

Evaluating the Effects of Embedding Indigenous Content: Evidence Versus Assumptions

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ABSTRACT

Universities in Australia and around the world have been incorporating Indigenous graduate attributes as part of their students' learning outcomes. To address the learning outcomes universities embed Indigenous content. This paper looks at the development of an evaluation model to gauge the effectiveness of embedding Indigenous knowledges in higher education courses. It may be assumed that this inclusion of Indigenous content in higher education courses leads to positive benefits such as cultural competence. The evaluation process discussed in this paper is designed to determine the social and educational implications arising from inclusion of Indigenous graduate attributes and Indigenous content in higher education courses. The evaluative question is; 'how do we know with certainty that embedding Indigenous content builds cultural competence within the institution and its graduating students?' From a robust framework using both quantitative and qualitative data the evaluative process provides evidence rather than what are presently the assumed outcomes of a more culturally competent student base and workforce.

Introduction

This paper looks at the development of an evaluative model to gauge the effectiveness of embedding Indigenous knowledges content in higher education courses within a university institution. Many universities in Australia and around the world have been incorporating Indigenous graduate attributes as part of their students' learning outcomes.

It is assumed that the inclusion of Indigenous content in higher education courses across a university leads to positive benefits individually and collectively for students and teaching staff in relation to an institution's cultural competence levels. An evaluation model has been designed to determine the social and educational implications arising from inclusion of Indigenous graduate attributes in conjunction with higher education courses. From a robust framework using both quantitative and qualitative data the evaluative process provides evidence rather than what is presently assumed.

The evaluative question is:

How do we know with certainty that embedding Indigenous content builds cultural competence within the institution and its graduating students?

Embedding of Indigenous knowledges content within university higher education courses has the potential to achieve a number of positive benefits for students, teaching staff and the university environment and extending to the community as graduates become employed. A

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sharing of such valuable knowledge promotes a better understanding and awareness of Indigenous knowledge systems and an appreciation for different worldviews for all students. Teaching staff extend their knowledge and develop awareness as a result of delivering units with Indigenous content. It is envisaged that the university as a whole gains as a result of having students, teaching and administration staff that are constantly growing and developing a culturally diverse knowledge base and outlook which provides for a flow-on effect concerning the universities reputation in the wider community.

Incorporating Indigenous graduate attributes within higher education courses is usually achieved through embedding Indigenous knowledges within common units that are compulsory across undergraduate degrees. Other methods include higher education courses that are focussed on Indigenous knowledges or the option of selecting electives that focus on Indigenous knowledges.

In Alaska the embedding of Indigenous knowledge takes the further step of reintegrating knowledge into higher education pedagogy by teaching through the culture. This is a restorative initiative to embed local knowledge and ways of knowing in to the formal education system as a basis for Indigenous students to understand their immediate place and their connection to the larger world. This process broadens and deepens their educational experience (Barnhardt, 2005).

More generally the purposes of graduate attributes are to provide a pathway for students to enter the work force with an appropriate skill set within their chosen field. In addition to this the graduate attributes foster lifelong learning capabilities.

Graduate Attributes

Graduate attributes are essentially knowledge building mechanisms designed to complement the study focus by providing a well-rounded education for advancing skills in the areas of:

- *General reading*
- *Thinking Critically*
- *Using Internet and other electronic tools*
- *Essay writing*
- *Problem solving*
- *Creativity*
- *Broad theory and technical concepts*
- *Listening skills*
- *Numerical skills*
- *Collaborative and cooperative frameworks*
- *Social responsibility*
- *Sensitivity to other cultures and people*
- *Operating in an intercultural and global environment*
- *Initiative and responsibility*

Some universities in Australia have a dedicated Indigenous graduate attribute which is clearly stated in their policies and curricula mapping, others have a more general focus concerning cultural diversity without any mention of Australian Indigenous people.

The four extracts below provide insight to policies and intent of some universities around Australia concerning graduate attributes:

- 1) This university has nine graduate attributes, number eight is:

Demonstrate cultural awareness and understanding: Respect individual human rights; Recognise the importance of cultural diversity particularly the perspectives of Indigenous Australians; Value diversity of language

- 2) This university has three key graduate attributes, number three is:

World View:

i) **Flexibility** – Can function effectively and constructively in an intercultural or global environment and in a variety of complex situations.

ii) **Leadership** – Can exercise initiative and responsibility, taking action and engaging others to make a positive difference for the common good

- 3) This university has seven graduate attributes, number seven has six qualities that are listed:

Graduate Qualities to be fostered

i) Exemplary personal and professional moral and ethical standards

ii) A commitment to lifelong learning and intellectual development

iii) An understanding of Indigenous Australian issues and cultures

iv) An understanding of regional issues

v) A sense of professional, community and environmental responsibilities

vi) Willingness to contribute to the intellectual, cultural and social life of the regional, national and international communities

- 4) This university has five graduate attributes, number three is:

Indigenous Australian Knowledge – demonstrate knowledge of Indigenous Australia through cultural competency and professional Capacity Indigenous Academic Perspectives:

i) Knowledge base; appreciates the culture, experiences and achievements of Indigenous Australians, thereby encouraging an Australian identity inclusive of Indigenous Australians

ii) Communication; communicates ethically and effectively within Indigenous Australian contexts

iii) Social and cultural understands and engages effectively with the culturally and socially diverse world in which they live and will work

iv) leadership and partnership; understands the circumstances and needs of Indigenous Australians, thereby encouraging responsibility in raising the standard of professional service delivery to Indigenous Australians; possess a capacity to engage and partner with Indigenous Australians.

Indigenous Course Content

Universities Australia is currently running a pilot program in four universities to increase cultural competency through graduate capability. The cultural competency focus is to ensure that students understand and value Indigenous perspectives. The focus is also to promote a basis for Indigenous and non-Indigenous students to engage in a respectful and reconciliatory manner. Embedding of Indigenous perspectives is a complex and challenging process and Universities Australia are attempting to arrive at a national best practice framework for Indigenous cultural competency (Loban, 2011).

Below are some quotes from Indigenous academics concerning the need to embed Indigenous content within a university context:

1. *In my work at the University of the South Pacific, I recognize the dominant paradigms that have limited educational discourses so far, and I advocate the incorporation of Indigenous and local knowledge and wisdom into the content of all courses at our university so as to encourage the valuing of knowing and knowledge associated with Oceania peoples and the acceptance of their multiple wisdoms. It is my belief that this approach ought to form the core of Pacific studies teaching and research in the future* (Thaman, 2003, p. 8)

2. *Incorporating aspects of Indigenous education into course curricula helps make university study more meaningful for many students. Valuing Indigenous ways of knowing usually results in mutually beneficial collaboration between Indigenous and non Indigenous peoples, and improves their treatment of each other as equals* (Thaman, 2003, p. 11)

3. *From Indigenous perspectives, universities are yet to deliver educational outcomes from both within its own cloisters for Indigenous peoples and outside in the communities where many return. Developing research ethics is just one of the strategies that can be employed in reconciling the long history of intrusive study on Indigenous peoples. Looking at more enterprising and collaborative approaches to learning, studying and researching; where a recognition of Indigenous systems of knowledge is given voice and meaning, will mean a rediscovery of the this country that has endless potential. The myth of terra nullius implied that this country was uninhabited and terra nullius social policy supported by research enabled for the dispossession of knowledges of Indigenous peoples. It must be remembered that university curriculum, teaching methodologies and research endeavours have a history of development that contributed to this dispossession. Has the time come for change?* (Hart & Whatman, 1998)

Further to ascertaining the need for embedding Indigenous content within higher education courses a further need is to ensure that Indigenous knowledges are written by Indigenous people with the relevant expertise and conveyed in an appropriate manner. The quote below articulates this issue:

4. *We cannot just “do” Indigenous knowledge in the curriculum* (Nakata, 2007, p. 8)

What aspects of Indigenous knowledge gets representation, and how it is represented in this space reflects a complex set of intersections of interests and contestations (Nakata, 2007, p.9)

Evaluating

Having established the assumed and potential benefits to be gained by embedding Indigenous content through graduate attributes and course content, the task ahead is to evaluate if in fact such gains have been achieved. A case study conducted at the University of South Australia evaluated student perspectives arising from Indigenous content. The Indigenous content represented a compulsory component of the undergraduate psychology program undertaken in the first and third year of the undergraduate psychology degree. The course was specifically designed for psychology students and was being taught on the basis of a partnership with an Indigenous education and research centre (Ranzijn et al., 2008). An anonymous questionnaire was completed by students. This questionnaire was the standard survey used for all courses across the university. Responses of students were based on a Likert scale ranging from ‘Strongly Agree’ at one extreme through to ‘Strongly Disagree’ on the other. Findings were encouraging resulting in the following key points:

- Students engaged both intellectually and emotionally with the course material
- Students recognised how little Indigenous knowledge they had prior to the course
- Students experienced a positive change in their attitudes and beliefs
- Students valued the learnings regarding world views, identity and cultural competence

The above case study provides findings that provide a positive set of outcomes from conducting the course and making it a compulsory component in the first and third years of the undergraduate degree. Most universities use standard course questionnaire based survey tools that are usually anonymous and completed at the end of the semester for particular units. These surveys are not compulsory and are evaluation tools designed to measure the student experience of learning and teaching (SELT). In the study above forty per cent of the students completed the survey. This type of evaluation reporting provides support to faculties, schools, course coordinators and individual staff choosing to evaluate student learning and teaching in their courses and programs. In the case study above it can be seen that the tool had the added dimension of evidencing a basic notion of cultural competency as part of the learning journey for the participating students.

There remains a need to investigate more extensively the impact of embedding Indigenous cultural aspects. This will help to determine that graduates are developing relevant knowledge and skills as well as Indigenous students being able to maintain their own sense of identity within an inclusive environment (Rossingh and Dunbar, 2012). Having ascertained that students are developing relevant knowledge and skills, this then provides a foundation of cultural understanding and acceptance to measure and monitor. An evaluation model needs to address these type of performance indicators that seek these attributes. Anning (2010) discusses the Rossingh & Dunbar: Evaluating the Effects of Embedding Indigenous Content: Evidence Versus Assumptions

need for national policy development relating to enhancing the status of Indigenous culture and knowledge within the education sector. There is a need for a reinvigoration of evaluative frameworks that include cross-fertilisation of ideas and learnings to advance and progress a cross-institutional basis (Andersen et al., 2008). Therefore an evaluation process really needs to underpin the intended outcomes.

Essentially an effective evaluative model is needed to capture data from a number of sources and not rely on limited data say from one student questionnaire survey that may take up to six to twelve months to be reported. It is therefore necessary to broaden the gambit of investigative techniques and provide a more holistic approach and view of activities that may or may not be contributing to cultural competency in a university. In addition to a multi-dimensional approach that draws in a number of different data sources it is important to include an action-based cycle evaluation method. This will then ensure further development and improvements of the evaluative model that takes place as innovative methods and more specific data sources become known and available.

A Metaphor, A Dichotomy and a Prescriptive Process

Figure One below represents a metaphor, a dichotomy and a prescriptive process. The metaphor is based on the ripple effect of embedding Indigenous content in higher education university courses. From a small but valuable parcel of Indigenous knowledge a much wider learning space is created as its ripples penetrate out and within the university and community environment.

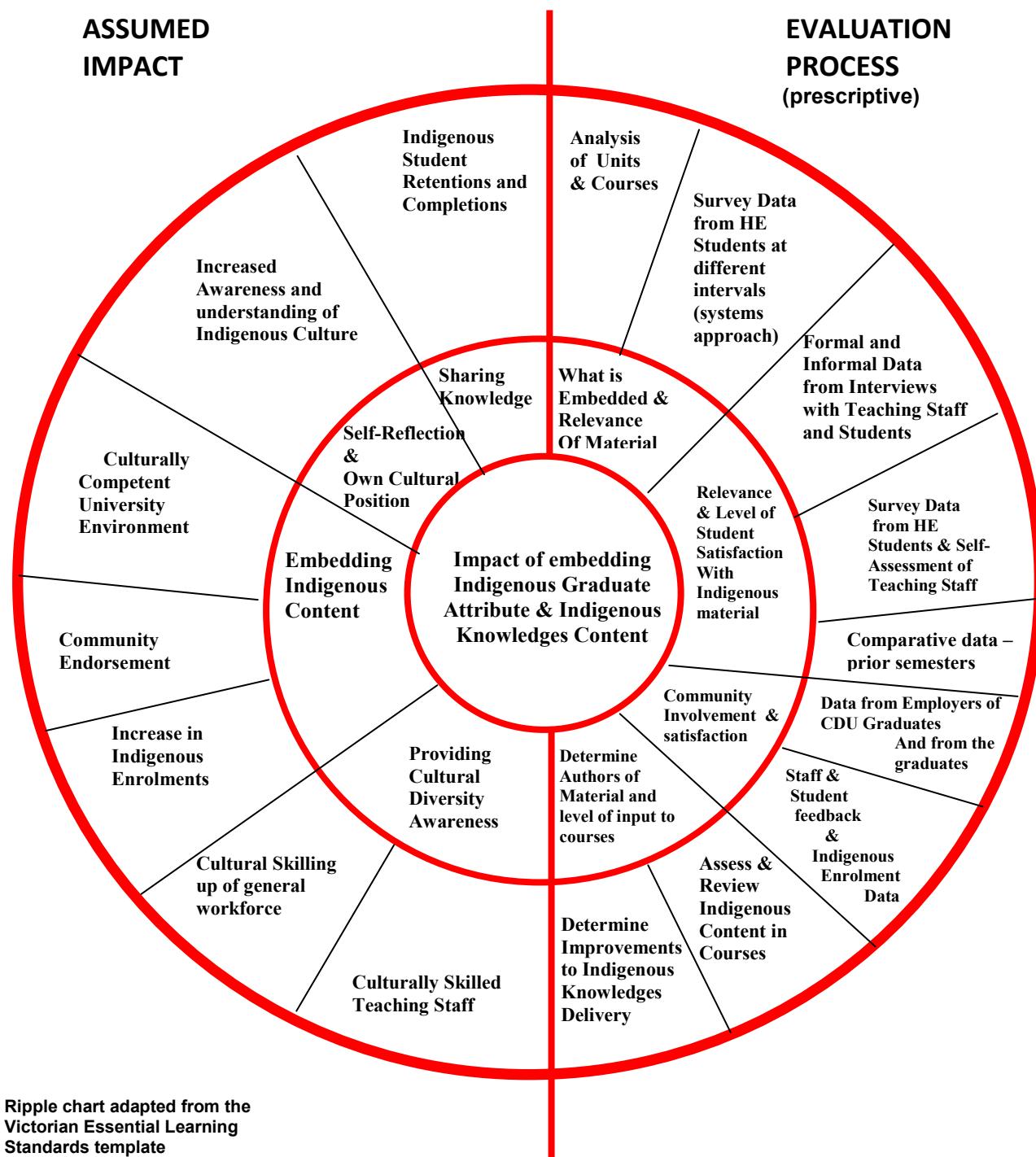
The dichotomy is that it is assumed that embedding Indigenous content in to higher education courses will radiate cultural competency but this representation may blur what is thought to be happening and may not represent reality. This is like having only half of the ripples or half of the process. The ripple chart is therefore split into two halves symbolising that assumptions (on the left) may lead to unintended outcomes, lack of outcomes or the uncertainty of associated outcomes. A complete ripple formation cannot be achieved on this basis. A holistic commitment to bringing forth cultural competency as a significant outcome for a university cannot be left to ripple out into oblivion without carefully scrutinising where the ripples and therefore the knowledge parcels are going.

A prescriptive process (on the right) provides the foundations of a participative and action-based evaluative model. The many sources of data and associated activities that make-up the evaluative process are key to the measurement process in providing an insight to the outcomes achieved by embedding Indigenous content. The desired outcomes are provided in the earlier part of this paper in the discussion of graduate attributes and the extracts from the four universities. Graduate attributes represent the learning outcomes that a university strives to achieve in delivering higher education.

The Indigenous graduate attributes must be carefully matched to the evaluative based measures. The intention is to demonstrate that these outcomes are being achieved. If there weaknesses are identified through the evaluation process then these need to be addressed. Review and assessment of courses, quality assessment of the content within the courses and

determining the level of Indigenous input are all essential features that should be part of the process (Nakata, 2007).

FIGURE ONE: RIPPLE EFFECT OF EMBEDDING INDIGENOUS CONTENT



Many other indicators are equally as important but tend to take place in different forms within a university environment. The approach must bring all elements together to formulate a holistic

model that has complementary facets of measuring and reviewing in a cogent and well-orchestrated manner.

Figure one above brings together the assumed impact of embedding Indigenous content on the left half of the figure and relevant methods to determine that the assumptions are valid and can therefore be substantiated on the right. The evaluation process brings accountability in to the process and provides credibility within the university and the community perspective. This is an important feature so that the intent of embedding Indigenous culture is taken seriously as a defining role of the university to invoke a sense of cultural diversity and cultural competence.

DEEWR (2009) suggests that systematic and regular action research based evaluation and reflection is required but remains limited in most tertiary settings today. According to Greenwood and Levin (2005), results from action research are only valid, credible and reliable if they are in fact acted on. The evaluation model is designed to collect staff and student feedback to ensure that a participative environment is established to liberate dialogue and build a cycle of continuous improvement (Mertens, 2005).

Within the university sector it is recognised that there is a need for graduates to have cultural competency (Bradley, 2008). As demonstrated by the examples of Indigenous graduate attributes above there is an underlying intent by universities to achieve this. The process is complex and requires Indigenous academics and experts to draw up relevant course content that will provide the impetus for learning, understanding and appreciating cultural diversity and in particular foster and promote Indigenous knowledges as part of Australian history with emphasis also on interconnectedness of land, family and spiritual identity and social issues (Lobon, 2011; Nakata, 2007; Williamson & Dalal, 2007).

There is still a great need to have Indigenous knowledges recognised in universities to have approaches that rival and augment Western approaches and thinking. This is a strength area that some universities are embracing where others are still to understand. The Western scientific domain has much to gain from Indigenous people's local knowledge in areas such as land management and sustainable development, biodiversity, conservation and other ecological and environmental practices. The inclusion of Indigenous content in this space is complicated and highly contested and needs careful consideration by universities (Nakata, 2007). It is crucial for universities to avoid the 'simple fix' attitude by just adding Indigenous components. The process requires opportunities for Indigenous people to produce their own critique, research and narratives so that this may become part of what Nakata refers to as the 'corpus', the body of knowledge.

Langton and Ma Rhea (2003) see the importance of developing collaborative learning partnerships to address appropriate usage of Indigenous knowledges. These authors stress that such an approach is reliant on having formal agreement that is clear about the rights and responsibilities of each partner. Their framework includes (Langton and Ma Rhea, 2003, p. 99):

- Indigenous and non-indigenous knowledge can be taught together within a Western-based science and technology curriculum;

- Both indigenous and non-indigenous collaborators have a clear understanding of their rights and responsibilities regarding the inclusion of traditional knowledge in the curriculum;
- The intellectual value of indigenous peoples' knowledge is credited: teachers should convey to their students that indigenous knowledge is as important as Western science;
- There is sound and accurate documentation of local knowledge, particularly traditional ecological knowledge, that has been verified by both knowledgeable indigenous leaders and Western scientists; and
- The traditional resource rights and intellectual property rights of the indigenous
- Collaborative partners are recognised, for example through a *sui generis* system (a custom-made national system of intellectual property).

The framework above provides a useful set of indicators that would be appropriate to further support the evaluation model in figure one.

Conclusion

Embedding Indigenous content in higher education is undoubtedly an important practice for universities. Presently, Indigenous graduate capabilities are a focus for many universities. This focus must have the support and direction clearly mapped out to achieve the underlying intentions and the important community outcomes. The evaluation process described in this paper provides a basis to achieve accountability and credibility for universities in building and developing appropriate skill sets for students in accordance with the graduate attributes. The evaluation model incorporates student and staff feedback, unit and course review and assessment of the degree of Indigenous input. The evaluation process also includes seeking feedback from graduates in the workforce and their employers. Ascertaining levels of cultural competency may be considered as the primary purpose of the evaluation model. There are many potential benefits to be gained from embedding Indigenous content that have been outlined in this paper. The evaluation process will help to align the practices of embedding Indigenous knowledges with how Indigenous people want their knowledge conveyed. Once the evaluation process is activated to monitor and continuously improve the curriculum, then and only then can we be assured that the embedding of Indigenous content actually achieves cultural competency and we no longer need to assume.

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OTHER READINGS OR TOOLS

Ripple chart adapted from the Victorian Essential Learning Standards template available at:
<http://vels.vcaa.vic.edu.au/support/graphic/whatif.html>

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