical literacy depends on high quality data. High quality data must be derived from agreed and shared standards of excellence. Standards of excellence must be underpinned by an agreed data quality framework.

Current statistical data available in the higher education arena, particularly those affecting Aboriginal and Torres Strait Islander peoples are complex on many levels, and a number of authors (c.f. AIHW, 2009; Andersen, Bunda, & Walter, 2008; Biddle & Cameron, 2012; Pechenkina & Anderson, 2011; Walter, 2010) have lamented the at times problematic nature of data and statistics pertaining to Aboriginal and Torres Strait Islander peoples. Continued and sustained research effort is required to systematically identify the issues in data quality, and to seek achievable avenues to address these concerns in the context of the higher education sector.

In the health arena, attempts have been made to introduce data quality standards based on the Australian Bureau of Statistics Data Quality Framework (AHMAC, 2012; COAG Reform Council, 2012; Allen, 2002, Gilbert, 2010; Trewin, 2002; Allbon & Trewin, 2006. In higher education there is little research available to guide the development of a data quality framework. This is a significant gap that impacts the sector's statistical literacy in all areas of operation. Moreover, poor quality data impacts decision making and planning at all levels of higher education policy and practice. This inevitably leads to suboptimal outcomes in policy, practice, target setting, and procedures that may well be affecting the capacity of the sector to achieve the reforms and goals outlined in the Indigenous higher education review (Behrendt et al., 2012).

A number of significant data quality issues were identified in this project, including a range of cultural dimensions and contexts, absent from current guidelines such as the ABS Quality Data Framework and the Higher Education Information Management System (HEIMS). This is a major concern as the ABS framework has been widely adopted in the Aboriginal and Torres Strait Islander health field and the COAG National Reporting Framework as the industry standard. Informal consultation prior to the development of the project's specifications with key stakeholders (e.g. Paradies, Biddle, ABS; personal communication 2012, 2013) supported the contention that there exists a pressing need to develop a data quality framework for the higher education sector that is more culturally sensitive and aware. In this project we have outlined a proposal for a draft data quality framework. It is intended that the framework might inform the development of an overarching monitoring

and evaluation framework for the sector consistent with the implementation of Recommendation 35 of the Behrendt et al. (2012) review.

We have also summarised the key elements that may inform the development of an Aboriginal and Torres Strait Islander data set within a National Higher Education Data Dictionary. This would involve activities such as developing a set of standards and data quality guidelines for a framework for a data dictionary to enable consistency and to share meanings of data elements. The Department of Education and Training, under the guidance of the Higher Education Data Committee (HEDC), is undertaking a four-year project that includes further developmental work on the HEIMS Data Elements Dictionary. This work is being undertaken in response to recommendations in the Phillips KPA review (2012). We propose that this dictionary:

- Includes a focus on the Aboriginal and Torres Strait Islander data elements
- Provides clear links to the HEIMS data dictionary between collection repositories (e.g. Australian Bureau of Statistics, The Department of Education and Training, Australian Data Archive), information repositories (e.g. TEQSA, HEIMS) and higher education institutions
- Expands metadata in HEIMS data elements to provide comprehensive, clear, consistent definitions and meanings of data elements
- Provides thorough explanations of data elements with detailed metadata

The project was implemented in four phases:

Phase 1: Desk audit of available literature on data quality issues.

Phase 2: Expert panel consultation. The discussion paper (early version) was the trigger document for an expert panel consultation. Indigenous and non-Indigenous experts in the fields of statistics, demography, economics, cultural issues, and higher education administration identified in the desk audit were invited to critically evaluate the findings of a draft discussion paper.

Phase 3: Sector consultation. The revised discussion paper was presented to Aboriginal and Torres Strait Islander higher education sector representatives and other stakeholders for comment discussion and revision. As a seed project this phase identified a purposive or theoretical sample rather than a statistically representative sample. Participants were selected for their perceived capacity to 'represent' the views of their constituency. All were senior representatives of their institutions, agencies or organisations.

Phase 4: Dissemination. Following publication of the report by the Office for Learning and Teaching the final draft of the discussion paper and draft data quality framework will be made available to the sector for wider review and feedback.

Project outputs and findings

The outputs from this seed project include:

- A discussion paper on data quality issues in Aboriginal and Torres Strait Islander Higher Education Statistics
- Draft principles to guide the development of a data quality framework for Aboriginal and Torres Strait Islander Higher Education Statistics.
- Summary and presentation of a range of culturally appropriate quality indicators associated with the Aboriginal and Torres Strait Islander elements of a data dictionary in higher education

It is proposed that the information be published and available for download from the Nulungu page on the UNDA website at the University of Notre Dame Australia. The research outcomes will be widely promoted across the higher education sector.

How the project used and advanced existing knowledge

This was a seed project and as such, a pilot to test or evaluate an original idea. Its contributions include explicating, summarising, analysing, and interpreting the complex issues associated with statistics and data. In addition we have provided an interpretive lens through which these issues may be interrogated. For example, conceptualising the issues as upstream, midstream and downstream provides a framework that will assist institutions and organisations to think through and respond to the issues in a structured and organised way. It could assist to engage the appropriate organisational sections of those institutions with the level of analysis appropriate to their work, while at the same time providing contextual information about how their efforts impact and may be impacted by the other levels.

Similarly, a focus on shared critical statistical literacy alerts the many epistemic and interpretive communities implicated in the sector to the importance of intra and inter sectoral communication. And of course we believe that the discussion paper adds to the literature on understanding the cultural issues that advance the opportunity for enhanced cultural competence. Feedback from informants in this project highlighted that many of those involved in the collection and reporting of statistics and data pertaining to Aboriginal and Torres Strait Islander students, particularly at the administrative level, have not had cultural awareness, competence, or safety training on the grounds that their work is perceived as primarily functional.

Abridged Literature review

The access, participation, retention, completion and transition rates for Indigenous higher education students are significantly lower than those of non-Indigenous students (Behrendt

et al., 2012, Department of Education Employment and Workplace Relations (DEEWR), & Bradley, D., 2008, Devlin, 2009). This under-representation contributes to the unrelenting cycle of disadvantage on almost all headline indicators (Behrendt et al., 2012, SCRGSP, 2011, Australian Indigenous Health/InfoNet, 2014). In 2013, students who self-identified as Aboriginal and Torres Strait Islander on enrolment made up 1.0 per cent (13,781) of all university enrolments (1,313,776), a 9.1 per cent increase from 12,632 in 2012; and 1.2 per cent of all commencements (537,886), an increase of 7.7 per cent from 2012 (5,824 to 6,275) (Department of Education, 2014a).

The Behrendt et al. (2012) review of Indigenous higher education suggested a population parity rate of 2.2 per cent as the aspiration, reflecting the proportion of the population aged between 15-64 years of age that is Aboriginal and/or Torres Strait Islander (based on 2006 ABS population statistics). The Department of Education and Training on the other hand depends on internal reporting of universities which can vary by institution, argued for a parity rate of 3.1 per cent as an estimate of the proportion of Australian students expected to be Aboriginal or Torres Strait Islander. The Bradley Review (2008) (and more recently the Behrendt review [2012]) utilised ABS data from 2006, now over eight years out of date. National and state Aboriginal or Torres Strait Islander student enrolments and national completions are shown below in Tables 1 and 2 below.

Table 1: Aboriginal and Torres Strait Islander university commencements, total enrolments and completions, 2013. (Department of Education, 2014a, b).

Aboriginal and Torres Strait Islander students	Female	Male	Total
Commencements	4,141	2,134	6,275
Total enrolments	9,148	4,633	13,781
Completions	1,257	602	1,859

Table 2: Indigenous higher education enrolments by state/territory, 2013 (Department of Education, 2014a)

State/territory	Aboriginal and Torres Strait Islander enrolments
Australian Capital Territory	363
New South Wales	4,898
Northern Territory	709
Queensland	3,159
South Australia	866
Tasmania	379
Victoria	1,622
Western Australia	1,184
Multistate (Australian Catholic University)	396

Data and statistics relating to Aboriginal and Torres Strait Islander peoples present unique challenges and opportunities. While much has been done in recent years to improve access to, and the quality of, data (Allbon & Trewin, 2006; Gilbert, 2010; Trewin, 2002), more remains to be done; an example of this being the COAG Reform Council (2012) report on Indigenous health. The report, though comprehensive, is replete with examples of missing data and the problems of lack of comparability across states. Some examples include “timeliness... accuracy of the trends reported”, lack of data for some “targets” and the variations of Indigenous “identification” rates (COAG Reform Council, 2013 p. 73).

There have been significant steps taken in recent years to improve the quality of data provided to policy and decision makers. The ABS has played a lead role in this respect, for example the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (ABS, 2010c) and Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS).

There are currently approximately 46 data collection mechanisms for higher education (Phillips KPA, 2012). This variety of collection points, repositories and consequently data definitions, negatively impacts on the reliability and consistency of data sets and data interpretation. This carries with it the potential to result in misinformation, a lack of funding or inappropriate or untargeted programs for prospective students and students in the higher education sector. It is understood at the time of writing that the Department of Education and Training is six months into a four-year project that is seeking to streamline the collection and storage of higher education data, and to aggregate it into a single repository.

In the health field, critical health issues have been conceptualised as upstream (those that derive from social structures and social policies, norms and practices), midstream (those that impact or emanate from the community) and downstream (those factors that have a direct impact). Similarly, issues in data quality for Aboriginal and Torres Strait Islander Higher Education statistics might usefully be viewed applying this framework. A summary of the key issues to emerge can be seen in Table 3.¹

¹ The issues are artificially disaggregated for the purposes of clarity and analysis. They are clearly (inter) related in a complex web of (mis)understanding.

Table 3: Data Quality Issues

Upstream	Data needs / scope	What do we need to know? Why do we need to know it? This relates to the issue of strengths-based versus deficit-based thinking
	Data misuse and abuse	The political, social, cultural, racial motivations, including the impact of: <ul style="list-style-type: none"> • Cultural issues • Colonisation • Ghettoising / Exoticising
	Data consistency	Jurisdictional differences among states, Incomparability between private and public sector representatives (such as schools and Universities)
Midstream	Data completeness	Lack of Indigenous data from some sources Missing or inconsistent data from some providers Data for underrepresented groups are scarce and not easily accessible Under-representation linked to self-identification practices
	Data collection methods	Culturally inappropriate data collection methods
	Data definitions	Misunderstanding, or inappropriate definitions and nomenclature
	Data Appropriateness	The appropriateness and sensitivity of data to cultural / community concerns
	Data levels of analysis	What is an appropriate level of measurement: individual vs group vs sector
Downstream	Data Availability	Online access Timeliness of reporting
	Data type	Quantitative vs qualitative
	Data standards	Quality of indicators – <ul style="list-style-type: none"> • Reliability and validity • Sampling • Sample size
	Data storage and security	This includes the important issue of ownership and stewardship of data
	Data Determinism	Data determinism refers to the tendency to use a scattergun rather than a strategic and informed approach to data collection
	Data changes over time	Lack of longitudinal data

The core purpose of a culturally appropriate data quality framework

At its broadest level, a data quality framework might be seen as a conceptual map that allows statistics to be organised and grouped into a logical structure defining the scope of an inquiry and delineating the important concepts associated with a body of knowledge (Trewin, 2003, p. vi). Laux and Barham (2012) distinguish between *conceptual frameworks* that define a statistical domain, *statistical frameworks* that align user needs with “classifications, methods and results”, and *quality frameworks* that describe the “quality – relevance, accuracy, timeliness” of statistics (p. 2).

International models of data collection and interpretation frameworks exist in other countries with Indigenous populations. The Māori Statistical framework (Statistics New Zealand, 2002) is often quoted as a model framework for Indigenous statistics because it engages Māori in identifying Māori needs for statistics and elaborating a framework to meet such needs. It combines different levels and types of frameworks into one framework (Dandenau, 2008; Jordan et al., 2010; Rowse, 2009). At the other end of the scale, issues identified in Aboriginal data in Canadian education statistics indicate data incompatibilities and limitations such as small sample size of surveys, identification questions and small populations buried ‘beyond the asterisk’ (Shotton, Lowe, & Waterman, 2012; Statistics Canada, 2009).

Other frameworks of significance are the United Nations Permanent Forum on Indigenous Issues (UNPFII) that developed indicators for Indigenous peoples’ well-being, poverty and sustainability (Stankovitch, 2008), and the ABS Data Quality Framework (DQF) (ABS, 2011a) adopted by the COAG National Reporting Framework (COAG, n.d.). To measure Indigenous disadvantage in education and training, the Productivity Commission’s *Overcoming Indigenous Disadvantage* (2011) uses key indicators such as school attendance, enrolment, year 9 attainment, year 10 attainment, transition from school to work, teacher quality, and Indigenous cultural studies, while acknowledging that the latter two cannot be measured or quantified (p. 6.12). The ABS data quality framework draws on the seven dimensions applied by *Statistics Canada’s* quality assurance framework (these being: institutional environment; relevance; timeliness; accuracy; coherence; interpretability; and, accessibility). It is noteworthy that these quality indicators are subject to contextual factors, and some may be more important (or impactful) than others, depending on the data type and proposed use.

One way forward towards improving data quality associated with Aboriginal and Torres Strait Islander higher education participation might be to layer these seven dimensions with more realistic, finely grained, responsive, flexible, and culturally discursive elements. These elements might collectively not only improve higher education data collection and data usage practices, but also contribute to better outcomes regarding access, participation and retention in higher education for Aboriginal and Torres Strait Islander students.

The World Indigenous Peoples Higher Education Consortium (WINHEC), established in 2002, provides some important guiding principles and goals for the development of a data quality framework for Aboriginal and Torres Strait Islander higher education statistics. These

principles are strongly supportive of recognising and valuing cultural dimensions as key elements to academic success and Indigenous involvement, in the agreeing of definitions, interpretations and affirmations of success, and what it means to Indigenous peoples (Pers. Comm. 13/10/14). WINHEC's charter is expressed as follows:

We gather as Indigenous Peoples of our respective nations recognising and reaffirming the educational rights of all Indigenous Peoples. We share a vision of Indigenous Peoples of the world united in the collective synergy of self-determination through control of higher education. We are committed to building partnerships that restore and retain Indigenous spirituality, cultures and languages, homelands, social systems, economic systems and self-determination.

Lessons may also be learnt from the evaluation of frameworks relating to Aboriginal and Torres Strait Islander peoples in the health arena including the Health Performance Framework (Australian Health Ministers' Advisory Council, 2012) and a number of Indigenous wellbeing frameworks (Australian Bureau of Statistics, 2010, 2012; Australian Institute of Health and Welfare, 2009; Jordan et al., 2010; Steering Committee for the Review of Government Service Provision, 2011).

A proposed draft data quality framework for Aboriginal and Torres Strait Islander data and statistics can be found in Table 5 in the discussion paper. The framework is structured around three core principles:

- (1) Recognising the importance of Indigenous terms of reference to data quality.
- (2) Ensuring cultural appropriateness, community responsiveness, quality, and equity in data collection practices in higher education
- (3) Ensuring cultural appropriateness in data use, availability and management

Disciplinary and interdisciplinary linkages

This project included a comprehensive engagement strategy to consult with a wide range of Indigenous and non-Indigenous interdisciplinary stakeholders, and an important understanding informing the work was that of recognising the importance of epistemic or interpretive communities. Bridging the gap between interpretive communities in pursuit of a shared statistical literacy to enhance cross-jurisdictional and disciplinary boundaries was an important project goal. A draft of the discussion paper was reviewed by Indigenous and non-Indigenous representatives from a broad range of sectoral stakeholder groups.

It is anticipated that the project outputs will serve as a trigger for inter- and intra-organisational discussion to reflect on practice, procedures and policies impacting on data quality.

An analysis of factors critical to the success of the project approach and of factors that impeded its success

Key success factors

These included wide cross-sectoral, jurisdictional and disciplinary consultations and engagement. The project sought to bring a wide range of stakeholders into conversation with one another in the co-construction of the data quality discussion paper. The conversational interview style enabled the researchers to confidentially summarise the comments and feedback from other respondents and present them as a point of reflection for the comment of others. In this way the paper represents a unique blend of scholarly argument coupled with the pragmatic experience of those at the 'coal face'.

Key constraints that impeded success

Co-ordinating consultation with reference and expert groups was a critical factor and at times unpredictable due to changes in government policies and structures.

Extent to which the approach/outcomes are amenable to implementation in a variety of institutions or locations

The outcomes of this project have the potential to significantly enhance data quality across the sector. The project's outcomes apply to all higher education institutions but it is recognised there are varying geographical and institutional requirements. One of the project's deliverables will be an expression of interest (EOI) for a large OLT Grant, the focus of which is a sector wide consultation on data quality applying the findings of this seed project.

Project impact, dissemination and evaluation impact

While there was wide consultation with a range of experts in this field, this was a seed project that aimed to develop a range of resources, including the discussion paper, that have the potential to inform debate and development in this crucial area. As stated above, one of the project's deliverables will be an EOI for a larger scale project, to work on the development and implementation of a data quality agenda for Aboriginal and Torres Strait Islander higher education statistics. A larger project would include extensive sector wide

consultation, and would have the capacity to make a substantial contribution to improving policy, practices and procedures for managing Aboriginal and Torres Strait Islander data and statistics in higher education in a culturally appropriate manner.

Dissemination

The next step is to ensure that the paper is made widely and freely available as a catalyst for further debate across the sector. This dissemination strategy outlines the proposed activities to enhance the capacity for the paper to make a tangible and significant contribution to debate and ultimately action.

Key strategies:

1. Consultation with key supporters of the development of the discussion paper and leading figures in the sector, to develop a targeted dissemination and engagement strategy of the seed project's key findings.
2. A small print run of hard copies of the discussion paper for dissemination to key stakeholders and opinion leaders throughout the sector (identified in the consultation phase).
3. Preparation of two journal articles for publication in leading journals with an interest in this issue.
4. Development of a web presence for the paper, possibly with a blog facility, to stimulate debate and conversation about the issues. This will be hosted by the Nulungu Research Institute at the University of Notre Dame Australia.

It is hoped that as a result of the expansive dissemination strategy that it will be possible to develop a larger project to evaluate and review data quality in higher education institutions, and to instigate the broader application of nationally endorsed higher education Aboriginal and Torres Strait Islander data collection principles and a best practices toolkit.

Evaluation

Throughout the project we have sought to be reflective and responsive. The approach was self-consciously evaluative. The project involved the engagement of senior experts in the area of statistics and data quality from across the higher education sector. They were given draft materials and provided critical feedback at all stages of the process that both informed and guided the development of the project outcome materials. The project was also guided by a reference and steering group. In the early stages of drafting a 'critical friend' was recruited to provide additional feedback on the process. This iterative process was extremely beneficial to the final outcomes.

Appendix A

Certification by Deputy Vice-Chancellor (or equivalent)

I certify that all parts of the final report for this OLT grant/fellowship (remove as appropriate) provide an accurate representation of the implementation, impact and findings of the project, and that the report is of publishable quality.

Name: *M. Kearns* Date:4/11/14.....

Appendix B

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Appendix C

Project Team

Project Leader: Professor Neil Drew, BA, MAPS (Hons), PhD (Curtin).

Neil Drew is Director, Australian Indigenous Health/InfoNet at Edith Cowan University. He is a social psychologist with over 25 years' experience working with a diverse range of communities and groups. He has worked with Aboriginal and Torres Strait Islander communities since beginning his career as a volunteer at the Aboriginal and Torres Strait Islander Medical Service in far North Queensland. He was psychologist for the Department of Family Services in Queensland working with young offenders and the victims of child sexual abuse. Previously he was Associate Provost at the University of Notre Dame Australia (UNDA) and before joining UNDA, Neil was Director of the University of Western Australia Institute for Regional Development program funded by the Gelganyem Aboriginal Trust to promote wellness and suicide prevention with young people in East Kimberley Aboriginal communities. He is co-author of chapters in the recently published text, *Working Together: Aboriginal and Torres Strait Mental Health Wellbeing Principles and Practice* (2010) and *Social Psychology and Everyday Life* (2010). Of particular relevance to this project, he has taught statistics and research methods at tertiary level since 1990 and has published in the area of statistical analysis in the social sciences. Neil was a member of the project team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

**Project Leader: Dr. Judith Wilks BTRP(Melb);GradDipEd(UNE);
GradDipSocSci(Swinb);PhD(Melb)**

Judith is a Senior Lecturer and Academic Director in Southern Cross University's School of Education, Coffs Harbour Campus. She has received many awards for curriculum development in NSW, and for community engagement activities. Judith's current research interests include: access and participation in higher education for Aboriginal and Torres Strait Islander students; active civics and citizenship education; and participatory methodologies for young people. Judith has been successful in obtaining research funding from: the Office of Learning and Teaching; the NSW Premier's teacher scholarship program; Australian Research Alliance for Children and Youth; and the Higher Education Equity Support Program; and a number of small grant schemes. Judith has published widely in these areas of research. Judith was a member of the project team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

Partner Investigator: Katie Wilson BA (VUW), Grad Dip Lib (UC), GradDipVisArts (UNSW)

Katie Wilson is a researcher in the School of Education, Southern Cross University, Coffs Harbour, NSW. She has lectured in enabling programs at Southern Cross University and prior to that, worked in areas of information literacy through technology and librarianship. Her interests and current research projects are in the field of Indigenous education, curriculum and Indigenous pedagogy in schools and higher education, qualitative participatory research with children and young people, and post-qualitative and Indigenous methodologies. Katie was born in Aotearoa and is a descendant of the Te Ātiawa Taranaki iwi. She will complete her PhD in Indigenous education at Southern Cross University in 2015. Katie was a member of the project team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

Partner Investigator: Professor Lyn Henderson-Yates, DipT (ECU), BEd, Med (Murdoch), PhD(WA)

Professor Lyn Henderson-Yates is an Aboriginal woman from Derby in the Kimberley. Working in Aboriginal Education for the past 31 years, Lyn has been employed as an Aboriginal teaching assistant, primary school teacher, education officer, Aboriginal studies consultant, Deputy Principal, researcher, writer, manager and lecturer. Lyn was Professor and Deputy Vice-Chancellor on the Broome Campus and is currently Adjunct Researcher, Nulungu Centre for Indigenous Studies of the University of Notre Dame Australia. Lyn's teaching, research and publication work include Aboriginal history, education, identity, racism, human rights and oral history. Lyn was a member of the project team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

Partner Investigator: Steve Kinnane, BAHons (Murdoch)

Steve Kinnane is a Senior Researcher with the Nulungu Research Institute at the University of Notre Dame Australia. Steve is a Marda Marda from Mirrowoong country in the East Kimberley. He is a writer who has published on history, social justice and sustainability. He has lectured about and worked on community cultural heritage, history and community development projects. His interests are diverse, encompassing Aboriginal history, the arts (non-fiction writing, documentary film and stills photography), politics, cross-cultural identity, sustainability and belonging; how we make sense of our connections with each other and with place. His book, *Shadow Lines* was awarded the WA Premier's Award for Non-Fiction 2004, the Federation of Australian Writer's Award for Non-Fiction 2004, The Stanner Award 2004, and was short-listed for the Queensland, South Australian Premier's Awards. Steve lectured at Murdoch University in Australian Indigenous Studies and Sustainability; completed a Visiting Research Fellow at the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), Canberra. Steve was a member of the project

team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

Partner Investigator: Bruce Gorring BA (Hons) Newcastle, MSocSci (RMIT)

Bruce Gorring is currently Acting Director, Nulungu Research Institute. He is profoundly interested in the reflexive relationship between 'Country', people, and the sustainability of complex cultural and natural landscapes. Bruce's career commenced at the Centre for Indigenous Australian Cultural Studies (UWS Macarthur) as an Associate Lecturer in 1995. In 1998, he joined the Kimberley Land Council as a Project Development Officer and was appointed as Manager of the Native Title Services Unit in 2003. From 2006 to 2009, he was the Assistant Director of the Land Branch in the WA Department of Indigenous Affairs in Perth. In October 2009, he was appointed Research Coordinator in the Nulungu Research Institute at the University of Notre Dame Australia, Broome campus. Bruce was a member of the project team for OLT funded project SI11-2138 during 2011-13: *'Can't be what you can't see': The transition of Aboriginal and Torres Strait Islander students into higher education* (Kinnane, Wilks, Wilson, Hughes, & Thomas, 2014).

Partner Investigator: Ms Carolyn Crook (UNDA) – B.Ed. Primary (Hons) (ECU), M.Ed. (Curriculum Design) (UNDA)

Carolyn Crook is a Lecturer with the School of Education at the University of Notre Dame Australia, Broome Campus and Fremantle Campus; and a member of the Golden Key Honour Society. She has engaged in remote Indigenous Education and VET Pathways through her work in Broome for the UNDA Broome Campus and supporting Bachelor Indigenous students. Carolyn has extensive experience in education curriculum design, methodology and assessment, and has experience in developing and delivering online teaching for remote Aboriginal students. Carolyn has a background in classroom action research as a primary educator and is currently developing her research pathway through Nulungu Institute of Research.

