Ngā reo mō te tika: Voices for Equity

Papers from EOPHEA Conference 2011

Auckland

Aotearoa New Zealand

Editor Chris Jenkin
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Editorial

1. Aims EOPHEA/EPHEA \(^1\) (As stated on the EPHEA website)

EPHEA (Equity Practitioners in Higher Education Australasia) (formerly EOPHEA) is the professional organisation for university and TAFE equity practitioners who work in Australia, New Zealand, and the Pacific region.

Everyone working on equal opportunity programs for students or staff in the higher education sector is automatically entitled to free membership of EPHEA. Join the listserv for access to online discussions and current events.

EPHEA aims to strengthen and support equal opportunity and affirmative action programs for students and staff in higher education by:

- providing a collegial network for sharing professional knowledge among equal opportunity practitioners and their representative bodies
- convening biennial conferences to contribute to the knowledge, research and practice of equal opportunity in higher education
- initiating and contributing to discussion of equal opportunity and affirmative action issues in national forums
- making policy recommendations to decision-making bodies including government and the higher education sector
- developing links with organisations that have similar professional aims

Equal opportunity practitioners develop and implement student and/or staff affirmative action programs, manage organisational responsibilities under anti-

\(^1\)Since 2011 Conference the name of Equal Opportunities for Practitioners in Higher Education Australasia (EOPHEA) has changed to Equity Practitioners in Higher Education Australasia (EPHEA).
discrimination legislation, promote cultural change within institutions, and foster an
environment which provides values and respects diversity.

http://www.adcet.edu.au/EdEquity/EPHEA.chpx

2. EOPHEA Conference 2011

In 2009 I suggested to my colleagues at AUT that we should host the 2011 EOPHEA
conference, along with our equity colleagues at The University of Auckland. The title
of the 2011 conference was Ngā reo mō te tika: Voices for Equity. It was held in late
November on the campuses of Auckland University of Technology (AUT) and The
University of Auckland.

In planning the conference we were guided by kaupapa Māori philosophy and
process, particularly in our commitment to working with consensus decision-making.
Based on feedback from the nearly 150 attendees, (a number that exceeded our
expectations of 120 in attendance), this guiding principle helped make EOPHEA 2011
a resounding success. Speakers and audience members alike praised the central role
that Māori tikanga (protocol) played during the proceedings.

Some of the highlights were beginning the conference with a powhiri (welcome) onto
AUT’s marae, and the kapa haka (cultural performance) by AUT students. Each day
opened with a karakia (invocation); keynote speakers were presented with gifts of
pounamu (Aotearoa New Zealand greenstone); and the conference closed with a
poroporoaki (farewell ceremony at the end of a gathering) on the last morning. In
recognition of the Pasifika peoples’ contribution to Aotearoa New Zealand, the
keynote for this stream was held inside The University of Auckland’s Fale Pasifika,
and started with a traditional meal and cultural experience. Our Australian colleagues, in particular, were impressed by the presence of *te reo* Māori (Māori language) throughout the conference in the form of bilingual official signage and place names at both universities.

There were a number of innovations at the conference with, for the first time, the strand *Ngā kōrero o te whānau whānui o te Kōpere Stories of the Rainbow People (LGBT TF: Lesbian Gay Bisexual Transgender Takatāpui and Fa'aafine)* being included. This important addition to our conference is reflected in this publication, which features two articles from this stream. Another EOPHEA 2011 first was the inclusion of sign language interpreters, for the keynote speakers. New Zealand Sign Language is an official language in Aotearoa New Zealand (alongside *te reo* Māori), and we are proud to note that in 2011, voters elected its first profoundly Deaf Member of Parliament.

In addition, sponsorship by Ako Aotearoa (a government funded organisation for Tertiary Teaching Excellence) also enabled us to video the keynote speakers’ presentations. All too often at conferences the nuances of keynote speeches are lost when only available in the written form. The video presentations are important assets to the conference and to our organisation as a whole.

The final innovation is this e-publication of selected presentations. All the papers were peer reviewed and were submitted both by practitioners and academics. Historically, research for equity has not been a priority and does not generally attract
research grants; however, this trend appears to be changing as Nanai (2013, p. 98) noted in this publication:

Culturally appropriate considerations has just come into vogue due to many factors such as recognition of indigenous rights and more importantly understanding that western ways of teaching and learning not only reinforces colonial imprints but to a great extent creates dilemmas for minority students.

Not all the papers are based on formal research. Those that are not – in particular from practitioners – tell the stories of lived experiences of working in the fields of equity. Editorially, it was decided that what these papers may lack in scholarly rigour is outweighed by their valuable contributions to the equity arena. The following quotation by Howlett (2013) provides a compelling reason as to what influenced my editorial decisions:

Whilst the findings in this report may not demonstrate the academic robustness of other papers presented at this EOPHEA conference of equal opportunity practitioners in higher education who live and work in Australia, New Zealand, and the Pacific region, Rachel’s story is a voice for equity. It offers an opportunity to celebrate success in achieving equity and diversity in practice…Howlett et al, (2013, p. 25)

In reviewing and editing the articles from EOPHEA Conference 2011 that were submitted for this book, I was struck by the courage, tenacity, and creativity not only of the students but the practitioners who work to ensure equity for the students with whom they work.

**Comment about each article**

The first story in this book is *Rachel’s Story*. Authored by Howlett, Harvey and Tuckerman, this case study is an example of the work we do in EPHEA, with the bringing together of services, organisation, and people of diversity. I have chosen this story to open the book because Rachel’s experience and the experience of her
colleagues provide an important insight and voice into those at the coalface of equity in the workplace. It is about equity best practice and delivery.

In the second article, Doutre considers definitions of diversity. It is a review of literature that examines definitions and permutations of diversity and competence. It highlights the complexities and questions that remain around even being able to define “diversity” within global, competitive workplaces, including within institutions of higher education.

In Aotearoa New Zealand, there are both legal and moral obligations to incorporate indigenous (Māori) perspectives within all sectors of education. Despite commitment to this perspective, Engels-Schwarzpaul reports on the challenges of implementing such models using postgraduate education in creative arts as her example. Critically examining the challenges such as scholarship criteria, mainstream dominance and postgraduate supervision, Engels-Schwarzpaul seeks solutions.

Tertiary funding in Aotearoa New Zealand by the Government is focused on three groups: Māori students, Pasifika students, and students with disabilities. Nanai with Smith, Hogg, Rasheed, Ahio, and Samuela demonstrate how this Government funding, as well as that of AUT, has enabled innovative projects to be developed. In this article Nanai et al report on how Pasifika Learning Villages in Health programmes have improved success for all of these targeted student cohorts.

Not all tertiary equity programmes take place within the institution. Barrett, Dawes, Perrott, Harper, and King report on a programme that provides free hands-on
workshops to schools. The aim of the programme is to provide secondary students with the opportunity to have a greater interest in science, technology, engineering, and medicine, thus encouraging not only greater uptake in the senior high school years but also providing role models to both genders.

An overlooked area of equity had been Indigenous students who, despite a disability, were not registered with Macquarie University’s Disability Service. By providing services outside the traditional business model, Bailey demonstrates that meeting with this group of students at their accommodation before and after class enabled the Disability Service to be more effective. Through relationship building the service has been able to extend what it offer students including transport, medical, food selection and academic support.

From an equity perspective, much of the work practitioners do happens behind the scene and via meetings and reports, with only the final product appearing in the public arena. Allan, Johnson, Phillips, Azzopardi, Dickson, Goldsmith, and Hengstberger-Sims take the reader through the process of producing inherent requirements for adjusting courses for students with disabilities. Their material shows the process through a nursing qualification, and it demonstrates how collaboration of three interested groups – in this case academic, disability and equity – can produce a successful outcome.

King and O’Brien present 15 years of data that show the changes of gender equity in Australian tertiary institutions. Their commentary of the statistics shows that despite slow progress there have been significant gains.
Using similar data as King and O’Brien, an in-depth discussion by Browning, Thompson, and Dawson not only places the data in context but also investigates how women are faring in research and academic positions. This wider examination enables them to highlight that women may be in lower research-only positions than their male counterparts. This is not dissimilar to the situation in some Aotearoa New Zealand universities where research positions, rather than being deemed “academic”, can be designated as allied or general staffing, thus putting these researchers on lower pay scales.

As a keynote speaker Henrickson provided the audience with what for me was the shocking realisation that students of sexual minorities continue to suffer high levels of discrimination in tertiary institutions. As teachers in higher education we need to shift, from understanding about to understanding as. He proposes there are two key mediators to a queer epistemology: alienation and disclosure, and it behooves us to understand these mediators if we are to work competently with sexual minorities.

In the final article Patston provides a thought-provoking account of innovative ways to consider diversity. He gives a very real picture that links queer theory and the science of colour. There was beauty in the words despite the sometimes ugliness of the accounts. Like Rachel’s, Philip Patston’s personal experiences lend valuable weight to our conversations about diversity and equity in theory and practice.
Final comment

As an academic I attribute my sources: for the final comments of this editorial I acknowledge the opening voiceover of the television programme *Law and Order*

There are two groups…

The students for whom equity strategies empower and

The people who make the strategies possible.

These are their stories.
Rachel’s Story

Stephen Howlett and Rachel Harvey,

University of Sydney Centre for English Teaching

Phil Tuckerman, Jobsupport, Inc.

New South Wales, Australia
Abstract

This is Rachel’s story. The University of Sydney actively supports and mentors the employment and professional development of an employee with intellectual disability. For 16 years, Rachel has been employed as a nominee of Jobsupport Open Employment service professionals, maintaining open employment for award wages. Rachel’s experience provides a role model for others with a disability, and it demonstrates the benefits to mainstream employees and employers of placing people with disabilities into quality jobs in the workforce. The experience of Rachel and her supporters opens a methodological door to the use of narrative to capture the human dimensions of achieving equity at work for people with disabilities. People with a significant intellectual disability perform well in routine jobs, if the right preparations are made. Rachel’s story demonstrates the Jobsupport methodology, which includes initial assessment to match skills and job requirements; analysis of the work site and job design to ensure suitability of placement for employer and client; and ongoing training, oversight and assistance from Jobsupport to remove any beyond-standard supervision requirements for the employer. Rachel’s story celebrates not only one person’s success in living and working with a disability, but also our own commitment to achieving equity for people with disabilities.

Keywords: Jobsupport, intellectual disability, workplace equity, people with disabilities
Humans are storytelling organisms who, individually and socially, lead storied lives (Connelly & Clandinin, 1990). The ways that Rachel, her family, Jobsupport Open Employment service professionals (Jobsupport, 2011), and her co-workers have experienced Rachel’s world opens a methodological door to the use of narrative inquiry to “capture personal and human dimensions that cannot be quantified into dry facts and numerical data” (Clandinin & Connelly, 2004, p. 1). Kemmis and McTaggart (2000) aimed to illustrate this through a symposium or combination of the different interpretations of what constitutes practice in the various traditions used to describe and study an issue, and the purposes for which that study is undertaken. It is an approach similar to that of Cohen, Manion and Morrison (2000) who describe methodology as “not the products of scientific enquiry but the process itself” (pp. 44-45) that is used to describe and analyse the range of approaches used to gather, interpret, and explain data, and to then suggest new formulations, provided always that such methodology “fits the purpose” (Cohen et al., 2000, p. 1) of the enquiry.

Gergen and Gergen (1988) attribute the use of narrative as a means by which we make ourselves intelligible within the social world. This approach also makes accessible information on which to base subsequent social actions (Ochs & Schieffelin, 1989). Narrative is a practice “as critical of the way it describes its objects of study as it is about the way it explains their structures and processes” (White, 1984, p. 1). From this, suggested Riessman (1993), arose a network of relationships that influenced the ideas that can make sense of events and actions in people’s lives and “create a plot from disordered experience” (p. 4) to aid interpretation by others (Bruner, 1990). The use of narrative as methodology is
summarised by Cronon (1992, p. 1376), who posits that “the stories we tell, like the questions we ask, are all finally about value.”

**Perspective**

Employment opportunities for people with a significant intellectual disability have come a long way over the last 20 years (Tuckerman, cited in Clark, 2008). Attitudes about the role that people with disabilities can play in the labour market and society are changing (J. Brown, 2011, p. vi). Even though employment is a right of citizenship, and a social determinant of health, employment rates remain low for persons with disabilities (Kirsh et al., 2009).

In considering the effectiveness of services for adults with intellectual disabilities, Hemmings, Underwood, and Bouras (2009) noted the need for support to be focused on the service user and their illness. In the case of employment, the approach of supported employment can facilitate and promote participation and integration of the intellectually disabled (Cramm, Finkenflügel, Kuijsten, & van Exel, 2009). Appropriate support has also been identified as a major contributor to quality of life of the intellectually disabled (R. I. Brown & Brown, 2005; Lippold & Burns, 2009).

Whilst being physically integrated and engaged in a wide range of activities “does not guarantee good social and emotional support” (Lippold & Burns, 2009, p. 463), the impact of supported work as both “participation [and] structure” (Cramm et al., 2009, p. 519) contributed to self-development and had a positive effect on well-being (Kober & Eggleton, 2005). In order to facilitate work integration, Kirsch and colleagues (2009) noted that the person, the job, and the work environment need to be
matched, and that the supported employment model provided an effective framework for work integration for people with intellectual disabilities. This approach is also supported by Pernice and Fillary (Fillary & Pernice, 2006; Pernice, 2005), who observed that success of the supported employment model increases in the presence of a strong workplace culture, a supportive person, workplace environment match, and the provision of effective support on the job.

The benefits derived from supported employment included better economic and social outcomes than in non-integrated work settings (Jenaro, Mank, Bottomley, Doose, & Tuckerman, 2002). An open employment programme for people with intellectual disability has also been demonstrated to be a cost-effective option for government and almost revenue-neutral per client when compared to the pension after 12 months. Over time, report Tuckerman, Smith, and Borland (1999), this result has been relatively robust.

Based on the supported competitive employment programmes developed in the United States, particularly at the University of Washington (Rusch, 1986), JobSupport (Tuckerman & Green, 2008) was established in 1986 when the then-Federal Minister Don Grimes introduced the Disability Services Act. The Act recognised that people with disabilities have the same rights as other members of society to services (Tuckerman, 2002). The JobSupport mission is to “place, train and maintain as many people with a significant intellectual disability as possible into quality jobs in the regular workforce that meet both their employment needs and the needs of the employer” (JobSupport, 2011). Best practice is evidenced in the JobSupport programme, including matching the person to the job, providing positive relationships
with employers and co-workers, flexible and individually designed support, commitment to the individual, and on-site job training (Racino, 1985).

**Rachel – A Voice for Equity**

In this section, we give voice to Rachel, her co-workers, supporters, and family. The intent is to illustrate through practice the theoretical underpinnings of supported employment. The lived experience of Rachel and those with whom she works provides an interpretive view of the issues impacting the full employment of people with an intellectual disability. Rachel’s story also illustrates how our interaction at work has brought deeper meaning and enrichment to us all. As Gerry, a teacher and colleague, notes “Rachel is eventful.” Her story illustrates that the Jobsupport methodology of supported employment merits closer attention and wider application.

Rachel has an intellectual disability, the result of a brain tumour that was diagnosed and surgically removed when she was three years old. Rachel is one of more than 480 people placed by Jobsupport in award or productivity-based jobs throughout Sydney, Australia. For more than 16 years Rachel has been employed as general assistant, a higher education officer Level 2 role at the Centre for English Teaching (CET), the English language teaching arm of the University of Sydney (The University of Sydney, 2011a). The institution is founded on principles of diversity and equity (The University of Sydney, 2011b).

In CET, Jobsupport’s follow-up service is focused on Rachel and her condition (Hemmings et al., 2009). Sarra, Rachel’s Jobsupport maintenance officer, monitors
Rachel’s story

Rachel’s performance to ensure standards are maintained, and she provides additional training at no cost to help Rachel adapt to workplace changes (Jobsupport, 2011).

Rachel has been a client of Jobsupport since she graduated from a special school in 1992. Jobsupport have placed Rachel in two permanent full-time award-based office administration positions over the last 20 years (Sarra).

One of the reasons Rachel enjoys her work at the University is that she is continuing a family tradition of working in education. For many years her mother was a Dean in another university in Sydney, and her father was a senior executive staff member in a leading independent school. Rachel’s story typifies the personal, social, and financial benefits of full-time supported employment identified by Jenaro and colleagues (2002). As Rachel’s mother, Judith, explains:

It has been both a pleasure and a privilege to observe Jobsupport staff working with our daughter. The design of individual training and maintenance programmes for her, the record keeping, and programme evaluation has been first class. Communication with us, and support of us as parents, has been outstanding. For example, in 2006 Rachel experienced some significant medical difficulties that necessitated a substantial period of leave from her job. Jobsupport worked with and educated management and co-workers at the university to facilitate Rachel’s successful return to duty.

Judith also said:

Over the past twenty years Jobsupport staff have ensured that Rachel’s self-confidence and self-esteem are fostered through supporting her in two extremely satisfying jobs that have significantly contributed to her quality of life and financial independence. Rachel now earns in excess of $50,000 per annum, an income that would not have been possible without the assistance of Jobsupport. For example, Rachel and her husband, who also has an intellectual disability, have managed to purchase their own home unit partly because they both have retained long-term award-based employment.

The links to Tuckerman and colleagues’ (1999) report of the economic benefits can be clearly seen in the above citation. From the employer’s perspective
Rachel has been a success. Patrick Pheasant is CET Director. He describes Rachel as “CET’s bellwether”:

When Rachel walks in and smiles, we know it’s going to be a good day. She has stabilised us as a team, and as individuals she has broadened our horizons by increasing our understanding of the full spectrum of people in our society.

Rachel’s life at work is thus both “participation [and] structure” (Cramm et al., 2009), with Sarra monitoring the placement and advocating for her in the workplace (Jobsupport, 2011; Kirsh et al., 2009). Sarra is also available to visit at more frequent intervals and at short notice if required by Rachel or CET. As CET Deputy Director Dan Bruce explains:

We believe that Jobsupport interventions at critical periods over the last 16 years have ensured Rachel’s continued and successful employment at the University of Sydney.

In CET, Rachel prepares course and student orientation materials, and assists with various other office duties such as photocopying, which is essential to the smooth functioning of the centre. Of her role in CET Rachel says simply, “I like everything about my job and I like the people.”

Co-workers’ feelings toward Rachel are reciprocal. Their observations amplify the findings of Cramm and colleagues (2009) that supported employment promotes participation and integration. As Mark, a CET teacher, observes:

At CET we cater to a culturally diverse international student clientele. With Rachel we learn that diversity is truly wider than simply cultural difference. To celebrate diversity is to accept multiple differences.
To Asher, another teacher, Rachel is a “treasured co-worker”:

*Her value to the organisational culture is immense. I perceive her as a vital, engaged, evolving person with a deep love for others and a raucous laugh that has lightened many a moment.*

Likewise, Kaye, another co-worker, values Rachel’s contribution to the workplace:

*Rachel loves her work so much she is seldom absent. Rachel is an integral part of the CET team, and on the rare occasion she is not here she is sorely missed as she is the only one who can take a photocopier apart and reconstruct it minus the glitch.*

Luke, also a teacher, describes Rachel as:

*A much valued and integral part of our teaching and administrative teams because of, not in spite of, her disability. Staff value her contributions at CET.*

Another teacher, Yi Tzing, says Rachel is seen as “one of us”:

*Rachel feels important and values her own contribution. Rachel takes her work seriously – photocopying, mailing, cleaning the fridge, and collecting money for the milk float.*

The social and emotional aspects of Rachel’s experience in supported employment (R. I. Brown & Brown, 2005; Lippold & Burns, 2009) is best typified by Janelle, CET Marketing Officer:

*I love hearing Rachel’s stories. Quick with a mischievous laugh and cheeky smile, Rachel’s stories are full of a richness that only certain people can do.*

Co-worker Kaye further reflects:

*I have worked with Rachel for 15 years. She is often my lunch buddy: she enjoys a good chat and often has excellent advice to offer. She would tell me of her many triumphs on the bowling team and at martial
Rachel’s story

arts. Recently she told me how she used these skills to foil an attempt to steal her bag at Hornsby station.

Another teacher, Maria, recalls a Darth Vader anecdote whilst Rachel was on excursion with CET students to the Powerhouse Museum of Science and Design:

Rachel got wind of the end-of-course excursion and as it was to the Powerhouse, I asked her if she would like to join the group. The general ticket was $5 admission for students, but the special Star Wars exhibit was another $5 and beyond our budget. We began our way around the Powerhouse. As we got close to the ramp leading to the Star Wars exhibition, Rachel heard the movie’s sound track. A Darth Vader character was guarding the entry. Well, Rachel was off. ‘Darth Vader,’ she muttered and hurled herself up the ramp. The ticket person was in no position to interpose. No ticket, no extra $5, just Rachel hurling herself into the exhibition. I was a bit concerned she would get lost. ‘I’m with her,’ I explained to the ticket person. Rachel was in there somewhere. By the time I found Rachel all the class were in there. I guess we all ‘were with’ the indomitable Rachel, who more than made up for the entry fees with her shopping in the Star Wars Franchise shop!

At work, Kaye notes that Rachel has proven an extremely loyal friend:

[She attends] the funerals of colleagues and [invites] us all to her engagement party, Hen’s night, wedding, and even over to her parents’ place for a weekend BBQ which was attended by all staff en masse.

Rachel also takes great pleasure in organising special events at CET, such as Melbourne Cup office sweeps and other celebrations. Kaye continues:

At Christmas, Rachel recruits a Santa Claus from the more portly staff members and comes wearing her Christmas elf suit complete with flashing earrings. She goes around to all the classes handing out sweets. It is Rachel who insists on Xmas decorations in the office, and takes charge of decorating the school. At Easter, she hands out Easter eggs to staff and students that she has paid for herself. When a member of staff has been gone for a while Rachel welcomes them back with a big hug. She is unfailing cheerful, positive, and extremely loyal.
Social inclusion for Rachel extends beyond work, and she often shares anecdotes of this life with her work friends. Saturday for Rachel is Hapkido (Australian Hapkido Association (AHA), 2011), an eclectic Korean martial art in which Rachel has attained Black Belt status. Next year, Rachel will participate in a world championship competition in this sport. On Sunday, it is karate or attending husband Mark’s cricket matches – although Rachel admits, “that gets in the road of shopping. Mark hates shopping, but I love it”.

Life beyond work can be quite an adventure for Rachel, and CET becomes involved in the storytelling. Rachel's journey home one evening was impacted by train delays associated with a severe local storm. Her train could not continue beyond a particular station, so Rachel and her “train friends” as she calls the people she meets on the way home from work, went into a local bistro for a meal. Judith continues:

*We drove to Strathfield and collected her and one of her train friends, John, who uses a wheelchair. We met her train friends Craig, Sonya and John for the first time. They seemed very nice, helpful and supportive of Rachel. I thanked Craig for including Rachel in the group as they all coped with the massive delays and he responded, ‘No problems. Rachel is a legend. We all helped each other.’ It was nice to meet the people she says she talks to most evenings on the way home.*

The next day, teacher Marcella recalls:

*Rachel came and sat next to me and said those very ‘Rachel’ words, ‘Hey, guess what?’ and told me her latest bit of news. This of course was not the first time she’s come up for a bit of a natter – with me and with the other staff here. She loves having us to share her news with. We love listening to her and it’s obvious that she feels relaxed with us and confident in being just one of us. To me, that’s Rachel.*

Like others with an intellectual disability, using information technology in work has presented a challenge for Rachel (Li-Tsang, Yeung, & Chan, 2005). Acknowledging
Rachel’s story

these difficulties, the general perception is that with sufficient training and support, Rachel could also meaningfully join the world of IT at work. The university’s specialist Assistive Technology consultation and support service (The University of Sydney, 2011c) is working with CET and Jobsupport to identify and provide suitable technologies and training for Rachel. Success in this domain would open the way to further job enrichment and possible promotion. Rachel is looking forward to this new challenge, and characteristically observes, “Right on!”

Reflecting on the observations of Fillary and Pernice (2006; Pernice, 2005), the value (Cronon, 1992) in Rachel’s story – her life and social engagement at work and beyond – is perhaps best summed up by Patrick, who observes that, “Somehow, looking after the more vulnerable amongst us makes us all better.”

To Patricia, a visiting invigilator, it is simply a case of remarking, “Disability – what disability?”

**Conclusion**

This, then, is Rachel’s story. It’s a small story of support and commitment (Racino, 1985), as it came to be known whilst it was being prepared, and it is our interpretation of what Rachel and others have said during interviews for this case study. The findings are our attempt to craft what Rachel’s mother Judith has described as “one story, one message, from the many voices and pieces” of one person’s lived experience that we have been privileged to experience during our time with Rachel (Connelly & Clandinin, 1990; Gergen & Gergen, 1988; Ochs & Schieffelin, 1989;
Riessman, 1993). The voices and names in Rachel’s story are real, and used with permission. Any errors or omissions in interpretation are the authors’ alone.

Whilst the findings in this report may not demonstrate the academic robustness of other papers presented at this EOPHEA conference, Rachel’s story is a voice for equity. It offers an opportunity to celebrate success in achieving equity and diversity in practice for people with intellectual disabilities. The last word on the positive effects (Kober & Eggleton, 2005) of Rachel’s “eventful” story, however, must well and truly be Rachel’s: “Whatever!”
References


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Investigating Diversity Competencies: Opening Space for Conversations

Jane Doutre

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Abstract

The approach to diversity competencies is complex. While the understanding of diversity has in recent years broadened to include disability, age, sexual orientation, education and socio-economic status, the definition remains fluid. Furthermore, while a large amount of research has been published, much is written from the perspective of human resource management or organisational psychology, with the result being that it focuses on the successful management of diversity within an organisational context. Within this literature, it appears that the implementation of diversity competencies in workplaces is driven by a business case argument in which diversity competencies are measurable attributes critical to achieving success in a competitive global environment. The implications of this research perspective for equity practitioners in higher education need to be investigated and discussed. For example, is “competencies” the most appropriate term, or does it simply encourage a “checklist” approach to behaviours, rather than support a true commitment to diversity?

*Keywords:* diversity competencies, organisational psychology, human resource management, equity practitioners, higher education
**Background**

While the reviewed literature (Chrobot-Mason, 2003; Helm-Stevens & Hunt, 2009; Holmes, 2005; Perlmutter, 2010) highlights with overwhelming agreement that “doing diversity” is seen to provide good organisational outcomes, there appears to be less agreement in relation to what diversity and the so-called doing of diversity actually looks like in action (Kalev, Dobbin, & Kelly, 2006; O’Leary, 2010). Such disagreement limits the understanding of diversity competencies. In the article *Doing Diversity Work in Higher Education in Australia*, Ahmed (2006) suggested the term “diversity” has been kept strategically ambiguous so that “the work it does depends on who defines the term and for whom” (p.749), thereby highlighting that from an organisational perspective, diversity is valued as if it were a human resource.

However, Cross (2010) described diversity as a third wave of thinking which has burgeoned organically, on the steps of other social justice initiatives such as affirmative action programmes and inclusion. This is in response to the needs of rapidly changing global environments. Almost a decade earlier, Kramar (1998) emphasised that diversity management differed to affirmative action and equal employment opportunity programmes, remarking that motivation moved beyond a focus on compliance and outcomes to recognise diversity as critical for organisational success. Doug Freeman, CEO of Virtcom Consulting, in the New York Times Magazine’s annual special supplement, *Leadership in Diversity & Inclusion* (2009), echoed this point regarding organisational training, advising:
The smart, strategic companies don’t just believe that diversity offers competitive advantages; they know exactly how it does it. They know how it improves performance in the workplace, drives efficiencies and productivity, and offers clear advantages in customer acquisition and employee retention. That is what savvy, sophisticated organizations understand: leveraging diversity brings competitive advantage in good times and bad. (The New Times Magazine, 2009)

While this is astute marketing, there is a compelling argument that as diversity strengthens as a mainstream goal for organisations, understanding moves further from its social justice roots and “important conversations about power and privilege” (Perlmutter, 2010, p. 245) to an economic model, that is, based on how to make money (Flynn, 1995). Bissett (2004) argued that the economic and business case model, often perceived as a neutral platform “from which to expand inclusion principles and practices” (p. 318) centres on organisational efficiencies while overlooking human rights as an integral element in a successful change process. Contrary to this, Akant (2011) contends that the business case model, most broadly accepted, provides space to acknowledge the origins of diversity and inclusion and is not without a moral compass.

Further to this discussion is the concern of how diversity is portrayed within the business model approach. Bissett (2004) advised that diversity is advanced from a reductive categorical perspective conceptualising fixed and visible attributes. Others (Ahmed, 2006; Morrish & O’Mara, 2011; O’Leary, 2010; Perlmutter, 2010) agreed and noted their concern that such frameworks obscure categories of difference and “the complex intersections among different sources of social identity” (Ramsey & Latting, 2005, p. 266). Bisset (2004) added that if organisations continued to operate
“according to processes that presume homogeneity” (p. 317) then diversity remains in a domain of otherness, which is then exemplified by token representation at organisational leadership levels.

According to van Ewijk (2011) diversity as a concept and a social construct “does not have a universal expression, but is defined and visualized differently” (p. 681). It is therefore contextualised within a specific scope of interest, either organisationally or scholarly, further highlighting the importance of applying explicit meaning to the definition and scope of diversity to avoid misunderstandings. This recommendation alludes to ambiguity, across and within some literature (Chrobot-Mason, 2003; Cross, 2010; Ramsey & Latting, 2005), that is also caused by the interchanging use of seemingly disparate terminology. The words “diversity”, “culture”, “cross-culture” and “inter-culture” appear to be transferable but there is little clarity as to what these words mean and why they are used with such apparent fluidity.

Nevertheless, most of the reviewed literature (both scholarly and popular) make mention of some universally acknowledged dimensions of identity including (but not confined to) gender, race, age, disability, ethnicity, education, sexual orientation, socio-economic status, and religion; and notably in terms of difference, similarity and, in particular, fluidity (Cañas & Sondak, 2008; Stockdale & Crosby, 2004; Thomas, 2006). Hays-Thomas (2007) identified two approaches. The first “emphasizes the position of groups who have traditionally been victims of discrimination” (p. 35) and acknowledged power and privilege. The second generally views aspects of difference equally and downplays power differences.
These concerns, while not the focus of this review, provide insight into the complexity and difficulty in progressing diversity programmes and studies. The current discourse indicates that, regardless of the extensive body of work, the integration of diversity initiatives within organisational activities, and complementary training programmes, there still remain “some serious gaps in this field of study” (van Ewijk, 2011, p. 681).

**Defining competency**

According to Woodruffe (1993) the term “competency” gained momentum in the field of organisational management after the 1980’s publication of Boyatzis’(1982) book *The Competent Manager*. Competency is broadly defined as “a set of behavior patterns which are needed to allow the incumbent to perform tasks and functions with competence” (Woodruffe, 1993, p. 29). The understanding is that competencies are “concerned with people’s behaviour” in relation to job performance (Woodruffe, 1993, p. 29). Ljungquist (2007) progresses this idea, contending that “competence refers to a quality inherent in individuals or teams of individuals” (p. 396) that can be developed and or refined, and which sometimes relates to a visionary end; for example, the individual/s’ openness to sharing ideas with others, with a goal to increased productivity (as an organisational outcome). Boyatzis (2009) noted that “the theory of performance is the basis for the concept of competency” (p. 754). The point is made, however, that while a competency may facilitate a person’s ability to perform tasks competently, the action needs to be supported by intent to progress competent performance (Boyatzis, 2009; Woodruffe, 1993).
Boyatzis (2009) refers to clusters of competencies that are consistent with outstanding performance. While these are grouped into three areas, it is two of these three clusters of competencies that resonate with understandings of diversity competencies. The first cluster is the group of emotional intelligence competencies, defined as:

- **Self-awareness** cluster concerns knowing one’s internal states, preferences, resources, and intuitions. The self-awareness cluster contains one competency: 
  *Emotional self-awareness*: recognising one’s emotions and their effects.

- **Self-management** cluster refers to managing one’s internal states, impulses, and resources. The self-management cluster contains four competencies: 
  *Emotional self-control*: keeping disruptive emotions and impulses in check. 
  *Adaptability*: flexibility in handling change. 
  *Achievement orientation*: striving to improve or meeting a standard of excellence. 
  *Positive outlook*: seeing the positive aspects of things and the future.

The second cluster of competencies is that of social intelligence, defined as:

- **Social awareness** cluster refers to how people handle relationships and awareness of others’ feelings, needs, and concerns. The social awareness cluster contains two competencies: 
  *Empathy*: sensing others’ feelings and perspectives, and taking an active interest in their concerns. 
  *Organisational awareness*: reading a group’s emotional currents and power relationships.

- **Relationship management** cluster concerns the skill or adeptness at inducing desirable responses in others. The cluster contains five competencies: 
  *Coach and mentor*: sensing others’ development needs and bolstering their abilities. 
  *Inspirational leadership*: inspiring and guiding individuals and groups. 
  *Influence*: wielding effective tactics for persuasion. 
  *Conflict management*: negotiating and resolving disagreement. 
  *Teamwork*: working with others toward shared goals. Creating group synergy in pursuing collective goals. (Boyatzis, 2009, p. 754)

The link between intelligences and diversity has not gone unnoticed by scholars and practitioners. Offerman and Phan (2002) defined the terminology of cultural intelligence as “the ability to function effectively in a diverse context where the assumptions, values, and traditions of one’s upbringing are not uniformly shared with those with whom one needs to work” (p. 7). They also advised that cultural
intelligence is context dependent, without a right answer or single response. Cross (2010) again used the terminology, describing cultural intelligence as “a set of capabilities that leads to specific outcomes such as decision making, innovation, performance and adjustment in culturally diverse settings” (p. 3), noting that cultural intelligence is dynamic, malleable, contextual, and experiential, as well as dependent on the effort of the individual. This background study, while not exhaustive, provides some insight into the complexity around the understandings of diversity competencies and for growing frameworks of practice.

**Diversity Competencies**

While the approaches to diversity competencies vary there are some repeated themes within the literature. In particular, successful diversity initiatives require a broad organisational commitment (Akant, 2011; Chrobot-Mason, 2003; Flynn, 1995) articulated through business practices and policies (Stockdale & Crosby, 2004), with long term plans (Chrobot-Mason, 2003), and ongoing initiatives that are measurable (Frusti, Niesen, & Campion, 2003). However, the literature offers varied interpretations as to what is meant by diversity competencies based on knowledge, skills, attributes, capabilities, attitudes, and behaviours, as well as associated terminologies such as cultural competencies and multicultural competencies. The multitude of interpretations and terminologies further reinforce that competencies are context dependent (Stockdale & Crosby, 2004).
Holmes (2005) recommended linking diversity to performance through a competency-based methodology and a five-step organisational management approach that is built around workplace. Specific diversity objectives are articulated through action plans and SMART (specific, measurable, achievable, relevant, and time-bound) goals, and linked to performance outcomes and evaluations (both individual and organisational). Individuals are encouraged to align performance to diversity objectives through a reward for goal attainment. Although Holmes suggested the facilitation of such programmes is not complicated, he does not elaborate on possible issues around compliance, non-performance and/or the building of successful programmes. Bissett (2004) would be likely to frame it as the “agree and commit, or disagree and commit” approach, arguing that it exploits, rather than embeds, diversity to serve the needs of the organisation. However, this approach is supported by research conducted by Sandberg and Targama (2007) and identified by O’Leary (2010), which indicates “that it is people’s understanding of their work that guides their practice, including how attributes are enacted and work activities undertaken” (p. 67). Nevertheless, Kramar (1998) suggests that this diversity model does not work in isolation but is enhanced by strategic processes and policy that acknowledge and indicate support for the needs of individuals and that act to reduce stereotyping.

Akant (2011) progressed the business case model by suggesting that the competencies approach focuses on “whether one has the knowledge and skills to fulfil one’s explicit role within an organisation (p. 17), but denies the need for intent. While this view diverges from the earlier observation that intent progresses competent performance (Boyatzis, 2009; Woodruffe, 1993), Akant suggested that the approach is practical,
“aimed at supporting behaviors and skills that further the attainment of interlinked
diversity and business goal” (p. 15) and is premised on the business case model,
which “is less fraught with politics and issues of political correctness that can gum up
the works of progress in today’s global, complexly diverse world” (p. 17). Supporting
the idea that diversity competencies are organisationally specific, this material was
developed for legal organisations, but the four broad content areas for developing
diversity competencies appear contextually transferrable. These content areas are:

- The ability to define diversity and inclusion in the context of the…workplace.
- Knowledge of institutional and individual actions, practices, language, and
  symbols that communicate respect/disrespect for identities and groups.
- Understanding of institutional and individual dynamics that both enhance the
  expression of diversity in the professional workplace and grow a culture of
  inclusion.
- Skills and behaviors to participate in, develop, and eventually lead
  conversations, meetings, and firm activities that are inclusive, and that rely on
  diversity rather than homogeneity of perspective and ideas. (Akant, 2011, p.
  18)

Frusti, Niesen & Campion (2003) report on a “Diversity Competency Model (DC) that
acts as an integrated system of assessment, development and deployment for a nursing
diversity framework” (p. 32) within an organisation. This approach reflects earlier
models including the model by Flynn (1995), who identified benchmarking, training,
and communication as practices that facilitate organisational diversity initiatives. The DC model looks at competencies under the four headings:

1. **Drivers** describe how the organization leads and responds to internal and external forces.

2. **Linkages** examine how the organization integrates diversity throughout the workplace.

3. **Culture** describes how the organization creates a work environment that reinforces behaviours.

4. **Measurements** examine how the organization evaluates and improves for continuous progress and business results. (Flynn, 1995, p. 33)

This approach highlights long-term organisational commitment based on continuous learning, skills-building, and a cyclical process of modelling that starts from, and ends at, the top. Significantly, Kalev, Dobbin & Kelly (2006) highlight that designated managers or personnel make diversity initiatives more effective, particularly when “cognizant of the impact organizational practices and policies, as well as their own behaviors, may have on assembling, developing and motivating a diverse work group” (Stockdale & Crosby, 2004, p. 17).

Ramsay and Latting (2005) progress an argument that “limited work has been done in specifying competencies needed to be effective across social groups” (p. 266). As van Ewijk (2011) noted, power and identity are often intertwined, and are “influenced by conditions that only constitute difference at a certain moment, and in a certain place”
Investigating Diversity Competencies: Opening Space for Conversations

(p. 685). With concerns that the focus on separately and defined differences “may obscure complex intersections among different sources of social identity” (p. 266) and power relations that “vary from setting to setting” (p. 266), Ramsay and Latting have produced a broad group of 14 complementary intergroup competencies/skills to encourage consistent individual change that will spread through networks and within organisations. These competencies are drawn from Table 1: A Topology of Intergroup Competencies (p. 268):

1. Becoming aware of Own Cultural Values/Assumptions
2. Committing to Personal Change
3. Processing Emotions
4. Reframing Mental Models
5. Empathizing with Multiple Perspectives
6. Differentiating Intent From Impact
7. Engaging in Enquiry and Openness
8. Engaging in Responsible Feedback
9. Connecting the Personal to the Cultural and Societal
10. Addressing Dominant/Nondominant Group Dynamics
11. Identifying Systemic Processes and Patterns
12. Identifying Own Role in Perpetuating Patterns
13. Surfacing Undiscussables
14. Advocating and Engaging in Systemic Change
Ramsay and Latting (2005) note that their work is thus far incomplete; although they have developed the typology of 14 competencies, the authors have yet to suggest the process for implementation within an organisational setting.

Higher education institutions are uniquely positioned as employers and providers of education to broad groups of people. As increasingly diverse places (Higson & Liu, 2010), universities may provide opportunities that naturally lead to learning opportunities for students to investigate “their own culture and compare it with at least one other” (McTighe Musil, 2003, para 3). Helm-Stevens & Hunt (2009) note that the diverse learning environments within higher education institutions provide a “rich opportunity for students to learn about diversity first hand” (p. 39). Nevertheless, this process does not occur without direct assistance; thus, their recommendation is to implement a pedagogical approach to diversity. Higson and Liu (2010) recommend an approach that involves the learner in a process of transformation of the self, and that enables effective and respectful communication. They also recommend that universities attend to the informal ways in which students interact and learn by incorporating “an institution-wide, all-encompassing strategy” (p. 223) to assist in building a campus-wide culture of valuing diversity. This should consider all groups representative of the institution, including students (domestic and international) and staff. The aim of such activities is to prepare students for a future in the community and to provide them with a competitive edge for the global marketplace.
Conclusion

Diversity is often framed from a perspective that “doing it” is good for business, regardless of what that business may be. The outcomes of diversity initiatives are likely to depend on how diversity is contextualised and practiced within a particular organisation. Some may argue that diversity is organic; that over time it “becomes engrained within the culture of the organization” (Helm-Stevens & Hunt, 2009, p. 43). However, research in this field is neither consistent nor complete. Concern has been raised about inconsistencies that exist, in meaning and understanding, of diversity as a set of competencies. Diversity competencies cannot be seen in the same light as other indicators of performance that are more specific and are relevant only when used as a measure against organisational goals and outcomes. But as this paper contends, if diversity is not understood, implemented, and measured as a set of competencies, then how else to support and practice diversity?
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Indigenising Research at Auckland University of Technology School of Art and Design:

A Report on Experience

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Abstract

One might assume that an interest in Indigenous peoples’ knowledge and learning goes hand-in-hand with an interest in change and diversity – but under certain conditions, the latter tends to overshadow the first. Being open to diversity can, and often does, come at the price of an awareness of difference that is particular to Indigenous peoples. As a consequence, mainstreaming under the banner of inclusion along the lines of gender, sexual orientation, class, disability, or religion (Pope, Reynolds, & Mueller, 2004, p. xiii) can dilute or even undermine Indigenous or, in Aotearoa New Zealand, Māori people. The inability to understand Māori perspectives can act not only as a barrier to students wanting access to higher, particularly postgraduate education, it can also prevent the emergence of new forms of knowledge and research.

*Keywords:* Indigenous, knowledge, Māori, diversity
In this paper, my orientation comes from what I understand to be the position taken by the members of Ngā Wai, a proposed Indigenous Creative Arts Research Centre at the School of Art and Design at AUT. I say “understand to be the position” because this is not a group that writes mission statements or compiles documents. Rather, Ngā Wai focuses on projects in which diversity creates synergies around shared interests and needs. I was an early member of this group but in the past two years have taken a back seat. As I see it, our group regards collaboration as a chance to gain sparks of critical insight by connecting across differences in a borderland shared by many, rather than as a zero-sum game in which whatever benefits one group is bound to disadvantage another (Bruch, Higbee, & Siaka, 2007).

**Inception of Ngā Wai: Naming the World**

For the 2011 EOPHEA conference, my paper was conceived and delivered in tandem with that of my colleagues Fleur Palmer and Moana Nepia, whose paper was similarly motivated by an interest in the history and potential of Ngā Wai. They elaborated on a report they had written shortly before the conference, on a symposium at Ngā Wai o Horotiū Marae, AUT University, in August 2011. The symposium arose from a need and desire that some students, researchers and educators at our School of Art and Design had felt for a number of years: the desire to ground their projects in their own cultures’ ontologies and epistemologies. In the 2000s, we began to share our experiences and collaborate on various research initiatives.

We have sometimes wondered why this project to make space for other knowledges grew out of the postgraduate and research area at our School – a top-down rather than
a bottom-up approach. One explanation is that things often happen where people want them to happen, and perhaps a sustained engagement with critiques of knowledge and research generates a more focused interest in change. Ngā Wai’s history is not a continuous one. There have been several pre-cursors, all of which shared a desire to name the world of research and postgraduate study in different terms.

Thus, a Māori and Pasifika Art and Design postgraduate group was established in 2004. It was mentored by Natalie Robertson, who was employed in partnership with Te Ara Poutama, AUT’s Faculty of Māori Development. In 2006, a Māori and Pasifika postgraduate strand (operating at the same level as the postgraduate department’s disciplinary strands: visual arts, spatial design, fashion and graphics) was created to further embed mātauranga Māori (Māori knowledge) and kaupapa Māori (conceptualisation of Māori knowledge) research approaches, which are based on Māori philosophies and knowledge traditions (Rautaki Ltd, n.d.) in the postgraduate programmes. During that same year, staff established a network of researchers, educators, and managers called Kupenga (“the Net”). Initially conceived to strengthen Māori and Pasifika research, the group soon realised it was equally important to lobby for better support for students’ learning at all levels; establish a whānau/fono (extended family or group space) room for mentoring and peer support; and to build a network of mentors, examiners, and potential staff (Engels-Schwarzpaul, Jervis, & Ings, 2006).

For several years, our Māori and Pacific student cohorts grew. In 2008, however, in what was arguably a hasty mainstreaming exercise, the Kupenga initiative was abandoned. Today, it is sad to see how few of Kupenga’s goals have been achieved.
In 2011, one of our Māori PhD candidates, who worked as a teaching assistant in undergraduate classes, noted that there was little in our School’s undergraduate curricula to show that New Zealand’s political and cultural life is based on Te Tiriti o Waitangi - Treaty of Waitangi partnership. Equally, the epistemological or methodological changes non-traditional candidates might bring to academic research are hardly acknowledged and addressed. Non-traditional candidates constituted a minority in Western universities until the 1970s, when candidates were “disproportionally male, from high-status social-economic backgrounds, members of majority ethnic and/or racial groups, and without disability” (Taylor & Beasley, 2005, p. 141). By that definition, Māori and Pacific students are non-traditional – however often their cultures are labelled “traditional”.

Sadly, despite attempts to support Māori and Pacific students, a Māori and Oceanic Space postgraduate research cluster established in Spatial Design in 2010 has not really taken off, as there is insufficient support and we do not have an equivalent undergraduate course to feed into it. Over time, though, this occasional collaboration culminated in the 2011 symposium at Ngā Wai o Horotiu Marae (AUT Marae). The name for our future research centre signals the importance of sustenance (wai means water), and the notion that a stream is always fed by many sources. At the first meeting under the name of Ngā Wai in 2010, all present had already agreed that the broad direction of the centre would be a focus on Indigenous forms of knowledge in the widest sense. There was a shared sense that the agenda could be inclusive of other knowledges, organised around common themes such as the connection with the environment. At the same time, there was also agreement that
Māori members as *tangata whenua* (First Nation people) would lead the initiative. Importantly, kaupapa Māori principles would provide general guidance.

One of Ngā Wai’s key goals was to create an environment in which mātauranga Māori (Māori knowledge), *te reo* Māori (Māori language) and *tikanga* Māori (Māori customary culture) would be accepted without question. Ngā Wai would provide a place where Māori, by naming the world for themselves (Smith, 2000) would contribute another view of what it means to be a researcher in the world. The 2011 symposium was convened in order to explore broader possibilities for the establishment of an Indigenous Creative Arts Research Centre. This centre, we envisaged, would not only focus on research, but simultaneously address the intimately related need for a supportive and inspirational environment for undergraduate and postgraduate students – not only Māori, but also Pacific and others students whose native knowledges are poorly (if at all) understood and supported in Aotearoa New Zealand’s mainstream academy.

In most New Zealand universities, mātauranga Māori has long been treated as supplementary to the core concerns of knowledge production and transmission. As a masters student at The University of Auckland in the mid-1980s, I was the recipient of comments overtly discounting Māori language and knowledge as obsolete and irrelevant. At about the same time, Emeritus Professor Ranginui Walker and the late Professor Bruce Biggs set out to establish a Māori Studies Department at The University of Auckland to provide a focus for several Māori papers that were then taught mostly in the Anthropology Department. The initiative met with great resistance (R. Walker, 1999). One of the arguments against a department focusing on Māori knowledge presumed the lack of a body of literature outlining and defining the
field of knowledge Māori wanted to claim. Attempts over the last decades to address this traditional Western hubris regarding other knowledges have effected modifications in the overall nature of academic knowledge production and distribution. Māori departments in many New Zealand universities have accumulated substantial and recognised bodies of knowledge and established their own research centres.

Recognition of non-Western knowledge was raised to another level by the changes wrought by the accelerating growth of the knowledge economies. An emphasis on efficient input-output ratios, the “principal mode of production” currently determining academic work (Grierson, 2006, p. 74), leaves little space for research that cannot immediately be transformed into outputs. This climate is not favourable for an unfolding of Māori and Pacific knowledges. The New Zealand Tertiary Education Commission’s policy provision for twice the amount of funding for Māori and Pacific postgraduate completions, and even four times for completions in te reo Māori (Tertiary Education Commission - Te Amorangi Mātauranga Matua, 2013), is perhaps an acknowledgement of an implicit, but fundamental incompatibility of its overall funding regime with the principles of Te Tiriti o Waitangi - Treaty of Waitangi (1840). However, if this funding regime is to achieve anything beyond an air of respectability (and hopefully, somehow, respectable quota in the completion statistics), the funding needs to be directed towards the research undertaken by Māori and Pacific candidates themselves and to a support system they can rationally rely on and plan with. For this, we believe, the establishment of an Indigenous Research Centre in our School is necessary since university-wide systems are tailored towards what the university perceives to be its clientele.
The AUT planning procedures to meet the Tertiary Commission’s educational performance indicators demonstrate that process: the participation indicator serves to track the extent to which “groups of New Zealanders such as Māori, Pacific, and young people are engaged in tertiary education” (Tertiary Education Commission - Te Amorangi Mātauranga Matua, 2012, p. 29). The AUT planners necessarily have to make demographic assumptions if they want to establish specific targets to ensure that AUT’s “staff and student profile better reflects the population” it serves (AUT University, 2010, p. 42). Thus, in the 2010 Annual Report, AUT presumed proportions of Māori and Pasifika populations in the Auckland region of 9.2% and 11.2% respectively (43). What counts as “region” is, of course, debatable and by no means stable. For the purposes of the Spatial Design programme in our School, for instance, the hinterland includes the Far North, from where the majority of Māori graduates come, and where the 2006 demographic proportion of Māori was anywhere between 33 and 54.4%. If curriculum content, pedagogy, and staffing ratios are correlated with demographic representation, these higher figures for the Auckland region would suggest a greater relative weight of Māori epistemologies and methodologies in the overall curriculum.

However, our current enrolment numbers fail to reflect the region’s demographic mix: Māori and Pacific students make up 7.9% and 5.7% respectively in our School. The disproportionately low numbers of students (even in relation to the figures assumed by the AUT planners) are not even matched by the composition of the staff profile: at our Faculty, 2.5% and 1.7% lecturers are Māori and Pacific, respectively. AUT’s goals in the 2012-16 Strategic Plan signal a willingness to engage more explicitly with:
diverse domestic and international student population[s]...[to] continue to build the participation of Māori and Pacific people across all disciplines and levels of qualification; and achieve EPI results for Māori and Pacific people that are equal to, or above the university sub-sector average for all students. (AUT University, 2012)

All these aspects that are likely to contribute to access for Māori and Pacific students. Access, as the means, opportunity, right, and ability to approach, enter and use, is currently unevenly distributed, to the disadvantage of Māori and Pacific students.

Equity, however, is in danger of disappearing from the lists of priority goals as tertiary education environments are made to focus on efficient input-output ratios. When universities have to operate as businesses, they are easily caught in what Jim Marshall calls a “march of performativity” (Peters, 2005, p. 295). While the AUT strategic plan stipulates all the right values for the inclusion of Māori, Pasifika, and international students, alongside mainstream Pākehā, it is crucial that these values and goals are translated into valid curricula and engaged with at the level of research, teaching, and administration at the operational, day-to-day level.

Our School urgently needs to move in that direction since, in contrast to a 4% increase of total enrolments of Māori and Pacific students in AUT’s 2010 report (AUT, 2011, p. 32), the proportion at our School declined between 2009 and 2011 (from 8.1 to 7.9% and 8.0 to 5.7%, respectively). Moreover, Māori and Pacific students’ completion rates over that period dropped from 87% to 85%, and 89% to 80%, respectively.
Many factors contributed to these developments. Two major factors are related to curriculum and staffing. As in most New Zealand universities, theory and studio programmes at our School focus on Western epistemologies, methodologies, and philosophical traditions (Palmer & Nepia, 2011). This curriculum bias persists within a vaguely multicultural environment, where multiculturalism remains a rhetoric rather than a reality (Pope, et al., 2004). Students with an interest in non-Western research and learning traditions largely rely for support on a few individual staff members with similar interests and knowledge, since institutional support is (so far) of an ad-hoc nature. In this situation, which neither promotes dialogue nor stimulates action for change (Ellis cited in Brearley & Hamm, 2009), students and staff are left on their own as they try to understand other worlds and modes of knowing. This includes knowledge traditions which have historically served as sources of Western knowledge. PhD students who draw on their own non-Western knowledge traditions maybe challenged, even if they substantiate claims to knowledge by referencing recognised Western scholars.

To an extent, this applies also to me. Since my research interests lie outside the mainstream, often engaging or connecting with Māori interests, I co-author papers with Māori researchers and supervise Māori candidates with explicit involvement in mātauranga Māori as well as Samoan candidates who engage with Samoan concepts in their research. Further, I supervise an Iranian PhD candidate who grounds her work in her own quasi-exilic condition following the events in Iran since 2009 and who uses Persian/Islamic concepts. In my observation, none of these candidates is currently supported in the same way as candidates who engage with generic Western fields of knowledge and use mainstream research approaches. Their needs differ as
much as they overlap – and I, as a Pākehā/German supervisor cannot predict what they might be at the next turn.

Diversity in Postgraduate Creative Research

A shared interest to improve this situation led us (some Māori, Pacific, Asian, and Middle Eastern students and staff in our School) to initiate Ngā Wai, to provide for the regional concentration of Māori, Pacific and immigrant populations in Auckland. While the term “Indigenous” might suggest that the centre houses only projects directly related to Aotearoa New Zealand and carried out by Māori as tangata whenua, within mātauranga or tikanga Māori protocols, the initiative is underpinned by a shared determination to find synergies among groups which are all insufficiently served under the current regime. There is, in any event, more than one definition of the term “Indigenous”.

The UN Guidelines for Indigenous Peoples’ Issues identified a typical characteristic of Indigenous peoples: their “descent from the populations which inhabited the country or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries” (United Nations Development Group, 2008, p. 8). This definition includes many Pacific peoples but, as Professor Peggy Fairbairn-Dunlop pointed out in her keynote at the 2011 Ngā Wai symposium, the notion of indigeneity can be problematic for Pacific nations who were never colonised or who decolonised. In light of the global decline of the nation state and the increasing power of private and corporate capital, however, Pacific states’ control over much of what the UN Declaration of Indigenous Rights seeks to protect
is also limited. Perhaps this situation was reflected in the parallel opening sessions at the Second Samoa Conference in July 2011: “Culture/custom, religion/spirituality & indigeneity … [and] law, ethics, social justice & globalisation”. Professor Charles Royal, the other keynote speaker at the Ngā Wai symposium, highlighted the shared spiritual and physical identification of all Indigenous cultures with the earth (Palmer & Nepia, 2011), which establishes an ethical world view often overlooked by Western epistemological and theoretical approaches (Cajete, 1999). It entails an attention to the particularity of each environment and aligns Indigenous ways of knowing, in contrast with the universalising and abstracting Western epistemologies still predominant in large parts of New Zealand universities.

Indigenous knowledge systems are not only inherently entitled to protection, they can complement (rather than supplement) Western knowledge systems. However, the appreciation and productive practice of diversity relies on difference, while cost efficient business operations in the university rely on standardisation. Under such conditions, diversity can manifest as a cost factor while the appreciation of “the generative potential of multiple perspectives” (Gundara, 1997, p. 135) to stimulate new ideas is likely to diminish.

When standardisation is determined by mainstream values and goals, as it usually is, those outside the mainstream end up having special needs which are likely to be framed within a deficit model. Regarding Māori students’ interests and needs, Elizabeth McKinley, Barbara Grant, Sue Middleton, Kathie Irwin and Les Williams have specifically identified those arising during PhD research (McKinley, Grant, Middleton, Irwin, & Williams, 2009a). McKinley et al. further state that Māori
candidates’ motivation to engage in research degrees, particularly PhDs, can vary significantly from that of mainstream students. The PhD is not only seen as an opening to employment in and beyond the academy for the individual, but also as a contribution to social progress for all Māori and a greater representation of Māori in academia, with obvious consequences for role modelling, as these students are often the first in their families to achieve this qualification (McKinley et al, 2009a). As trailblazers, many Māori PhD candidates work in areas without an established supporting literature that covers the often real-life problems they are interested in and that have not yet been articulated in academic discourse (McKinley, et al., 2009b). Consequently, they have to set up the research context for their projects as they go, through dialogue with their communities and other researchers.

An Indigenous research centre at our School focusing on non-mainstream knowledges and research practices, where student and staff researchers can articulate their motivations, aspirations, difficulties, and needs at various stages, would be enormously helpful for the development of such projects. It would provide our candidates with opportunities for ongoing discussion and support for their presentations and publications. This support would mitigate the effects of a tendency amongst many supervisors who are not familiar with the candidates’ field and rely on established academic standards and procedures. They can often demand of non-traditional candidates a premature justification and substantiation of their theoretical framework which can hinder initial explorations. Thus, one of the students interviewed by McKinley et. al. commented: “I didn’t want to have to defend my complete and utter belief that Māori theory actually exists in these aspects of traditional Māori knowledge. I wanted somebody to say, ‘That’s a logical idea. Okay
now, how are you going to demonstrate that?’” (McKinley, Grant, Middleton, Irwin, & Williams, 2009c, p. 2).

At the time of the review of his PhD candidature, one of my candidates struggled with a tendency of reviewers to subsume the concerns of his research into categories from their own research, without realising that his concerns could be located in a different context, requiring different approaches. His solution was to shift his project into an explicitly Māori context, which provided his questions with a congenial, generative vocabulary, and provided his research process with immunity from inappropriate mainstream classifications.

If there is, as at our School, a significant mismatch between student and staff populations, non-traditional candidates will find it difficult to find supervisors who can confidently respond to their particular approach to knowledge. Often, supervisors who are principally open but feel they do not have the requisite knowledge, will call in cultural advisors to support and refine a candidate’s recourse to Māori forms of knowledge. These advisors are sometimes academics and, in our case, often colleagues from Te Ara Poutama (Māori Studies Faculty at AUT). The ways in which university funding allocations work, though, make this an unattractive proposition for Te Ara Poutama academics.

Only very recently, our School provisionally earmarked funding for additional supervision by Māori or Pacific supervisors, if existing supervisors did not have the requisite knowledge to supervise PhD projects involving a Māori or Pacific knowledge base. While this is a significant step forward and has already made a
tangible difference in two cases in particular, the situation remains problematic. In many instances, cultural advisors are representatives of the community/ies with which the research project engages; there is still a question about what recognition cultural advisors find in the academy. Often, their role is ill-defined, insufficiently-rewarded and sits uneasily between academic and community engagement (McKinley, et al., 2009d).

Ngā Wai – An Opening for New Opportunities at the School of Art and Design

The decline in Māori and Pacific student numbers in our School between 2009-2011 can be partially attributed to an increasing focus on postgraduate programmes as a result of the Tertiary Education Commission’s funding policies. Paradoxically, these funding regimes might now help establish an Indigenous Creative Arts Research Centre at our School. The regulations’ provision for higher completion funding for Māori and Pacific PhDs can help embed an environment conducive to Indigenous research (in the wider sense) at our School. Direct funding of Ngā Wai as a research centre would provide the means to establish research agendas, fund postgraduate researchers, and make available the means for collaboration with like-minded groups outside our university. These initiatives will allow for engagement of knowledge bearers who are not certified by the university system. This development would be supported by the fact that Indigenous research is increasingly recognised internationally, as evidenced by the inclusion of two chapters on kaupapa Māori methodologies by Linda Tuhiwai Smith and Russell Bishop in The Sage Handbook of Qualitative Research (Denzin & Lincoln, 2005a p. 85-138).
Denzin notes that Indigenous peoples, particularly in Australia, New Zealand, Canada and the USA, can provide “both the clearest critique of modernist social science and the richest proposal for an Indigenous knowledge-based education […] and inquiry model” (Denzin & Lincoln, 2005b p. 1120). Furthermore, it is also “absolutely clear” that, in Aotearoa New Zealand, at least, “Western scholars do not have first claim on knowledge they may help to generate. Rather, they must negotiate for the knowledge and respect the forms in which the ‘owners’ may wish to have it presented or re-presented.” (Denzin & Lincoln, 2005b p. 1127). Ngā Wai can play an important role here, bringing together Indigenous and non-Indigenous scholars, researchers and communities, and helping them negotiate appropriate protocols for their collaboration. For me as a researcher and supervisor, particularly of PhD projects, it would provide an essential supportive environment to test and develop ideas in cross-cultural research engagement, on a day-to-day basis.

Ngā Wai can further assist with staffing decisions: programmatic efforts to appoint Māori and culturally diverse staff members are rarely supported by faculty at large (Kingston-Mann & Sieber, 2001). In conjunction with staff development advisors, either in the School or at university level, members of Ngā Wai would be able to support faculty as they come to terms with diversity in their daily interaction with students. Kingston-Mann and Sieber report an initiative at the University of Massachusetts in Boston, in which faculty participated in a wide range of workshops and courses to improve teaching and develop the curriculum to address diversity. A rationale was collectively established that made clear how the “curriculum – the most powerful statement of the university’s academic priorities – would communicate the message that an educated person needed to study issues of diversity…because an
Indigenising Research at Auckland University of Technology School of Art and Design:
A Report on Experience

understanding of diversity was indispensable to life in the modern world” (Kingston-Mann & Sieber, 2001, p. 10). This initiative also became, in the process, “a particular source of support and encouragement and an entrée into the network of supportive colleagues” (p. 11) for junior faculty and all faculty belonging to non-mainstream groups.

Ngā Wai would be an appropriate forum to protect cultural advisors’ roles, and to provide an environment guided by cultural values commensurate with these advisors’ role in the candidates’ research. Further, the Centre could galvanise research that could attract external funding. The prestigious and highly competitive Marsden Fund in New Zealand, for instance, includes in its application template a section concerning Mātauranga Māori or Vision Mātauranga elements or orientations. Ngā Wai would be a first step in setting up research networks with other universities and communities, which have an interest in particular research topics and projects.

Ngā Wai might in the longer term even be endowed with scholarships specifically for Indigenous scholars and researchers engaging Indigenous frameworks and practices regarding creative practice research. This would ameliorate a situation described by one of McKinley’s interviewed PhD students: “My topic didn’t fit into Indigenous funding and Indigenous didn’t fit into the research field’s funding, so I was declined by every scholarship I could find” (McKinley et al., 2009b p. 2).

In our current environment, in which Māori, as people and as the producers and bearers of knowledge are marginalised by national and global powers, strategic alliances are important. A common experience of having one’s cultural knowledge
denied brings together the individuals who support the agenda of Ngā Wai. Māori, Pacific, and transnational researchers also share a concern about the market orientation of research. This means, in the globalised networks of knowledge exchange, that minority forms and modes of knowledge will only be supported if they contribute to the national economy in some way. In our School, much is to be gained from synergies and collaborations between Māori and Pacific student and staff researchers. From an equity perspective, the task of opening access to non-traditional students thus extends in two directions and concerns both Indigenous and immigrant populations. The misunderstanding of their knowledge cultures by policy makers, government representatives and educators can be seen as not knowing how or where to look.

Those engaged in the Ngā Wai initiative are aware of the misunderstanding of their knowledge cultures. Insofar as their research interests and approaches overlap with researchers from, for instance, the Middle East, additional points of synergy can emerge. At the 2010 meeting preceding the Ngā Wai symposium, participants discussed not only the establishment of an Indigenous research centre in the School of Art and Design but also how it could support the pursuit of alternative knowledge areas generally. Guided by Māori kaupapa principles, the Centre would support knowledges and research modes that have affinity with Indigenous agendas, are specific to the country and culture of its researcher, and that are currently not well supported in the School’s undergraduate and postgraduate programmes. This interest in synergies and collaborations across diverse fields is motivated by the understanding that we need to learn to look in new ways. For if we do not know how to look, if we do not even know where to start looking, we “have no place, no name, for the locus of
our new world” (Saunders, 2011, p. 2). In Aotearoa New Zealand, as in other postcolonial settler societies, this predicament raises questions that urgently need to be addressed.
References


Bridging the Gap: Pasifika Students Realising Their Potential

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Abstract

Improving Māori and Pasifika students’ academic success is an equity issue. This dilemma has been the main focus of the Auckland University of Technology’s (AUT) Equal Opportunity Strategy since 2000, yet academic success remains a challenge. This paper reviews the introduction of an equity academic concept that gave birth to a Pasifika Learning Village (PLV) model. The PLV featured the partnerships of Pasifika staff and student leaders as tutors and mentors, with the aim of boosting the academic success of Pasifika students studying within the Faculty of Health and Environmental Sciences (FHES). In 2005, Pasifika student results showed a 65% success rate. By 2010, and with the use of the PLV model, the success rate increased to 72%. Although the model has only been fully developed in the last three years, it has created teaching and learning opportunities for Pasifika health students to realise their potential as minorities within a monocultural academic institution.

Keywords: bridging the gap, equity, Pasifika, Pasifika Learning Village, teaching and learning
In light of high failure rates for Māori and Pasifika students within the last two decades in the New Zealand education sector, Smith (1999) noted that indigenous people must revive, reclaim, and revalue their paradigms of indigenous knowledge construction. This is essential if academic and equitable outcomes are to be achieved. However, within an institution where Eurocentric views dominate, this reclaiming can be difficult to pursue and it is therefore a challenging task for minority groups, such as Pasifika students. At the Auckland University of Technology (AUT), Pasifika students have the lowest completion rates of the total student body at 68.9% (Auckland University of Technology, 2012). They are classified as poor achievers (Allen, Taleni, & Robertson, 2009; Pacific Island Students Academic Achievement Collective (PISAAC), 1993) who “remain in school longer than average” to complete a course or programme (Schwarz & Crothers, 2011, p. 7).

This paper argues that New Zealand tertiary teaching and learning environments are not conducive to Pasifika students’ needs. There are poor learning support systems in place because tertiary institutions dwell upon a traditional environment that suits the dominant group. Being disadvantaged discourages student engagement and motivation to learn. Numerous factors must be fostered to achieve student success. For instance, student abilities and skills, high expectation of students’ performances, academic and social support, and student involvement within their own teaching and learning are a few factors highlighted within the reviewed literature (Butler, 2001; MacGregor, Leigh Smith, Matthews, & Gabelnick, 2002; Tinto, 2008; Tinto, Engstrom, Hallock, & Riemer, 2001). Tinto (1993) further argues that if minority students encounter an unfortunate experience in their educational learning, they will utterly fail.
This dilemma prompted Faculty of Health and Environmental Studies (FHES) staff to pilot an intervention scheme namely, a Pasifika Learning Village (PLV) model. Although this model was adopted from Tinto’s work (1993) on learning communities, subsequent research (Butler, 2001; Price, 2005) has shown how targeted, structured, tailor-made learning communities can enhance student achievement and foster student engagement. Such engagement leads to high completions rates for minority students in North American tertiary institutions. Less research of this nature has been conducted in Aotearoa New Zealand. As previously discussed, at AUT there has been a positive shift in Pacific students’ completion rates- on average between 67% and 72% since the PLV model was piloted in 2007 and officially became part of the learning support system in Semester 2, 2008 (Auckland University of Technology, 2011).

Three important factors have attributed to bridging this gap. First is the commitment of AUT to integrate a culture of learning appropriate to the learning needs of Pasifika students, which has filtered top-down to FHES. This top-level commitment is imperative because, Tinto noted, an institution’s mission is to make education appropriate for the diverse students (Tinto, as cited in Butler, 2001); otherwise, any attempts to finance and drive resources to improve educational success for Pasifika students will be worthless.

Second, any intervention to access relevant and effective academic, cultural, and pastoral student support services requires collaboration among all parties involved with Pasifika students. Collaboration is vital because Pasifika students require a
holistic and collective approach. As Smith, Hudson, Hemi, Tiakiwai, Joseph, Barrett, and Dunn (2008) stipulated in order to revive, revalue, and reclaim indigenous methods, and in this case, Pasifika paradigms, such groups need to create relevant resources to enable appropriate teaching and learning (Mila-Schaaf & Hudson, 2009). Collaboration will assist in bridging the gap by creating an interface between the faculty and the students, resulting in a learning environment that helps enable their success.

In this paper, an evidence-based approach supported by a participant observation method is employed to examine the nature of the learning communities that have been sought to address this dilemma. It must be noted that the model could be employed as a way forward to alleviate academic disparities.

**Political Commitment to Te Tiriti o Waitangi – Treaty of Waitangi**

Commitment to resolve the challenges faced by our Pacific students is linked to the political and good governance of the New Zealand government. In honour of Te Tiriti o Waitangi – Treaty of Waitangi, AUT commits to be the university of choice for Māori who are the tangata whenua (indigenous people of the land) as well as visitors including Pasifika students (Auckland University of Technology, 2006, 2011). This gesture supports one of the core principles underpinning the Treaty, which includes its obligation between the tangata whenua and the diverse ethnicities to act reasonably, honourably, and in good faith for the betterment of Aotearoa New Zealand. Although this partnership is a legal obligation, it does not “necessarily describe a relationship where the partners share national resources equally, rather an aspect of the obligation
to act in good faith as a duty to make informed decisions through consultation” (State Services Commission, 2005, p. 14). The State Services Commission further stressed that the value and utility of undergoing a consultation process is in itself a means to uphold and strengthen the Treaty principle. Te Tiriti o Waitangi is the blueprint that directs programmes, including Equity programmes (Ministry of Education (MOE), 2006a, 2006b, 2006c). In good faith, AUT’s commitment to Māori communities extends to its Pacific counterparts to become the “university of choice” where AUT was “to provide quality education that will inspire students to reach their full potential” and “actively engage with the communities it serves while contributing to the country’s social and economic development” (Themes 1 and 3 of the Strategic Plan, as cited in Auckland University of Technology, 2011, p. 18).

In 2001 the New Zealand Government funded additional support services ($18 million) to increase academic success for Māori and Pasifika students within tertiary institutions. Initially, AUT developed a traditional deficit model but this was short-lived due to limited success. In its place, an Integrated Team Model Optimising Student Success (ITMOSS) was introduced in 2002 as a commitment to integrate equity principles into AUT. The model was driven by the University Equity Office, which was supported by the Tertiary Education Commission (TEC) and financed through the Special Supplementary Grants (SSG) fund. In 2003, AUT received $257,000 of SSG funds while the university contributed $297,000 to support the ITMOSS programme to bridge the gap in Māori and Pasifika student academic success (Nakhid, 2007). Although the Equity Office dissolved in 2005, the equity structure provided the impetus to position within AUT faculties the model of the FHES.
The previous ITMOSS model became the mandate of the Equity staff, which comprised the Equity and Diversity Portfolio Holder (EDPH) and Academic Leader(s) for Māori, who were supported by an Equity Team Facilitator. The Equity Structure, as shown in Figure 1 below, reflects the faculty’s commitment to AUT’s Strategic Plan.

**Figure 1:** Equity Structure within FHES, 2008-2012 **Source:** FHES Equity Team, 2012

Within the FHES the Equity and Diversity Portfolio Holder (EDPH), is also Head of School Health Care Practice (Nursing, Midwifery, and Paramedicine). The Equity Academic staff initially consisted of two Māori staff members, each working 0.4 FTE’s (2 days) alongside their academic commitments. This initial group organically
Bridging the Gap: Pasifika Students Realising Their Potential

grew to include Pasifika staff and student leaders as evident in Table 1. The roles and responsibilities of the Equity Team members involved 2008-2012 are also shown in Table 1 below.

**Table 1: FHES Equity Roles, Gender and Ethnicity, AUT 2006 – 2011**

<table>
<thead>
<tr>
<th>Role</th>
<th>Male</th>
<th>Female</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FHES Equity Team (a)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Equity and Diversity Portfolio Holder [EDPH]</td>
<td>1</td>
<td></td>
<td>European</td>
</tr>
<tr>
<td>• Equity Academic Team Leader (Māori)</td>
<td>1</td>
<td>1</td>
<td>Māori (Samoan)</td>
</tr>
<tr>
<td>• Equity Academic Leader (Pasifika)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Equity Team Facilitator/ Faculty Tutor</td>
<td>1</td>
<td></td>
<td>Pasifika (Tongan)</td>
</tr>
<tr>
<td>• (2x Pastoral Student Support Staff)</td>
<td>1</td>
<td>1</td>
<td>Māori Pasifika (Samoan/Tongan)</td>
</tr>
<tr>
<td><strong>Undergraduate support (b)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Leaders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tuākana (Māori student leaders)</td>
<td>3</td>
<td>5</td>
<td>Māori Tongan, Samoan, Niuean, Papua New Guinea</td>
</tr>
<tr>
<td>• Pasifika student leaders (PSL)</td>
<td>5</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Postgraduate support (c)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Internships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hāpai – Office of Māori Advancement</td>
<td>1</td>
<td>1</td>
<td>Māori (2)</td>
</tr>
<tr>
<td>• PAEP- Pasifika Academic Equity Programme</td>
<td>1</td>
<td>3</td>
<td>Pasifika (4)</td>
</tr>
<tr>
<td><strong>TOTAL = 37</strong></td>
<td>13</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

*Source: FHES Equity Team, 2012*

*Notes:*
(a) Transit from the ITMOSS in 2005 to the Equity Academic model in 2006 which continues to date
(b) Introduced in 2009 continue to 2012 – PNG – Papua New Guinea PSL
(c) Introduced in 2011 continue to 2012

In 2010, one Māori academic resigned and was replaced with an Equity academic for Pasifika. As an Equity academic she would inform the academic staff and support the
Pasifika Equity Facilitator by sending out communication sheets to every paper leader (lecturer) with the names of Māori and Pasifika students enrolled in their papers (Table 2). In this context, the Equity Team Facilitator plays a dual faculty role as a tutor in one of the core papers – Human Structure and Function (HSF) and Human Anatomy and Physiology (HAP) - and attends to equity administrative matters.

**Table 2: Communication sheet shared between Equity Academic Team and Faculty Staff**

<table>
<thead>
<tr>
<th>Paper Code and Name: e.g. Psychology and Lifespan</th>
<th>Equity Academic [Pasifika]:</th>
<th>Paper Co-ordinator:</th>
<th>Year Leader:</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT PROGRESS SHEET</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student ID</td>
<td>Family Name</td>
<td>First Name</td>
<td>Gender</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** FHES Equity Team, 2012

With a Master of Public Health qualification in Science, the Equity Facilitator is pursuing a career pathway to become an academic lecturer, to boost the limited Pasifika academic staff within the faculty. As an Equity Team Facilitator, she also follows up with student contacts as required by the academic staff team members. This role is also shared by the Equity Academic Pasifika with regards to three other core papers: Psychology and Lifespan Development; Health and Environment; and Knowledge, Enquiry and Communication for first-year students. Her portfolio has been extended to provide academic support to Pasifika postgraduate students. Faculty Equity Academic staff work in collaboration with the Student Services Directorate.
who support student success by attending to pastoral care for students and are part of the Faculty Equity Team but do not directly answer to the FHES Dean (See Figure 1 earlier).

With this clear, succinct structure, it was imperative to individualise best practice to retain and engage Pasifika students in order to detect and capture as early as possible at-risk and retention-risk students and nurture them to succeed. The structure encompassed a holistic approach, which centres on the student as the main concern of all sectors within AUT.

Figure 2 highlights the pastoral, financial, academic, and cultural aspects, including the affiliated groups aligned with the faculty, to provide student support. This was the mandate in order to support the learning communities, which were adapted as learning villages led by Pasifika student leaders.

**Figure 2:** Location of the Equity Team within the holistic student-centred approach structure within the AUT FHES and overall student support system, 2010-2011.

**Source:** FHES Equity Team, 2012
Within the last decade, the TEC reported steady progress in New Zealand for Māori student success and retention rates (MOE, 2006b). Conversely, Pasifika (mainly Tongan, Samoan, and Fijian) students experienced very little success in closing the academic gap (MOE, 2001; 2006a; 2006c). At FHES, the dilemma for its Equity Team was how to best support an improvement in the successful completion rate of Pasifika students studying within AUT, a monocultural environment.

Although the Equity Team had been established for five years, the successful completion for Pasifika students was slow to manifest. An essential aspect of the current initiative is to monitor the completion and retention rates of Māori and Pasifika students of all paper enrolments within FHES. Mirroring the national trend, AUT FHES Māori students’ successful completion rates increased to 80% while Pasifika students’ rate either remained constant (between 50-60%) or decreased in some papers (Auckland University of Technology, 2011).

Table 3 highlights the academic gap among Māori students, Pasifika students, and all students combined. Successful completion rates for Pasifika students lagged behind the overall (ALL) AUT percentage, which was about 18% in 2005 while Māori students were at a narrower margin of 4%. Although Table 3 shows a gradual improvement in 2010 (Pasifika 72% versus 86% AUT overall) the gap of 11% still remains and needs to be decreased. This paper now demonstrates how an evidence-based methodology was applied to an educational dilemma to produce a best practice development plan such as the PLV model.
Table 3: 2005-2010 Pass rates for Faculty of Health & Environmental Sciences Undergraduates Pasifika students compared to All AUT students

<table>
<thead>
<tr>
<th>Year</th>
<th>Pasifika</th>
<th>Māori</th>
<th>ALL(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Head Count</td>
<td>Outcomes (Percentage %)</td>
<td>Head Count</td>
</tr>
<tr>
<td>2005</td>
<td>198</td>
<td>69%</td>
<td>282</td>
</tr>
<tr>
<td>2008</td>
<td>285</td>
<td>67%</td>
<td>428</td>
</tr>
<tr>
<td>2009(b)</td>
<td>332</td>
<td>64%</td>
<td>474</td>
</tr>
<tr>
<td>2010(c)</td>
<td>405</td>
<td>72%</td>
<td>526</td>
</tr>
</tbody>
</table>

(a) Source: Prepared by AUT Equity Office, Planning Directorate for FHES Equity Team, 2012. Data retrieved 2011 for 2005-2010 from ARION (AUT’s database) based on EFTS and distinct head counts. (Formula used by TEC for calculating Successful Completion (CR) Rates, for example: SC Rate = Pass/Pass + Fail + DNC + W).

Clinical/Evidence-Based Methodology

The PLV model was developed after the FHES Equity Team applied an evidence-based methodology, described thus: “Evidence-based practice is a problem-solving approach to making clinical, educational, and administrative decisions that combines the best available scientific evidence with the best available practical evidence” (Newhouse, 2006, p. 338).

Evidence-based practice methodology has four steps. The first two steps involve applying evidence from the success rates of problematic papers where success rates for Pasifika students were one of the lowest. This is followed with a literature search and then a force field analysis framework is used to formulate a practice development plan. The final two steps are the application and evaluation of the best practice outcome of the PLV model.
Evidence-Based Practice Process (EBP)

EBP, Step 1: Focus question:

*What interventions will increase the successful completion rates for Pasifika students at AUT?*

At AUT, successful completion and retention rates are recorded each semester on all students’ outcomes, with Māori and Pasifika student outcomes being recorded separately as a percentage of “All” student results (Table 3). In some papers, particularly the then-Certificate in Health Science (NCEA level 5 – equivalent of University Entrance), Pasifika students’ successful completion rate was under 50%, in comparison to all other students. This certificate programme also had larger numbers of Pasifika student enrolment. In semester one 2006, there were 33 Pasifika students out of the 139 total (24%) students who enrolled. In semester two, although the number of Pasifika students slightly decreased to 31, the number of all students also significantly decreased to 72, which then increased the percentage of Pasifika students to 43%.

The 2007 New Zealand Tertiary Education Strategy (TES) expressed the “need to address the disparities that exist for three particular populations such as Māori; Pasifika peoples; people with disabilities” (MOE, 2006a, p. 8). With specific reference to Pasifika, TES developed a Pasifika education plan to ensure Pasifika students achieved “greater engagement and success in all levels of tertiary education” through specific stated goals to:

- Increase Pasifika students’ participation and improve retention in tertiary education
Bridging the Gap: Pasifika Students Realising Their Potential

- Increase Pasifika students’ achievement and progression in tertiary education at all levels, particularly at degree level and above
- Ensure that the needs and aspirations of Pasifika communities are identified and addressed (MOE, 2006b, p. 13)

TES’s concern about the existing educational disparities validated the need for AUT to have a developmental plan in order to address the above goals. In AUT’s policy for academic literacy and cultural issues (ALIC):

AUT recognises and values the diversity of social, cultural and linguistic backgrounds among its students and staff. It also recognises the importance of developing high level academic literacies as an outcome of tertiary education. AUT is therefore committed to the development of academic literacies and intercultural capabilities throughout the university: in its faculties and divisions and within each programme. (Parker & Kirkness, 2006, p. 39)

Although the above policy statements support structures for Pasifika successful paper completion, these structures did not translate into successful academic completion rates at AUT. Other measures were thus worth exploring.

*EBP, Step 2: Literature search for relevant evidence:*

A quantitative retrospective study of two cohorts of minority and disadvantaged students carried out by Grumbach and Chen (2006) demonstrated that students from these groupings who chose to enrol in and complete a University of California post baccalaureate pre-medical programme greatly increased their matriculation into medical school. This study was a response to the need for:
…a racially and ethnically diverse physician workforce as important for increasing access to care for underserved populations, improving the cultural competence of the workforce and enhancing the educational experiences of all medical students. (Grumbach & Chen, 2006, p. 1079)

The study shows how a university was able to use an intervention model by way of a pre-medical programme to support successful entry of minority and disadvantaged student into medical school. Of the 265 participants, 218 (82%) are known to have applied to medical school, with 179 (82%) being successful. In comparison to the control group (those who did not choose to complete a pre-medical programme) where 275 out of 396 (65%) applied to the medical school, only 89 out of 257 (35%) were successful in their applications.

In a study with disadvantaged Negro and Hispanic students within a learning community setting, Tinto (1993) highlighted an important confounding variable: that the student motivation to succeed is just as important a factor in their success as participation in the programme itself. Brumm and Mickelson (2002) also confirmed how specific learning communities can maintain minority students’ engagement. These studies had relevance to AUT’s education dilemma: that Pasifika cohorts are a disadvantaged minority. Similar sentiments about Samoan, Tongan, Niuean, Tuvaluan, Kiribati and Fijian students’ academic achievements have been discouraging, with one Pasifika student association attributing cultural, family and community obligations rather than low academic ability as barriers (PISAAC, 1993).

This dilemma elevated into a major national concern as reiterated in Fletcher, Parkhill, Fa’afoi, Taleni, and O’Regan (2009); Benseman, Coxon, Anderson, and
Anae (2006); and Nakhid (2003). Clearly, resolving this dilemma required a collaborative approach not only from the relevant government ministries, but also among the various institutions, educators, and Pacific peoples. Resolution would also support TES’s goal to increase Pasifika students’ achievement and progression in tertiary education, particularly at degree level.

In contrast to the above studies, Nakhid (2007) used an interpretive paradigm to find a more effective and accurate explanation for the failure of schools to address the lack of academic achievement of Pasifika students in New Zealand education. She argued that a necessary condition of academic success for Pasifika students is for them to be able to carry out their own identifying processes and to have these processes valued by the school. She clarified that:

…the differences students bring to the classroom in terms of culture, language, religion, and socioeconomic status are said to affect learning but this empirical investigation confirms that it is more a matter of how these differences are perceived and represented by society, schools, and teachers that determine the way in which they influence learning rather than the differences themselves. (Nakhid, 2007, p. 312)

This identifying process resonates with the force field analysis framework in the evidence-based practice discussed by Iowa State University Extension (2001). Silipa (2004) noted that when Samoan students come to school, they bring with them baskets of values, knowledge and skills that are embedded within their culture. Instead of viewing these as a hindrance to learning, educators should find the light within these cultural factors. They should be nurtured to enhance students’ motivation
and create a sense of belonging, while recognising that these cultural “belongings”
can improve teaching efficacy and student learning.

These studies emphasised the dichotomous conflict between a “Western versus home”
cultural perspective in the teaching and learning process. This hinders Pasifika
students’ potential to fully engage in monoculturally-oriented educational institutions.
These findings are relevant to AUT’s guiding principles in “valuing and being
committed to Pasifika development and success” (Auckland University of
Technology, 2006, p. 8). From the Equity Team’s viewpoint distributional social
justice implies that Pasifika students should be proportionally represented in the
academic success of the school and that they must participate in the process of
teaching and learning.

A third study by Benseman et al. (2006) drew on a large-scale study of the factors
influencing successful completion of tertiary qualifications for Pasifika students, as
well as a range of factors that impeded retention and conversely increased it. While
investigating the causes of Pasifika withdrawal, they found that motivation and
attitudes, family pressure and demands, peer-group pressures, financial pressures, lack
of support services, and languages were the main determinants. To increase retention,
they identified that access to Pasifika staff, Pasifika presence in institutions, role
models, pedagogical components, and information were most important. The study
influenced the goals of the Pasifika Education Plan (MOE, 2001) that aligns with
TES’s goals (MOE, 2006a) to:

• Significantly increase Pacific students’ participation in tertiary education
  at all levels,
• Significantly improve Pacific students’ achievement in tertiary education to close the gaps with non-Pacific students completely in 20 years (MOE, 2001, p. 147).

As these studies directly related to FHES’s educational dilemma, it was important to utilise some of these ideas. The Equity Team, in collaboration with Pasifika Student Support Services, created a learning community to ensure Pasifika groups participated in resolving the issue of Pasifika retention and completion. As Tinto noted, retention is the responsibility of the community (as cited in Butler, 2001).

EPB STEP 3: Application to practice

Commitment to the dilemma of retention and completion as discussed above provided the impetus to pilot an intervention model in Semester 1, 2007. The suggested innovation included a pilot within the existing Health Studies Certificate (HSC). As evident in Table 4, the pilot provided positive outcomes when Pasifika students were offered an extra tutorial from Pasifika staff. In 2006, prior to the intervention, only 18% of Pasifika students passed all four papers; three withdrew and 11 did not complete (DNC) or received D grades. Nineteen Pasifika students accessed the Pasifika-led academic assistance option to attend a weekly tutorial for 10 weeks. In effect, 42% (eight students) passed all four papers, which was higher than the overall 30% of those with all papers passed. Furthermore, there were no students withdrawing and only four had DNCs or D grade or no papers achieved.
Table 4: Certificate in Health Studies who received academic input Semester 1, 2007 compared with those who did not received academic input in 2006 for Pasifika students, AUT 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Total students</th>
<th>Students achieving papers (pp)</th>
<th>DNC/D grade/ NO papers achieved</th>
<th>Withdrawn</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 Semester 1</td>
<td>34</td>
<td>6/4pp, 5/3pp, 3/2 pp, 4/1pp</td>
<td>11 (32%)</td>
<td>5 (15%)</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>2006 Semester 2</td>
<td>31</td>
<td>4/4pp, 3/3pp, 8/2pp/6/1pp</td>
<td>3 (10%)</td>
<td>3 (10%)</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>2007 Semester 1</td>
<td>21</td>
<td>4/4pp, 2/3pp, 4/2pp</td>
<td>3 (14%)</td>
<td>3 (14%)</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28%</td>
</tr>
</tbody>
</table>

Pasifika students who received academic input of 1 hour per week for 10 weeks from a Pasifika lecturer and ITMOSS facilitator

<table>
<thead>
<tr>
<th>Year</th>
<th>Total students</th>
<th>Students achieving papers (pp)</th>
<th>DNC/D grade/ NO papers achieved</th>
<th>Withdrawn</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 Semester 1</td>
<td>19(a)</td>
<td>8/4 pp, 4/3pp, 1/2pp, 2/1pp</td>
<td>4 (21%)</td>
<td>0</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>

Combined Semester 1, 2007 Pasifika student results

<table>
<thead>
<tr>
<th>Year</th>
<th>Total students</th>
<th>Students achieving papers (pp)</th>
<th>DNC/D grade/ NO papers achieved</th>
<th>Withdrawn</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 Semester 1</td>
<td>40</td>
<td>12/4 pp, 7/3pp, 5/2pp, 2/1pp</td>
<td>11 (27.5%)</td>
<td>3 (7.5%)</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Hall, R. (2007, April 11). *Performance of Under 25 Years Olds (U25s) at AUT*. Results presented at the Equity Management Team Meeting. Statistics were provided with the permission of Equity Portfolio Holder for FHES, 2011.

Note (a) Pasifika students were given the option to attend 10 weekly tutorials. Their attendance frequency ranged from 1 week to 8 weeks.

The rationale for intervention with the Health Science Certificate (HSC) programme identified a pre-degree transition programme with a sizable group of Pasifika students enrolled each year. FHES Equity staff had a trusting relationship with the programme leader as well as with some of the staff teaching within the HSC programme. In addition, a Pasifika lecturer taught the Human Structure Function (HSF) tutorial (of
the more challenging papers for the HSC Pasifika students), thus providing a Pasifika role model to inspire and motivate the students to achieve. The Equity Coordinator had already established regular network meetings within the Faculty, including with Māori and Pasifika student liaison support staff. The creation of a unified group who were aware of the various roles, with each contributing to develop an efficient network system, helped improved delivery services for Pasifika students to succeed.

These factors were a positive starting point between FHES and the relevant supporting staff, who considered the restraining and other driving forces set out in the following force field framework. A major barrier was the reluctance of some non-Pasifika academic staff to accept AUT’s ALIC policy, which creates opportunities for Pasifika students to achieve. Baulcomb (2003) acknowledged Lewin’s (1951) force field analysis framework as a reflection of these attitudes encountered within the planning and implementation phases of a successful small-scale change in clinical practice. The Certificate Programme trial was a small-scale change to begin the process of working toward increasing the successful completion rates for Pasifika students. As shown in Figure 3 below, the force field analysis method assisted in identifying restraining forces that would resist change, as well as the driving forces that would support change.
Figure 3: Force Field Analysis

**Source:** Adapted from Iowa State University Extension (2001); Australian Continuous Improvement Group. (2000); and 12Manage (2006).

From this understanding one could then develop strategies to overcome or reduce the impact of the restraining forces and harness the driving or supporting forces (Australian Continuous Improvement Group, 2000; Iowa State University Extension, 2001). When analysing the force field data, an organisation called 12Manage (2006) wrote of the need to investigate the balance of power, identify the stakeholders, opponents and allies, and work out how one can influence each target group. Through Equity roles, the balance of power was established through the support of:

- A Pasifika lecturer from the learning support team, who willingly agreed to teach Pasifika students
- AUT and government policy requiring lecturers to value diversity in order for Pasifika students to achieve
- The Certificate lecturers

Although some lecturers blamed the students for their own failure, there was a sense that they did not feel good about their own lack of success when teaching Pasifika students.
Finally, from a resources perspective, there were no major organisational changes or extra costs involved. The stakeholders were the Pasifika students who wanted to succeed and the Certificate lecturers who wanted success in their teaching. The allies are the Pasifika student liaison team who knew the students and encouraged and supported them. The Pasifika lecturer, who held a PhD, not only understood the cultural backgrounds of her students, but became a role model for them through his own academic qualifications. Another ally was the Programme Leader, along with one of her team members who had expressed concern about Pasifika students’ high failure rates.

Baulcomb (2003) described managing change “as being skilled at creating, acquiring and transferring knowledge to reflect new knowledge and insights” (p. 275). The HSC team would need to have trust in the change agent – the Equity Coordinator – in order for this new knowledge to be accepted, for insights to be gained, and to maintain the balance of power.

**EPB STEP 4: Practice and evaluation**

As the trial intervention proved to increase successful completion rates of Pasifika students, additional small learning communities were formed called Pasifika Learning Villages (PLV). In addition to an academic role model, four successful students with A and B grade averages were selected as Pasifika Student Leaders (PSL) to peer mentor the students, with academic staff advising on the Health Science Certificate (HSC) paper content, in particular Human Structure Function (HSF).
Pasifika Learning Village

The Pasifika learning village is the Pasifika adaptation of Tinto’s (1997) creation of a learning community developed for minority students attending American institutions (Freeman, Alston, & Winborne, 2008). In the initial project document, the learning villages were a “formation of small groups of mainly first year students who become a community within the larger university community” (Tuigamala, 2007, p. 3). Tinto (1993, 1997) regarded classrooms as communities that are central to any student’s learning within any tertiary institution. Essentially, this environment should be stimulating and motivating to attract students’ interest so that they can engage effectively in their learning whilst successfully completing their course or programmes of study. The strength of the model lies within the employment of the PSL, the collaborative work, dedication and commitment of the faculty, academic and pastoral staff. Within the PLV, there was academic advice offered for the major papers Human Anatomy and Physiology (HAP) which had high failure rates over the previous few years. An evaluation of the PLV showed success in that FHES Pasifika completion rate was 70% compared to only 68% of the overall AUT Pasifika completion rates (Auckland University of Technology, 2012).

Beneficial Factors

Pasifika Student Leaders (PSL)

The successful implementation of the PLV model was due to it being driven by Pasifika academics and Pasifika student leaders (PSL). It drew on the skills and abilities of the students. The faculty provided the necessary resources. It promoted informal and peer learning that proved successful in similar situations (Smith, 2001,
as cited in Zhao & Kuh, 2004). The official adoption of the small learning community in Semester 2 2008, included the following:

- Integrated Equity structure and allocated SSG funding to support a learning community into a Pasifika Learning Village and at the same time educate FHES staff of the cultural differences and academic needs of Pasifika students.
- A Pasifika Senior Lecturer of Te Tari Awhina, the Learning Development Centre, taught Pasifika students the academic skills of essay writing, process and structure; critical thinking; literature review, and the American Psychological Association (APA) system of referencing as basic skills of engaging in an assessment task for a paper.
- Assigned an allocated fono (extended family or group) room learning space for Pasifika students with a full kitchenette and computers to establish a base for the learning communities.
- Continued close collaboration between the pastoral and academic support to follow up with students not attending classes and/or those missing assessment deadlines. Feedback was diverted back to the faculty.
- Initially, four students were financially supported at six hours per week. PSL work to bridge the gap within the faculty around the low number of Pasifika academic staff. In 2010 Pasifika academic staff comprised only nine (2%) of the total 442 FHES staff (Table 5). Selection of champion students from within the core papers is imperative in transferring their knowledge to bridge the first year experience Pasifika students in the learning process.
Table 5: Proportion of Pasifika lecturers within AUT faculties, 2010

<table>
<thead>
<tr>
<th>Faculty</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>FHES Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Humanities</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Business &amp; Law</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Corporate Services</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design &amp; Creative Technologies</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Health &amp; Environmental Science</strong></td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>9</td>
<td>442</td>
</tr>
<tr>
<td>PVC Learning &amp; Teaching</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>University Relations &amp; Advancement</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Vice Chancellor's Group</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>University Year Totals</strong></td>
<td>22</td>
<td>26</td>
<td>24</td>
<td>25</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

*Source:* Equity AUT Planning and Directorate Office, Auckland, New Zealand

This project now caters for FHES’s four core-shared pre-requisite papers for the Bachelor of Health Science in the selected areas of Nursing, Physiotherapy, Occupational Therapy, Podiatry, Midwifery, Paramedicine, Oral Health, Psychology, Health Promotion, and Applied Mental Health. Additional student volunteers were given mobile phone top-ups and shuttle bus tickets as required, as the Faculty initially committed to funding only four Pasifika students. In 2011, a further four Pasifika student leaders were employed. Support for two other schools in Sports and Recreation and Applied Science began in 2012 as the PSL’s performance attracted more equity funding to allow for PLV extension to include these two schools. Current progress and success stories from within these papers are yet to be noted.

*Pasifika “Label” for PLV*

Samu (2007) argues that the term “Pasifika” superficially encompasses a multiethnic minority group residing within New Zealand. In retrospect, she claimed that for three
decades, the Ministry of Education used it as a term of convenience. Although the terminology poses a strong political twist (Smith, 1999), it supports a positivist approach because it:

…satisfies both psychological and political needs, in that it helps fulfil a growing demand for respected Pacific-wide identifying symbols and for Pacific unity. The phrase itself is not intended to imply homogeneity – the diverse Pacific nations and peoples that fall under its banner are not all the same. The phrase is developed…in those instances and occasions when the common interest of all the islands peoples can be served by collaboration. Sometimes, the main advantage of a unifying concept is its usefulness in countering forces such as neo-colonialism…assimilation and social/economic/cultural marginalization. (Crocombe, 1976, p.1, as cited in Samu, 2007, p. 145)

The Pasifika label serves the common interests of different Pacific groups that constitute the seven Pacific migrant islands – Samoa, Cook Island Māori, Tonga, Niue, Tuvalu, Tokelau, and Fiji – within Aotearoa New Zealand, as well as the Pasifika demographics of AUT overall. In this context, Pasifika Learning Villages is an apt concept. It has the capacity to sustain the development of Pasifika student academic leadership in forming a community of learners (Tinto, 1993). While engaging students at the allocated fono room/space, they can develop a sense of belonging with other island students symbolising a commonality (Chile, 2003). The space has created meaningful engagements to tālanoa māfana pe ā mālie (talk and warm up; a rapport) so students can share knowledge and pedagogies while adding value to the learning communities in their way of study and critical thinking (Manu’atu, 2009; Zhao & Kuh, 2004).
**Realising Potential in the Pasifika Way**

The label and PLV model employed in the Faculty supports Pasifika staff and students to realise their potential in a Pasifika way. In teaching and mentoring Pasifika students within the social and cultural context of their families and communities, improved quality and excellence of outcomes can be achieved (Arthur, Beecher, Death, Dockett, & Farmer, 2008). Creation of a PLV model fostered professional learning while offering the resources and support needed to make culture more inclusive to inform university pedagogies and curriculum content. The engagement process is vital because in a village, the success of one person can be celebrated together where skills, knowledge, and values are learned together. Sharing learning processes ensures no one person is left behind; hence, the community rather than the individual is important. It provides a student-centred teaching model, driven by peer mentoring and academic advice conducted in the Pasifika way. More important, it complements the overall AUT Strategic Plan (2011) to become the “university of choice” for Pasifika communities that will encourage access, success, and advancement of Pasifika staff and students in a comprehensive learning support system, as evident in these ways (AUT, 2011, p.18).

PLV allow PSL to establish relationships through partnerships with faculty paper leaders with the required assessments so that they are able to assist students in their own way. Smith (1999) described this as a weaving process through the interface of Western and indigenous ways of teaching and learning. The presence of the PSL is dedicated to a learning environment that enhances a culture of academia amongst Pasifika students (Tuigamala, 2007). While peer mentoring, PSL are continually updating their own knowledge content of the subject areas. Three PSL were identified
with the highest overall exam results of three papers with the FHES. Allen and colleagues (2009) argued that, “In order to teach you, I must know you” (p. 1). These discourses in Western pedagogies have added value to both mentor and learner’s learning which have elements of cultural efficacy.

**Culturally-Appropriate Practices**

Scholars have commended New Zealand for integrating culturally-appropriate measures and policies when dealing with diverse ethnic patients (McKinney & Smith, 2005), however, such integration has been less rigorous in creating similar measures for ethnic students in the Health Sciences. Culturally appropriate considerations have just come into vogue due to many factors such as recognition of indigenous rights and, more importantly, understanding that Western ways of teaching and learning not only reinforces colonial imprints but to a great extent creates dilemmas for minority students. PSL and the Equity Academic Pasifika staff teach study skills in ways they know students would understand either through background, cultural experiences, or through their own vernacular. As well as study skills such as APA referencing, and literature review skills, they were involved in supporting students with the content, structure and critical thinking required for successful completion of work.

PSL transfer content knowledge to students through tālanoa, (to tell stories or conversation) similar to Thaman’s (1995) kākala method from a Samoan and Tongan context (Vaioleti, 2006). Tālanoa in the learning villages allowed PSL to teach, converse and provide relevant dialogues or narratives or stories used as analogical exemplars of broader western concepts by conceptualising them with Pasifika examples. Tālanoa is sometimes conducted in the students’ vernacular among
themselves to communicate concepts effectively that are relevant to them but at the same time deliver the subject content in the fono room. Relevance is the key (Siamomua, 2006), so tālanoa is sometimes married with mock tests, a Western method to ensure that students can cope in an exam setting prior to the actual exam. Thaman (1995) asserts that appropriate ethnic learning of ako (to learn) should be internalised to cater for diverse students, including Pasifika groups, because it empowers students to take ownership of their own learning.

According to Mendez (2011), engagement of multicultural students should not be taught by asking them to debate or critique because it has an “oppositional” twist which implies to “prove the other wrong” (p. 243). Rather, it is suggested that engaging them in dialogues, like tālanoa, emphasises:

…listening to deepen understanding and it invites discovery.
It develops common values and allows participants to express their own interests. It expects that participants will grow in understanding and may decide to act together with common goals. In dialogue, participants can question and re-evaluate their assumptions…through this process, people are learning to work together. (p. 243)

Having PSLs to navigate this dialogue is a quest towards a culturally responsive pedagogy within the learning classroom to involve all members, regardless of their cultural identity (Baskerville, 2008). From a Samoan perspective, this is known as the fa’afaletui (Tamasese, Parsons, Sullivan, & Waldegrave, 2010, p. 11). Fa’afaletui is a fono or meeting process where everyone is expected to participate in a particular topic of discussion, held in a tālanoa fashion. This method is guided by the underpinning notion of the relationships or vā fealoa ʻi concept with regards to respect and directed in a face-to-face manner, which means building trust relationships (tauhi vā). PSL
sometimes uses cultural analogies to bring health science concepts from an abstract notion into a concrete form to deepen understanding. This process can help improve the quality and excellence of academic outcomes.

This diverse approach to teaching also creates an enriching learning environment for Pasifika students as they are taught to respect their elders and teachers, allowing them to participate in critically reviewing works without challenging their own values and beliefs. According to Mendez (2011), such a process can challenge the status quo of university institutions by creating an alternative to the one-way process of lecturing, thereby allowing for greater exchange and reciprocity of ideas within a classroom or Pasifika Learning Village.

These methods also highlight the notion of relationship as a critical factor in teaching to engage Pasifika students within the created space (Hawk, Tumama Cowley, Hill, & Sutherland, 2001). With the aid of PSL, relationship building manifests at three levels:

- Between the PSL and the Faculty academia
- PSL as peer tutor and Pasifika students as learners who consider the PSL as a role model
- The collaborative relationship between the academic and pastoral support staff to cater to Pasifika students’ peripheral needs (Figures 1 and 2)

These strengths are also articulated in Wilson, Hunt, Richardson, Phillips, Richardson, and Challies (2011). In all of these cases, each party has to be culturally sensitive and aware of themselves as students, who have knowledge about other
students’ cultures and to utilise relevant and appropriate skills, knowledge, values and resources to bring about a rich and meaningful teaching and learning environment.

Overall, the PLV Model is beneficial to practitioners. The model has created opportunities for Pasifika students to have a voice and to realise their potential. It identifies curriculum issues to be strengthened. The model is extended to include alumni who help mentor final-year Health Studies students to participate in third-year peer mentoring. In such a case, the role of the PSL allows early engagement with first-year students and walks with them through their journey towards their second and final years of the university, while increasing completion pass rates.

Challenges and Conclusion

Successful completion rates cannot happen in a vacuum. As the PLV model is still in its embryonic stages, it is not without its imperfections as it continues to exist in a monocultural environment. Challenges include Faculty administrative staff who are in the main European and appear not to support the equity model. As PLV sits externally to the Faculty timetable scheduling, the academic support timetables clash with some class lecturers, limiting accessibility for Pasifika students to obtain peer mentoring. Resources to aid PSL also need to be sustained. PSL must develop a balance between academic work and student support to avoid overwork and stress, which could jeopardise the quality of academic performance within their own respective courses. However, this is perceived as a work in progress. There are three succinct lessons learnt from the establishment of the PLV and the integration of PSLs.
First, is that culturally appropriate models initiated by people within a particular social/ethnic grouping are successful because the onus goes back to them to drive and sustain them for the benefit of their own people-- in this context, Pacific students. This is attributed to the transformative and cross-cultural leadership of those in AUT management who are bound by the commitment to Te Tiriti o Waitangi. Second, FHES is committed to taking ownership of the model to create learning opportunities in order to ensure that student potential is realised. This has made a distinct difference to eradicate the reputation Pacific students have earned as low achievers in the New Zealand education system. This is a capacity-building process, which bridges the gap in integrating culturally appropriate methods to teaching and learning of Pasifika students. Finally, the PLV model is the key to success for these particular students’ because of its relevance to their backgrounds. Academic and pastoral sections of the faculty have worked hand in hand to necessitate students’ needs. Pasifika students come with their own baskets of values, beliefs, cultural expectations, and mannerisms that are recognised by the PLV model. AUT’s Pacific Learning Villages provide a model that could serve as a way forward to achieving equitable outcomes in engagement, retention, and qualification completion for Pasifika students in tertiary education.
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Hamilton, New Zealand.


Extreme Science and Engineering:

A Higher Education Widening Participation Initiative at

Queensland University of Technology

Maria Barrett, Les Dawes, Phillipa Perrott, Angela Harper, Collette King

Queensland University of Technology

Queensland, Australia
Abstract

The Queensland University of Technology (QUT) Extreme Science and Engineering programme provides free hands-on workshops to schools. The workshops are presented by scientists and engineers to students in their own classrooms, from Prep to Year 12. The workshops are tied to the school curriculum and give students access to professional quality instruments, helping to stimulate their interest in science and engineering, with the aim of generating a greater up-take of STEM (science, technology, engineering, medicine) related subjects in the senior high school years. In addition to engaging students in activities, workshop presenters act as role models to both genders, helping to break down preconceived ideas of the type of person who becomes a scientist or engineer and to demystify the university experience. QUT’s Extreme Science and Engineering vans have been running for 10 years and as such demonstrate a sustainable and reproducible model for engagement with schools. With funding provided through QUT’s Widening Participation Equity initiative (funded by Higher Education Participation and Partnerships Program, or HEPPP), the vans, which once averaged 120 school visits annually, increased to 150+ visits in 2010. Additionally, in 2011 more than 100 workshops (hands-on and career focused) have been presented on three QUT campuses to students from low socio-economic schools. While this is designed as a long-term initiative, the short term results have been promising, with 3000 students attending the workshops in the first six months of 2011. Feedback from teachers and students has been overwhelmingly positive.

Keywords: widening participation, engineering, science
Queensland University of Technology (QUT) has a long history in improving access, participation and retention in higher education for disadvantaged groups. This includes indigenous, low socio-economic status (SES), and other under-represented groups. In 2010, following recommendations of the Bradley Review, funding was provided by the federal government under the Higher Education Participation and Partnerships Program (HEPPP) to the higher education sector to work in partnership with schools to improve access and participation in higher education amongst disadvantaged students. The introduction of HEPPP has supported a significant lift in the scale and innovation of outreach activities including those undertaken at QUT.

To give a sense of scale, in the first year of implementing the programme in low-income schools, QUT’s Extreme Science and Engineering programmes have engaged with over 9,500 students in schools, and over 5,500 students on campus. In addition to supporting this federal government programme, the Extreme Science and Engineering programme is integral to stimulating demand for tertiary study, as aligned with the QUT blueprint and the Stimulating Demand component of the QUT Widening Participation Strategy, as shown in Figure 1.
Figure 1. QUT Widening Participation strategy.

The key to this strategy is the building of awareness, aspiration, affordability, achievement, and access to break down barriers to enrolment in higher education for disadvantaged students.

QUT’s Widening Participation Strategy

The University’s main strategy for increasing its low-SES enrolments is to stimulate demand for tertiary study amongst potential student groups (school-age and mature).

The schools-based strategy focuses on learning partnership activities from middle school through to senior school, concentrating on a cluster of schools through the Northern corridor of Brisbane to Caboolture. It should be noted that QUT does have a campus at Caboolture, which offers courses in nursing, education, business, and creative industries.
As part of learning partnerships, there are both on-campus and in-school activities, all of which are designed to normalise and demystify tertiary study and to activate interest in science and engineering disciplines. The Faculties of Science and Technology (FST) and Built Environment and Engineering (BEE) outreach programmes, including the Extreme Science and Extreme Engineering vans (which “deliver” science and engineering workshops and programmes to low SES secondary schools in Queensland), have been highlighted in the University Compact with the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR), and the hands-on elements of these programmes is written as a best practice strategy.

The University’s concentration on 10 low-SES high schools and 24 low-SES primary schools in the target cluster is informed by a state-wide agreement among all Queensland universities and the State Minister of Education. Economies of scale in school outreach are achieved through this Memorandum of Understanding (MOU) by allocating Queensland low SES schools into eight clusters. By this approach, duplication and gaps in outreach activities are eliminated. Within their allocated cluster, each university undertakes an agreed suite of activities designed to stimulate general interest in higher education. Through this approach, universities hope to maximise the number of people interested in tertiary study, regardless of where they decide to enrol.

It is widely recognised that universities can contribute to the tertiary awareness and preparation of students, particularly in middle and senior year levels (Years 6-12),
through four areas of activity to support this Widening Participation initiative (Widening Participation Working Group, 2009):

1. Demystification experiences for first-in-family and/or equity target groups
2. Encouragement and inspiration through role models, mentors, prizes
3. Value-adding to learning and achievement through discipline-specific connections with schools
4. Alternative pathways for admission and scholarships

In 2010, FST and BEE expanded their Extreme programme van capacity to travel to cluster-targeted primary and secondary schools. Taken in conjunction with other programme elements (both in-school, on-campus, and in-community), QUT hopes that each school student in our target schools will engage with at least one university-related experience each year from mid-primary to Year 12, and will have had several interactions with young university students of similar backgrounds during that period.

Apart from the equity focus of the Extreme programmes, the outreach also attempts to address the significant decline in the proportion of students undertaking science subjects in Year 12, as seen in Figure 2 below. Most notable is the decline in students participating in biology, as well as chemistry and physics (Ainley, Kos, & Nicholas, 2008).
Figure 2. Year 12 science participation as a percentage of the total Year 12 cohort in Australian schools, 1976 to 2007 (Ainley et al, 2008).

Engagement Between Schools and Universities: Outreach Programmes

Many Australian universities conduct outreach activities and programmes which make a successful contribution to the goal of increasing the participation of disadvantaged students in higher education. According to Gale, Sellar, Parker, Hattam, Comber, Tranter, and Bills (2010), disadvantaged students comprise about 16% of university enrolments, a level that has remained unchanged for more than a decade. Under the Bradley review, a target of 20% by 2020 has been set. Universities are working to address this through their outreach activities as outlined in the statewide MOU.

Individual university outreach programmes in Australia usually focus on a small group of schools. An extensive review of the literature (Gale et al., 2010) describing current outreach programmes around Australia reported that 39% of these programmes involved more than 20 schools, while 27% involved 6-10 schools. These
programmes are often isolated and difficult to sustain over time and across the higher education sector. There is limited evidence as to which of these interventions work and which can be scaled up to reach larger numbers of students. The QUT Extreme programmes aim to address the need for a broader reach to targeted low-SES schools.

The survey by Gale and colleagues (2010) also found most programmes were focused at Year 10 or above. This is in contrast to additional research showing that decision-making about achievement and aspiration would have been formed well before Year 10 (Adams, Zhang, & Yang, 2011). The DEEWR report supported this research and highlighted that when programmes were started early, ie, at least at upper primary, they would have a more profound effect in raising aspirations among students. QUT is addressing this by presenting programmes to these lower year levels. These targeted programmes aim to improve educational access for those with aspirations in tertiary study in these disadvantaged groups.

**History of the Extreme Science and Engineering programmes**

*Extreme Engineering programme*

Commencing in 2002, the Extreme Engineering programme originally targeted the senior level “Engineering Technology”, as it was seen as an ideal subject for students wishing to undertake an engineering career. The course draws upon the fundamental principles of science and technology, encouraging a positive interest in the translation of theory into practice. Since 2007, the programme has also been used across Years 8 to 12 in science, mathematics, and geography classes. In 2011 seven different student workshops topics were offered to schools - two for primary and five for secondary. More than 3700 students have participated in this programme since 2002.
The Extreme Engineering programme is staffed by trained engineering ambassadors from undergraduate or postgraduate engineering courses. Workshops generally run one to two school periods and are provided free of charge. The programme is designed to engage students, and their teachers, in activities that are part of, or linked to, the work of the engineering team. It demonstrates, in interesting and exciting ways, the value and importance of the work of engineers to people’s everyday lives, and to the environment. The programme provides an appreciation of the excellent career prospects that engineering offers.

Another opportunity offered to high school students by the programme is the engagement of role models (student ambassadors) in discussion about university life, studies of engineering and career prospects. Material left with the teacher includes advanced concepts and extension work that the teacher can engage the class in at a later date. Because the material presented is part of the subject curriculum, no time is lost to the teacher for covering the required material.

**Extreme Science Programme**

The QUT Extreme Science programme was established in 2001 as a community intervention initiative to help address the community’s increasing disengagement with science. The programme was designed to provide highly interactive and relevant cutting-edge science workshops to school students in the classroom and to teachers at professional development conferences. Through these positive experiences, students and teachers become motivated to re-engage in real-world science learning, which in turn leads to more students engaging with the sciences.
The programme has been running for 11 years. In 2011, a total of eight different student workshops topics were offered to schools – six for primary and two for secondary. The programme is usually staffed by postgraduate science students. Staff are selected for their ability to communicate science to all ages. Workshops are usually an hour long and incorporate hands-on workstations using scientific equipment. All workshops are provided to schools free of charge.

The programme started with a small group of “relationship” schools. Since that time the popularity of the programme has grown and in 2009, prior to equity funding, the Extreme Science van staff visited over 890 schools, reaching almost 64,000 students. Many schools have requested the return of the programme year after year and have embedded the Extreme programmes into their science units. Anecdotally, teachers say they have gained confidence in teaching science and have become science champions in their schools. Some resources are currently available and more are under development for teachers to use in creating units of work that support the Extreme Science workshops. The Extreme programmes have largely relied on word-of-mouth recommendations among teachers, who have then contacted QUT to book workshops for their schools.

**Current activities**

*Extreme Science and Engineering Van*

QUT’s Extreme Science and Engineering Van programme offers a wide variety of workshops aligned to the current Queensland STEM curricula, as shown below in Table 1.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Target year group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microscopy</td>
<td>prep 1 2 3 4</td>
</tr>
<tr>
<td>Waterworks</td>
<td>5 6 7 8 9 10</td>
</tr>
<tr>
<td>QUT rocks!</td>
<td>11 12</td>
</tr>
<tr>
<td>Dudesville</td>
<td></td>
</tr>
<tr>
<td>What's in stuff</td>
<td></td>
</tr>
<tr>
<td>Investigating Electrical</td>
<td></td>
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<td>Energy</td>
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<td>Alternative Energy</td>
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<td>Nanotechnology</td>
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<td>Biotechnology</td>
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<td>Water Treatment Plant</td>
<td></td>
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<tr>
<td>Bridges</td>
<td></td>
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<tr>
<td>Moments and couples</td>
<td></td>
</tr>
<tr>
<td>Solar Panels</td>
<td></td>
</tr>
<tr>
<td>Concrete Construction</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Activities offered by the Extreme Science and Engineering programme. Blue denotes Engineering; green denotes Science.

*Extreme Play*

Materials are prepared for each workshop and include scripts and PowerPoint programmes for presenters; teacher, and student instruction books (engineering only); student worksheets; and risk assessments. Instruction books, worksheets, and risk assessments are provided to
teachers upon confirmation of the booking. Activity kits, including equipment and materials for each workshop, are packaged in boxes for easy handling and transportation. A van coordinator is responsible for maintaining the kits in working order, including stocking of consumables. Workshop format consists of the following: an introductory presentation that sets the scene for the hands-on component of the workshop; group-based workstations activities that cater for groups of 2-4, as seen in Figure 3; and culmination of the workshop in a review of activity results.

![Figure 2](image_url)

*Figure 2. A student group is assisted by an engineering student ambassador (left); an Extreme Science ambassador demonstrates an activity to students (right).*

Using the funding from QUT’s Widening Participation programme (HEPPP-funded), the van operation was expanded from three - five days per week for terms 3 and 4 in 2010, the extra days being only available for booking by target schools. A flyer was developed for this purpose and sent to each school, and the QUT Equity section also advertised the programme to guidance officers. An aligned online system for in-school workshop bookings was established.
To cater for the requirements of the QUT’s Widening Participation strategy, priority was given in 2011 to the schools in the target area. The van coordinator emailed schools and teachers to advise of the opening of bookings for the year. A period of two weeks was given before a wider announcement was made to other (non-target) schools. The majority of bookings for 2011 were received and allocated within the first two weeks of these calls.

Explore Uni Programme

QUT’s Widening Participation Explore Uni programme was initiated in 2011. It includes on-campus days for Years 6-12 and residential camps for Years 10-12. The Faculties of Science and Technology (FST) and Built Environment and Engineering (BEE) each provides on-campus, hands-on workshops for these programmes. The focus of these workshops differs from van activities, consisting of 45-60 minute sessions aimed at engaging students in Science, Technology, Engineering and Medicine (STEM) education. Around 50 Explore Uni days were scheduled across QUT’s three campuses in 2011. A suite of year-level appropriate science and engineering workshops was rolled out specifically for this purpose. Upon completion of the project, these workshops may be offered under the Extreme Van programmes.

Other Widening Participation Activities

Technology Challenge Maryborough (11-12 September, 2010): the Extreme Science and Engineering Vans provided hands-on activities to more than 100 students visiting TCM’s Technology Expo during the weekend-long challenge.
Caboolture Science and Engineering Challenge (18 February 2011): this event was an additional QUT Challenge day held at Caboolture campus for local secondary schools. The Science and Engineering Challenge has been hosted by QUT since 2008 and this was the first year it was offered through another campus. Response from Caboolture area schools was tremendous and planning for 2012 has incorporated the additional day at Caboolture.

‘National Week’ programmes: other in-school programmes have being planned to coincide with National ICT Week (secondary school IT workshops), National Science Week (Caboolture Space Night) and National Literacy and Numeracy Week (Maths comedy shows).

Outcomes

There has been significant demand for Extreme workshops from target and other equity schools. In the first full year of availability (July 2010 to June 2011), a total of 365 individual workshops were delivered to target and other equity schools, reaching 9,526 students. This number represented 58% of all van workshops during this period: 40% to target equity schools and 18% to other equity schools. The remaining 42% were workshops to non-equity schools in Brisbane and southeast Queensland.

Such was the response to the 2010 call that all extra Extreme Science van bookings were filled. Uptake of Extreme Engineering bookings was limited as only high school
workshops, catering for select subjects, were available at that stage. However, the
target schools which took up this offer were not representative of the whole cluster,
with only two of the 10 target high schools and just over half of the 24 target primary
schools requesting science workshops for their classes in 2010.

Response to the 2011 van booking call was again mixed despite the preferential call
for bookings. Three of the 10 target high schools and half of the target primary
schools booked workshops for 2011. Three schools which took up the offer in 2010 –
one high school and three primary schools chose not to continue with workshops in
2011. There were however two new high schools and four new primary schools which
took up workshops for the first time in 2011.

Of the equity school workshops, the majority were presented to upper primary school
levels, with Years 4-7 representing 60% of all workshops. Secondary schools
accounted for 13% of all workshops. Figure 4 shows breakdown across all year levels.

![Figure 3](image-url)  
*Figure 3*. Number of students participating in one of the Extreme van programme
activities, July 2010 - June 2011, by year.
The most popular workshop to equity schools was “Microscopy”. It should be noted, however, that this is the only workshop on offer to students from Prep to Year 3.

“Dudesville”, a forensics-based workshop aimed at developing science enquiry skills, was popular with Year 7 classes, whilst other primary workshops that align with specific science curriculum content strands were popular across the broader range of Years 4-7. Upon specific request, some primary school workshops were presented to junior high school classes. Secondary workshops, aimed at senior studies and junior science extension classes, were in least demand, largely due to an already-crowded curriculum. Breakdown of the types of workshops presented in 2010-2011 to equity schools is shown below in Figure 5.

![Figure 4. Number of workshops delivered at schools, July 2010 -June 2011, by workshop.](image-url)
A system for evaluating the Extreme Science and Engineering van workshops was established in September 2010 using Key Survey. Of particular interest was linkage of workshops to current units of study, relevance to curriculum and year level, quality of workshop, workshop materials and presenter. The contact person for each school visit was sent a link to this survey; however the response rate was lower than expected. Of the responses received, the majority rated the overall quality of the workshops as excellent and the positive feedback indicates benefits for all stakeholders.

The QUT Equity section plan to introduce a formalised longitudinal and evidence-based evaluation system in 2012 for the broader Widening Participation programme. Further discussion will need to take place with Equity to ensure the Extreme Vans survey is aligned with this evaluation system and with recommendation 15 of the Inspiring Australia report, “Developing an Evidence Base for Science Engagement” (Department of Innovation, 2011). Benefits of the programme to date include:

- Allowing primary and secondary students and teachers to engage in meaningful dialogue about science literacy with science and engineering professionals
- Enabling students to gain insight into the study and career prospects of science and engineering students at university
- Providing opportunities for teachers to build their confidence in conducting hands-on science activities
- Improving science communications skills
Teachers are expected to be subject experts in order to teach across a broad range of scientific content areas and skills and inspire the scientists and engineers of the future. Through participation in science workshops led by scientists and engineers, and supported by Extreme programme staff, teachers have the opportunity to improve their content and skills knowledge. This will better enable them to be science champions and engage and motivate their students in their study of science and engineering.

The nature of the workshops is designed to bring about lasting attitudinal change by engaging students in science and engineering. Central to the design of the workshops is the provision of opportunities for students to participate in hands-on scientific inquiry. Bringing about change in attitudes towards science and engineering studies and careers through hands-on learning and interactions with professionals is intended to have a lasting effect among school students and it is hoped that it will bring about more attitudinal changes within the school community. This is important to ensure the sustainability of the programme’s aims.

**Future directions and recommendations**

Several more workshops are currently being developed for both the Extreme Science and Extreme Engineering vans, the topics of which have been commonly suggested by teachers, and align with the national curriculum. Other future directions and recommendations include:
• Segregation of in-school and on-campus workshop offerings and experiences to avoid duplication

• Workshop offerings of both vans to be expanded, with an emphasis given to middle school workshop development

• Further investigation to ensure maximum uptake by target schools of the Extreme programmes

• Relationship building with target schools and identification of key contacts to champion the uptake of the Extreme programme in their schools

The sustainability of the Extreme Science and Engineering programme relies on the empowerment of teachers, lasting attitudinal change in schools and continued funding support. There are opportunities to further empower teachers by having QUT scientists, engineers and Extreme programme staff offer teacher professional development workshops that focus on scientific knowledge and skills. It is also possible to use the Extreme programme to direct teachers into pedagogy-based professional development that is carried out by staff in conjunction with the QUT Faculty of Education.
References


Meeting the Needs of Indigenous Students Who Have a Disability

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Abstract

Prior to 2009 Indigenous students who had a disability rarely registered with the Disability Service at Macquarie University, yet this low registration is inconsistent with the higher rates of disability for Indigenous people. Clearly, the traditional service model that relied on students booking appointments to see staff during traditional business hours was simply not working. To better meet the needs of these students, the Disability Service began to operate on an outreach basis, with staff meeting students at their residential accommodation before and after classes. Assessment interviews became conversations over food that were often measured in days, not minutes; and services were built on relationships established over long periods of time that included sharing in graduations and other celebrations. Services expanded to include assistance with travel to and from the campus, travel around the campus, welcome and assistance on arrival, checking that rooms were properly prepared and serviced, and ensuring meals were consistent with the students’ usual diet; and assistance was provided to access medical, transcription, coaching, and financial services. Staff from the Disability Service are now also included in reviewing the academic component of the courses using the feedback they receive from students while staying on campus. The change in service model has resulted in a significant increase in the number of Indigenous students using all the Campus Wellbeing Services, Disability, Welfare and Medical, and students report increased satisfaction with their stay on campus.

Keywords: Indigenous, disability service, assessment, wellbeing, assistance
Macquarie University provides two degree programmes for Indigenous students through distance education. These include three or four block-periods on campus of between 10 and 14 days. Prior to 2009 Indigenous students attending the block component of their degrees rarely used the Counselling, Disability and Welfare (Allied Health) Services.

The Allied Health Services were centrally located on campus and open to all students during normal business hours. The absence of Indigenous students from these services was somewhat paradoxical as Aboriginal and Torres Strait Islander people have up to five times the rate of disability as non-Indigenous people, as well as having a significantly shorter life expectancy.

It was quite evident that a different service model was needed if the Allied Health Services were going to include Indigenous students. An initial check of how the block courses operated showed the Allied Health Services’ opening hours coincided exactly with the time that students were expected to be in class. Consequently, the first changes made to the service were to extend opening hours and to take the service to these students, instead of waiting for them to come to the service. Staff from the Disability Service met with the Indigenous students before and after class in their on-campus accommodation.

Introducing students to the service and learning about their needs over a shared meal became the foundation of the new service model. The most immediate need for several of the students, who had injury or illness, was assistance with on-campus mobility. Macquarie University has a large campus (big enough to warrant its own
postcode), and several students were driving from their accommodation to parking spaces near their classroom.

While this may sound simple enough it does not take into account the Sydney peak-hour traffic which can transform a two-minute trip into a twenty-minute journey. Such travel would need to be undertaken multiple times a day in order to:

- Attend morning class (driving in peak-hour traffic)
- Return to the accommodation for lunch
- Return to campus for afternoon class
- Return to the accommodation for dinner (driving in peak-hour traffic)
- Return to campus to attend evening tutorials
- Return to the accommodation at around 10pm

Mobility to and from lectures had become a frustrating, expensive and time-consuming process. Improving mobility was addressed quickly through the purchase of three electric scooters which were loaned to the students, free of charge, for the duration of their stay on campus. The scooters were small enough to be stored and recharged in the accommodation and have sufficient battery life to last the day. The scooters also enabled students to have access to the nearby Macquarie shopping centre. One scooter has even made the journey to Parramatta football stadium, enabling the rider to watch a league game using a combination of scooter power and public transport.

The scooters were a practical and visible sign of how the Allied Health Services could help Indigenous students. This initiative led to other simple requests by students such
as ground floor, accessible accommodation for students with limited mobility; fridges in the rooms of students requiring medication that required refrigeration; and assignment extensions for students whose studies had been delayed by illness. Such requests were reasonable and easily met.

Over time the number of student requests grew. Students began to access other services on campus, particularly medical welfare services. Indigenous students also began to disclose if they had a print disability and were then linked with transcription services. Low socio-economic (SES) students also began to access financial assistance through Macquarie University’s Loans and Grants Committee, which can provide low SES students with resources necessary to purchase a new laptop and/or textbooks, or to cover other study related costs.

Now, many of the Indigenous students attending the campus for their residential courses use Allied Health Services and those students who have used the services will likely help new students secure the assistance they need to achieve at Macquarie University. Indigenous students are now more forthcoming in requesting assistance. Staff from the Disability Service work closely with staff from Accommodation Services to help ensure students’ needs are met both before they arrive and during their stay on campus. Services provided include storage for the scooters, fridges, food, en suite accommodation for students with diabetes, assistance with medication and liaising with doctors, and accessible accommodation for students with limited mobility.
Disability Service staff are now present in the evening when students first arrive at their accommodation and assist both students registered with the service and new students with their accommodation. The same staff also attend all campus functions involving Indigenous students.

The change in the number of Indigenous students registering with the service has been significant, from zero to up to 10% of Indigenous students attending the on-campus residential sessions. From the modest start with a single scooter, there are now five scooters. It is expected that this number will continue to grow, since the scooters are used by all students (not just Indigenous) with limited mobility.

The positive change in service delivery and the increased engagement of Indigenous students with Allied Health Services has occurred gradually over a 12-month period. During this time, actions of the staff themselves have changed significantly:

- Staff have left their offices and had personal interaction with Indigenous students
- Assessments are now undertaken as “yarns” over breakfast or dinner
- Services begin before Indigenous students arrive on campus and continue after they leave
- Services are almost always delivered outside normal business hours

Through this changed service model Allied Health Services staff have also built strong relationships with the Accommodation Services staff and those involved with providing degree programmes for Indigenous students. These strengthened relationships have benefitted other students, Indigenous and non-Indigenous, and
heightened the visibility and reputation of Allied Health Services. This enhanced profile has led to more referrals. There has been little or no cost to this change in service model and the results speak for themselves.
Articulating Course Inherent Requirements:

Risk and Response at the University of Western Sydney

Trevor Allan, Amanda Johnson, Kirrilee Phillips, Toni Azzopardi,
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Abstract

Inherent requirements (IRs) for courses have been a key concept in determining reasonable adjustments for students with disabilities under Australia’s disability discrimination legislation for many years. They are sometimes referred to as core requirements, essential requirements or elements, or technical standards. The University of Western Sydney (UWS) has adopted the term “inherent requirements” to more closely align with the legislative terminology and common usage within the Australian disability and education sectors. In Australia, IRs became even more critical after the introduction of the Disability Standards for Education in 2005 and the 2009 amendments to the Disability Discrimination Act. IRs are one of the few constraints on a university’s obligation to provide adjustments for students with disabilities (SWD), a critical element in determining whether an adjustment is reasonable and fundamental to the preservation of the academic integrity of the university’s teaching, learning assessment and accreditation processes. This is particularly relevant in a field such as nursing, where public safety implications come into play through professional and clinical placements. UWS has recognised this risk and has developed an innovative, comprehensive and multi-faceted response, to the point where the articulation of inherent requirements has become a key component in the course and unit approval process across the university.

Keywords: disability, inherent requirements, IRs, core requirements, essential elements, technical standards, course approval, nursing, education, IRONE project, inclusive practice
The Inherent Requirements of Nursing Education (IRONE) project has been a joint initiative of the School of Nursing & Midwifery, the Disability Service and Student Equity. The project aims to develop a process to identify the inherent requirements of their courses, a structure to articulate them, a tool to analyse the capacity to meet inherent requirements at individual and unit level, and a model of the process to inform and enable other areas to develop their own IR statements. These have all been achieved and endorsed by the School, a Reference Group and the Education Committee of Academic Senate. IRs were trialled in the 2011 spring semester. Concurrently, the Education Committee has determined that all courses at UWS should have inherent requirements articulated in the course and unit approval process, policies have been revised and the process of rolling out IRs across the university has begun.

Inherent requirements for courses have for many years been a key concept in determining reasonable adjustments for students with disabilities under Australia’s disability discrimination legislation. They are sometimes referred to as core requirements, essential requirements (or essential elements) or technical standards. UWS has chosen to adopt the term “inherent requirements” to more closely align with the legislative terminology and common usage within the sector in the Australian disability and education contexts. In Australia, IRs became even more critical after the introduction of the Disability Standards for Education in 2005 and the 2009 amendments to the Disability Discrimination Act.
IRs are one of the few constraints on a university’s obligation to provide adjustments for students with disabilities (SWD), a critical element in determining whether an adjustment is reasonable and fundamental to the preservation of the academic integrity of the university’s teaching, learning assessment and accreditation processes.

It is important to note that, while disability discrimination legislation provides the legal imperative for developing IRs, they apply to all students, not just students with disabilities.

Although most academic areas know what course requirements are compulsory, traditional or desirable, very few have clearly and comprehensively articulated those that are inherent. Even fewer have articulated why the requirements are inherent and the characteristics of adjustments that would not compromise the academic integrity of their courses and accreditation. This leaves the universities at risk of successful litigation by students with disabilities and others, who may experience disadvantage as a consequence. It also makes the process of determining which adjustments are reasonable or more difficult, since a key factor in the decision-making process is missing. This is particularly relevant in fields such as nursing, which has public safety implications through professional and clinical placements.

UWS has recognised this risk and has developed an innovative, comprehensive, and multi-faceted response to address the risk over time, to the point where the articulation of inherent requirements has become a key component in the course and unit approval process across the university. This paper will examine the legal and pedagogical imperative for developing the inherent requirements of courses, outline
the strategies adopted by UWS to address the issues raised and examine some of those issues.

**Legislative Background**

Inherent requirements have existed as a legal concept since the introduction of the Disability Discrimination Act (DDA) in 1992. Although more commonly applied in the employment context, it has equal application in the education context, especially in higher education, where graduation means the university certifying that successful graduates have met entry, course and professional registration requirements. Many courses also have course accreditation requirements imposed by external bodies, such as the Australian Health Practitioner Regulation Agency (AHPRA), which constrain course content and practice.

In Australia, IRs became even more critical in the education sector after the introduction in 2005 of the Disability Standards for Education (subsequently referred to as “the Standards”) (Australian Government Comlaw, 2005) and the 2009 amendments to the Disability Discrimination Act. The Disability Standards for Education (Australian Government Comlaw, 2009) more clearly articulated the role of IRs in determining reasonable adjustments and maintaining academic integrity. In Section 3.4, Subsection 3 the Standards state:

> In assessing whether an adjustment to the course or program in which the student is enrolled, or proposes to be enrolled, is reasonable, the provider is entitled to maintain the academic requirements of the course or program, and other requirements or components that are inherent in or essential to its nature. Note: in providing for students with disabilities, a provider may continue to ensure the integrity of its courses or programs and assessment requirements and processes, so that those on whom it confers an award can present themselves as having the appropriate
knowledge, experience and expertise implicit in the holding of that particular award. (Australian Government Comlaw, 2005)

IRs are a critical component in determining whether proposed adjustments are reasonable. Although the Standards do not require the educational institution to compromise the “integrity of its courses or programs and assessment requirements and processes” (Australian Government Comlaw, 2008) many universities have not yet clearly articulated the inherent requirements of their courses. This has produced a climate where IRs are frequently ignored and often confused with compulsory components, and it has increased the time, conflict, and difficulties associated with determining reasonable adjustments. In too many cases, the absence of IRs has contributed to compromising the academic integrity of the courses and accreditations by inappropriately passing and progressing students who have not met the fundamental requirements of the course.

In 2009 the Disability Discrimination and other Human Rights Legislation Amendment Act No. 70 introduced several amendments to the DDA which significantly increased the risks associated with not having clear, comprehensive inherent requirements articulated for courses (Australian Government Comlaw, 2008). Three of those changes, in particular, impact on the risk for education providers.

The first change includes behaviour caused by a disability as part of the definition of a disability. While it does not remove the right to manage behaviour that impacts adversely on the health, safety, or wellbeing of the student or others, it now emphasises the need to have a clear justification of the reasons why particular behaviours may not be able to be accepted.
Secondly, the amendments place an obligation on education providers to take proactive steps to prevent discrimination occurring. Education providers can no longer just be reactive, but must try to identify potential discriminatory issues and take steps to prevent them occurring.

Finally, the burden of proof has shifted from the person making the complaint to the person or institution the complaint is about. Instead of the student having to prove that discrimination occurred, the educational institution has to prove that it didn’t. That is much harder to prove and requires evidence, such as records, notes, and policies, which substantiate the educational institution’s defence against a claim of discrimination. Without such evidence, the educational institution is at risk of an adverse finding because of the much higher burden of proof now required (Australian Government Comlaw, 2009).

The strategies adopted by UWS are designed to more effectively mitigate these risks as well as enhance access to and participation in learning, support inclusive pedagogy and maintain the academic integrity of courses.

Overview of Inherent Requirements

One of the difficulties associated with dealing with IRs is a general lack of understanding of the nature of inherency, particularly the distinction between course components that have been made compulsory and requirements that are inherent or essential. The legislation does not define IRs, and a comprehensive literature search undertaken by the IRONE project team did not identify a suitable definition that supported the legislation. Consequently, the UWS Academic Senate Education
Committee adopted the following definition in support of consistent practice across the university:

Inherent Requirements are the fundamental components of a course or unit, that are essential to demonstrate the capabilities, knowledge and skills to achieve the core learning outcomes of the course or unit, while preserving the academic integrity of the University’s learning, assessment and accreditation processes. Note: making a requirement compulsory does not necessarily make it an inherent requirement. (University of Western Sydney Inherent Requirements Working Party, 2010).

The following example may assist in the understanding of the nature of inherent requirements, particularly the differences between inherent and compulsory requirements. One inherent requirement for a nursing unit may be to demonstrate the ability to accurately measure the blood pressure of a patient. Traditionally, this has meant the use of a stethoscope, but a student with a hearing impairment may need to use a powered stethoscope, or an automatic blood pressure meter that does not require the use of a stethoscope, to meet this IR. Another student with quadriplegia may be able to demonstrate the necessary knowledge of how to measure blood pressure but does not have the physical capability to conduct the test, and consequently cannot meet this inherent requirement. However, this same student may be able to meet an inherent requirement of a biology course that requires students to analyse the blood pressure readings of a number of patients, by instructing an assistant to measure the blood pressure of patients, then conducting an appropriate analysis of the results and using voice recognition software to dictate the analysis into a computer. So what is inherent in one course may not be inherent in another. Nursing is particularly challenging, due to the equal significance of both theory and clinical practice.
The Importance of Inherent Requirements

Inherent requirements need to be clearly and comprehensively articulated and published so they are embedded in the decision-making process. This embedding must occur in order to facilitate informed decision-making by prospective and current students and staff; to promote inclusion for disadvantaged and under-represented groups into higher education; to determine reasonable adjustments; and to preserve academic integrity.

Primarily, IRs facilitate informed decision-making by staff and students, including prospective students, on which courses and units to pursue. It is potentially discriminatory to enrol a student in a course or unit that they will never be able to complete because they are unable to meet the inherent requirements. It is therefore vital to advise students of all course or unit requirements before they enrol.

IRs are also critical factors in the process of determining reasonable adjustments under the DDA and the Standards. If clear and comprehensive IRs are not articulated, it is much more difficult, time-consuming, and problematic to determine whether adjustments are reasonable and appropriate.

For example, many adjustments for the effects of disabilities recognise that certain processes may be more time-consuming for disabled students than for able-bodied students. Some course requirements may specify that certain tasks must be performed within a particular time frame, but if it is unknown whether that timeframe is inherent (eg, because of patient safety) or arbitrary (such as conforming to administrative
deadlines) then it may be difficult to determine whether the time-based adjustment is reasonable.

IRs clarify such distinctions, determining whether a task needs to be performed within a particular time frame and, if so, why an adjustment is required. The legislation allows for education providers to ensure that adjustments do not compromise the “integrity of its courses or programs and assessment requirements and processes” (Australian Government Comlaw, 2005). It is one of the few restraints on our obligations to provide adjustments for the effects of a disability.

Significantly, IRs are integral to the process of maintaining academic integrity. Without knowing what the inherent requirements are, students may be inappropriately accommodated, by either having inherent requirements waived or accommodated in ways that do not meet inherency. Conversely, they may be inappropriately excluded or disadvantaged by assumptions about what must be met or what adjustments are appropriate.

The establishment of clearly and comprehensively articulated IRs also allows for adjustments to be determined in a timely manner. Most Disability Advisors regularly deal with inherent requirements, particularly when academics object to adjustments affecting their compulsory requirements. It often takes a great deal of time to determine what is inherent and what is merely compulsory, traditional or desirable. The inclusion of IRs facilitates more informed and effective communication between all parties. Finally, IRs are powerful tools for building confidence in the reasonable
adjustment process and rationale for students, academics and disability staff, ensuring a rigorous, systematic, and professional approach.

UWS Strategies

The IRONE Project

As a mechanism for managing the risks associated with the lack of clearly articulated and justified IRs, a joint project between the School of Nursing and Midwifery (SoNM), the Disability Service and Student Equity was established in 2010 to develop IRs for the Bachelor of Nursing course and to establish a framework for articulation of IRs. Concurrently, a model was developed to support the construction of IRs in other disciplines across the university, as a means of promoting best practice. Several factors provided the impetus for establishing the IRONE project.

As noted previously, the 2009 amendments to the DDA increased the risk of successful litigation against the university. As well, both the SoNM and the Disability Service identified the need to rectify the lack of clear IRs, especially after questions were raised about their own capacity to meet inherent requirements, particularly of clinical placements. A project team was established to develop the inherent requirements for SoNM courses that could be used as a model for best practice. The IRs for the Bachelor of Nursing (BN) courses were completed by the end of June 2011 and implemented in the 2011 spring session. The project team comprised a diverse range of academic, disability, and clinical expertise to ensure a holistic approach to the articulation and development of the inherent requirement statements.
Model for IR Development

The IR development model presented below in Figure 1 outlines the conceptual processes the IRONE team engaged in while developing the inherent requirement statements.

![Model for Inherent Requirements Development](image)

*Figure 1. IRONE Project IRs Development Model.*

The model articulates the processes that other colleagues must participate in to develop inherent requirement statements relevant to their discipline and courses. Adherence to the model is seen as a means of promoting best practice in IR development across the university and its disciplines. Detailed discussion of the phases and the processes is not appropriate for this paper but is part of the comprehensive resource package developed by the IRONE project and is available on request (email Kirrilee Phillips, Inherent Requirements Project Officer:[inherentrequirements@lists.uws.edu.au](mailto:inherentrequirements@lists.uws.edu.au)). However, it is important to note that
Articulating Course Inherent Requirements: Risk and Response at the University of Western Sydney

curriculum mapping and engaging with all phases and their processes is a vital part in developing robust inherent requirements.

While it may be tempting to simply adopt the IRs of another course or unit, that may produce inappropriate IRs and will not develop the necessary understanding of inherency with its associated capacity to explain and defend that inherency (in court, if necessary). In addition, the academics involved in the IRONE project all commented on the benefits of the process to their pedagogy, their understanding of what they were teaching and assessing, and the reasons why they were important. It also enhanced their understanding of disabilities, reasonable adjustments and their legislative obligations.

From a disability practitioner’s perspective, the process generated a much better understanding of academic and clinical requirements, as well as methodology, while building strong working relationships with academic staff. Without the shared understanding and pedagogical rigour generated by the process and implemented into the course, the danger is that IRs simply become another set of arbitrary rules that are not properly understood and may be inappropriately applied.
Inherent Requirements Statements Framework

As shown below in Figure 2 the inherent requirement statements were framed to consist of five levels.

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<tbody>
<tr>
<td>1</td>
<td>Introductory statement</td>
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<tr>
<td>2</td>
<td>Describes the requirement</td>
</tr>
<tr>
<td>3</td>
<td>Provides the justification for why it is inherent</td>
</tr>
<tr>
<td>4</td>
<td>States the characteristics of the reasonable adjustments</td>
</tr>
<tr>
<td>5</td>
<td>Provides exemplars to assist with understanding from both an academic course and clinical perspective, when necessary</td>
</tr>
</tbody>
</table>

The project team believed this framework assisted in communicating the understanding of the BN course inherent requirements. In our comprehensive literature and web searches in Australia and internationally, we were unable to find any IRs (or their equivalents) that did anything other than state the requirements. Frequently read like a list of competencies or tasks. Where the IRONE project approach differs from other approaches to IRs is in the Level 3 and Level 4 sections, which articulate the justification of inherency and the characteristics of reasonable adjustments necessary to meet the inherent requirements. This was considered to be fundamental in achieving a shared understanding of what is inherent in a course. The project team also felt that the framework helped to make explicit the difference between what is often deemed a compulsory and an inherent course requirement. The framework has also assisted in the determination of the characteristics of reasonable
adjustments to aid implementation at the course/unit level in discussions held between students, disability advisors and academic staff.

Why this approach?

As detailed below, there are a number of reasons why this particular approach to developing and implementing IRs has been utilised at the University of Western Sydney:

**Justification**: previous approaches have simply stated requirements, without justifying inherency or considering the nature of appropriate adjustments. The IRONE team discussed, argued long, and sometimes loudly, about whether or not a particular requirement was inherent. Some were added, then changed or discarded. A key part of this process was the justification of inherency. This made the process of determining inherency much more rigorous, and allowed for the justification to be done systematically and thoroughly. Once the project team was satisfied with the Bachelor of Nursing IR’s (version 14), they were distributed to a Reference Group of internal and external nursing and disability experts who strongly endorsed the framework and content.

**Clarification**: as the UWS definition for IRs notes, making a requirement compulsory does not necessarily make it inherent. The academic areas can choose to make virtually anything compulsory but unless it has that fundamental or core justification, it cannot be deemed inherent (which by definition legally requires all students to comply). By requiring a clear, legally valid justification for making a requirement inherent, the process significantly reduces the risk of inadvertent discrimination by imposing requirements, however desirable, and inappropriately calling them inherent.
Risk of discrimination: without a clear, rigorously-determined articulation of inherent requirements, discrimination may occur where SWD are inappropriately required to meet obligations that are not inherent. Students may therefore be denied access, success or progression and will be unfairly placed at a disadvantage. Conversely, some students may be given an unfair advantage or inappropriate accreditation by not having to meet requirements that are, in fact, inherent. This may occur because staff feel they must accommodate SWD even though the adjustments may not be reasonable. On the other hand, this may compromise the capacity to demonstrate that they meet the inherent requirement and, therefore, undermine the integrity of the teaching, assessment, and accreditation process.

Determination of adjustments: the process of determining whether adjustments are reasonable inevitably entails inherent requirements. When IRs have not been articulated, Disability Advisors are unable to use them in the process of determining appropriate adjustments. As a result, academics have less confidence and certainty about whether adjustments are appropriate, or whether they compromise the integrity of the teaching and learning process and the assessment of the student's mastery. This can lead to robust discussions, potential delay or denial of reasonable adjustments, or the granting of unreasonable adjustments that compromise academic integrity. What eventuated was a comprehensive, thoroughly developed and clearly articulated set of IRs that distinguishes between compulsory and inherent and provides a rigorous and consistent mechanism to determine whether adjustments are reasonable.
**Domains**

As the inherent requirement statements were conceptualised and developed, the literature reviewed and the project member’s experiences shared, a series of areas or points of focus emerged. These statements were clustered under eight domains:

- Ethical Behaviour
- Behavioural Stability
- Legal
- Communication
- Cognition
- Sensory Abilities
- Strength and Mobility
- Sustainable Performance

A detailed examination of the domains is not appropriate to this paper but is available through the resource package.

By providing a structure to articulate and inform the decision-making process, the IR assessment tool not only ensures a clear, consistent and robust approach to determining reasonable adjustments and the capacity of SWD to meet inherent requirements, but also mitigates risk by having a clear and defensible documentation that demonstrates the rigour and integrity of the decision-making process. This can be invaluable in defending the university's position against disputes, complaints and litigation. This tool also provides a much more effective means of providing explanations, advice, and records to students.
**UWS Responses**

In the university-wide context, a number of responses to support the roll-out of IRs have been developed. Concurrent with the IRONE project, IRONE team members were working with the Academic Senate Education Committee and other academic committees and staff. Initially, an inherent requirements briefing paper was presented to the Education Committee. This document also detailed the legislation and associated risks relating to the lack of clearly articulated IRs, at an institutional level.

The Education Committee decided that, as an educational and risk management strategy, it was advisable to articulate inherent requirements across all courses at UWS. A sub-committee, including three members of the IRONE project team, was formed to review a range of policies and recommend any necessary changes, as well as to identify areas of high risk associated with IRs – mostly courses with compulsory practicums, field/clinical or industry placements. That process is now well under way at UWS with inherent requirements already incorporated into a number of policies, including the Course and Units Approval Policy and Disability Policy. Several more course IRs are either in development, are completed or are being implemented. The IR Rollout team (was formed to facilitate the development, review and implementation of IRs, develop resources, and provide training. The team:

- Conducted an extensive education and awareness programme, with internal conference presentations, articles in UWS publications and presentations to UWS committees, Colleges, Schools and Departments
- Conducted a number of workshops on IR developments for academic staff
• Negotiated and implemented a communication strategy to advise students and staff of IRs for courses as they are developed (handbook, website, letters of offer, enrolment process)

• Established a web portal to house all the IRs developed and will add new IRs as they are developed

• Reviewed, negotiated and implemented IRs

Given the lead-time for course and unit development and approval, the Courses and Units Approval Policy has already been amended to prepare for the 2013 requirement to include IRs in the approval process. The contract of the IR Project Officer has been extended and the team has developed a range of strategies to assist other areas of UWS to develop their own IRs, including resources, workshops, individual consultations, and review process for draft IRs. Finally, the SoNM is looking to conduct research into the impact, efficacy, and outcomes of incorporating IRs into their courses.

Important Issues

As the IRONE project progressed and the IRs for the Bachelor of Nursing were developed, a number of issues emerged that should be considered as part of the process of developing IRs. Firstly there is a need to remember that the requirements are the course requirements, not those related to employment or professional registration. Those factors may be part of the decision-making process for the student, but if they meet entry requirements and can meet the inherent requirements of the course (with appropriate adjustments if necessary) they should be enrolled and accommodated. A student may be able to meet course requirements but may not be
successful in gaining professional registration or employment. However, where professional accreditation of courses is involved, the requirements of the accrediting body may be inherent to the course. For example, the ANMAC requirement for a minimum of 800 hours of successful clinical placement is an Inherent Requirement of the UWS BN course, since it is necessary to maintain the ANMAC accreditation of the BN course.

The introduction of mandatory reporting requirements under the Australian Health Practitioners Registration Act also has significant implications that are still being worked through. It may be that students are able to meet the course requirements, but due to the nature of their impairment they may not be able to be registered or to practise, or they may have conditions imposed on their registration.

Another significant risk is managing IRs, particularly after the 2009 DDA amendments. Having clear, comprehensive and effective IRs mitigates the risk of successful litigation, provides a defensible documentation of the decision trail and demonstrates a proactive commitment to preventing discrimination while ensuring the quality and integrity of awards and accreditation. Experience with the BN IRs has demonstrated that having IRs facilitates inclusion. For example, the UWS SoNM has allowed part-time clinical placements for some SWD for the first time once it was determined that being able to sustain the quality of performance throughout the shift, whether part-time or full-time, was inherent.

Finally, it was crucial to remember that the process of developing the IRs is almost as important as the outcomes. A genuine shared understanding of the inherent
requirements for each course can only come from the experience, knowledge and justification implicit in the process.

**Conclusion**

The IRONE project, and related strategies and initiatives at UWS, have provided tangible benefits for students, disability staff and academics. They have brought a rigour, consistency and integrity to the process of providing access for SWD and significantly reduced conflict, uncertainty and problems determining and implementing reasonable adjustments. They have proven to be an effective tool for inclusion for SWD, as well as a valid mechanism for determining inappropriate enrolments. Along with their access and pedagogical benefits, they have also been an effective risk management mechanism for the university.

The IRONE team has received positive feedback from many nursing and disability professionals, as well as academics involved in IR workshops and training sessions:

- “This project has been an outstanding success. The team has really excelled.” (Professor Rhonda Griffiths, Head, UWS School of Nursing and Midwifery)
- “Thank you for sharing your inherent requirements document. Your organisation has taken essential requirements to a new level! Very professional and well thought-out.” (Nancy Conkin, Colorado Mesa University)
- “I feel so much more confident and competent now.” (Nursing academic, not involved in IRONE project)
The development and implementation of inherent requirements is of fundamental importance to all universities. Indeed, inherent requirements have the potential to be transformational: they have significant pedagogical value, help enhance access and inclusion, provide a robust basis for determining adjustments, inform student choice, and help UWS meet its legal obligations.
Articulating Course Inherent Requirements: Risk and Response at the University of Western Sydney

References


School of Nursing. (2006). *Undergraduate Course Document*. 4642 Bachelor of Nursing School of Nursing, University of Western Sydney, Australia.

University of Western Sydney Inherent Requirements Working Party. (2010). *Report by the inherent requirements working party*. Presented to Academic Senate Education Committee, 7th June, University of Western Sydney, Australia.
Appendix

Example: Inherent Requirements - Verbal Communication

Nursing practice requires effective verbal, non-verbal and written communication skills. As shown in Figure 3 below, Level 1 introduces the need for effective verbal communication in English. Level 2 describes the nature of the tasks to be performed and the knowledge and skills required. Level 3 provides the detailed justification for why this is inherent – communication may be restricted to verbal, and timeliness and interactivity is potentially critical for safety. Level 4 outlines the characteristics of adjustments that would enable the requirement to be met.

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<tr>
<th>Inherent Requirement Statements</th>
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Note that particular adjustments are not specified, since technological changes, the acquisition of new skills or strategies and changes in the impact of the disability may affect potential adjustments. However, any adjustments must facilitate effective, timely, clear, and accurate verbal communication. The examples provided in Figure 3 are neither prescriptive nor comprehensive, but are designed to help with understanding. In general, the IRONE team sought to outline one academic and one clinical exemplar for each inherent requirement statement where possible.

**Inherent Requirements Assessment Tool**

Along with the Domains and the IRs, the project team developed a tool to drill down further into the unit, task and individual disability level to help with the analysis of the interaction of the requirements, the impact of the disability and the potential adjustment strategies to determine the capacity to meet the requirements. The assessment tool is shown in Figure 4 below.
### IR Statement

**Communication Verbal:**

* Able to understand and respond to oral communication accurately

**Reason Why Inherent:**

* Response to Patient care requests is an essential and critical aspect of nursing practice. Nurses must be able to perceive and respond to oral requests, since many patients will not be able to advise nursing staff of their needs in any other way, and a failure to identify the need and act appropriately will frequently compromise the comfort, treatment, recovery and/or safety of the patient. The provision of feedback to patients is often a critical factor in ensuring patients follow through on appropriate instructions to facilitate appropriate behaviours, actions and treatment outcomes.

**Effects of Disability/Potential Adjustments:**

<table>
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<th>Effects:</th>
<th>Slow, slurred speech – Difficult to understand.</th>
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**Potential Adjustments:**

2. Have another person translating speech – takes longer, and translator would need strong Nursing or medical background to ensure correct translation. Prone to delays and potential misunderstandings that could affect patient safety. **Depends on severity of speech impairment**

---

**Skills/ Capabilities Required:**

* Capacity to perceive, understand and respond appropriately to oral requests from patients. Nursing Student acts appropriately and in a timely manner in response to request, including the provision of feedback to patient.

**Figure 4.** Inherent Requirement Assessment Tool example.

Importantly for risk management purposes, the tool also provides a mechanism for clearly documenting the decision trail in making the assessment. The tool allows for the inherent requirement, a description of the tasks to be performed and the justification of inherency to be articulated. Then, in the last column, the effects of the disability are outlined, the range of potential adjustments examined and a decision
made on whether the adjustments would enable the student to meet the inherent requirements.

**Web Portal**

*The Inherent Requirements Web portal* ([http://www.uws.edu.au/ir/inherent_requirements](http://www.uws.edu.au/ir/inherent_requirements)), as shown in Figure 5 below, is a key communication strategy. The portal provides links to all current IRs in operation, along with basic information about IRs and the impact on students. As further IRs are developed, they will be added to the portal with links from course information and the Student Handbook.

*Figure 5. UWS Inherent Requirements Web Portal.*
Figure 6 below is an example of the Bachelor of Nursing IRs. It consists of the introduction, a brief guide on how to use the IRs, a list of the domains and the detailed IRs, internally hyperlinked to the domain headings.

*Figure 6. UWS Inherent Requirements Bachelor of Nursing Web Page.*
IRONE project team

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If you are interested in UWS’s roll out of IRs across other disciplines please contact: Associate Professor Amanda Johnson, UWS Inherent Requirement Strategy Leader on: inherentrequirements@lists.uws.edu.au
Making Women Count: Selected Inter-institutional Gender Equity Statistics

Australia-wide Statistics 1996 – 2010

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New South Wales and Brisbane, Australia
Making Women Count

Selected inter-institutional gender equity statistics
Australia-wide statistics 1996 - 2010

Prepared by Anna King, Macquarie University and Gabrielle O’Brien, QUT
for the 2011 EOPHEA Conference

November 2011
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TABLE 1: SUMMARY OF REPRESENTATIONAL STATISTICS BY INSTITUTION AND GENDER, 1996 AND 2010 194
Abstract

The following graphs and data tables illustrate the changes that have occurred over the past 15 years in the landscape of gender equity in Australian higher education institutions. Collection of this data, which covers the period 1996 to 2010, was undertaken by Queensland University of Technology’s Equity Services Department to track the progress of gender equality towards the first and second Action Plans for Women published by the Australian Vice-Chancellor’s Committee (now Universities Australia). QUT’s tracking of this progress considers trends in five-year periods and has shown painstaking incremental progress towards equitable gender representation in Australian university staffing for academic levels A to D and professional women at Higher Education Worker (HEW) Level 10 and above.

Summary

Given that 15 years of data are now available, it appeared timely to consider the longer-term trends and achievements for both the sector as a whole, and by institution. Although progress has been slow, there have been significant gains made since 1996 (and 2004 in the case of PhDs – earliest data available):

- The representation of women in academia has increased from 32.8% to 42.8% (30.5% increase).
- The representation of women at Level C (Senior Lecturer) has increased from 24.16% to 41.25% (70.7% increase).
- The representation of women at Level D (Associate Professor) and above has increased from 12.95% to 27.29% (110% increase).
- The ratio of women at Level D (Associate Professor) and above compared to all women in academia has increased by 0.24 (from 0.39 to 0.64) compared to a decrease of 0.30 (from 1.30 to 1.27) for men.
- The percentage of academic women who hold a PhD has increased from 45.83% in 2004 to 57.10% in 2010.
- The ratio of the percentage of women who hold a PhD compared to men who hold a PhD has increased from 0.74 in 2004 to 0.82 in 2010.
- The representation of women amongst the professional staff body has increased from 57.55% to 63.70% (10.7% increase).
- The representation of women at Level 10 and above has increased from 29.2% to 44.9% (53.8% increase).
- The ratio of women at Level 10 and above compared to all professional women has increased by 0.20 to 0.71 in 2010 compared to a decrease in the equivalent ratio for men from 1.67 in 1996 to 1.52 in 2010.

The ratio is obtained by dividing the gender representation rate at a particular level or parameter (e.g., PhD holding) by the overall gender representation rate for that group (e.g., all academics). The closer the ratio is to 1.00, the more the gender representation on that parameter reflects the overall representation of the group. A representation ratio exceeding 1.00 indicates over-representation of a group.

This report includes all current Australian higher education institutions from data reported to the Department of Education, Employment and Workplace Relations (DEEWR) and refers to full-time and fractional full-time staff, by full-time equivalent (FTE). It excludes casuals. However, where data were not available from 1996, some institutions have been excluded from graphs which track change. These institutions are: Batchelor Institute of Indigenous Tertiary Education, Bond University, Melbourne College of Divinity, The University of Notre Dame and University of Sunshine Coast. The FTE of staff at these
institutions are included in the Sector total, and the data for these institutions are included where available at Table 1.

Figure 1: Representation of Female Academic Staff 2010
Figure 2: Change in representation of Female Academic Staff from 1996 to 2010

Excludes Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 3: Change in representation of Female Academic Staff at Level C from 1996 to 2010

Excludes Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 4: Change in representation of Senior Academic Female Staff (Level D and Above) from 1996 to 2010

Includes Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 5: Ratio of Female Senior Academic Staff (Level D and above) to all Female Academics, 1996 and 2010

Excludes Batchelor, Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 6: Change in Ratio of Female Academic Staff at Level D and above to all Academic Staff from 1996 to 2010

Excludes Batchelor, Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 7: Ratio of Male Senior Academic Staff (Level D and above) to all Male Academics, 1996 and 2010

Excludes Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 8: Change in ratio of Male Academic Staff at Level D and above to All Male Academic Staff from 1996 to 2010

Excludes Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 9: Change in ratio of Academic Staff at Level D and above to All Academic Staff by gender from 1996 to 2010

Excludes Batchelor, Bond University, Divinity College Melbourne, Notre Dame and University of Sunshine Coast from graph due to no available Figures in 1996. The FTE of staff at these institutions are included in the Sector total.
Figure 10: Ratio of the percentage of all Academics who hold a PhD (Female to Male)
Figure 11: Change in the Ratio of the percentage of all Academics who hold a PhD (Female to Male) from 2004 to 2011

Change in Ratio of Female to Male Academic Staff with a PhD from 2004 to 2011
Figure 12: Representation of Female Professional Staff 2010

Representation of Female Professional Staff 2010

63.70%
Figure 13: Change in representation of Female Professional Staff, 1996 - 2010

Change in Representation of Female Professional Staff, 1996 - 2010

- ACU
- VU
- CDU
- Swinburne
- Edith Cowan
- Flinders
- SCU
- GU
- UWS
- IC
- Charles Darwin
- Deakin
- Adelaide
- Ballarat
- Sydney
- Melbourne
- Murdoch
- Sector
- Monash
- La Trobe
- UWA
- CSU
- Curtin
- T/Man
- Avondale
- UOW
- QUT
- UQ
- Macquarie
- UNSW
- Canberra
- RMIT
- UNE
- UTS
- ANU
- Batchelor
Figure 14: Representation of Female Senior Professional Staff (HEW10 and above) 2010

Excludes Avondale and Divinity College of Melbourne
Figure 15: Change in representation of Female Senior Professional Staff (HEW10 and above) from 1996 to 2010

Excludes Bond, Divinity College of Melbourne, Notre Dame, USC
Figure 16: Ratio of Female Senior Professional Staff (HEW10 and above) 1996 and 2010
Figure 17: Change in Ratio of Female Senior Professional Staff (HEW10 and above) from 1996 to 2010

Change in ratio of Female Senior Professional Staff (HEW10 and above) to % All Female Professional Staff from 1996 to 2010

Excludes Bond, Divinity College of Melbourne, Notre Dame, USC
Figure 18: Ratio of Male Senior Professional Staff (HEW10 and above) 1996 and 2010

Ratio of Male Senior Professional Staff (HEW10 and above) to % All Male Professional Staff, 1996 and 2010

[Bar chart showing the ratio of male senior professional staff (HEW10 and above) to all male professional staff for various institutions in 1996 and 2010.]
Figure 19: Change in Ratio of Male Senior Professional Staff (HEW10 and above) from 1996 to 2010

Change in ratio of Male Senior Professional Staff (HEW10 and above) to % All Male Professional Staff from 1996 to 2010
Figure 20: Change in Ratio of Professional Staff at HEW 10 and Above to All Professional Staff by Gender from 1996 to 2010
Table 1: Summary of representational Statistics by institution and gender, 1996 and 2010

<table>
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<tr>
<th>University</th>
<th>% All Female Professional</th>
<th>% Female Professional Level 10 and above</th>
<th>Ratio of Female Level 10 and above to all female professional</th>
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Batchelor	  
Bond	  
Canberra	  
Charles	  Darwin	  
CQU	  
CSU	  
Curtin	  
Deakin	  
DivColl.Melb	  
Edith	  Cowan	  
Flinders	  
GU	  
JCU	  
La	  Trobe	  
Macquarie	  
Melbourne	  
Monash	  
Murdoch	  
Newcastle	  
Notre	  Dame	  

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UTS	  
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14.1	  
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26.2	  
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%	  
60.1	  
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31.4	  
42.9	  
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42.5	  
42.0	  
42.0	  
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36.3	  
41.2	  
47.7	  
37.3	  
42.2	  
51.9	  
43.0	  
51.9	  
46.3	  
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40.8	  
43.2	  
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8.9	  
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24.2	  

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13.2	  
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31.9	  
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39.7	  
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18.1	  
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21.9	  
15.5	  

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13.0	  

Chng	  

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20.0	  
10.1	  
18.0	  
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Rank	  
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Women Leading Research in Australian Universities: Are We There Yet?

Lynette Browning, Kirrily Thompson and Drew Dawson

Central Queensland University

Queensland, Australia
Abstract

While data on the representation of academic women in Australian universities has been monitored since the mid-1980s, little is known about how their representation has changed since a study undertaken in the mid-2000s (Winchester, Lorenzo, Browning, & Chesterman, 2006). To determine how academic women are currently represented in Australian universities, and particularly in research positions, we examined the most recent comparative data by academic level over time, and in research positions. We found that the increase in representation of women in academic positions in Australian universities was dramatic between 1985 and 2005. It has been slower but consistent since then, to the level where minimal further change is expected as parity has almost been achieved. Women currently hold almost half of the academic research-only positions and a third of deputy vice-chancellor (DVC) roles with responsibility for the research portfolio, while comprising less than a quarter of the professoriate. Although representation has been on an upward trajectory, closer examination of the data indicates that women may be clustered at the lower levels in research-only positions, in the same way as all academic women were clustered at the junior levels almost three decades ago. Our study of women in research is particularly timely as the academic workforce in universities is dominated by baby-boomers who will eventually retire, and women will, therefore, have increased opportunities over the next 10-20 years to take up those positions inevitably vacated by the baby-boomers.

Keywords: academia, research, women, leadership, representation
In an equitable society it is not unreasonable to expect organisations to reflect the composition of the society in which they operate. Around half of the world’s population is female. Just over half of Australia’s population is female (Australian Bureau of Statistics, 2010). In Australian universities, women comprise 43% of academic staff and hold 28% of senior positions (above senior lecturer) (Department of Industry, Innovation, Science, Research, and Tertiary Education (DIISRTE), 2011b).

When data on the gender composition of staff in Australian universities were first published in the mid-1980s, women comprised only 20% of academic staff. At that time, only 6% of senior positions were filled by women. A range of initiatives were put in place in many Australian universities in the mid-1990s to increase the representation of women in senior positions. By the mid-2000s women’s representation had increased significantly. As stated earlier, in 2010 they comprised 43% of academic staff and held 28% of senior positions. The increase in representation of women in academic roles in Australian universities was dramatic between 1985 and 2005. It has been slower but consistent since then, to the level where parity has almost been reached and minimal change is expected in the representation of women academic staff.

The data on representation of academic women have been monitored for the past three decades, in particular by DIISRTE, Universities Australia, and Queensland University of Technology Equity Services. This monitoring has occurred since the implementation of initiatives to increase the representation of women in academia and
to meet government reporting requirements on the gender composition of staff.

However, the data have not been closely examined to determine how representation of academic women has changed since a study undertaken in the mid-2000s (Winchester et al., 2006). Since then, the context in which universities operate has changed with the introduction of the Excellence in Research for Australia Initiative, increased competition for students and staff, and delay in anticipated retirements due to the global financial crisis (Gewin, 2012, p. 233).

To determine how academic women are currently represented in Australian universities we analysed the data collected by DIISRTE (2011a). As in the 2006 paper (Winchester et al.) we examined the statistical data on women’s representation by academic level, and by year. We then analysed the data on academic women’s representation in more detail, specifically in research-only positions and in the role of deputy vice-chancellor (DVC) with responsibility for the research portfolio, to test assumptions that women are still under-represented in research (Bell & Bentley, 2006; Carrington & Pratt, 2003; Hooker, 2004).

We found that women currently hold almost a quarter of the professor and Vice-Chancellor (VC) roles in Australian universities. Women hold almost half of the academic research-only positions and a third of DVC roles with responsibility for the research portfolio. Therefore, it appears the increases in representation of women in academic positions and in research-only positions have translated to increases at the DVC levels at a greater rate than in the professoriate. Of most concern is that representation of women at the most senior level of VC has decreased since the earlier
study (Winchester et al., 2006). The data also show that women comprise almost half of the research-only academic staff in universities while comprising less than a quarter of the professoriate. This signals that women may be clustered at the lower levels in the research area, in the same way academic women in universities were clustered in junior positions three decades ago.

The academic workforce in universities is dominated by baby-boomers who will eventually retire. Replacement of this generation will create increased competition for academic leaders, including in research. Our study of women in research is therefore particularly timely, as women will have increased opportunities over the next 10-20 years to take up those positions inevitably vacated by retiring baby-boomers. To our knowledge, this is the first yearly analysis of data on the representation of women in academia, and specifically in research, since the mid-2000s.

**Background**

*Academic Women in Australian Universities*

Sixty years ago, around 20% of university students were women. When data on gender composition of staff in Australian universities were first published in the mid-1980s, women comprised around 20% of academic staff. At that time, only 6% of senior positions were filled by women. In the mid-1990s, women comprised 34% of academic staff and held 13% of senior positions. During that period, many Australian universities put in place a range of initiatives to increase the representation of women in senior positions. By the mid-2000s women comprised 40% of academic staff and held just over 20% of senior positions. Now, women comprise more than half of all
university students and almost half of all academic staff, and they hold almost 30% of 
senior positions (DIIISRTE, 2011a). As Figure 1 below indicates, the increase in 
representation of women in academic roles in Australian universities was dramatic in 
the two decades after 1985.

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*Figure 1. Percentage female full-time and fractional full-time academic staff in 
Australian universities 1985 to 2011.*

Source: DIIISRTE *Staff: Selected Higher Education Statistics*

Figure 1 shows the change in women's representation in academia from 1985 to 2011. 
During this time, representation of academic women staff almost doubled, and 
representation above senior lecture increased by more than four times. Progress has 
been slower but consistent since around 2004, to the level where parity has almost 
been achieved in the composition of all academic staff, and minimal change is 
expected. The representation of women in higher education has increased to such an 
extent that Norton (2011) recently reported “over the past half century higher
education has been feminised” (p. 13). While this might be true for students, this is not the reality for many academic women. Moreover, this might be different for academic women at senior levels, especially in research.

Senior Women in Academia

It is well known that girls are more likely to finish school than boys and are, therefore, more likely to meet the entry requirements for university. In Australia, women now account for more than half of bachelor and honours completions, and around half of all doctorates by research graduates (DIISRTE, 2011a). Women have been in the majority as both students and staff in many universities in developed countries for some time now, but they have traditionally been under-represented at the senior levels (United Nations Educational, Scientific and Cultural Organisation, 2002). Australian universities have been no different, with women over-represented at the lower end of the academic staff levels while being under-represented at senior levels.

Since the mid-1990s, many Australian universities have had a range of initiatives in place to address the under-representation of women at senior and decision-making levels. In addition to policies on equal opportunity, promotions, and gender representation on decision-making committees, the initiatives have included women-only leadership programmes, professional development, and mentoring designed to support women in applying for academic promotion. Earlier research on the impact of women and leadership programmes in universities found “the evidence supports leadership development programs for women as a contributing factor to the
promotion, retention, and positive changes to the working lives of women staff, and in turn, to the culture of universities” (Browning, 2008, p. 190).

The representation of women in academia has received considerable attention over the past two decades. In 1999, Universities Australia (formerly the Australian Vice-Chancellors’ Committee) committed to their first Action Plan for Women Employed in Australian Universities 1999-2003 (Australian Vice-Chancellors' Committee, 1998). They re-stated that commitment in subsequent plans endorsed in 2006 and 2010. Studies have been undertaken to investigate the position of women in academia (Burton, 1998; Carrington & Pratt, 2003; Castleman, 1995; Chesterman, Ross-Smith, & Peters, 2003; Probert, 2005).

One of the views of many academic women and those working in the area of gender equity in universities has been that women’s lack of progress via the academic promotion process in universities is the result of promotion policies and practices being more favourable to men (Winchester et al., 2006). However, there are in fact good practices generally across the sector in relation to promotion and sound success rates for women who apply (Winchester et al., 2006). There is also evidence that, in contrast to the mid-1990s when promotion for women was constrained at senior lecturer level, moving from senior lecturer to associate professor had become the new barrier for academic women in the mid-2000s.
The pool from which academic staff are mainly recruited are doctoral graduates, and it is at this stage where differences between the participation of women and men in an academic research career becomes apparent. The data available:

negates the inevitability of a simple “supply” or “pipeline” paradigm, suggesting that high levels of participation and success of women at undergraduate and postgraduate levels are not translating at the expected rate into similar patterns of participation and success in research. (Bell & Bentley, 2006, p. 2)

Although graduating at the same rate, women generally start work on lower terms with regard to earnings, employment conditions, and level of appointment (Dever, 2008). While parity has been achieved at junior levels, in most disciplines the representation of women in academic positions declines at senior levels. According to Hooker (2004) “the big gap these days is at the top of the profession, where most of the leadership roles – university professors, the heads of institutes, the leaders of research teams – still belong to men” (p. xii). Although data on women in the professoriate have been tracked and are publicly available, they do not particularly include the representation of women leading research, either in general or by level.

**Method**

To determine whether, and in what ways, academic women are under-represented in Australian universities, we analysed data collected by DIISRTE. Our method centred on the analysis of this secondary data-- the representation of academic women in universities. These data have been collected and made publicly available by DIISRTE and its predecessors since 1985. Australia’s universities report on their gender composition, policies, and practices to the Equal Opportunity for Women in the Workplace Agency and many have received the Employer of Choice for Women
Award. The data released each year by DIISRTE are monitored for gender equity against the *Universities Australia Strategy for Women 2011-2014* (and previous *Action Plans*) by Queensland University of Technology Equity Services, and distributed to equity practitioners through Equal Opportunity Practitioners in Higher Education Australasia (EOPHEA). However, the data have not been analysed to determine how representation has changed since the mid-2000s (when it was reported by Winchester et al., 2006).

Composite gender data on academic staff, by year and by level, are not publicly available so the data were compiled from records of *Staff: Selected Higher Education Statistics Full-time Equivalence (FTE)* available on the DIISRTE website. The percentages of women academic staff were then manually entered into a spreadsheet and plotted onto graphs. As in the previous study (Winchester et al., 2006), we examined the statistical data on women’s representation by academic level to compare the changes, by level, over the years.

We also sought to determine women’s representation in research. Data on DVCs in universities by portfolio (for example academic or research) is not publicly available from the DIISRTE *Staff: Selected Higher Education Statistics*. However, Universities Australia publishes lists of key contacts on their website - for example, for VCs, DVCs and DVCs with responsibility for the academic, corporate, international, and research portfolios. We have been closely monitoring the data on academic women in Australian universities since 1998, and we have been collecting information on DVCs
with responsibility for the research portfolio from 2005. We analysed the data with a focus on understanding women’s representation across the following five areas:

- Percentage female full-time and fractional full-time academic staff in Australian universities by level 1996-2010
- Percentage female full-time and fractional full-time academic staff in Australian universities at senior levels 2005-2010
- Percentage female full-time and fractional full-time DVC: research positions held by women in Australian universities 2005-2012
- Comparison of percentage of selected female full-time and fractional full-time academic research positions held by women in Australian universities 2005-2011
- Comparison of percentage of selected female full-time and fractional full-time academic positions held by women in Australian universities 2005-2011.

**Findings**

*Representation of Academic Women in Australian Universities*

In 2010, women comprised almost 43% of the total number of academic staff in Australian universities and 23% of professors (Level E). Where women’s representation increased most rapidly at senior lecturer level between 1996 and 2004 (Winchester et al., 2006), recent data show that since 2005, representation of women in Australian universities has continued to increase at level D (associate professor) and at level E at a similar rate to Level C (senior lecturer). Figure 2 illustrates the increase in the representation of women academic staff, by level, over 15 years to 2010.
Figure 2. Percentage female full-time and fractional full-time academic staff in Australian universities by level 1996-2010.

Source: DIISRTE Staff: Selected Higher Education Statistics

Representation of Senior Women in Academia

Representation of academic women at Level A reached parity prior to 1996 and has remained fairly consistent over the years. At Level B, the increase in representation of women academic staff has been steady since 2007 and reached 50% in 2009. At Level C the momentum has continued, and in 2010 women’s representation passed 40% for the first time. At the senior levels, the most rapid increase from 2004 was at Level D and in 2009 women’s representation passed 30% for the first time. Progress has been slightly slower at level E but representation has more than doubled since 1996, from 10% to 23% in 2010.
In 1996, women comprised 10% of professors (Level E) in Australian universities. In 2010, they comprised 23% of professors. At that rate it would take another 20 years for women to achieve parity at professor level. In 2010, at the senior management levels, women held 32% of the DVC positions and 17% of the VC roles. However, women held 37% of senior management positions with responsibility for the research portfolio. Therefore, it appears the increases in representation of women in academic positions have translated to increases at the DVC levels at a greater rate than in the professoriate. It is disappointing that the representation of women VCs increased from 5% in 1996 to a peak of 30% in 2004, then decreased to 17% in 2010.

One of the targets in the Second AVCC Action Plan for Women employed in Australian Universities (2006-2010) was “to increase women at Level E from 16% in 2004 to 25% by 2010” (Australian Vice-Chancellors' Committee (AVCC), 2006, p. 2). Although that target was not quite met (23% by 2010), significant progress has been made. Figure 3 below shows the percentage of women at senior levels in Australian universities between 2005 and 2010. One of the most rapid increases the data show is in the proportion of women at the DVC level in universities. From a potential pool of around 23% of women professors, the proportion of women in DVC roles is a surprising 32%. It is also noteworthy that the role of DVC with responsibility for the academic portfolio in universities is currently 47%.
Women Leading Research in Australian Universities: Are We There Yet?

Figure 3. Percentage female full-time and fractional full-time academic staff in Australian universities at senior levels 2005-2010.

Source: DIISRTE Staff: Selected Higher Education Statistics and Universities Australia

Women in Research

There has been a common view held that women are under-represented in research in universities. Figure 4 shows that the representation of women leading the research portfolio in universities has increased almost threefold, from 13% in 2005 to 33% in 2012. The timing may be coincidental, but the now-discarded Research Quality Framework (RQF) was announced in 2004, and the Excellence in Research for Australia (ERA) Initiative was announced in 2008 (these government initiatives are similar to the Research Assessment Exercise in the UK and the Performance Based Research Fund in New Zealand).
The rapid increase in the number of women leading the research portfolio in universities could be attributed to a number of factors, including the introduction of government initiatives designed to assess research quality in universities. One obvious place to look is the potential pipeline for these roles, which starts with doctoral graduates. Women are currently graduating with doctorates at about the same rate as men, and they comprise 43% of academic staff. Of the academic women staff in Australian universities, 61% have doctoral qualifications. But this wasn’t always the case. Figure 5 below shows that the percentage of women academic staff with doctorates has increased steadily while the representation of women in research-only positions has remained relatively stable. In 2011 it was almost 48%. The increase in women with doctorates and, therefore, the pool from which researchers develop, is not matched by similar increases of women in research-only positions.
Given the perception that women are more likely to be in teaching roles than in research, it is surprising that the representation of academic women staff in universities in research-only positions is 43%. Many of the senior roles leading the research portfolio are filled from within the university sector, nationally or internationally, so the potential pool could be women staff in universities. The pipeline for women in senior research positions comes from within the professoriate, and Figure 6 below shows the comparison between representation of women in research-only positions, professors, and leaders of the research portfolio.

*Figure 5.* Comparison of percentage of selected female full-time and fractional full-time academic research positions held by women in Australian universities 2005-2011.

Source: DIISRTE *Staff: Selected Higher Education Statistics* and Universities Australia
This comparison illustrates two significant points. Firstly, the data highlight the situation where women comprise almost half of the research-only academic staff in universities while comprising only a quarter of the professoriate. Unfortunately, data were not publicly available on the gender composition of research-only positions by level. So, although it appeared women’s representation has continued on an upward trajectory, closer examination of the data signals that senior academic women in research may be disproportionately under-represented.

The second significant point is that women leading the research portfolio in universities are over-represented compared to those in the professoriate. The number of women leading the research portfolio has risen at a greater rate than any other role in Australian universities. While the representation of women professors has doubled in the fifteen years from 1996 to 2010, women leading the research portfolio, and who are therefore in a position to influence national policy, has more than doubled in less
than half that amount of time. Hooker’s (2004) observation that the attrition rate of women increases at higher levels still applies, but women leading the research portfolio are increasing at an unprecedented, unexplained, and unexplored rate.

Conclusion

Women now comprise more than half of all university students and nearly half of all academic staff (DIISRTE, 2011a, b). Representation of academic women in Australian universities has continued to increase over the years to the point where parity has almost been achieved in the gender composition of all academic staff. Minimal further change is to be expected.

The data highlight the situation where women comprise almost half of the research-only academic staff in universities but only a quarter of the professoriate. Unfortunately, data are not publicly available on the gender composition of research-only positions by level. So although it appears women’s representation has continued on an upward trajectory, closer examination of the data signals that senior academic women in research are highly likely to be in the minority, particularly if at the current rate it will take another 20 years to achieve parity at the level of professor. This is an area that also needs further attention to confirm whether this is the case, and whether academic women in research should be a focus of attention in universities.

In an equitable society it reasonable to expect organisations to reflect the composition of the society in which they operate. We have identified two areas for further investigation which have the potential to make an important contribution to gender
equity in universities: the rapid rise in the number of women leading the research portfolio in universities; and whether academic women leading research are in the minority. Future research into these two areas may establish whether the women leading the research portfolio in universities are giving up leading research to take on these administrative roles. Furthermore, it may be the case that the women who are leading research in universities are hidden amongst the data on the professoriate. By learning from the women who are in senior research roles, universities will be better placed to support others wishing to take up those positions which will inevitably become available, and therefore increase their representation at the senior levels, at an increased rate in the coming years.
References


Surviving Education: Sexual Minorities and a Queer Way of Thinking

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Abstract

Competence in working with sexual minorities remains an equity issue in higher education. Data suggest that coming out early as a sexual minority is associated with bullying and assault, and with lower levels of educational attainment as sexual minorities select out of education. However, data also show relatively high levels of discrimination reported by those who attain high levels of education. These sexual minority high educational attainers may be appropriately called educational survivors. Teachers, trainers, and social service providers often undertake cultural competence training which teaches cultural literacy and sensitivity. A more appropriate focus may be on epistemological competence, a heuristic which shifts attention from culture to competence, from understanding about to understanding as. It is proposed that there are two key mediators to a queer epistemology: alienation and disclosure. Understanding these two mediators is valuable in teaching and working competently with sexual minorities.

Keywords: sexual minority, educational survivors, queer, epistemology, heuristic
This article addresses equity for sexual minorities in higher education. Whilst on the face of it creating such equity seems reasonably simple, my research has found that it is more complex than first appears. I propose that the differences experienced by sexual minorities are epistemological ones, not the more obvious sexual behaviour ones. Indeed, we can comfortably move the “ languaging” of sexual minorities away from simple genital sexual activity or even romantic relationships to a more epistemological framework. This, in turn, will give those of us in the academy an heuristic to work more competently and equitably with sexual minorities.

Language
First let me explain my own use of the term “sexual minorities”. This is a deliberately vague term that is intended to be as comprehensive as possible. I choose not to use the term “non-heterosexual”, since that implicitly privileges heterosexuality and the male-female binary as both statistically normative and morally normal. “Queer” is too abrasive for some people, and the term has difficult resonances for some sexual minorities of a certain age, although contemporary political usage attempts to reclaim the word. I have an aesthetic problem both with the term “rainbow people” and with using the ever-growing list of acronyms to describe people who have a lived or romantic identity that is other than heterosexual (eg, “LGBTITITFFQQ…”). I will, however, occasionally use the acronym “LGB” when referring to self-identified lesbian, gay, and bisexual people. However, we are more than an alphabetical people, and even as such lists become longer and longer in an attempt to be more and more inclusive, they inevitably end up excluding, and thereby hurting, someone. We end up focusing on our differences rather than what unites all those groups and individuals.
This focus on the inclusion of the unique self is also a reflection of the epistemological issue to which I will return.

I also do not for a moment propose to generalise western notions of sexual identity to non-Western or non-English speaking cultures where such notions are meaningless. The only factors which unite sexual minorities are political oppression in all its forms and social exclusion in all its forms-- up to and including so-called corrective therapies and deadly violence. Equity should be the focus of our interest, rather than the atomising and fragmenting focus on differences. Oppression and exclusion come about because we live in heteronormative cultures which presume that a heterosexual identity is both normative and normal.

**Identity formation**

Sexual minorities have been present in all cultures and throughout history. They look quite different in these various cultures and are nothing like what we today call lesbian, gay, or bisexual (Crompton, 2003; Leupp, 1995; Murray, 2002; Wallace, 2003). The construction of individual sexual minority identities has occurred only over the last 150 years or so (Phillips & Reay, 2011). This history has led to the 19th century development of two perspectives on how sexual minorities came to be: what Foucault (1978) called “essentialism” and “social constructionism”. Essentialism implies there is something essential or innate about sexual identity; that it is contained in some way within the individual, and it is up to the individual to discover it. To discover that identity and to explore it is to engage in a process now generally known as “coming out”: experiencing one’s self as essentially different is the first step in
coming out. The traditional stages of the coming out process were first set out in the literature by Cass (1979).

The alternative to essentialism is social constructionism. This idea deems that sexual identities are constructed, lived, and maintained in different ways in different cultures as a way of establishing social boundaries around what is acceptable behaviour. An often-cited example of this is the fa’afafine of Samoa, who are usually the youngest males of a family that has only male children, and they are selected to live a female social role in order to maintain order around the fale or house.

A resolution to this either/or debate has been proposed by Hammack (2005; Hammack & Cohler, 2009) who offers a “both/and” approach in his perspective of human sexual development. He suggests that sexual orientation, which includes desire, arousal and intimacy, is biologically based. But he also differentiates orientation from identity, where individuals internalise the sexual story possibilities, or the cultural pressures of a given society or culture. The internalisation of these stories is beyond the conscious control of the individual. Hammack further proposed that people who are members of an ethnic minority also effectively adopt or create multicultural identities. He suggested that interpersonal relationships are salient in forming sexual identities, but also noted that identity trajectories and processes are different for men and for women. This is certainly consistent with my own data (Henrickson, Neville, Jordan & Donaghey, 2007), and that of Diamond (2003, 2006), where men’s sexual minority identities are fixed and fixed early in life, whereas those of women develop later and are more sexually fluid depending on interpersonal relationships.
Further to this debate are researchers and polemicists who have proposed that we are in a post-gay environment, where young people, in particular, are no longer confined by the identity categories and language of their political and social ancestors (Hammack, Thompson, & Pilecki, 2009; Savin-Williams, 2005), and that adolescents are in a post-identity phase of the narrative of the sexual self (Hammack et al., 2009). Other researchers (Russell, Clarke, & Clary, 2009) have found that adolescents still find such traditional labels useful. However, until heteronormativity is eliminated from every culture--a condition unlikely in the foreseeable future--the process of self-differentiation, exploration, and identity redevelopment in sexual minority individuals (however defined) will continue to be both necessary and, undoubtedly, fraught. Individuals may choose not to be limited by the alternative identity paradigms posed by the traditional Western language of gay, lesbian, bisexual, or even sexual minority, but the process will still occur. In other words, for our purposes, the post-gay question is a distraction.

LGBs as educational survivors

Earlier I wrote that sexual minorities are united by oppression and exclusion. One of the challenges in undertaking research into sexual minorities is sampling. In many samples of gay and lesbian communities the samples appear skewed to high levels of education and, therefore, higher income. Indeed, individuals with high levels of educational attainment are frequently over-represented in population-based, cohort, and self-selected studies of lesbians, gay men, and bisexuals around the developed world (Black, Gates, Sanders, & Taylor, 2000; Dickson, Paul, & Herbison, 2003; Jay & Young, 1977; Laumann, Gagnon, Michael, & Michaels, 1994; Pitts, Smith, Mitchell, & Patel, 2006; Saxton, Dickson, & Hughes, 2004). This over-representation
has led to accusations of selection bias and has raised questions about the validity of the findings of such studies.

I propose that such accusations are premised on an essentialist perspective, which assumes that LGB identities are equally distributed throughout a population. The 2007 Lavender Islands study (Henrickson, Neville, Jordan, & Donaghey, 2007) was a nationwide strengths-based study of 2,269 lesbian gay and bisexual New Zealanders which showed that a selection bias did exist, but not quite in the way that was expected. The study found that our sample was very highly educated, and had high incomes relative to the general population of New Zealand – indeed, 51% of our sample held at least an undergraduate degree, compared to about 11% of the general population (Henrickson, 2008a). We interrogated these data by asking about two key milestone ages: at what age did you feel different from other children or peers, and at what age did you come out to yourself. The mean age when males (n=423) felt different was 11.2 years (SD=5.08), and for females (n=568) it was 14.3 years (SD=7.70; t=7.801, p<.001). The mean age at coming out to self for males (n=649) was 18.7 years (SD=7.63) and for females (n=511) 23.0 years (SD=9.23; t=8.69, p<.001). These ages are highly consistent with the relevant international literature (Ryan & Futterman, 1997).

We then recombined the genders and compared these data by educational attainment.
Table 1: Milestone ages by educational attainment

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Mean age when first felt different (s.d., n)</th>
<th>Mean age when came out to self (s.d., n)*</th>
<th>Difference (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than secondary</td>
<td>11.8 (5.41, n=49)</td>
<td>18.2 (8.02, n=54)</td>
<td>6.4</td>
</tr>
<tr>
<td>Any secondary</td>
<td>11.6 (5.69, n=214)</td>
<td>18.7 (8.26, n=238)</td>
<td>7.1</td>
</tr>
<tr>
<td>Any post-secondary but less than degree</td>
<td>12.6 (7.34, n=231)</td>
<td>20.8 (9.38, n=275)</td>
<td>8.2</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>12.8, (6.27, n=300)</td>
<td>21.4 (8.33, n=350)</td>
<td>8.6</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>12.8 (6.94, n=199)</td>
<td>21.7 (8.64, n=245)</td>
<td>8.9</td>
</tr>
</tbody>
</table>

*p<.001 from ANOVA

The first column of this table shows that the differences between these mean ages are minor, and are not statistically significant. This suggests that participants who experienced themselves as different from other children or their peers are approximately the same mean age, regardless of later educational attainment. The second column shows the mean ages when participants came out to themselves. An almost linear relationship can be seen between this coming out age and educational attainment, where the higher the education attained, the later the age at coming out. These differences are statistically significant (p<.001). They carry through to the differences in years between the mean ages of feeling different and coming out, shown in the third column. (There are no significant differences in these findings by ethnicity). What we see from this table is an association between delayed coming out to self and higher educational attainment.
This finding is counter-intuitive, since it is generally held that the more education you undertake the more you are exposed to options, and the more likely you are to affiliate with those options. Since we had also asked about bullying and assault we added in these variables and re-analysed the data. In our whole sample we found that three-quarters of men and two-thirds of women had been verbally assaulted because of their sexuality, and 18% of men and 9% of women had been physically assaulted because of their sexuality (Henrickson, 2008b). When we analysed the responses by educational attainment a pattern emerged that you can see in Table 2. We found that although low educational attainers were less likely to be verbally assaulted, they were significantly more likely to be have been physically assaulted and to have experienced discrimination from a teacher than any other educational attainment group.

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Physically Assaulted % (n)*</th>
<th>Verbally Assaulted % (n)**</th>
<th>Victim of Bullying % (n)</th>
<th>Teacher Discrimination % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than secondary</td>
<td>21.9 (23)</td>
<td>65.7 (69)</td>
<td>50.0 (52)</td>
<td>23.4 (18)</td>
</tr>
<tr>
<td>Any secondary</td>
<td>13.5 (64)</td>
<td>71.4 (335)</td>
<td>48.3 (229)</td>
<td>16.8 (66)</td>
</tr>
<tr>
<td>Any post-secondary but less than degree</td>
<td>16.4 (84)</td>
<td>70.4 (356)</td>
<td>47.7 (243)</td>
<td>13.7 (57)</td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>13.0 (89)</td>
<td>70.3 (481)</td>
<td>44.8 (303)</td>
<td>18.8 (108)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>12.2 (56)</td>
<td>74.0 (341)</td>
<td>44.9 (206)</td>
<td>21.3 (79)</td>
</tr>
</tbody>
</table>

*p<.001 by ANOVA  **p=.010 by chi-square

There are a number of possible explanations for the finding that higher educational attainment is associated with a later coming out age, and I have explored them more
fully elsewhere (Henrickson, 2008a). What I have proposed is that LGBs who identify themselves and disclose early in their educational careers may experience highly negative or hostile response such as verbal and physical assault, and discrimination by a teacher. These experiences lead them to select out of education. Higher levels of physical assault, bullying, and reported discrimination by a teacher scores were highest at the lowest level of educational attainment. This is where the selection bias in population-based samples of LGBs occurs, long before any researcher contact. It is very possible that sexual minority young people simply do not surface, or disaffiliate both with the stigmatised identity and with education. It is equally concerning to note that, although discrimination by a teacher drops at the sub-degree tertiary level, it appears to return at the undergraduate degree and postgraduate degree levels. We cannot say that it is the educational institution and its staff who are responsible for verbal or physical assault, but discrimination by a teacher is clearly reported in over 20% of respondents who completed postgraduate degrees. This is an equity issue and should be of grave concern to the tertiary sector.

**Creating safe environments**

So what is to be done? Many of the obvious answers have been called for repeatedly over the years. Educators must remain aware of the specific cultural needs of LGB and other sexual minority students in order to retain them and to maximise their potential. This means being aware that LGB students are more than likely to have experienced the university and possibly work environments as hostile. They have arrived in the classroom with a history of experiences of harassment, discrimination, and even assault (Henrickson, 2008a).
One of the challenges, of course, is that sexual minority students may frequently be invisible, for as hidden minorities they usually must make a public disclosure of their identities before they can be identified. But the very experiences of alienation and discrimination militate against public disclosure of sexual minority identities. Therefore, it is incumbent on educators to make explicit to all students, not just perceived or self-disclosing sexual minority students, their open and accepting stance toward sexual minorities. This attitude can be expressed in lectures, classroom discussions, and case presentations. Case examples that do not problematise sexual minority identities should be developed and presented in order to normalise sexual identity and integrate it into classroom discussions in constructive ways. (For example, not all young lesbians are vegetarian; not all gay men are promiscuous; not all married opposite-sex couples are exclusively heterosexual; not everyone who has children is heterosexual.)

These efforts should not, of course, be limited to the classroom. Non-academic staff have frequent and important interactions with students, and general staff conversations can be overheard by waiting students. Casual homophobic comments can have lasting effect. In disciplines where field education is a part of the curriculum, these settings should be assessed to ensure that they are safe for sexual minority students (Messinger, 2004), and where necessary, supervisors up-skilled. Every effort should be made to normalise and to offer students an opportunity to integrate their sexual identities as another aspect of their total identities. All staff, not only sexual minority staff, must work to identify, confront, and change overtly
homophobic and heteronormative assumptions and behaviours within their programmes.

Van Den Bergh and Crisp (2004) set out a useful attitudes, knowledge, and skills heuristic for social work education that draws on frameworks for cultural competence with ethnic and racial minority clients, feminist, and gay-affirmative practices. It outlines some proposals for LGB-affirming curriculum content. Martin and Knox (2000) have guidelines for research with sexual minorities with which every educator, student, and researcher should become familiar. There is also video on YouTube called *Reteaching Gender and Sexuality* that explains this from a young person’s point of view

(http://www.youtube.com/watch?feature=player_embedded&v=51kQQuVpKxQ)

**Epistemological competence with sexual minorities**

All of these interventions are important, but in a sense all of these interventions also appear to problematise a sexual minority identity, when what we are striving to do is to normalise it; yet by ensuring that we have created safe environments for sexual minority students we are also ensuring safe environments for all students. However, I would also like to suggest that we consider a further step that frames sexual minority status in epistemological terms. I propose that there are two features of what we might call a queer epistemology: alienation and disclosure.
**Alienation**

In general, sexual minority children are one of the few minorities that are ontologically different from their parents: that is, there is something fundamentally different about us that we experience from a very early age. For obvious ethical reasons it is difficult to construct a study that pre-identifies queer kids in order to ask them about this, and asking older adults about their childhood experiences is subject to potentially problematic recall issues. But I propose that those sexual minority young people experience themselves as different, and experience that difference as stigmatised, quite early in life. This experience of alienation and difference means that from early in life sexual minorities learn to distrust information they are given without first validating it for themselves. They understand that their personal developmental experiences do not match that of their families and peers, and so they learn they cannot trust the group, cannot trust what they are told, and must revalidate information.

An obvious example of this occurred in the early days of AIDS, when doctors and public health officials began to try to educate gay men about safer sex. Gay men in developed nations rose up and said, “Why should we trust you? You’ve been arresting us, stigmatising us, electroshocking us, denying us basic civil and human rights for decades and more, and now you want us to believe you want to save our lives?” As a result, the gay male community, assisted by many generous lesbian sisters, organised to educate themselves. If someone else who was gay delivered the message, then the message was believed. AIDS activists led the consumer revolution in health care for just this reason. The experience of alienation means that sexual minorities must validate knowledge through their own experiences. Alienation is one reason creating
communities of sexual minorities is difficult, because each person brings with them a lived experience of exclusion and distrust.

Disclosure

Secondly, we have seen that regardless of the operating theory of sexual identity development, because we live in a heteronormative environment, differentiation from heterosexual norms is an inevitable part of identity development for a sexual minority person. In order for me to be seen for all of who I am, to disabuse you of your heterosexual assumptions about me, I have to disclose. That disclosure, as depicted in the *Reteaching* video, does not happen just once, but over and over again, in each new situation to each new person; to family, friends, teachers, doctors, coaches, research advisors, the hotel reservation clerk, the dry cleaner, the person next to you on the plane.

In each situation the individual must assess the safety of the environment, the likely reaction of the person to whom they are talking, and whether they have the emotional energy to come out. I do a lot of work in Asia, and often I will be sitting on the plane next to a very nice person who will ask me how many children I have. At that moment I have to decide whether I want to disclose. I calculate how long the flight is, and whether I have the energy to deal with the reaction. If I’m tired, I may just show photos of my two nieces and have done with it.

Many sexual minority people choose to disclose in ways other than simply using words. Through dress or behaviour they are telling you who they are. There’s a wonderful badge that I often saw at early gay rights rallies: “Don’t die wondering”.
They were disclosing. But this necessity to disclose shapes how I see others and how others see me. It also shapes how I live and operate in the world. It means I don’t make some basic assumptions about the world; it means that I am more likely to question everything about the world. It is also one of the ways that helps create communities of sexual minorities: sharing coming out stories is one of the ways that sexual minorities bond with each other. If I asked a gay man, “Does your mother know?” he is not going to need to ask, “Know what?”

Alienation and disclosure are two mediators of an epistemological framework, a queer way of thinking, which I propose shapes the way sexual minority individuals live in the world, and encounter and process information. I propose that this framework is shared amongst sexual minorities, regardless of whether they are sexually active or in relationship. It is not sex or even love that defines a sexual minority individual; it is the way we think, which in turn is shaped by the heteronormative world in which we live. A sensitive teacher or research advisor is going to keep that framework in mind so that she or he can effectively work with and support the education of the sexual minority student.

**Conclusion**

About 15 years ago I was living in Los Angeles, and I met my brother, his wife and their two young children as they flew through from Europe to New Zealand. They were in transit, so there was no time to leave the airport, and while the adults were completely exhausted, the children were full of energy. Being the good uncle, I offered to walk the wee ones around while their parents got a little quiet time. I walked around the airport with a couple of tots on the ends of my fingers, and of
course there was a family resemblance. As we wandered about I noticed that people were looking at me completely differently than I had ever experienced in my life. They were nodding and smiling at me. At first I was polite, then puzzled, and then like a thunderbolt it dawned on me that an airport full of people thought these were my children, and that I was part of their club (yes, heterosexuals have a club)! That was a life-changing experience for me, because I’d never had any idea how truly excluded I had been all my life, and how much not a part of that club I was. It was at that point I became aware of how fundamental heterosexuality is to the fabric of existence.

Even now, after extensive academic research, that fundamental experience of alienation and the need to disclose has stayed with me. I am a social worker with a long history of working in HIV before I entered the academy to teach, and I have been committed to trying to understand the experience of difference for a long time. My personal and professional life has been dedicated to promoting equity for sexual minorities. What I have tried to do in this article is to share some of those understandings. Young sexual minorities may select out of education, and others may defer coming out until late because of the stigma of being queer. I have presented statistics that demonstrated that even at the tertiary level sexual minorities still report discrimination by academic staff. I have reviewed some of the traditional interventions to respond to staff discrimination. Finally, I have proposed an epistemological framework that may be useful in understanding the knowledge, processing, and lived experiences of sexual minority persons. I hope I have encouraged you to consider again how urgent the issue of equity is for sexual
minority individuals, and that I have highlighted some pathways that may help us navigate this road to equity.
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How to Create More Rainbows
A Personal Perspective on Social Change and the Queer Community

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Abstract

I work in the area of social change and I often find it hard to explain exactly what I do, so I'm going to demonstrate it. At the end of this discussion, simply by considering what I have to say, you will have changed a little; as will I have also, simply by saying it. That, in essence, is the nature of social change. I want to tell you two stories and link them to four ideas: gratitude, compassion, rainbows and leadership.

Keywords: diversity, social change, queer, leadership
Two Paradoxical Stories

Some time ago my boyfriend and I went to stay overnight at a hotel in downtown Auckland. We checked in to one room with a double bed so it was obvious we were a couple. The two male staff on the desk, who we presumed were straight, didn't blink an eye and were polite and professional to the extreme. The next day when we checked out, the same two men were standing in exactly the same places, as if they'd been waiting for us all night. We wondered if they had homes to go to. Once again they were generous and respectful, enquiring about our stay. Driving home I shared how I noticed that I was feeling intense gratitude towards those two young guys for so easily accepting us as a same sex couple. You may be surprised that I would be feeling grateful for something that most may see as an entitlement these days. I will return to this.

My second story is about being harassed by my former neighbour. He had a brain injury, was a fundamentalist Catholic and was also homophobic. Not a good combination. I had this confirmed when he also added yelling, "You f***ing poof, God will smite you and so will I," to his repertoire of wall banging, water throwing, plant stealing, and midnight doorbell ringing. I felt vulnerable and unsafe in my own home as I worked with the police and Housing New Zealand to address his ongoing abuse. This process took some time, given the bureaucratic nature of both organisations, and the fact that my neighbour hadn’t been physically violent – yet. Meanwhile I still held compassion for the man, knowing that from where he stood, he was dealing with an untenable situation - my lifestyle - in the only way he knew how.
Let me begin to bring these two stories together. In 2011 I attended a five-day retreat run by Allan Kaplan and Sue Davidoff of the Proteus Initiative in South Africa. Sue and Allan use a wonderful adaptation of JW von Goethe’s (Kaplan, 2005) unique way of viewing living phenomena of the natural world. Kaplan and Davidoff propose that this perspective allows us to achieve a new and more holistic way of engaging with ecology and society, ultimately enabling us to work more effectively with social complexity. One of the exercises required using prisms to observe colour. Isaac Newton’s (1704/1998) theory of the optical spectrum was that all colour was contained in darkness (black) and that white was the absence of colour. But von Goethe (1982) was more concerned with the phenomenon of human colour perception, proposing that colour in fact dwells in the relationship between darkness and light.

JW von Goethe (1982) suggested that prisms (and rain) separate the planes of light and dark, shifting them slightly so they overlap. We see the warm spectrum (red, orange and yellow) when we observe light through dark. We see the cold spectrum (blue, indigo and violet) when we observe dark through light. Finally, we see green when the spectrums co-exist, mixing blue and yellow. As a result of using prisms at the Proteus retreat I realised how pertinent it is that queer communities, with all their various acronyms, have taken the rainbow as their symbol of liberation. My two stories also exemplify that we live in a time where light and dark to sit in such contrast and yet so close together.

Finally, let me relate all this to leadership. When taking leadership roles, whether individually or collectively, it is vital to understand the dialectics of the social
complexity we create and inhabit. We need to remember to be grateful for the changes mainstream society has made, even (or especially) when some members of society still act out of fear and ignorance. Without risking our own self-worth and safety, we must be generous to those who struggle to change what they believe to be true. Simultaneously, we need to celebrate, support, and nurture ourselves and each other as we strive to work in this difficult space, in between dark and light, and continue to make beautiful, vibrant rainbows.

**Be Careful How You Shine**

I talked about Kaplan and Davidoff’s exercise with prisms and observing the relationship between lightness and darkness in terms of colour. The other part of the connection between light and dark is that light creates darkness by casting shadow. The two go hand-in-hand – they are the equal and opposite reactions of each other. They are a manifestation of nature's perfect balance of positivity and negativity. We cannot have light without shadow; nor can we have shadow without light.

In the social setting of human endeavour, doing good can be equated with creating light. It may be providing a human service, parenting a child, setting up an environmental organisation, even giving pleasure to others through entertainment. Whatever we do, when we create light by doing good, we cannot help but cast a shadow. So how does it manifest, this shadow of good-doing? It may be the sense of dependence you create in the people who receive a great human service, or the assumption of complacent indispensability by the individuals or organisations providing the service. It may be forgetting to meet your own needs in favour of your child's. It may be the unexpected disconnection and conflict between staff and
management in your sustainable organisation. It may be the arrogance you develop
when you know people think you are talented.

How and where the shadow may manifest is uncertain. It may be inside or outside the
individual or organisation. It may be close to or far from the good-doing. It may be
obvious or subtle. What is certain, though, is that the shadow is there. The more good
that is done, the more shadow is cast. The less it is noticed, the more harm it can do. It
is therefore imperative to be aware of minimising the shadow so it doesn't erode the
light of the good-doing. This may involve starting a dialogue within a team, arranging
parenting support, checking in with clients about the efficacy of a service you are
providing, restructuring a hierarchical organisation, or checking that your celebrity is
not leading to arrogance. Although this kind of conscious behaviour helps manage the
shadow, unfortunately it will just move it around, in the same way a shadow moves
when you move an object or the light shining on it.

The only way to lessen the shadow is to do something quite counter-intuitive,
particularly if you work in any area of good-doing. It requires creating less light by
doing less good. It may mean having the honesty, courage, and humility to ask
yourself, “Am I shining too brightly?” It may mean contemplating how you could
share your light with others. It may even mean turning the light off altogether, or
asking the paradoxical question, “What is the light that comes from the shadow?”

You Are NOT Entitled!

I have been noticing a shadow of the human rights movement lately, that of
entitlement. It seems that, in our rights-based minds, we believe we are entitled to
certain treatment because, for example, we may be marginalised, or an employee. We think somebody wronged us, we have had a hard upbringing, or that other people have too much. Over time, I notice that I have moved from having this sense of entitlement to realising it is a position of arrogance. I now see entitlement as an un-negotiated expectation that someone else will fulfill our desires. It is a deliberate shirking of self-responsibility. It is a naive belief that we should have something because we think it is right. It becomes a disregard for our own creativity and resourcefulness.

This does not mean that we don't all have responsibilities. We have the responsibility to care for children, to ensure people have basic human rights, to do everything in our power to create harmonious environments. We have the responsibility to be generous, assertive, humble, and grateful. But believing you are entitled to respect because you are older, to food because you are hungry, to money because you are poor, or to sympathy because you are sad – that's like crossing a road without looking. Entitlement or responsibility then becomes a choice.

**Diversity and Decay: It's Not What You'd Think**

Another insight I gained at the Proteus retreat was about the nature of diversity itself. When I say “nature” I mean both the phenomena of the physical world as well as the basic or inherent features of something. Another exercise at the retreat was to observe plants that were growing and dying (or decaying). We were asked to observe them carefully and then sketch them. The latter action is not a forte of mine but observation does not require much dexterity and I made a discovery that left me momentarily reeling. The first leaves I observed were growing. They had order and structure.
had a certain uniformity with the other leaves. They had a uniqueness amongst a
common shape, colour and texture for a leaf of that kind. The next leaves I observed
were dying and decaying. They were random – chaotic, even – in shape, colour, and
texture. Each one was totally different. I realised there is more diversity in the process
of decaying than in growing. This was a moment that left me stunned. After spending
20 years understanding and helping others to understand diversity, I realised I needed
to change the whole direction of my work. In order to recognise and understand
diversity (not create it, as diversity is always present in abundance) something had to
decay, not grow. This decay needs to occur in four areas: individuals, organisations,
communities and humanity.

**Individuals**

Within and among individuals, what needs to decay is identity. To recognise our own
and others' diversity, we need to let go of our idea of who we are or who we think
other people are. This may include dropping labels, assumptions, values, and beliefs.
These maybe long-held values, but they will lock us into a constrained idea of who
we are or who someone else is. I realised this clearly when I spoke to a meeting of
Gender Bridge, an Auckland based community group established “to provide support
for transgendered people, their friends, families, and communities” (Gender Bridge,
n.d., para 1). In order to successfully understand and/or enter into a process of
changing gender identity, many things need to decay, including the values society
places on static, binary notions of gender, and ideas of self as a biological gender.
Organisations

Most organisations see strategic diversity management as a way to add fairness, variety, competence, and productivity to their workforces, services, and/or products. Policies and procedures are written, awareness training is provided and diversity activities (eg, serving ethnic lunches, learning cultural traditions, or acknowledging lifestyle differences) are supported. This is all well and good but in my experience, attempts to “do diversity” in this way are often inauthentic and usually fail. They fail because they forget to decay organisational culture – ideas of what is efficient, professional, acceptable, and mainstream. Without forfeiting these old notions of what is important, diversity strategies become token. As Peter Drucker (cited in Johnson, n.d.) states: “Culture eats strategy for breakfast” (para 1).

Communities

Communities struggle with diversity in their need to hear or to speak with one voice. In short, communities need to decay agreement. Communities tend to need common language, behaviour, and structures to create a collective identity. Like leaves on a healthy tree they want to foster a certain shape, colour, and texture. Unfortunately, diversity within community is about embracing and working with paradox, discomfort, and uncertainty. It's messy, frustrating, and hard work.

Humanity

Humanity. I'm aware I'm at risk of destroying my credibility by positing one thing everyone needs to give up in order to embrace diversity: humanity needs to decay its need for answers. Answers impede the exploration of diversity more than anything else in the world. Once we know (or think we know) the answer to who we are, or
who someone else is, or how, or why, or when, we stop asking questions. The Diversity Inquiry - or DIVINQ - process I designed a couple of years ago is based on that one simple premise: the need to inquire constantly about our personal and social dynamic (Patston, 2013). Identity, organisational culture, agreement, and the need for answers. Four very complex things that we need to be prepared to allow to decay, in order for diversity to grow in abundance.

**Our obsession with categorisation**

Perhaps unwittingly, many groups labelled “diverse” have created division in society. The problem is our obsession with categorisation. Two high profile news stories caused me to reflect on this recently. Firstly, NZ radio station The Edge's *Hug a Ginga Day* (3 News, 2010a), followed by the then-World Cup ambassador Andy Haden's "darkies" comment (3 News, 2010b). Both stories fuelled debates in the media, as well as in the lounges and lunch-rooms of the nation. The arguments ranged from accusations of racism and even terrorist intent, to justifications of harmless fun and political correctness run amok. Mitigations came thick and fast: the use of similar terms like "honky" for Europeans and the commonplace acceptance of blonde jokes make ginga-hugging and darkie-calling acceptable.

What interested me far more than these trivial debates was that both issues exemplified our obsession with characterising ourselves and each other visually and, specifically in these cases, by reference to colour. This could be due to the reptilian brain — the least sophisticated part of what American physician and neuroscientist Paul D. MacLean (1990) calls our triune (three-part) brain. MacLean says this most ancient part -- connecting us to dinosaurs, reptiles and birds -- is responsible for
instinctual behaviours such as aggression, dominance, and territoriality. The two more evolved parts of the brain are the limbic system and neocortex. The limbic system governs motivation and emotion and is responsible for feeding, reproductive, and parental behaviour. The neocortex, found only in mammals (and which is most evolutionarily complex in humans), produces language, abstraction, planning, and perception.

According to MacLean (1990), the reptilian part of the brain responds to basic visual representations like colour and strangeness. Therefore racism, along with other forms of discrimination, is reptilian. So when a person decides to design a promotional day around hair colour or makes throwaway comments about sportspeople based on the colour of their skin, they are not necessarily being discriminatory or deliberately offensive. They are just being lazy. They could think more complexly, but they are choosing not to because it's easier. They are using the most basic part of their brain to appeal to the lowest common denominator. The result is aggressive, dominant, and territorial behaviour, and they risk hurting people in the process.

This is the extreme end of the reptilian cognitive process, but I wonder if something similar hasn’t happened in the civil rights movements. Let’s take the gay/queer rights movement. Haven’t we just taken two basic representations (originally “heterosexual” and “sick”) and dreamed of a time when there would be more representations (straight, gay, lesbian, bi, queer), and then ended up with so many of them that we are stuck with an unpronounceable acronym (GGLBTTTFIQA(S))? We call it diversity, when in fact it is just a more sophisticated version of representation and categorisation.
If labels for diversity are now limiting us more than serving us, the question is: “What next?” We could move on to considering different spectra of diversity, sexuality, and identity. For example, within my work in the disability sector I present disability as a spectrum of functional diversity along which we all move throughout our lives. Alternatively, we could think about the dimensionality of diversity – but even a dimensional paradigm is not sufficient.

I suggest that diversity is best explained by a paradigm of fluidity. I experienced a powerful example of how fluidity is becoming more of a social imperative at a recent forum run by Rainbow Youth, a youth, queer, and transsexual support organisation, (Rainbow Youth, 2009). Several of the young people speaking were transgender, having either transitioned from living as young men to a young women, or vice versa. When I was 19 years old I came out as gay and that was difficult enough. These 20-somethings had already come out as bi, then lesbian, then male, and are now often mistaken as being gay when they are actually straight. Confused? That's fluidity. What saddened me was that, in a world of Boy Georges and Ellens, Melissa Etheridges, Elton Johns, and Ru Pauls, it's still not safe to come out as gay or transsexual. You may not know that the guy you work with used to be a girl, because in our current society, people are still threatened with isolation, hatred, and violence if they do not conform to binary notions of gender.

According to data collected between 2002 and 2004, New Zealand has the second highest male youth suicide rate, and third highest for females, in the developed world (Ministry of Health, 2007). I wonder how many of these sad statistics stem from fear of categorisation. This fear exists not just in the straight world; gender- and sexual
orientation-intolerance also exist in the gay community. The Rainbow Youth panel believes the change needs to be led by the gay community and I agree. Fluidity is about uniqueness and commonality, similarity, and difference. It’s not about what we believe, it's about how to believe — especially when we don't agree with others, or they disagree with us. It’s about self-awareness, communication, inquiry, and exploration. It's about certainty and confusion, knowing and not knowing. It's about recognising fear and meeting it, head on, with love and peace.

Where some religions promote fear and doctrine, and our current concepts of diversity promote representation and categorisation, perhaps fluidity could instead promote realisation, wisdom and synergy. In a fluidity paradigm we can replace the plethora of partial representations with two areas of exploration: how are we common and how are we unique? With that simple yet complex landscape, we might have time to consider other elements of existence, such as:

- Wisdom: which I define as reality experienced after love (or REAL).
- Identity: which encompasses internal and external elements, and congruence between these elements.
- Synergy: the interaction between two or more roles, behaviours, or identities to produce a combined effect greater than the sum of their separate parts.
- Expression: on a diversity of levels - social, physical, emotional, cultural, intellectual, sexual, and spiritual.

Together, these elements create the mnemonic WISE SPECIES. That's what I want us to be.
Diversity - Straight From the Horse’s Mouth

Clever Hans (in German, der Kluge Hans) was a horse that was claimed to have been able to perform arithmetic and other intellectual tasks, tapping out his answers with his hoof. After an investigation in 1907, psychologist Oskar Pfungst (1911) demonstrated that the horse was not performing these mental tasks, but was watching and responding to the reactions of his human trainer. Through some experimentation, Pfungst discovered that the horse was responding to involuntary cues in the body language of its trainer, who had solved each problem and had an expectation of when the hoof taps should stop. The trainer was of course unaware that he was providing these cues. This phenomenon came to be known as the Clever Hans Effect, later the observer-expectancy effect, and is a well-known occurrence in studies of both human and animal behaviour.

Conclusion: Back to Rainbows

The world we live in is paradoxical. Such paradoxes are typified by the opposing stories of the hotel staff and my neighbour. In order to embrace diversity authentically, we need to embrace its full spectrum and polarities. This is something that requires us to respond with gratitude to those who accept us for who we are, as well as with compassion toward those who do not. The queer community has chosen a symbol of this paradox, a rainbow, to represent our own diversity. Perhaps we are ideally placed to model an understanding of our light and shadow; the need to be careful how we shine, and also to take responsibility for ourselves, rather than slipping into the shadow of entitlement.
We need to re-examine our need to continually categorise ourselves into smaller and smaller identities. We need to remember the diversity that decay brings, and to let go of the focus on difference in our organisations and communities. If we engage our astute frontal cortex instead of our lazy reptilian brain, perhaps we can lead the way for humanity to change. I have pointed out that civil rights movements can have the unintended effect of creating too many labels. I believe instead that we need to adopt a new paradigm of fluidity and model how to become WISE SPECIES.

Finally and perhaps most importantly, as this is the thing that people forget so often, we must take time to stand back and observe ourselves. As we watch our own behaviour, and the behaviour of others, we must remember not to make assumptions without exploring further. As Clever Hans showed us, all is not always as it seems. If we are able to do these things – embrace the concepts of decay, fluidity and self-responsibility – will we begin to create more rainbows?
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