AUSTRALIAN
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Exploring problem-based learning pedagogy as transformative education in Indigenous Australian studies

Final Report 2012

Lead institution
The University of Queensland

Partner institutions
Monash University
The University of Newcastle
University of Technology, Sydney
Charles Darwin University
University of New South Wales

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<http://www.teaching4change.edu.au>

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Executive summary

This report documents the outcomes of the project 'Exploring Problem-Based Learning pedagogy as transformative education in Indigenous Australian studies' funded under the ALTC priority area of curriculum renewal. The project was carried out over a two-year period and sought to understand the ways in which teaching and learning in Indigenous Australian studies can transform tertiary education as a pathway to social justice and empowerment for Indigenous peoples. The study took place in five key centres: The University of Queensland, Monash University, University of Technology, Sydney, Charles Darwin University, and The University of Newcastle. The original aim of the project was to evaluate the effectiveness of 'Problem-Based Learning' (PBL) as transformative education in Indigenous Australian studies at tertiary level. Our study focused on PBL because this method is used in many Indigenous Australian studies classrooms in preference to other approaches. However, despite its possibilities for transformative teaching and learning, there has been little research on the application of PBL in the Arts and Humanities. Few researchers had previously explored PBL as transformative education and there has been very little study of the effectiveness of this approach in relation to Indigenous education globally. The project has three key outcomes.

Key outcome one: Change in terminology

The project findings highlight that there are diverse ways that the PBL approach is adapted in Indigenous Australian studies and a more inclusive term for the approach was needed to engage multiple perspectives and make space for the dynamic nature of this curriculum area. The term 'PEARL' was developed as a way of encompassing the political, embodied, active, and reflective aspects of this teaching and learning approach.

Key outcome two: Teaching4Change website

A website <www.teaching4change.edu.au> has been developed with practical resources for educators in Indigenous Australian studies. The name of the website 'Teaching4Change' represents four levels of education – early childhood, primary, secondary and tertiary. Future follow-on projects will explore how the approach could be used in Indigenous Australian studies at other levels of education. The website includes the following practical resources for educators in Indigenous Australian studies:

- teaching and learning exemplars and resources for tertiary educators in Indigenous Australian studies
- a facility for submitting example teaching and learning scenarios and uploading video examples of Indigenous Australian studies classrooms using PEARL
- a guide to successful PEARL delivery in Indigenous Australian studies
- project publications, bibliography and useful links on teaching and learning Indigenous Australian studies
- information about PEARL as a teaching and learning approach
- information about the project, the project team and transformative education.

Key outcome three: Special Issue of *The Australian Journal of Indigenous Education (AJIE)* Volume 41S (2012)

A Special Issue of *AJIE* explores issues surrounding teaching and learning in Indigenous studies at tertiary level. Guest edited by Elizabeth Mackinlay and Katelyn Barney, it will include an introduction by Mackinlay and Barney, an article by Mackinlay and Barney theorising PEARL as a teaching and learning approach, articles by project team members and reference group members from the project, along with a reflection by the external evaluator on the links between teaching and learning Indigenous studies in Australia and Canada.

List of acronyms used

PBL
Problem-Based Learning

PEARL
Political, embodied, active, and reflective learning

Introduction

Indigenous Australian studies, sometimes framed as Aboriginal and Torres Strait Islander studies, is an expanding discipline in universities across Australia (Nakata, 2004). It is an important contribution to teaching students about Australia's colonial history and benefits both non-Indigenous and Indigenous students by teaching them about Australia's rich cultural heritage (Craven, 1999, pp. 23-25). Such teaching and learning seeks to actively deconstruct historical and contemporary entanglements between Indigenous and non-Indigenous Australians and, in doing so, help build better working relationships between Indigenous and non-Indigenous Australians. As educators in this discipline, it is important for us to find teaching and learning approaches which make space for these topics to be accessed, understood, discussed and engaged with in meaningful ways.

The original aim of the project was to evaluate the effectiveness of 'Problem-Based Learning' (PBL) as transformative education in Indigenous Australian studies at tertiary level. PBL was focused on because it is a pedagogical tool used in many Indigenous Australian studies classrooms in preference to other methods. The project findings highlight that there are diverse ways that the approach is adapted in Indigenous Australian studies and a more inclusive term for the approach was needed to engage multiple perspectives and make space for change and the dynamic nature of this curriculum area. The term 'PEARL' was developed as a way of encompassing the political, embodied, active, and reflective aspects of this teaching and learning approach.

Positioning ourselves and the project team

Elizabeth Mackinlay is a non-Indigenous woman who grew up on Watharung country in Western Victoria. She began her academic career in ethnomusicology in 1994 working with Yanyuwa, Garrwa, Mara and Kudanji people in the remote town of Burrulula in the southwest Gulf of Carpentaria in the Northern Territory. Liz is married to a Yanyuwa man and is mother to their two children. Over time, her research focus has turned to her positioning as a non-Indigenous woman and the rights, roles, and responsibilities she has in relation to respect and representation of Indigenous knowledges. Liz's work has increasingly focused on issues of social justice and education for Aboriginal and Torres Strait Islander people (e.g., Mackinlay, 2008, in press) and in recent years she has become passionate about the power and privilege that non-Indigenous educators have to enact pedagogy which is ultimately about empowerment and self-determination for Indigenous Australians. Prior to beginning this project, Liz had been using PBL processes in her Indigenous Australian studies classrooms at The University of Queensland since 1997, and became the inspiration behind our research – that is, to explore whether or not PBL is as transformative as we think it is in the context of Aboriginal and Torres Strait Islander studies. Liz's role in this project was to provide overarching leadership on the project, write and prepare the final report and develop practical resources for the website with project manager Katelyn Barney.

Like Liz, Katelyn Barney's background is in music and Indigenous studies, and she completed a PhD working with Indigenous women performing contemporary music in 2006. Since then her research has shifted to a collaborative framework and she has undertaken a number of research partnerships with Indigenous researchers and colleagues (e.g., Barney & Solomon, 2010; Barney & Proud, 2010). Kate has also worked on a number of teaching and learning projects as part of her role in the Aboriginal and Torres Strait Islander Studies Unit at The University of Queensland. This ALTC project has given her space to further collaborate with Indigenous colleagues. Kate's specific role was to work closely with the project team to collect and analyse data on each of their individual courses, manage and summarise the data for the project team, undertake overarching analysis of all data collected with Liz, organise reference group meetings, write and prepare the final report and develop practical resources for the website with Liz.

While we recognise that there are multiple perspectives and opinions in relation to the issue of whether non-Indigenous people should engage in acts of representation about, with and for Indigenous Australian peoples, knowledges and cultures, the project team consists of both Indigenous and non-Indigenous members and represents in many ways the call from Aboriginal and Torres Strait Islander peoples for non-Indigenous people to enter into meaningful dialogues with one another so as to bring about a reconciled Australia. Heidi Norman is a Senior Lecturer in Social and Political Change at the University of Technology, Sydney. Her family descend from the Gamilaroi nation in north western New South Wales. John Maynard is an ARC Indigenous Research Fellow at The University of Newcastle and his traditional roots lie with the Worimi people of Port Stephens. John Bradley is Reader in the Centre for Australian Indigenous Studies at Monash University where he teaches Indigenous studies, anthropology and Australian identity. Greg Williams is acting Head of School of Australian Indigenous Knowledge Systems at Charles Darwin University. Cat Kutay is a Research Engineer at the University of New South Wales working in Indigenous Knowledge Management and Language Teaching resources. Sean Ulm is a Lecturer in anthropology at James Cook University and Ian Lilley is Professor in Aboriginal and Torres Strait Islander Studies at The University of Queensland.

Our reference group consisted of three Indigenous Australian scholars. Steve Larkin is Pro Vice-Chancellor, Indigenous Leadership, Charles Darwin University; Clair Anderson is Director of the Riawunna Centre at the University of Tasmania and has Yanyuwa clan connections in the Gulf country of Northern Australia; and Lynette Russell is Director of Centre for Australian Indigenous Studies, Monash University. Their role was to attend the

three reference group meetings, participate in discussions and provide consultation and feedback to project team members. Carmen Robertson from the University of Regina was our external evaluator. She is a First Nations Canadian and has a strong commitment to Indigenous education in global contexts. Her role was to participate in online meetings and discussions and to attend the final reference group meeting and evaluate the outcomes of our project in December, 2011.

Project aims and rationale

Indigenous Australian studies necessarily addresses emotionally-difficult topics related to race, history, the ongoing power of colonialism and our identities as Indigenous and non-Indigenous Australians. Our original contention was that in PBL, personal and emotional responses become dialogic and discursive, intellectualised and theorised and that the resulting new awareness translates into positive thought, practical action and change with the potential to build a more socially-just Australian society for Indigenous Australian peoples. Our study focused on PBL because this method is used in many Indigenous Australian studies classrooms in preference to other approaches. However, despite its possibilities for transformative teaching and learning, there has been little research on the application of PBL in the Arts and Humanities. Few researchers had previously explored PBL as transformative education and there has been very little study of the effectiveness of this approach in relation to Indigenous education globally. In 2002, Hutchings and O'Rourke explored the appropriateness of PBL to teaching Literary Studies and concluded that the open-ended nature of questioning in PBL allowed for multiple readings of texts, a process considered desirable for scholarly research in this discipline. Morkuneine (2005) explored the relevancy of the problem-based method in teaching philosophy and suggested that the technique effectively problematises objectivity. Mackinlay et al. (2004) discussed the types of knowledge and learning that emerged from PBL approaches to teaching a course in Indigenous Australian studies specifically related to the histories and life experiences of Aboriginal and Torres Strait Islander women. Their research demonstrated the utility of PBL in teaching and learning in Indigenous Australian studies. When applied to contemporary real-world social issues, PBL can provide an educational experience which is socially transforming, emancipatory, and provides students with the skills to "view the world as a place where their actions might make a difference" (Ross & Hurlbert, 2004, p. 82). It holds possibilities for opening up an engaged, dialogic, reflective and critical classroom. Framed in this way, the goals of PBL and transformative education are not dissimilar – both intend to engage rather than educate, democratise rather than dictate knowledge, critically question and reflect upon rather than control and censor what we can know, and actively transform instead of passively inform. In this project we aimed to explore PBL as an alternative pedagogical approach that can work against the limitations of a classroom to create, as hooks puts it, a "location of possibility" (1994, p. 207).

The original project aims were to:

- evaluate the effectiveness of PBL as transformative education in Indigenous Australian studies at tertiary level

- explore the relationship between Indigenous pedagogies and PBL

- understand the ways in which PBL in Indigenous Australian studies works as transformative education

- explore how it can transform tertiary education as a pathway to social justice and empowerment for Aboriginal and Torres Strait Islander peoples

- provide a forum for discussion with other universities that engage in teaching Indigenous studies on an ongoing basis.

One of the major outcomes of this project has been the formulation of a new way of theorising and framing pedagogical processes in Indigenous Australian studies through the acronym PEARL (political, embodied, active, and reflective learning). This finding is discussed in more detail under key outcome one.

Project outcomes and impacts

The project outcomes have both research and practical dimensions. The practical outcomes extend the research outcomes into public and applied settings.

Key outcome one: Change in terminology

A key outcome of this project has been a change in terminology – PBL has become PEARL. While we started with the term 'PBL', it became clear as the project progressed that the terminology we were using was not politically or pedagogically appropriate. As the data began to reveal, the research team became increasingly uncomfortable with the colonial underpinnings and associations of the term 'Problem-Based Learning' and began to explore the possibility of redefining what we do as something else entirely. The shift from PBL to PEARL was unexpected but has resulted in exciting possibilities for migrating and extending theories of teaching and learning in Indigenous Australian studies into critical pedagogy and critical race studies.

Given the implications behind the change from PBL to PEARL, it is worth discussing the rationale behind the shift in terminology in more detail. Both students in focus group discussions and academics in forums where Mackinlay and Barney presented noted the issues around the problematics of the terminology 'Problem-Based Learning'. Because of the history of framing Indigenous people as a 'problem' there are negative connotations. Also, the approach as applied in Indigenous Australian studies is more than just solving problems – but the term assumes that a scientific outcome is possible and that a solution can be found. There was also much discussion within reference group meeting two about the terminology. The project team members noted that as academics we have a responsibility not to treat Indigenous Australian studies as a problem and there are ethical implications for this. Students had also picked up on this and commented "It sounds as though we are trying to fix something that is broken", "the word [PBL] is too 'needy'" and that labelling can lead to boxing and constraining of the approach. A number of suggestions have been made by students to call the teaching and learning approach by another name, including 'inquiry based learning' and it was acknowledged that the term needed to engage multiple perspectives and convey the excitement of this way of teaching and learning. The project team noted that the term has to be able to make space for change and the dynamic nature of this curriculum area.

During the final reference group meeting, a decision was made to move away from the term 'Problem-Based Learning'. Mackinlay suggested PEARL as a new term to encompass the political, embodied, active, and reflective aspects of this teaching and learning approach.

Why the acronym PEARL as a metaphor

The metaphor of a pearl was chosen to describe the teaching and learning processes enacted in Indigenous Australian studies across the five university sites. The well-known phrase 'pearls of wisdom' goes some way in explaining the metaphor in the sense that both pearls and wisdom take a long time to grow, both may seem small but are extremely valuable and they both develop from a substance which is irritating, unwanted and unremarkable. It is the way in which a pearl is made which perhaps best clarifies why the metaphor is appropriate for pedagogical processes in Indigenous Australian studies. Like teaching and learning, a pearl is a gemstone which is created by a living creature – it is organic and grows in relationship to events and others around it. The pearl itself is formed when a foreign object such as dirt or a small piece of stray food gets inside the shell of an oyster (or other mollusc) by mistake. To protect itself, the creature covers the intruding object with the same substance that its shell is made of, a mineral known as nacre. The oyster or other mollusc continues covering the object with multiple layers of nacre, eventually forming a pearl. Pearls come in many shapes, colours and sizes. No single pearl is perfect

or the same and nor does every oyster always produce a pearl. The stages of pearl development – the intrusion of something new, strategies that are put in place to cope with the intrusion, and then the resulting growth – are similar to the transformation that takes place in PEARL as a teaching and learning approach.

Together the project team and reference group then developed the following description of PEARL as a teaching and learning approach in Indigenous Australian studies:
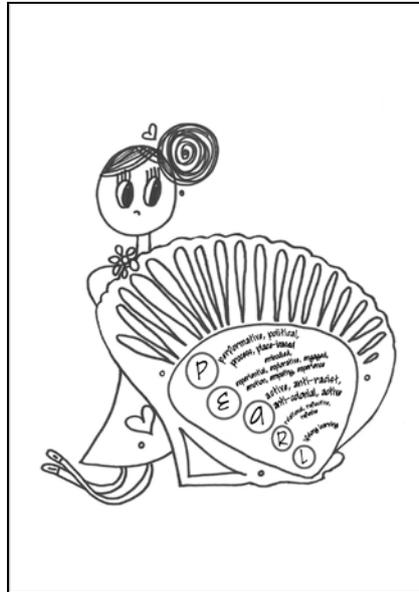
Sketch of PEARL by Mackinlay (2012)

P (for political, performative, process, place based): We bring our experiences, knowledge and practice to the place where the current learning process occurs. We reflect and respond to the agency of the space and the elements of the place where our teaching and learning takes place. We perform our learning, embody the process and recognise the inherent political nature and knowing that we move through. We know that we will move in and out of the place and back again to influence the places where teaching and learning occurs.

E (for embodied, experiential, explorative, engaged, emotion, empathy, experience): A holistic exploration that engages mind, body and emotion in empathetic dialogue. A transformative process based on equal collaboration.

A (for active, anti-racist, anti-colonial, active): Theoretical imperatives relate implicitly to anti-racist/anti-colonial discourses. Practically we view PEARL as aiding students to shift from reflection to action through agency and awareness. The shift to action is a critical element of transformation and enables students to become agents for change and decolonisation.

R (for relational, reflective, reflexive): Through reflection on particular structured learning activities, student's experiences are transformed into knowledge and deeper wisdom which they apply to their personal and professional lives.

L (for lifelong learning): Learning in PEARL is learning for life, for change, for empowerment, for hope, for knowledge, to lead, to let go of assumptions, to liberate and to lustre – to shine!

Key outcome two: Teaching4Change website

A website <www.teaching4change.edu.au> has been launched that shares the results of this project, and provides a forum for discussion with other universities that engage in teaching Indigenous studies on an ongoing basis. The name of the website 'Teaching4Change' represents four levels of education – early childhood, primary, secondary and tertiary. Future follow-on projects will explore how the approach could be used in Indigenous Australian studies at other levels of education.

The website includes the following practical resources for educators in Indigenous Australian studies:

- teaching and learning exemplars and resources for tertiary educators in Indigenous Australian studies
- a facility for submitting example teaching and learning scenarios and uploading video examples of Indigenous Australian studies classrooms using PEARL
- a guide to successful PEARL delivery in Indigenous Australian studies
- project publications, bibliography and useful links on teaching and learning Indigenous Australian studies
- information about PEARL as a teaching and learning approach
- information about the project, the project team and transformative education.

These practical tools on the website will also assist educators outside Indigenous Australian studies in renewing their curriculum and classroom practices and enacting the goals of transformative education and learning. The website also creates a forum to strengthen the collaboration between the universities involved in the project by sharing resources and course materials. Presenting the website and its practical resources to educational bodies in each State will be a flow-on long term practical outcome to further develop and enhance the teaching and learning of Indigenous studies curriculum at primary and secondary level.

Brisbane based Aboriginal artist Denise Proud painted an image that depicts the project for the website. The five circles, in blue, purple, green, pink and yellow, represent the universities where the case studies were undertaken as part of the project. The University of Queensland is represented by the blue circle as the lead university on the project and the collaborating universities: University of Technology, Sydney, Monash University, The University of Newcastle and Charles Darwin University are symbolised by the other circles. The circles also represent the cocoon or safe space where students can gain knowledge about Indigenous ways of knowing, peoples and histories. The black and white shapes around the circles signify the students, both Indigenous and non-Indigenous, who enrol in Indigenous Australian studies. The students sit in circles demonstrating the meeting, sharing, dialogue and relationships that occur through PEARL in Indigenous Australian studies. The red tracks between the universities demonstrate the flow of knowledge and the collaboration that is occurring between the universities. The butterflies signify the process of growth, maturity, change and transformation which we believe occurs in student's understandings about Indigenous Australian peoples, histories, and cultures through the process of PEARL pedagogy. The background of green and yellow depicts wattle coming into flower when the seasons change symbolising the importance of having the climate 'right' for this transformation in student's understandings to occur.

Spreading your Wings, Denise Proud (2011)

This website will be a regularly maintained, contemporary resource for educators who are interested in teaching and learning within Indigenous Australian studies at all levels of the curriculum.

Key outcome three: Special Issue of *The Australian Journal of Indigenous Education* Vol 41S and other publications

The main research outcome is a Special Issue of *The Australian Journal of Indigenous Education* focusing on issues arising from the project to be published in 2012. *The Australian Journal of Indigenous Education* (*AJIE*) is a peer reviewed research journal publishing articles in the field of Indigenous education, broadly defined. It is the only journal for educators devoted specifically to issues of practice, pedagogy and policy in Indigenous education in Australia. The Special Issue is guest edited by Elizabeth Mackinlay and Katelyn Barney and at the time of writing the proposed papers include:

- Introduction: Elizabeth Mackinlay and Katelyn Barney

- Pearls not problems: Exploring transformative education in Indigenous Australian studies: Elizabeth Mackinlay and Katelyn Barney

- Australian Indigenous studies overview and history: Lynette Russell and Zane Ma Rhea

- 'Reading the country': Reflexivity as an intimate journey into epistemological liminalities: John Bradley

- In conversation with David Boud about adapting PBL in Australian Indigenous studies: Heidi Norman

- The new National Curriculum: Teacher education and Aboriginal studies: Clair Andersen

- Exploring disruption pedagogy at Charles Darwin University: Greg Williams

- Indigenous knowledge online as a community narrative: Cat Kutay, Janet Mooney, Lynette Riley and Deirdre Howard-Wagner

- Ethical binds and difficult knowledge: Using PBL to shape a practice-based experiential learning environment in ABTS3020 at The University of Queensland, 2005-2010: Sean Ulm

- Utilising PEARL to teach Indigenous art history: A Canadian example: Carmen Robertson

- Exploring the decolonising potential of PEARL: Elizabeth Mackinlay

Mackinlay and Barney have also published project findings in peer-reviewed publications:

- Mackinlay, E., & Barney, K. (2010). Transformative learning in first year Indigenous Australian studies: Posing problems, asking questions and achieving change. A practice report. *The International Journal of the First Year in Higher Education*, *1*(1), 91-99.
- Mackinlay, E., & Barney, K. (2011). Teaching and learning for social justice: An approach to transformative education in Indigenous Australian studies. In G. Williams (Ed.), *Talking back, talking forward: Journeys in transforming Indigenous educational practice* (pp. 117-128). Darwin, NT: Charles Darwin University Press.

This project has enabled us to take a snapshot of a particular teaching and learning approach which is favoured in Indigenous Australian studies across the country, a pedagogy we originally and loosely described as Problem-Based Learning. Before beginning this project, the team knew that we were all performing similar kinds of pedagogy in our classrooms, but we did not really know what, how or why. Further, the dialogue between us as educators in Indigenous Australian studies at tertiary level was haphazard and occasional at best. This research has enabled us to come together and share our teaching and learning narratives and understandings from a diversity of classroom contexts. We have been able to see and experience exactly what Indigenous Australian studies pedagogy looks, sounds and feels like in a variety of settings and space has been made for us to consider what kind of teaching and learning approaches might effectively achieve the political and social justice agenda of many Indigenous Australian studies programs in higher education. In this sense this project has further enabled us to engage in curriculum renewal of our discipline by suggesting PEARL as a transformative educational framework for the work that we do.

As we have already mentioned, an issue which became critical for us was terminology and the challenge of defining pedagogical approaches in Indigenous Australian studies as 'PBL'. While at the beginning we felt we had a certain kind of pedagogical allegiance to PBL because Mackinlay, Barney, Bradley and Ulm's work was framed initially in these terms, by the end of the project we realised that politically – and by extension pedagogically – we could no longer sustain that commitment. An open-minded and exploratory approach was needed to ensure that the difficulty with terminology was negotiated in a productive and positive way. Such an approach has grounded this project from start to finish and has enabled us to put into practice some of the very principles of transformative education that we are advocating, namely relational and dialogic processes.

The results from this project hold great potential for the further implementation of PEARL into primary and secondary classrooms, specifically in relation to pedagogical practice in embedding Indigenous perspectives. As discussed later in this report, the imperative for teachers to effectively, appropriately and ethically engage with Aboriginal and Torres Strait Islander knowledges, cultures and peoples in the content of their programs and the ways that such programs are taught is urgent, particularly given that Indigenous perspectives are mandated across the curriculum at all levels of schooling in the National Curriculum.

Timeline of the project

The following table outlines the timeline that was undertaken over the two-year duration of the project.

Schedule	Progress
Stage one: Reference group meeting one	This was achieved on 9-10 February 2010 where the project team members and reference group members met for a two-day meeting at The University of Queensland. This meeting successfully ensured the goals, approaches and outcomes of the project were in place.
Stage one: Project manager to complete ethical clearance	Ethical clearance processes were undertaken by the project manager and was approved by all of the universities.
Stage two: Website launch	The website was launched in March 2010 and was used as a work space for the project and provided ongoing communication and collaboration between the project team.
Stage two: Pilot study that investigates the use of PBL in the course 'ABTS1000 Indigenous Australian Issues'	The pilot study was successfully undertaken in the course 'ABTS1000', which is taught in Semester 1, 2010 at The University of Queensland's Aboriginal and Torres Strait Islander Studies Unit.
Stage three: Data collection across four other Australian universities	Data was successfully collected at Charles Darwin University, Monash University, The University of Newcastle and University of Technology, Sydney.
Stage four: Reference group meeting two	This took place on-line on 24 June 2011 using a web video tool organised by the project manager and project team member Cat Kutay.
Stage five: Data analysis by project manager and project leader	The project manager and project leader analysed the data collected from interviews and focus groups, classroom observations and lecturer reflections using textual analysis methods. Individual project team members also analysed data.
Stage five: Reference group meeting three	This was achieved on 14-15 December 2011 where the project team members, reference group members and external evaluator met for a two-day meeting at The University of Queensland. This meeting successfully ensured discussion of the data analysis, individual case studies, progress to completion, and the issues of terminology. It also ensured that the outcomes were in the final stages of completion.
Stage five: Website launch	The final Teaching4Change website was launched at the completion of the project.
Stage five: Special Issue of *AJIE*	The Special Issue of *AJIE* will be released in mid-2012.

The approach and methodology

The approach in this project involved undertaking five case studies to explore teaching and learning practices in Indigenous Australian studies. Each of these classes sought to actively deconstruct historical and contemporary entanglements between Indigenous and non-Indigenous Australians and, in doing so, help build better working relationships between Indigenous and non-Indigenous Australians. Discussion in and around these issues necessarily involves talking about the violence of colonialism, the racism often inherent in white imaginings of Indigenous people, and the continued oppression of Indigenous people today. This is, as hooks (1994, p. 154) describes, "difficult material". It moves away from that "cozy, good feeling" into the realms of awkward memory and knowing (McConaghy, 2003, p. 11).

Both Indigenous and non-Indigenous students can find themselves "exploring, experiencing and processing emotions, memories, and other aspects of themselves that were previously unknown" (Butterwick & Selman, 2003, p. 14). Savin-Baden aptly comments that "learning is about engaging different dimensions of ourselves in the learning process. Emotions and feelings are often the ones that are most neglected in learning" (2000, p. 55) and hooks, too, notes that the "restrictive, repressive classroom ritual insists that emotional responses have no place" (1994, p. 155). We believe that PEARL as a teaching and learning approach opens up the potential for students to ask difficult questions, engage emotionally and personally with intellectual material, through critical reflection develop a sense of empathy with Indigenous Australian peoples, and compels students towards action for change.

Data was collected from:

- student free-writes: pre and post responses
- student focus group discussions
- lecturer reflections
- classroom observations.

Case study one: The University of Queensland

The course focused on in the pilot study at The University of Queensland is called 'Indigenous Australian Issues: Past, Present, Future'. It is a multidisciplinary course drawing extensively upon Indigenous Australian history and culture to provide insight into contemporary Australian issues. As well as providing a series of lectures from an academic viewpoint, the course is supported by Problem-Based Learning (PBL) packages and draws upon the experiences of Aboriginal and Torres Strait Islander people from a diverse range of backgrounds. The course had an enrolment number of 120 first year students (including three Indigenous Australian students) drawn from a wide variety of disciplines including arts, education, journalism and engineering and it is a popular course with incoming international exchange students.

The PBL package used is titled 'Re/presenting Hindmarsh Island: Aboriginal Women's Business'. The PBL package focuses on the history and ongoing academic and public debates around Aboriginal women's traditional ownership of Hindmarsh Island in South Australia and seeks to raise a number of questions about relationships to country, gender and knowledge, the impact of colonisation and the continued silencing of Aboriginal voices in Australia today and is completed in two weeks across two individual classes. In the first class the students are first given an introduction to the learning material in the form of a handout about the historical background to the Hindmarsh Island case. The main stimulus material which follows is a short video excerpt of a journalist reporting on the 'facts' of the case and questioning the legitimacy of Aboriginal women's claims to ownership. Students

then form small groups of four-six people to begin to try to understand what they have seen and talk about the main issues raised in the learning material. By the end of the first class, each small group is expected to develop research questions which will help them to consider the main issues. Once each group has framed the issues raised in their discussion as research questions, each group is asked to share their list of research questions with the entire class. The research questions are collated and each group is assigned one of these questions. Each group is then expected to explore their research question/s between PBL sessions. Students are encouraged to meet as a group outside of class to do this or to allocate each group member a specific task to bring back to class next week. In the second class, the learning stimulus material is revisited briefly. The groups then reform with each individual group member contributing the information they have researched over the past week to come to an understanding of the research question(s). The group then decides what information they would like to present back to the class on their research question(s). This information may be presented in any format (e.g. on an OHT, PowerPoint slides, as a group performance); and may be presented by the entire group or a nominated spokesperson. Each group presents an exploration of their research question(s) back to the class. The class works together to come to a series of main points which address the research question(s) raised in this PBL has a whole, keeping in mind that more questions may actually be raised than answered. An important part about PBL is self-directed learning where the role of lecturers is to guide students through the PBL package – in this way becoming teachers and learners together.

Case study two: Monash University

The course focused on at Monash University is titled 'Hearing the Country' and is coordinated by John Bradley through the Centre for Australian Indigenous Studies. The course involves different PBL packages each week facilitated by John. The content of these packages are negotiated on a yearly basis with Yanyuwa people at Borroloola with whom John has strong long term relationships. Students come from Indigenous Australian studies, anthropology, archaeology and increasingly from biological, geographical and environmental sciences. The course aims to provide students with an understanding of the way academic disciplines and Indigenous studies can be a tool to explore issues of the relationship between Indigenous Australians and their land and assist students to understand how Indigenous people may interpret environmental change, feral animals and plants and non-Indigenous land management systems. The course also discusses some of the key issues associated with Indigenous perceptions and knowledge of the environment and associated biota, and how western scientific approaches to the environment can work with such understandings without causing offence or shutting out Indigenous knowledge. The project manager travelled to Monash University during week five of the course where students undertook a PBL titled '"People, animals, birds and things fit too": Residues of the lived experience in the environment'. There were 30 students in the class (all non-Indigenous students). Students were given animal bones, skulls, stones and asked to work in small groups to attempt to identify them and consider how they make sense of knowledge. At the end of the class, John asked students to report back on each item and then gave a wrap up of the discussion.

Case study three: The University of Newcastle

The course focused on at The University of Newcastle is 'Aboriginal Studies II' as part of English Language and Foundation Studies Centre and coordinated by John Lester. The course description states that "Students will examine contemporary Aboriginal and Torres Strait Islander Australia, examining issues such as poverty, political movements, families and changing lifestyles". The course utilises a blend of traditional lectures with PBL exercises through group presentation tasks. Students work with the lecturer John as a resource towards solving set activities in group work on presentations regarding one of the three topics which also utilise resources such as the library, videos, the internet and many other resources to seek legitimate answers to problem scenarios given. In semester two,

2010 there were 15 students (including six Indigenous students). One of the PBL activities focused on Indigenous health in the Hunter Region. Students were given the following stimulus:

> You have recently been appointed to a health task force in the Hunter Region. You are to compile information and report it to the management of Hunter Health addressing strategies to improve health of Aboriginal children in the target area. The management group knows very little about the population and the sorts of health issues there are. Your job is to identify strategies to deal with the health issues you identify. Present you report to the class in the form of a seminar to the management of Hunter Health.

Each group of four-six students were expected to meet outside of class, research their question and prepare a presentation. They then presented a response to one of the research questions. Each presentation took the following form:

- 5 minutes set up, this may include handouts to audience or PowerPoint presentation
- 25-35 minute presentation
- 5 minute questions.

Case study four: Charles Darwin University

The course at Charles Darwin University is titled 'Global Perspectives on Indigenous Nations' coordinated by Greg Williams and Gary Scott. In 2010 there were only four internal students and 10 external (all non-Indigenous) students. The course focuses on diverse issues experienced by Indigenous peoples globally including Japan, Scandinavia, Canada, the United States and New Zealand. Case study material are also drawn from other first and third world contexts on issues such as deforestation, conservation and protected areas, climate change, resource use, traditional knowledge and livelihoods, language policy and human rights. The week focused on for the project involved students discussing and debating the Tiwi Islands Forestry case. Students were then asked to prepare a 500 word submission to a Senate Inquiry explaining how the World Bank's 2004 Forest Strategy and Operational Policy and/or the UN Declaration on the Rights of Indigenous Peoples has been contravened or complied with by the Tiwi Islands forestry program.

Case study five: University of Technology, Sydney

The course focused on at University of Technology, Sydney is titled 'Indigenous Futures' and was coordinated by Virginia Watson. The course aims to discuss the issues involved in debates about Indigenous peoples' rights; analyse the legal, normative and empirical dimensions of various philosophical and policy approaches to Indigenous rights; evaluate approaches using comparative perspectives; analyse cases and issues using evidence and argument and incorporate Indigenous peoples' perspectives and understandings of their rights and interests. Seminars involve students in a variety of activities including PBL groups, non-traditional group presentations as well as formal debates. The aim of each seminar is to provide students with the opportunity to articulate questions, ideas and arguments in relation to the contested nature of Indigenous rights and to develop the communication skills necessary for effective application of evidence and argument. There were seven students in the class, all of whom were non-Indigenous. The activity which University of Technology, Sydney requested was included in the project involved students writing a policy brief that identifies the key issues, stakeholders, resources, history, stakeholder positions, and development. Students then had to produce the final version of a policy brief (based on revision of their draft policy brief) including an analysis of trends for the future, executive summary, full citations and bibliography to explore the relevance of historical factors and sources, applicability of constraints and opportunities, relevance and extensiveness of sources and effectiveness of advocacy of Indigenous peoples' rights.

Themes in the data

The data from focus group discussions with students, pre and post questionnaires from students, lecturer reflections and classroom observations was analysed using NVivo software. As outlined in the diagram below, themes were divided into three sub-themes relating to: (1) the teaching and learning approach, (2) the teaching and learning space, and (3) links with transformation. Publications and presentations by Mackinlay and Barney discuss and analyse these themes in more detail. For example see:

- Mackinlay, E., & Barney, K. (2011). Teaching and learning for social justice: An approach to transformative education in Indigenous Australian studies. In G. Williams (Ed.), *Talking back, talking forward: Journeys in transforming Indigenous educational practice* (pp. 117-128). Darwin, NT: Charles Darwin University Press

This publication explores themes around the teaching and learning approach, transformative learning for students and lecturers, and challenges in terminology.

- Mackinlay, E., & Barney, K. (2010). Transformative learning in first year Indigenous Australian studies: Posing problems, asking questions and achieving change. A practice report. *The International Journal of the First Year in Higher Education*, *1*(1), 91-99.

This publication explores themes linked with the role of the lecturer, group learning, questioning, and transforming student's understandings.
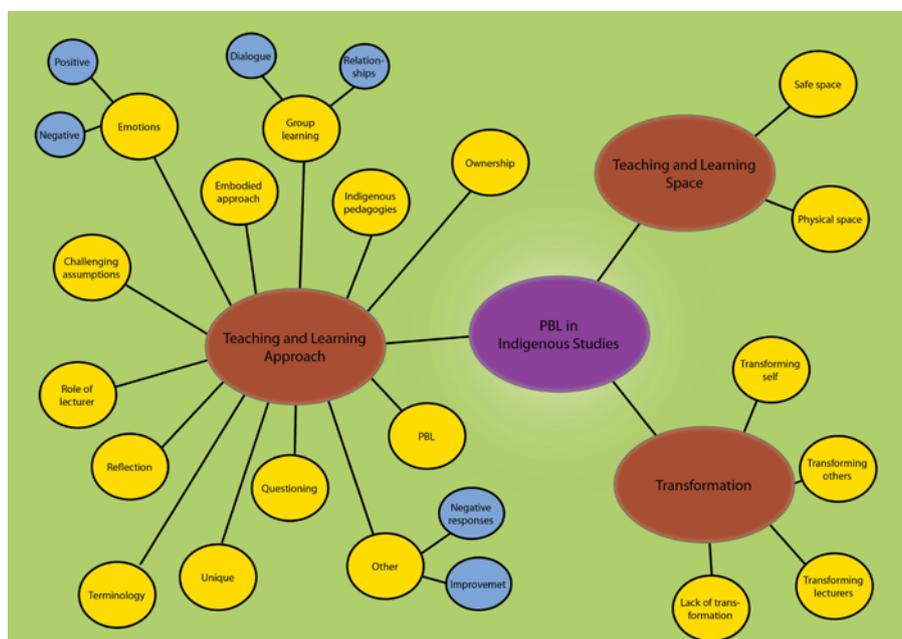

Diagram of themes in data

Dissemination

Findings from the project have been disseminated through presentations, the website, and publications.

Presentations

Mackinlay and Barney have presented at a number of conferences in Australia and in Canada over the two years which allowed for project results to be disseminated and feedback to be gained:

- Mackinlay, E., & Barney, K. (2010, June). *Transformative learning in first year Indigenous Australian studies: Posing problems, asking questions and achieving change*. Paper presented at the First Year in Higher Education Conference, Adelaide, South Australia.

- Mackinlay, E., & Barney, K. (2010, December). *Transforming education, transforming selves: Making a difference in teaching and learning Indigenous Australian studies*. Paper presented at the Australian Association for Research in Education conference, Melbourne, Victoria.

- Mackinlay, E., & Barney, K. (2011, May). *Teaching and learning for social justice: Problem-Based Learning in Indigenous Australian studies*. Seminar presented at the School of Education, The University of Queensland, St Lucia, Queensland.

- Barney, K., & Mackinlay, E. (2011, May). *Teaching and learning for social justice: Problem-Based Learning in Indigenous Australian studies*. Seminar presented at University of Technology, Sydney, Sydney, New South Wales.

- Mackinlay, E., & Barney, K. (2011, July). *Teaching and learning for social justice and change: Transformative learning in Indigenous Australian studies*. Seminar and workshop presented at the Transformative Learning Centre, University of Toronto.

- Mackinlay, E., & Barney, K. (2011, November). *A pedagogy of possibility in Indigenous Australian studies: Exploring an embodied approach to teaching and learning*. Paper presented at the Australian Association for Research in Education conference, Hobart.

Publications

Project data has also been disseminated through publications:

- Mackinlay, E., & Barney, K. (2010). Transformative learning in first year Indigenous Australian studies: Posing problems, asking questions and achieving change. A practice report. *The International Journal of the First Year in Higher Education*, *1*(1), 91-99.

- Mackinlay, E., & Barney, K. (2011). Teaching and learning for social justice: An approach to transformative education in Indigenous Australian studies. In G. Williams (Ed.), *Talking back, talking forward: Journeys in transforming Indigenous educational practice* (pp. 117-128). Darwin, NT: Charles Darwin University Press.

Teaching4Change Website

The website <www.teaching4change.edu.au> is publicly available for educators globally and offers practical resources for educators in Indigenous Australian studies. The website includes links to other relevant sites and a number of other sites are including a link to the Teaching4Change site including the Transformative Learning Centre at The University of Toronto, Canada. The website will be shared widely with contacts across the higher education sector and groups of stakeholders within the sector.

Special Issue of *AJIE*

The Special Issue of *AJIE* allows for the findings from the project to be disseminated to a wide range of tertiary educators working in Australia and internationally in Indigenous education.

Linkages

The most significant disciplinary and interdisciplinary linkages that have emerged as a result of this project relate first to the theoretical underpinnings of teaching and learning in Indigenous Australian studies, and second to the educational contexts in which PEARL might usefully and appropriately be employed.

Theoretical links

Historically, Indigenous Australian studies has relied upon anthropology and history as foundational disciplines for the construction of knowledge about Indigenous Australian peoples. However, the past 20 years have seen a shift alongside the postmodern turn in the social sciences whereby the concept of Indigenous knowledge as constructed, represented and sustained by Indigenous voices has become a defining feature of what the discipline of Aboriginal and Torres Strait Islander studies now looks like. Indigenous Australian studies today is an interdisciplinary field which takes a critical and reflexive approach to actively deconstruct colonialism and the all-pervasiveness of whiteness in the construction of knowledge by and in relationship with Aboriginal and Torres Strait Islander peoples. While the shift at a disciplinary level to critical modes of thinking has now happened, the ways in which we teach Indigenous Australian studies has been slower to take up a critical pedagogical position, particularly in higher education contexts. Little or no attention has been paid to the ways in which we *actually* teach and learn Indigenous Australian studies and this project has drawn important links between the political and social justice agendas of what we do in this field and the pedagogical processes which assist us to achieve these aims. A strong association between Indigenous Australian studies pedagogy, critical pedagogy, critical race theory and whiteness studies, and transformative education has been developed in this project.

Links to other educational contexts

Educating young Australians to be informed citizens who understand and acknowledge the value of Indigenous Australian cultures, and possess the knowledge, skills and understanding to contribute to, and benefit from reconciliation between Indigenous and non-Indigenous Australians, was identified as one of the key goals in the Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008). More specifically, the Australian Curriculum, Assessment and Reporting Authority (ACARA, 2011) has identified the inclusion of Indigenous perspectives in the National Curriculum as a necessary step to ensure that all young Australians have the opportunity to learn about, acknowledge and respect the history and culture of Aboriginal people and Torres Strait Islanders so as to better understand who we are as individuals and a nation in relation to Indigenous peoples. This will only happen if we make space in primary and secondary classrooms for innovative pedagogical practices which have the potential to open doorways and transform the way young people think about Indigenous Australian peoples and cultures, and the relationships between Indigenous and non-Indigenous Australians. The results from this project suggest that PEARL offers primary and secondary educators a new vision for teaching and learning approaches in Indigenous Australian studies to achieve the reconciliation agenda implicit within the goals of the National Curriculum.

Links between the project and other projects and fellowships

This project links to two other projects, and a fellowship, funded by the ALTC. The first is a curriculum renewal project entitled 'Indigenous online cultural teaching and sharing' led by Janet Mooney, The University of Sydney. This project extends some of the principles developed by PEARL into online teaching and learning contexts by attempting to engage students in experiential and embodied approaches to learning about kinship systems through case studies and immersion in real life social contexts in Indigenous communities. The second is the recently funded 'Australian Indigenous learning and teaching network'. Led by Katelyn Barney, Cindy Shannon (The University of Queensland) and Martin Nakata (University of New South Wales), the network will extend the project further by developing a national network of scholars to engage in key discussions on the disciplinary principles for Indigenous Australian studies. The network also aims to: share and build models of good practice within the discipline of Indigenous Australian studies (e.g., like PEARL); share the outcomes of teaching and learning research within the discipline, including ALTC projects and fellowships; explore and address national higher education priorities in teaching and learning Indigenous Australian studies; build relationships between scholars within the broad disciplinary field of Indigenous Australian studies; build relationships with leading international Indigenous studies scholars, including in New Zealand and Canada; and support the work of scholars within the discipline, including the development of early career researchers in the discipline. The project also links with the 2008-9 Teaching Fellowship undertaken by Christine Asmar entitled 'Indigenous teaching and learning in Australian universities: Developing research-based exemplars for good practice'. The fellowship aimed to develop research-based exemplars for good practice in Indigenous university teaching, and included a forum on Indigenous learning and teaching hosted by The University of Melbourne in December 2009 and a website <http://www.indigenousteaching.com>. The Teaching4Change website includes a link to Asmar's website on the useful links page.

Evaluation

Formative and summative evaluation processes were undertaken throughout the project through four clear evaluative processes that included the project team, scholarly input, student input and an external evaluator.

Project team members and reference group members were asked for feedback, direction, and input throughout the project. After each reference group meeting, online surveys were administered to gain feedback on the organisation, structure, and content of each of the meetings. The feedback was then incorporated into the subsequent reference group meetings.

Mackinlay and Barney also presented findings from the project at numerous conferences and also in peer-reviewed publications. The scholarly input from colleagues in both Australia and Canada contributed to shaping the direction and theoretical and methodological framework used in the project.

During the data collection phase, students at each of the five universities where the case studies were undertaken participated in focus group interviews, and undertook pre and post questionnaires to gain information about their experiences of teaching and learning Indigenous Australian studies. This data was then qualitatively analysed using NVivo software to analyse the themes conveyed by participants.

Finally, an independent external evaluation was undertaken by Canadian scholar Carmen Robertson of The University of Regina. Robertson participated in on-line meetings throughout the project, participated in reference group two online and attended reference group meeting three and participated as a discussant. The Executive Summary of the external evaluator's report is included below (for full report see Appendix 1):

Executive summary of external evaluation

My experience in Canada as a researcher and instructor of Indigenous art history has resulted in a detailed knowledge of a wide range of experiences within Indigenous pedagogy. Using this as a frame of reference, the curriculum renewal project exploring PBL pedagogy stands as an exemplar in that it allows for deep analysis into ways of teaching and learning Indigenous Australian Studies content. Over the course of the two-year timeframe, this ALTC-funded Priority Project achieved significant results. Beginning with a pedagogical paradigm that limited transformative elements given the colonial legacy of "problematizing" and a reliance on a frame that had been developed to train health professionals, the movement and articulation of a more solid pedagogical theory and practice demonstrates commitment and important positive change that would not have been possible without the support of the ALTC.

This project achieved a number of noteworthy results. In broad terms, they include:

- A shift away from PBL terminology that initiated a unique theoretical approach to transformative learning within Indigenous Australian Studies curriculum.

- The adoption of a new interdisciplinary theoretical frame titled PEARL that captures nuanced and varied aspects of teaching Indigenous Australian Studies course content.

- A comprehensive and high quality website that will serve as a platform of this project but also for further directions and interactions with transformative learning within an Indigenous context. The inclusion of curricular examples, theoretical direction, links to other initiatives, and ongoing support makes this website an integral outcome of the overall project.

Moving forward

The website <www.teaching4change.edu.au> is now available for educators and will be regularly updated. The Special Issue of *The Australian Journal of Indigenous Education* will be published in 2012. Seeding funding has been obtained to undertake a follow on study to explore the teaching and learning approach at primary and secondary level Indigenous Australian studies. The project will link closely with the newly established Australian Indigenous Learning and Teaching Network (funded by the ALTC and led by Katelyn Barney, Cindy Shannon and Martin Nakata).

Students enrol in courses in Indigenous Australian studies with a view to taking up employment in Indigenous affairs or Indigenous communities. Such courses seek to actively deconstruct historical and contemporary entanglements between Indigenous and non-Indigenous Australians and, in doing so, help build better working relationships between Indigenous and non-Indigenous Australians. The dialogic nature of PEARL provides an opportunity for students and lecturers to air and talk through the kinds of emotional and intellectual discomforts they are experiencing, and via this discursive exchange create the possibility to replace old ways of knowing and being with something new (Boler, 2004, p. 129).

The project is about curriculum renewal and we believe, like Kovach that "curriculum makes space like nothing else I know in education. It can be a mighty tool of social justice for the marginalised" (Kovach, 2008, p. 6). The more we know and experience of PEARL pedagogy, the more we are convinced that it does have the potential to transform, that is, "to affect a significant shift in perspective, epistemology, or moral level of the type envisaged by Kegan, Mezirow, Kohlberg and others" (Palmer & Zajonc, 2010, p. 105). PEARL makes space for us as teachers and learners to not only ask the questions, but to have patience with those that remain unresolved and to "live the questions now" through imagination and empathy and thereby change the way we make intellectual and moral meaning of the world. It's all about trying to bridge gaps, between subject and object, our intellect and our emotion, between ourselves and others, and, Indigenous and non-Indigenous realities and relationships. PEARL's insistence on dialogue, emotion and embodied learning becomes a decolonising project which reveals, blurs, problematises and makes messy the complexities of race. We ask students to engage their thinking hearts and to engage in passionate thinking whereby they are able to ask difficult questions about the legacy of colonisation, whiteness, power and privilege in Australia and thereby, engage emotionally, personally, politically and critically to develop a sense of empathy and relationship with Indigenous Australian peoples. PEARL creates this space to live "connected lives" (Palmer, 1998). It is this aspect of PEARL which we feel holds the key to a "pedagogy of possibility" in Indigenous Australian studies – PEARL provides a teaching and learning tool that can be used by educators working within and beyond Indigenous studies to improve their classroom practices, connect the personal and the political, achieve social justice agendas and transform student's beliefs, actions and help build a better future for Indigenous Australians.

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