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Editorial

Exciting changes are happening for JANZSSA, with the move from hard-copy to fully online starting from this edition, April 2017. In a 2015 survey, the majority of ANZSSA members told us that they prefer to access JANZSSA electronically. It also appeared that many members have been missing out on receiving a hard copy, when relying on distribution via their institutional membership. The ANZSSA Executive in consultation with the JANZSSA editorial team has therefore decided to make the most of the technology now available to us by moving JANZSSA to an online journal. All ANZSSA members as well as other readers will have immediate online access to JANZSSA as each new edition is released. Papers are individually downloadable to read or print at https://janzssa.scholasticahq.com/issues with the pdf version of each complete edition still housed on the ANZSSA site at www.anzssa.com/Public/Public/JANZSSA/Complete_Editions.aspx

As soon as each new edition of JANZSSA is available, an email will be sent to the ANZSSA membership providing the links for immediate access. Through this improved online presence JANZSSA and each of its great quality papers gain more exposure through being more easily searchable on the web.

This edition contains 12 diverse and interesting papers. Four are conference papers from the 2016 ANZSSA Conference, held in Auckland last December; two having been delivered as peer-reviewed papers. Each of these four papers presents innovative strategies and ideas aimed at meeting student needs and improving student outcomes, including: academic learning centre innovations; peer mentor tutorials; the use of gamification in online orientation; and first year experience initiatives. Also included is a report on the conference from the student perspective provided by one of the student delegates.

A further five papers are included in this edition as refereed papers, having been peer-reviewed through JANZSSA's usual double-blind process. They encompass the varied and relevant topics of: supporting students with mental health issues; the place for and role of IQ testing; knowledge and attitudes about sexual health; using mindfulness techniques; and a discussion of the Okanagan Charter and its application to higher education health promotion practice in New Zealand. A professional paper on the topic of resilience and a conversation piece on ethical boundaries in psychological practice complete this edition.

We hope you will enjoy this online edition of JANZSSA and that you will share the online link with other interested potential readers. We look forward to receiving further quality submissions for the October edition and would like to encourage all our readers to submit examples of innovative practice and research to JANZSSA, thereby letting others know of the work that you are doing that is making a positive difference to the student experience.

Cathy Stone
Annie Andrews
Co-editors, JANZSSA

High Stakes IQ Testing:
The Flynn Effect and its Clinical Implications

Stephanie C. Black
Edith Cowan University

Abstract

Intelligence testing has become ubiquitous in many sectors: In the education sector it is frequently used for determinations of learning disabilities and giftedness. Intelligence testing is affected by the Flynn Effect (FE), the highly debated long-term trend of rising average intelligence test scores within the population. The FE has been observed in many nations and varies with regard to ability, intelligence types, age, location and prosperity. Recent observations of a potential reversal have added to the complexity. FE research centres on four hypotheses: testing artefacts, biological factors, environmental changes and multi-driver models. The FE affects the periodical re-norming of intelligence tests and the comparability of IQ scores over time. This has clinical implications for the assessment of intellectual ability for various client populations, including forensic, disabled, juvenile and ethnic minority clients, as well as social implications concerning ethical intelligence, developing nations and the concept of age-related cognitive decline. Examples of high-stakes decisions based on IQ tests include fitness to stand trial, access to social disability services and, of particular interest for the education sector, access to special education services and accelerated programs. The present article underlines the importance of clinical practitioners and staff in the education sector being aware of how the FE affects the determination of intellectual ability for diverse client populations and ensuring that the most current editions of IQ tests (i.e., correctly normed versions) are used. Given the high stakes involved in IQ testing, there need to be greater awareness and more research on the FE. Areas for possible future research include optimised methodologies, novel factors, diverse cultures and older participants.

Keywords

Flynn Effect, IQ testing, intellectual ability, learning disability, giftedness, norming, best practice.

High stakes IQ testing: The Flynn Effect and its clinical implications

The Flynn Effect (FE) is the highly debated, long-term trend of rising average intelligence test scores within the population. Standardised psychometric intelligence measures were developed in the early 1900s, and the intelligence quotient (IQ) metric quickly became widely used in many settings, including determinations of special education needs and academic entrance exams. Scholars soon noticed increasing average IQ scores in specific populations (Lynn, 1982; Merrill, 1938; Schaie & Strother, 1968; Smith, 1942; Tuddenham, 1948; Wechsler, 1981). However, Flynn (1984, 1987) first observed a long-term trend of rising average intelligence test scores within the general population. The Flynn Effect (FE; named such by Herrnstein and Murray in 1994) has since been observed in many populations worldwide, but scholars disagree on its variability with various factors, and some populations even exhibit a reverse FE - that is, decreasing IQ scores over time (Pietschnig & Voracek, 2015; Williams, 2013).

The scores of a given population on a given IQ test are, by definition, always re-normed to a mean of 100 (Ceci & Williams, 2016). The FE, therefore, affects the periodical re-norming of intelligence tests and the comparability of test scores over time. As will be shown in this article, this has clinical implications for the assessment of intellectual ability for various client populations, including forensic, disabled, juvenile and ethnic minority clients, as well as social implications concerning ethical intelligence, developing nations and the concept of age-related cognitive decline. Examples of particular high-stakes decisions involving IQ tests include exemptions from the death penalty, fitness to stand trial, access to social disability services and, of particular interest for the education sector, access to special education services and accelerated programs. It becomes clear then that IQ test results can have a potentially life-changing impact on clients, and the FE, in turn, can

substantially affect these high-impact test results. In fact, clients' life trajectories can be forever altered if the FE is not taken into account correctly during IQ tests and the resulting determinations of intellectual ability. Consequently, it is vitally important that clinical practitioners and staff in the education sector are aware of how the FE affects IQ tests and determinations of intellectual ability for diverse client populations. Most importantly, practitioners need to ensure that the most current editions of IQ tests (i.e., correctly normed versions) are used. Moreover, given that research on some aspects of the FE is still inconclusive, more studies are required, and practitioners need to keep themselves informed of new developments regarding the FE.

The aim of this article is not to attempt comprehensive coverage of the research on the FE (as provided by Pietschnig & Voracek, 2015; Trahan, Stuebing, Fletcher & Hiscock, 2014), but rather to emphasise the far-reaching consequences that a lack of awareness of the FE by practitioners can have on a diverse range of clients. With this in mind, the present article first provides a brief overview of observations and hypotheses regarding the FE, then discusses the implications of the FE for various client populations in clinical practice and society and, finally, concludes with suggestions for future research.

Description of the FE

Magnitude of the FE

Research converges regarding the mean magnitude of the FE. The magnitude of population IQ gains over time (i.e., the FE) is typically reported in points per decade (ΔIQ); the current consensus is an average of $\Delta IQ = 3$ (Williams, 2013). The first FE was reported at $\Delta IQ = 2.91$ (Flynn, 1984). While reported gains for various populations range widely (Must & Must, 2013; Nijenhuis, Cho, Murphy & Lee, 2012), a recent meta-analysis spanning over a century and including nearly four million participants from 31 countries arrived at an average $\Delta IQ = 2.8$ (Pietschnig & Voracek, 2015). Another meta-analysis yielded a similar $\Delta IQ = 2.93$ (Trahan et al., 2014). While these meta-analyses are limited by imperfect equivalence of the included primary studies and the compared test editions, evidence quality is excellent and results support the consensus of $\Delta IQ = 3$ (Pietschnig & Voracek, 2015). To put these values into context, a mean magnitude of the FE of $\Delta IQ = 3$ would indicate that the next generation would have a mean IQ of 107.5, that is half a standard deviation above the current mean IQ (see Figure 1).

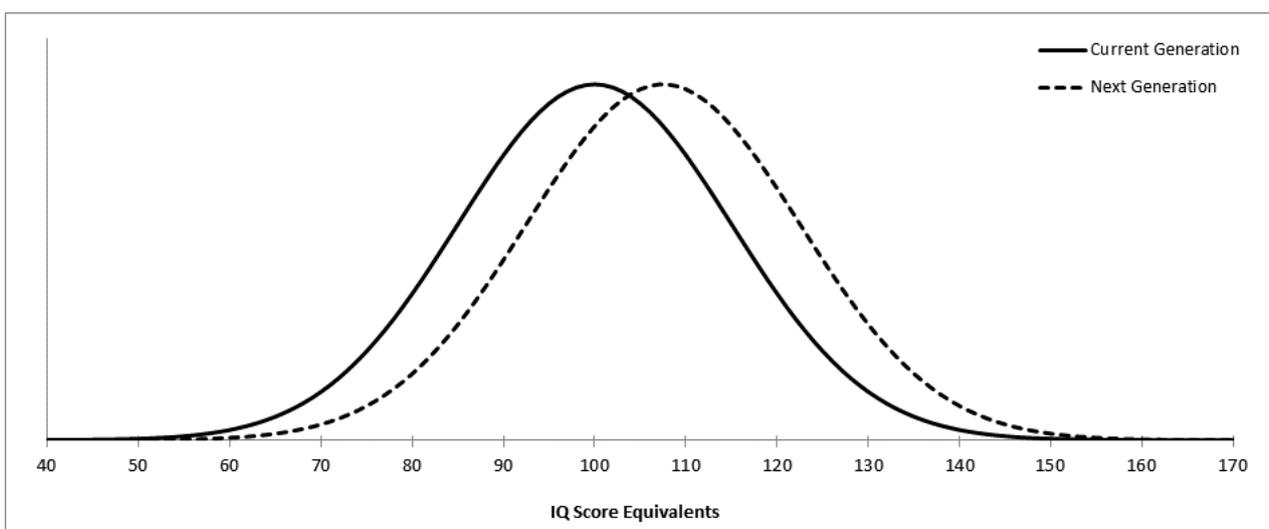*Figure 1. Estimated IQ Distributions of the Current Generation (M = 100, SD = 15) and the Next Generation (M = 107.5, SD = 15). For illustration purposes only; assuming (1) that a generation is 25 years, (2) that the FE will continue throughout the next generation at the current magnitude of $\Delta IQ = 3$ and (3) disregarding variability of the FE.*

Variability of the FE

Variability of the FE with intellectual ability. To date, research on variability of the FE with intellectual ability level is inconclusive. Habets, Jeandarme, Uzieblo, Oei and Bogaerts (2015) and Zhou, Zhu and Weiss (2010) observed that more intelligent individuals experience stronger IQ gains. In contrast, Habets et al. (2015) and Williams (2013) observed the largest IQ gains at the low end of the IQ distribution, while Trahan et al. (2014) observed no significant variation with ability level at all. Psychometric tests perform most reliably within a given range of the measured construct (Habets et al., 2015). Therefore, the reason for the variability of the FE could be explained by the psychometric nature of the IQ tests, with the FE potentially following a U-curve, showing high variations at extremes but little variation closer to the average range of the distribution.

Variability of the FE with intelligence type. The FE varies depending on the type of intelligence concerned; fluid intelligence is more strongly affected by the FE than crystallised intelligence. Fluid intelligence is the capacity for logical problem-solving, including inductive and deductive reasoning, and crystallised intelligence is the ability to use skills and experience, including vocabulary and knowledge (Cattell, 1971). Fluid intelligence is usually measured with Raven's Progressive Matrices (Raven & Court, 1998; Raven, 2000). Flynn (1987) originally found some of the largest IQ gains on tests of fluid intelligence. Conversely, an Australian study found little change in fluid intelligence for Victorian school children (Cotton et al., 2005); however, the FE is typically smaller in children (Pietschnig & Voracek, 2015). The most recent international meta-analyses support larger gains for fluid intelligence than crystallised intelligence (Brouwers, Vijver & Van Hemert, 2009; Pietschnig & Voracek, 2015; Trahan et al., 2014). This is in line with the consensus that the FE is stronger for fluid intelligence than crystallised intelligence (Williams, 2013).

Variability of the FE with age. The FE varies with age. An FE is found in all age ranges from childhood to adulthood (Ceci & Williams, 2016) and can appear before school age (Williams, 2013). However, the FE is more pronounced for adults than for children (Pietschnig & Voracek, 2015).

Variability of the FE with socioeconomic conditions. The FE correlates with socioeconomic status and prosperity. The FE has been observed in as many as 31 countries, both industrialised and pre-industrialised nations (Ceci & Williams, 2016; Pietschnig & Voracek, 2015). A recent meta-analysis evidenced a positive association with gross domestic product and socioeconomic conditions (Pietschnig & Voracek, 2015). Accordingly, recent high IQ gains were observed in developing countries where prosperity is improving, including Kenya, Brazil, Turkey and Argentina (Flynn & Rossi-Casé, 2012; Flynn, 2012). In the developed world IQ gains were highest after the Second World War, which was a period of the steepest prosperity increase in history (Pietschnig & Voracek, 2015).

Recent observations of diminishing or reversing FE

The latest data suggest that the FE may be diminishing or even reversing in some nations (Pietschnig & Voracek, 2015). This is supported by evidence from Norway (Sundet, Barlaug & Torjussen, 2004; Sundet, Eriksen, Borren & Tambs, 2010; Sundet, 2014), Denmark (Teasdale & Owen, 2005, 2008), Finland (Dutton & Lynn, 2013) and France (Dutton & Lynn, 2015). While reversals are also reported for toddlers in the United States (Kaufman, 2010), a large recent meta-analysis did not yet support a decline in the United States (Trahan et al., 2014). In Britain, Germany and South Korea, the FE is still strongly ongoing (Flynn, 2012).

The FE has been studied in many nations. However, variability with regard to ability, intelligence

types, age, location and prosperity is still being debated, and recent observations of a potential reversal have added to the complexity.

Past and current research: Explanations for the FE

The FE literature is extensive, and numerous hypotheses have been proffered to explain the FE. Research centres on four clusters of hypotheses for the rising secular IQ scores: testing artefacts, biological factors, environmental changes (Neisser, 1997) and multi-driver hypotheses (Williams, 2013).

Explaining the FE with artefacts of IQ testing

The first cluster of hypotheses, in line with Flynn's (1984, 1987) original conclusions, attributes the FE to psychometric testing artefacts instead of real intelligence gains. While IQ typically correlates with cognitive resources, it is simply an operationalisation of intelligence, which has associated uncertainties (Pietschnig & Voracek, 2015). IQ measures purport to measure pure intelligence, but influences of skill and culture cannot be fully excluded (Habets et al., 2015; Schooler, 1998). The FE might result from increased test sophistication due to increased exposure to testing and increased guessing (Brand, 1996; Neisser, 1997; Woodley, Nijenhuis, Must & Must, 2014). The high magnitude of the FE on newer culture-free IQ tests (e.g., Raven's matrices) might be explained by lower test sophistication for these tests due to less exposure (Brouwers et al., 2009). Additionally, subsequent test editions differ not just in norms, but also in composition and instructions; therefore, the FE could result from suboptimal concurrent validities (Kaufman, 2010). Few FE studies employ item response analysis (which better exposes testing artefacts; Beaujean & Osterlind, 2008), but those that do, have reported minimal FE (Williams, 2013), supporting testing artefact explanations. The evidence suggests, then, that the FE might at least partially be attributed to testing artefacts, including test sophistication, test changes and overreliance on classical test theory.

Explaining the FE with biological factors

The second cluster of hypotheses interprets the FE as real intelligence gains through biological factors. Physiological factors include improved nutrition (Lynn, 1989), decreased lead exposure (Nevin, 2000), decreased pathogen load (Eppig, Fincher & Thornhill, 2010) and artificial lighting (Williams, 2013) – all resulting from improved socioeconomic conditions. Genetic factors potentially influencing the FE include heterosis (i.e., increased hybrid vigour through globalisation; Mingroni, 2007) and epigenetics (i.e., improved gene expression through environmental adaptation; Storfer, 1999), although they are thought to be limited by dysgenics (i.e., low infertility rates of intelligent people; Wang, Fuerst & Ren, 2016; Preston, 1998). Overall, biological explanations of the FE are well supported.

Explaining the FE with environmental factors

The third cluster of hypotheses explains the FE with environmental changes, including parenting, schooling and technology. Families have become smaller and professional childminders more prevalent, thereby giving children more contact with adults (Sundet et al., 2010), parenting increasingly emphasises cognitive development (Neisser, 1997), and the early childhood environment has become more complex (Schooler, 1998), which facilitates early cognitive development (Flynn, 2012; Rodgers, 2015). Children are more extensively schooled (Cahan & Cohen, 1989), own a larger repertoire of problem solving techniques (Schooler, 1998) and are better trained in hypothetical reasoning and abstraction than any other generation (Flynn, 2012), which further improves cognitive development (Ceci & Williams, 2016; Kaufman, 2010). Urbanisation and modern technology increase socio-environmental complexity (Flynn, 2012;

Schooler, 1998), employment has become more cognitively demanding (Schooler, 1998), and increasingly visual-technological environments improve processing speed and visual cognition (Greenfield, 1998), which develops cognitive resources and flexibility via increased demand (Flynn, 2012; Schooler, 1998). Consequently, there is convincing evidence for environmental explanations of the FE.

All three hypothesis clusters discussed so far – testing artefacts, biological and environmental explanations – are potentially subject to ceiling effects (Sundet et al., 2004; Teasdale & Owen, 2008). This could explain observations of both increasing and diminishing IQ gains.

Explaining the FE with multi-factor models

The fourth cluster of hypotheses concerns multiple drivers (Williams, 2013). Many of the aforementioned factors are backed by solid evidence, and, similar to the nature-nurture debate, it appears unreasonable to expect any single factor to explain fully the FE. The FE is more likely to be the result of multiple factors. The Social Multipliers Model explains that multiple small environmental changes can amplify each other (i.e., small environmental advantages improve performance, which, in turn, generates further environmental advantages, thus creating an ever accelerating loop) until a critical mass in environmental change is reached which produces the FE (Dickens, 2001). The Life History Model amalgamates biological and environmental factors: the improving biological and environmental conditions increase contraception, education and longevity, which slow life history speed; this results in fewer offspring experiencing more parental effort and better biological and environmental conditions, which facilitates cognitive development and increases intellectual ability (Woodley, 2012). There is good evidence for multi-driver models, but the Life History Model is especially well supported by a large recent meta-analysis (Pietschnig & Voracek, 2015).

Existing research, therefore, provides convincing evidence to support all four clusters of hypotheses of the FE. However, the variability explained by each factor remains unclear.

Clinical implications of the FE

The FE has important implications for clinical practice. The FE becomes salient whenever intelligence assessments are performed and IQ cut-off points determine high-stakes decisions (Trahan et al., 2014). This can affect forensic, disabled, juvenile and minority clients.

Implications of the FE for forensic clients

Death penalty. The most dramatic implication of the FE concerns the United States, where, in 2002, Daryl Atkins' death sentence was converted to life in prison upon diagnosis of intellectual disability (Kaufman, 2010). Over 80 intellectually disabled offenders have since been spared execution (Trahan et al., 2014). Therefore, assessing intellectual disability can literally mean life or death (Habets et al., 2015). Borderline intellectually disabled offenders could potentially slide below the IQ cut-off if retested with new norms, thereby escaping execution (Flynn, 1999). Some scholars argue that correcting IQ scores for the FE is unscientific due to the FE's variability, and that it violates standardisation and test guidelines (Hagan, Drogin & Guilmette, 2010, 2008). However, these arguments are based on small studies and are not reflective of recent large meta-studies, which support FE corrections being applied to all high-stakes intellectual assessments (Fletcher, Stuebing & Hughes, 2010). Sternberg (2010) offers a different perspective, pronouncing the FE to be irrelevant to criminal proceedings, as ethical intelligence rather than cognitive intelligence matters more in these situations. Nevertheless, the expert consensus is that, given the high stakes involved, the FE should be considered when assessing defendants' IQs (Kaufman, 2010).

Other court proceedings. IQ cut-off points, and therefore the FE, are also important for other court proceedings. For instance, there are jurisdictions that declare minors with learning disabilities incompetent to stand trial (Kanaya & Ceci, 2012) or intellectually disabled offenders not guilty by reason of insanity (Habets et al., 2015). Moreover, intelligence assessments also affect interrogations, court rulings, parole assessments, mandatory offender treatment programs (Habets et al., 2015), civil commitment evaluations (Melton, Petrila, Poythress & Slobogin, 2007) and child custody determinations (Crossman, Powell, Principe & Ceci, 2002; Erickson, Lilienfeld & Vitacco, 2007). All these intelligence assessments for forensic purposes are influenced by the FE.

Implications of the FE for intellectually disabled clients

Intellectual disability assessments. Another dramatic example of the impact of the FE is the assessment of intellectual disability. Intellectual disability assessments determine eligibility for social services, disability insurance payments and in the United States even access to organ transplants (Hagan et al., 2008). While clinical judgement is considered, an IQ cut-off point two standard deviations below the mean usually demarks intellectual disability (Trahan et al., 2014). Assessments using outdated test norms could push vulnerable clients above the cut-off. Several studies found large discrepancies in intellectual disability assessments between differently normed tests. In one example only 58% of clients assessed as intellectually disabled, were still assessed as intellectually disabled by re-normed tests, which could significantly disadvantage vulnerable clients (Habets et al., 2015).

Stronger FE at lower ability. The FE may be stronger at the extreme ends of the IQ distribution; that is, intellectually disabled and borderline clients may be especially affected (Habets et al., 2015). This would discredit the emerging clinical practice of uniformly adding 0.3 IQ points per year to correct for the FE regardless of ability level (Zhou et al., 2010). Additionally, it has not been excluded that different domains of intelligence may vary differently with ability level, which casts doubt upon the clinical practice of using abbreviated IQs or subscales as substitute for an unobtainable full scale IQ (Zhou et al., 2010).

Implications of the FE for clients with learning disabilities and the gifted

Learning disabilities. Intellectual assessments have high impacts on school children and students, since IQ scores inform the diagnosis of learning disability (i.e., if achievement scores are substantially lower than the corresponding IQ score; Kanaya & Ceci, 2011). Children's IQ scores decline with re-normed tests (e.g., retesting on WISC-III after testing on WISC-R), while achievement scores remain stable; this decreases the probability of a learning disability diagnosis, as the gap between IQ and achievement scores decreases, potentially denying or removing access to special education (Kanaya & Ceci, 2012). Additionally, the FE varies across children's age, ability levels and subtests used, casting further doubt on the reliability of IQ testing for access to special education (Kanaya & Ceci, 2011). Moreover, historically Australian children were tested using United States norms until the Australian Standardisation Project for WISC-IV, WIAT-II and CELF-4 established Australian normative data (Hannan, 2005). United States WISC norms, however, were consistently lower than Australian norms, resulting in inflated IQ scores, underdiagnoses of learning disabilities and under-allocation of special education resources (Kamieniecki & Lynd-Stevenson, 2002). In other words, before the Australian Standardisation Project established Australian normative data, IQ test results of Australian children were consistently inflated and learning disabilities underdiagnosed. This example further highlights the impact the FE can have on clients with learning disabilities.

Gifted students. Gifted pupils and students are also affected by the FE. Outdated norms increase the probability of labelling children and young adults 'gifted' (Kamieniecki & Lynd-Stevenson, 2002). This creates inflated expectations from caregivers and educators and excessive performance

pressure for the child or young adult (Neihart, 1999). Additionally, as IQ scores have been observed to decline with retesting (Kanaya & Ceci, 2012), clients previously classified as 'gifted' may subsequently lose the 'gifted' label (Ceci & Williams, 2016). While there is little research on effects of reclassification from 'gifted' to 'normal', reclassification might have negative impacts on perceived self-efficacy (Bandura, 1977), making it harder to succeed in many life activities.

Implications of the FE for ethnic minority clients

The FE also impacts on IQ testing of ethnic minority clients. One example of ethnic minority clients affected by the FE is migrants. Analogous to the inappropriateness of testing Australian children using United States norms (Kamieniecki & Lynd-Stevenson, 2002), it might be inappropriate to test migrants with norms originating outside their native culture. Another group of ethnic minority clients affected by the FE are Indigenous Australians. Studies comparing Indigenous and non-Indigenous Australians' IQs show a difference of 0.3–0.4 standard deviations, attributed largely to socioeconomic differences (Leigh & Gong, 2009), which likely increases the impact of the FE. More research is needed regarding the FE in migrants and Indigenous Australians (McDonald, Comino, Knight & Webster, 2012; Pearson, 2012).

Implications of the FE for the general population

Ethical intelligence. In addition to clients in clinical practice, the FE has implications for society in general. The FE does not generalise to ethical intelligence, and increasing cognitive intelligence in the absence of increasing ethical intelligence might even have negative moral implications for society (Sternberg, 2010). There is little research into whether ethical intelligence is subject to the FE, but it appears that ethical behaviour has not increased with the FE. Sternberg (2010) argues that less effort should be directed to researching magnitude and patterns, and more effort should be directed to ethical implications of the FE. Moreover, as ethical intelligence is a skill rather than an ability, increased effort should be made to teach ethical thinking. Ultimately, more research into and better education about ethical intelligence is needed.

The developing world. The FE is likely to be accelerating in the developing nations. There is support for the hypothesis that the FE is partially caused by industrialisation (Pietschnig & Voracek, 2015). As developing nations are embarking upon industrialisation they will probably experience explosive IQ gains similar to those previously experienced by the developed countries, which is supported by recent studies (Flynn, 2012). This factor has extensive implications for the developing world.

Age-related cognitive decline. The FE may change the discourse regarding age-related cognitive decline. Dickinson and Hiscock (2010) found that 85% of cognitive decline with age is explained by the FE. A recent meta-study supported this: age-related IQ decline is markedly reduced after adjustment for the FE (Trahan et al., 2014). Therefore, age-related cognitive decline might need to be reinterpreted as a mere result of the FE. This strategy might have implications for how society treats aging citizens.

Conclusion

The present article described observations regarding the magnitude and variability of the FE; research was summarised around four clusters of hypotheses: testing artefacts, biological factors, environmental changes and multi-driver hypotheses. Implications for clinical populations including forensic, disabled, juvenile and minority clients were discussed,; and societal implications were examined. Several examples of high-stakes decisions based on IQ tests underlined the importance of clinical practitioners being aware of how the FE affects the periodic re-norming of IQ tests and the determination of intellectual ability for diverse client populations. Most importantly,

practitioners need to ensure that the most current editions of IQ tests (i.e., correctly normed versions) are used. Moreover, practitioners need to keep themselves informed of new developments regarding the FE.

As the Flynn Effect can have significant implications for the lives of potentially millions of clients undergoing intelligence testing across the world each year (Kanaya & Ceci, 2011), and given that research on some aspects of the FE is still inconclusive, further research is important, and more studies are required. Most FE studies utilise limiting testing methodologies (Zhou et al., 2010), so new surveys could be designed utilising the more precise item response theory (Beaujean & Osterlind, 2008). Additionally, older data from earlier test editions could be reanalysed (Habets et al., 2015), and data from health and social service agencies could be explored (Williams, 2013). Further research might explore if the FE follows a U-curve similar to the reliability curves of psychometric tests (Habets et al., 2015). Diagnosis protocols for learning disabilities may need investigation to determine whether to rely more on achievement and skill and less on IQ testing (Kanaya & Ceci, 2012).

The majority of FE research is conducted on younger populations (Pietschnig & Voracek, 2015), inconsistent with demographic trends towards an older population (Pink, 2009); therefore, more research should be conducted within older populations. Additionally, more research is needed to establish if age-related cognitive decline needs to be reinterpreted as a mere artefact of the FE. Furthermore, there are insufficient longitudinal studies for clinical and forensic populations (Habets et al., 2015). More data from a diverse range of societies are required (Zhou et al., 2010), and further research is needed into how the FE affects minorities, including Indigenous Australians and migrants.

More recently identified factors, including the impact of computing, mobile communications and visual media should be explored (Schooler, 1998). As effects similar to the FE exist for memory and attention span, research should determine if the FE generalises across other cognitive domains and affects neurological parameters (Rönnlund & Nilsson, 2009). Lastly, more research on ethical intelligence and the impact of the FE on it is needed (Sternberg, 2010).

In summary, IQ testing involves very high stakes and clients' life trajectories can be forever altered if the FE is not taken into account correctly. Accordingly, there needs to be greater awareness amongst practitioners and more research on the FE is required.

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The author may be contacted via
 https://www.researchgate.net/profile/Stef_Black

Supporting students with mental health issues and acquired brain injury: University teaching staff perspectives

Ellie Fossey[1,2,3] , Christine Bigby[1,2] , Lisa Chaffey[1,2] , Margaret Mealings[1,2], Anne Williams[1,4], Tanya Serry[1,2], Annie Venville [2,5], Jennifer Oates[1,2], Priscilla Ennals[1,2]

[1] Living with Disability Research Centre, La Trobe University

[2] School of Allied Health, La Trobe University

[3] School of Primary Health Care, Monash University

[4] School of Health Sciences, Swinburne University of Technology

[5] Faculty of Health Sciences, Australian Catholic University

Abstract

Students experiencing disability face many barriers in university education, which are often poorly understood by university teaching staff. This is more likely to be the case regarding students with non-apparent conditions, such as mental health issues and acquired brain injury. This study employed an online survey, supplemented by semi-structured interviews, to investigate the views and actions of teaching staff at one university in relation to supporting these two student groups: those with mental health issues and those with acquired brain injury. Survey responses indicated that university staff generally held positive views about both student groups, but that there was inadequate staff training to assist staff in knowing how to support these groups. Staff most commonly supported students by directly negotiating adjustments with students, maintaining regular contact, and using the university's disability services. The results of this study support previous calls for improved staff training and also draw attention to the competing demands on staff of supporting student learning whilst managing other institutional forces at play in universities.

Keywords

academic staff, disability, mental health, diversity, tertiary education, university teaching

Introduction

Increasing numbers of students with disabilities are undertaking university education in Australia and internationally (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010; Madriaga et al., 2010; Redpath et al., 2013; Stallman, 2010; Storrie, Ahern, & Tuckett, 2010). Contributing factors include: changing societal attitudes towards disability; enactment of disability discrimination legislation; educational policies to widen access to post-secondary education; and better transition planning and support for students with disabilities (Iarovici, 2014; Macaskill, 2013). Nevertheless, students with disabilities remain under-represented in the university student population and have lower completion rates (Fuller, Healey, Bradley, & Hall, 2004; Hartley, 2010; Macaskill, 2013). Universities are attempting to better meet the needs of students with disabilities, but strategies for supporting these students have not been well evaluated, resulting in a lack of evidence about which are the most effective approaches (Salzer, Wick, & Rogers, 2008; Willmott, Ponsford, Downing, & Carty, 2014).

Many university teachers have little understanding about the impact of disability on a student's academic life (Barnard-Brak et al., 2010; Brockelman, 2011; Hux et al., 2010; Matthews, 2009; Mullins & Preyde, 2013). This is more likely to be the case where the disability is less apparent, such as mental health issues (MHI) or acquired brain injury (ABI). Individually, students with MHI may experience challenges in processing information due to symptoms and medications, fluctuations in capacity to study, lowered academic self-confidence, and financial stress (Hartley,

2010; Mullins & Preyde, 2013). Likewise, students with ABI may have to contend with changes in cognition, attention and concentration, as well as experiencing fatigue and difficulty with emotional regulation. Educators are often unfamiliar with such symptoms (Hux et al., 2010; Mealings, Douglas, & Olver, 2012; Willmott et al., 2014). These students are particularly at risk of not completing courses, resulting in disruption not only to their educational attainment, but also to their vocational options, workforce participation, earnings and longer-term financial independence (Barnard-Brak et al., 2010; Fuller et al., 2004; Magnus & Tøssebro, 2014; Waghorn, Chant, Lloyd, & Harris, 2011).

Teaching staff have a responsibility to provide 'reasonable adjustments' required by disability discrimination legislation in many countries (Commonwealth of Australia, 2005; Fuller et al., 2004; Kiuhara & Huefner, 2008; Magnus & Tøssebro, 2014; Redpath et al., 2013; Ryan, 2011). However, teaching staff may not necessarily have the knowledge and expertise to meet this responsibility. Reported staff-related factors that can limit students' use of reasonable adjustments include: assumptions of 'normality' embedded in course structures, teaching and assessment practices; limited awareness by staff of students' needs; and discriminatory attitudes that inhibit help-seeking (Claiborne, Cornforth, Gibson, & Smith, 2011; Fuller et al., 2004; Martin, 2010). Both staff and students have also reported poor access to information about learning supports as well as finding that the educational support systems are complex to navigate (Fossey et al., 2015; Fuller et al., 2004; Hartley, 2010; Redpath et al., 2013).

A number of studies has found that teachers' attitudes and actions affect students' experiences of the supports provided and their willingness to seek future help (Baker, Boland, & Nowik, 2012; Claiborne et al., 2011; Fuller et al., 2004; Magnus & Tøssebro, 2014; Martin, 2010; Redpath et al., 2013; Venville, Street, & Fossey, 2013). The focus of most of these studies has been on provision of supports for students with a variety of impairments and health conditions. Little is known, however, about teaching staff views regarding supporting students with non-apparent conditions, apart from two studies which suggest that college and university teachers may have only limited understanding of the impact of these conditions on student learning (Hux et al., 2010; Mullins & Preyde, 2013). Greater understanding about the ways in which teaching staff try to support students with non-apparent conditions is required to improve the experience of these students and to ensure that institutions are fulfilling their obligations under disability discrimination legislation. As a first step towards addressing gaps in knowledge about teaching staff support for students with MHI or ABI, a study was conducted at one Australian university. The purpose of this study was to investigate two central questions:

- What views, knowledge and experience do teaching staff at this Australian university hold in relation to supporting students with non-apparent conditions, specifically either MHI or ABI?

- What actions do these university teaching staff take to support students with non-apparent conditions?

Method

This study employed mixed methods to investigate the views and actions of university teaching staff in relation to supporting students with non-apparent conditions (Creswell, Plano Clark, & Garrett, 2008). Quantitative data were collected using an online survey of a random sample of 2000 staff from one multi-campus Australian university. A survey method was chosen because of the speed and ease of survey completion by staff (Dillman, Smyth, & Christian, 2014). Subsequent qualitative interviews were conducted with teaching staff who had experience of supporting students with disabilities, in order to obtain further detail about staff actions in relation to the provision of this support; also to explore whether they held any competing perceptions about support for these students (Liamputtong, 2009).

Participants and setting

This study was conducted at an Australian university with both metropolitan and regional campuses. Typical of Australian universities, it offers a range of services for students on all campuses, including study skills, counselling and disability support. The disability support service consults with eligible students about their learning support needs, develops learning support plans, coordinates the provision of individualised reasonable adjustments where applicable, and liaises with university staff regarding barriers to access and participation both for individual students and at an institutional level.

University ethical approval was obtained for this research prior to commencement. Informed consent of the staff involved was either implied by online survey submission, or provided in writing prior to interview.

In total, 226 online surveys were submitted, of which 13 were incomplete and omitted from analysis. The 213 completed surveys represented a 10.6% return rate. Table 1 presents survey respondents' demographic characteristics. The survey sample was representative of the university's teaching staff profile with regard to classification and employment status, however, staff in the health science disciplines were over-represented and those in social sciences disciplines were under-represented. The survey sample also showed a bias toward female respondents (67%), compared with the university's overall female academic staffing (59%), likely to be an effect of the relatively high number of female staff in health science disciplines. The mean age of survey respondents was 47.7 (SD = 10.4) years.

Table 1. Survey respondents' demographic characteristics (N = 213)

Variable		Frequency	Percent
Gender	Male	68	32
	Female	143	67
Disciplines	Health sciences	87	41
	Sciences	40	19
	Social sciences	78	37
Academic	Level A or B	133	62
Classification	Level C or above	74	35
Employment status	Casual/short term contract	37	17
	Continuing/longer term contract	174	82
Training re MHI or	Staff induction	31	16
ABI	Disability awareness training	75	38
	Mental Health First Aid	24	12
	None	82	41

In addition, all teaching staff who had worked with disability services to support students with ABI or MHI were invited for an interview. Five teaching staff members, three male and two female, participated in telephone interviews that ranged from 25 to 42 minutes in length and were conducted by two members of the research team. Four interviewees were in health science disciplines, and one in a social science discipline. All had considerable experience supporting students with disabilities. They had worked in universities between five and twelve years; all were in roles that included teaching, while four interviewees also had year-level or course coordination responsibilities.

Instruments

Questionnaire

Drawing on reviews of relevant literature (Corrigan, Watson, & Barr, 2006; Gabel & Miskovic, 2014; Mealings et al., 2012), the multidisciplinary research team developed an online 34-item questionnaire. The questionnaire was piloted with two teaching staff from Health Science disciplines and revisions were made to the wording of some questions based on their comments. The final questionnaire comprised seven demographic questions, eight items exploring participants' views, knowledge and experience of teaching students with MHI and ABI respectively, and 11 items about reasonable adjustments and actions taken by participants to support students with MHI or ABI. Apart from the demographic questions, participants were asked to rate most of the other items on a five point Likert scale. For several items, participants were asked to choose from a list of fixed responses, with an option to provide open-ended comments. These items included questions about their views of the study-related issues experienced by students with MHI or ABI, actions taken to provide reasonable adjustments and support for these students, and participation in related staff development.

Interview

A semi-structured interview guide was developed to further explore findings identified through the survey with the five participants described earlier. It included questions about the participants' roles, responsibilities and prior experiences in working with students either with MHI or ABI, as well as their use of the university's disability support service, reasonable adjustments, and other supports in teaching these students. Participants were also asked about improvements that could be made in the university to better support staff in teaching students with MHI or ABI.

Procedure

The university's central administrative unit distributed an invitation to participate in the online survey to a random selection of 2000 members of teaching staff, via their email addresses. These staff members also received emailed reminders for three consecutive weeks. Emails included information about the study and an embedded online survey link. The university's disability support service distributed invitations to participate in a telephone or face-to-face interview to academic staff who had prior experience of working with this service to support a student with either MHI or ABI, of whom five accepted.

Survey data were entered into SPSS 17.0 for analysis. Descriptive statistics were used to compare and explore the views, attitudes, knowledge, confidence, and experience of staff in supporting students with MHI or ABI. Chi-square tests for independence and Wilcoxon Signed Rank Tests were performed to explore differences in responses regarding students with MHI and ABI, and Mann-Whitney U Tests were used to explore differences between different categories of staff (such as employment status). For purposes of simplicity in describing the results, the response categories "strongly agree" and "agree" are combined, as are the categories "strongly disagree" and "disagree".

Interviews were recorded, transcribed, and thematically coded using NVivo10.0 software. Participants' identities were protected by assigning labels Participant 1 to Participant 5 to their transcripts. Verbatim quotes from interviews are used to illustrate key findings.

Results

Results from the survey are presented below, supported by illustrative quotes from the semi-structured interviews. First, results regarding staff views, knowledge and experience of supporting students with MHI and ABI, and subsequent actions are reported. The perceived role of staff in supporting students with MHI and ABI, as reported by participants, is then described.

Staff views, knowledge and experience of teaching students with MHI and ABI

A larger proportion of survey respondents reported experience in teaching students with MHI (95%) compared with ABI (36%) (Chi-square test for independence, χ^2(1, n=404) = 153, *p*=.000, *phi* = .62). Interviewed staff also described having more experience in teaching students with MHI, although they noted that they would not necessarily know whether a student was experiencing MHI, ABI or any other non-apparent disability.

Surveyed staff generally agreed that students with MHI (79%) and ABI (59%) are capable of managing university study successfully; the majority also identified thinking, concentration, and memory as potential study-related concerns for both student groups: MHI (90%) and ABI (74%). Respondents also identified social and interpersonal skills as concerns for students with MHI (86%) and ABI (64%). Interview participants expressed similarly positive views about study capability. They also spoke about individual students' challenges related to thinking, concentration, and in-class behaviour. Changes in behaviour were also clues to identifying students at risk.

> *They're often a little bit more withdrawn or the opposite, sometimes really outgoing and uninhibited…*
> *(Participant 2)*

Overall, more respondents reported gaining knowledge of these conditions through their working lives (MHI: 82%; ABI 43%) and personal lives (MHI: 61%; ABI: 18%), rather than through formal training in their academic roles (MHI: 34%; ABI: 23%). Furthermore, some participants reported having no knowledge or experience of ABI (34%) or, to a much lesser extent, of MHI (3%). The number of staff who had received training about MHI or ABI was low (see table 1). Training sources provided by the university included disability awareness training (33%), staff induction (14%) and Mental Health First Aid Training (Kitchener & Jorm, 2002) (11%). Twenty-six respondents (12%) named other training sources external to the university, such as through a professional body. Nevertheless, over a third (36%) of respondents reported that they had received no MHI or ABI-related training, and those working on a short term or casual contract were significantly less likely to have completed any training than staff with continuing or long-term contracts (Mann-Whitney U Test, *z = -3.963, p<.000*).

Survey participants overwhelmingly believed that students had a right to seek reasonable adjustments (94% agreement) and that making reasonable adjustments was effective in supporting students with MHI or ABI (86% agreement).

Staff reported actions in relation to students with MHI or ABI

Staff reported taking a range of actions to support students (see table 2). The most common actions were: to recommend that students use internal university supports; to ask students about what they needed; and to seek advice from colleagues about suitable reasonable adjustments. Both survey and interview participants expressed a preference for students to disclose some information, especially about their study-related difficulties, in order to help staff understand how their studies and learning could be affected. As one interviewee said,

> *I think certainly some disclosure is helpful because obviously the more you know about somebody's condition, and more so in terms of how it affects them and their learning, then that is useful.*
> *(Participant 1)*

While only one third of surveyed staff considered they had adequate support to make relevant reasonable adjustments for students, most respondents also agreed that the assistance and guidance from on-campus learning and disability support services assisted them in teaching students with MHI or ABI. Likewise, the interview participants described valuing the expertise of this service, as discussed by this interviewee:

> *I don't necessarily believe that we need to be experts in every possible illness or disability or whatever a student might have but I guess that's where I would see the [disability support services] within the*

university to give lecturers or teachers the ideas or tools or resources and supports to enable us to do it. (Participant 1)

Table 2. Possible staff actions in response to students managing their studies: number of survey responses (%)

Statement	#	SA	A	D	SD	DK
Recommend the student contact support services in the University	198	133 (67%)	59 (26%)	2 (1%)	-	4 (2%)
Seek advice from support services in the University	195	97 (50%)	83 (43%)	11 (6%)	2 (1%)	2 (1%)
Talk to the student	199	85 (43%)	96 (48%)	10 (5%)	-	8 (4%)
Seek advice from colleagues	196	70 (36%)	106 (54%)	14 (7%)	5 (3%)	1 (.5%)
Recommend the student contact support services external to the University	194	37 (19%)	72 (37%)	49 (25%)	5 (3%)	31 (16%)
Take no specific action	182	1 (.5%)	6 (3%)	69 (38%)	99 (54%)	7 (4%)

Key: # = Number of respondents; SA = Strongly agree; A = Agree, D = Disagree; SD = Strongly disagree; DK = Don't know

Interview participants also reported making use of students' learning support plans to guide their provision of reasonable adjustments. Plans for students with MHI were more frequently mentioned and were typically described as including: adjustments to academic activities, such as a student's study load or assessment procedures (e.g., extended submission dates, alternative arrangements for exams); and applying special consideration to results. While fewer comments were made about adjustments for students with ABI, this interviewee described an adjustment arranged by the university's disability service:

[They] organised a transcription service, and what that meant is I had to dial in at the start of the lecture, had a telephone on me…and as I was talking that particular student could see on her screen a transcript of what I was saying... So we are going to decent lengths to make sure that we support our students. (Participant 2)

Additionally, a number of survey participants reported creating strategies that went beyond the usual mechanisms to support students. Communication and collaborative problem-solving were central to these strategies. For example, survey respondents reported keeping in touch with students via phone and email, offering extra individual teaching or support, and adjusting teaching strategies within the classroom. As well as describing similar efforts to stay in contact with students, interview participants also spoke of deciding reasonable adjustments directly with students, based on their shared understandings of what was needed. As one interviewee said:

My role was really reinforcing and making sure I was aware of what his options were with regards to extensions and that kind of thing, and just trying to be mindful of him in the classroom, and just keeping in contact with him so he didn't get lost and left behind. (Participant 1)

Other strategies used by the interviewees to enable students' participation in academic activities included: ensuring students were in supportive environments, such as smaller groups of students; making individual arrangements for fieldwork or clinical placements; and altering spaces for students in practical classes.

We had a couple of students who we had to put into a smaller group, for example, because they were not really able to cope with the hectic environment, because the prac is quite hectic and exposure to other people, too close to other people. So we physically separated them, without stigmatising

anything...It's all done in a very inclusive way but at the same time trying to cater for that kind of behaviour or need. (Participant 2)

Perceived role of staff in supporting students with MHI and ABI

Almost all survey respondents (90%) believed that part of their teaching role was to support students with MHI or ABI to undertake their studies; a view also expressed in interviews. For example, one interviewee said:

If there are things that we can do and are within our ability to do, in a classroom, to do things in a way that suits them or makes things equitable for them, I think that's our responsibility for teachers to do that. (Participant 1)

Responses from interviewees indicated that they perceived it as part of an academic's role to meet with students who are experiencing non-apparent conditions, and to address their study-related difficulties. Indeed, one interviewee described this aspect of being a course coordinator as one that she particularly valued:

I see as the course coordinator, [meeting with students is] my responsibility ...There's a whole lot of other stuff that takes up more of my time that I would happily get rid of. Every time a student comes to me and says I need your help ... well I just think obviously I'm doing my job right if they think they can come to me. (Participant 4)

Being an advocate for students in order to ensure they received appropriate support was a further role that interviewees described undertaking. Advocacy for students included being a central point of contact for a student and asking for adjustments on their behalf, as this interviewee described:

The other thing I have instigated for this student ... is making me a central point of contact for when things are getting out of hand, so I can be an advocate on her behalf and go to her other lecturers within my school and say, "without telling you why, could you please approve an extension for this student" and then the student doesn't feel the need to disclose, but also to repeat their story over and over again, particularly if it is something they wouldn't like everybody to know... It's a way of actually just taking the pressure off without the student feeling I have to do it all myself. (Participant 4)

Unanimously, the interviewees expressed disappointment in the perceived disparity between the value that they placed on their role in supporting students with MHI and ABI and its apparent value within the broader university. Interview participants explained that they thought their activities to support students were neither valued by the university, nor did these activities contribute to their academic career advancement. Hence, as expressed by this interviewee, time spent in these activities came at a personal cost:

There is zero recognition. ...From a supervisory perspective, my discipline leader and head of department and above, none of them will say, "You've done a great job supporting these students". All they want to know is, "Where is your research grant income, why haven't you got these publications out... No one cares. (Participant 3)

The majority of survey respondents (63%) agreed that their workload affected their capacity to provide support for individual students with MHI or ABI. Interviewees elaborated that their efforts to support students were time-consuming. This was particularly so when staff had not been fully aware of, or able to plan for, a student's needs, as illustrated by this interviewee's experience of making adjustments to an online quiz:

I had to go back through the [online] quizzes and cut and paste individual questions into a Word document and then save that and email it to the student with a set of instructions of when that was due and so on. So I did that and then the next week I get advice from [disability adviser] that I've cut and pasted the radio buttons...that mucks up his software which converts written text into spoken word, "so can you go back and delete all the radio buttons?" (Participant 3)

Discussion

This study identified that, at this particular university, teaching staff held positive views towards students with either MHI or ABI, and believed that making reasonable adjustments was part of their role as teachers and coordinators. While no previous studies have focused on university teachers' attitudes specifically towards students with ABI, these findings are consistent with Smith's (2010) survey of UK university lecturers' attitudes towards disabled students in general, as well as two US studies that report positive attitudes among academic staff towards students with MHI (Becker, Martin, Wajeeh, Ward, & Shern, 2002; Brockelman, Chadsey, & Loeb, 2006). The study described in this paper indicated that, having knowledge and experience of someone with MHI or ABI contributed to positive views about students with these conditions and about making reasonable adjustments. This is consistent with findings reported by Brockelman (2011; 2006), which demonstrated that academics with personal experience of someone with a mental illness were more likely to hold positive views towards students experiencing mental illness.

The finding that teaching staff more frequently report knowledge, experience and confidence in supporting students experiencing MHI than those with ABI is unsurprising, given that ABI is less common in the general community than MHI. Furthermore, given that only one-third of survey respondents stated that they had participated in formal training about MHI or ABI, it is also unsurprising that these teaching staff reported insufficient training and support to make reasonable adjustments for both groups, even with the availability of valued guidance from a disability support service. This is consistent with previous qualitative research that has identified the need to increase knowledge amongst university staff about making reasonable adjustments, especially in relation to less visible conditions (Magnus & Tøssebro, 2014; Mullins & Preyde, 2013; Redpath et al., 2013). Therefore, more information, guidance, and professional development are required for academic staff, as well as further research regarding how best to influence staff practices (Smith, 2010).

The most commonly reported actions related to making reasonable adjustments in this study were direct negotiation with an individual student, supplemented by collegial discussions, and formal advice from the university's disability support service. Survey respondents typically reported relying on students to tell them if they required assistance. This finding is consistent with previous research (Becker et al., 2002; Fossey et al., 2015; Magnus & Tøssebro, 2014; Redpath et al., 2013). For instance, Becker et al. (2002) found that 80% of academic staff in their study communicated directly with students about their support needs, rather than relying on centralised disability support services. However, survey and interview responses in the present study indicated that staff also valued the guidance of the university's disability support service.

To access disability support services, students must be prepared to disclose their disability. Whilst from a staff viewpoint, disclosure enables the provision of reasonable adjustments and other supports (Venville, Street, & Fossey, 2014), the dilemmas for students associated with disclosure, particularly of less visible conditions that may lead to stigmatising and discriminatory responses, are well documented (Matthews, 2009; Mealings et al., 2012; Olney & Brockelman, 2003; Venville et al., 2013). Hence, information and training for staff could usefully raise awareness of the issues impacting student disclosure decisions, and focus more on how to offer flexible and supportive strategies routinely. Such training would assist staff to anticipate the learning needs of more diverse groups of students and thereby reduce their own reliance on student disclosure (Magnus & Tøssebro, 2014; Matthews, 2009; Smith, 2010).

This study also indicates that direct and ongoing negotiations between staff and students are considered central in making reasonable adjustments, and that staff commitment is evident in "going the extra mile", as Claiborne et al. (2011, p. 525) also reported. Survey responses clearly show that staff viewed their workloads as impacting their capacity to make reasonable adjustments for individual students. Staff reported a responsibility towards supporting all students, including

those with MH and ABI, however, they felt caught between the time taken to provide this support and the fact that it was often unrecognised or undervalued by the institution relative to other measures of their performance, such as research output. This aligns with Clegg and Rowland's (2010) argument that diminishing value is being placed on the interpersonal, caring aspects of academia, such as kindness and concern for students, while the scholarly aspects of the role, such as research, take increasing precedence. Similarly, Smith (2010) noted that pressures on academic staff within post-secondary education, such as greater student to staff ratios, increased casualisation of the academic workforce and increased emphasis on online teaching, also serve to reduce the opportunity for face to face contact with students (Smith, 2010). Thus, the expectation and responsibility for teachers to provide reasonable adjustments for individual students with particular needs, has to be underpinned by adequate institutional support. Yet, to promote inclusive learning environments, it is also necessary to shift the balance from providing reasonable adjustments so that individual students can 'fit in', toward inclusive educational practices designed to routinely accommodate greater diversity and difference (Boyd, 2014; Madriaga et al., 2010; Matthews, 2009).

Strengths and limitations

The results need to be interpreted cautiously, since this study was conducted at only one university. Additionally, a low response rate to the online survey and the somewhat uneven representation of the range of disciplines across the university may not reflect the full range of teaching staff views at this particular university. Nevertheless, strong consistency between the survey and interview results was evident. Respondents from the health science disciplines outnumbered those from all other disciplines, and might be expected to have more understanding of health and disability related issues than other university teaching staff. Therefore, the finding that staff considered they lacked adequate training and support for teaching students with MHI or ABI would most likely be stronger, not weaker, if more staff from other disciplines had responded to the online survey. A further limitation is the use of a survey questionnaire developed for this study; development of a validated tool would facilitate further systematic investigation of staff views and knowledge about supporting students with non-apparent conditions in tertiary education. In addition, more might have been learned about teaching staff practices if the survey questionnaire had sought information about the types of reasonable adjustments considered most useful, and how they were implemented.

Conclusions

This study employed an online survey, supplemented by interviews, to investigate teaching staff views at one university about working with two groups of students with disabilities whose conditions are less apparent; students with mental health issues and those with an acquired brain injury. Generally positive views towards both student groups were reported, with more perceived knowledge and confidence reported amongst participants supporting students experiencing mental health issues than those with acquired brain injury. Participants most commonly reported using the following support strategies: directly negotiating adjustments with students; keeping in regular contact; and drawing on disability service guidance. Inadequate staff training to assist them in supporting both groups of students, and limited institutional recognition of this role were also noted. This study draws attention to the tensions for university staff as they try to provide support for student engagement and learning whilst also managing other workload demands of academia.

Acknowledgment

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The authors may be contacted via:

Ellie Fossey

ellie.fossey@monash.edu

Using Mindfulness Techniques to Improve Student Wellbeing and Academic Performance for University Students: A Pilot Study

Monika Goretzki
Student Counselling Service
University of South Australia

Ania Zysk
Student Counselling Service
University of South Australia

Abstract

This paper examines the effectiveness of a three week mindfulness group program as a tool for improving academic performance, managing study stress and improving overall well-being. A mindfulness based approach was chosen due to its effectiveness in reducing stress as well as improving psychological wellbeing and working memory in various groups of university students. Evaluations from students over a three year period have consistently reported improved life and study skills across a number of areas, including capacity to manage stress and to stay more present. They also reported increased focus and improved sleep. The outcomes demonstrate an effective and innovative way to support student learning and wellbeing as well as providing students with a non-threatening way to engage with the counselling service.

Keywords

mindfulness, student well-being, focus and concentration, university students, group program, study stress

Introduction

Many students find tertiary education highly stressful. These high levels of stress often affect psychological health (Cvetkovski, Reavley & Jorm, 2012) and can adversely affect academic performance (Stallman, 2010). In comparison with the general population, research indicates a high prevalence of psychological distress and mental health problems among Australian university students. Approximately 84% of students report elevated distress levels (Stallman, 2010) which is much higher than age matched peers in the general population (Stallman, 2008).

Increased levels of psychological distress have been associated with increased disability, resulting in a reduced capacity for students to meet their educational demands (Stallman, 2008). Such students have been found to achieve poorer educational outcomes as evidenced by lower grades (Stallman, 2010). Stallman's research (2008) also found that students experiencing very high levels of distress, had impaired capacity to work and study up to 60 % of the time. This may then place them under further pressure and psychological distress as they try to catch up with their workload. In addition, only about 36% of students experiencing high levels of distress access professional assistance (Stallman, 2008). Certain groups such as international students are even less likely to seek assistance from a counselling service (Bradley, Parr, Lan, Bingi & Gould, 1995) due to elevated levels of personal stigma attached to psychological distress (Eisenberg, Downs, Golberstein & Zivin, 2009), even though they are a particularly vulnerable group, experiencing more challenges than the rest of the student population (Pedersen, 1991). While the language barrier presents the most significant difficulty for most international students, further difficulties with linguistics, academic requirements, finances, intrapersonal issues (Mori, 2000) and social isolation (Stallman, 2008), constitute other sources of stress. This is concerning given that these students are less likely to engage in help seeking behaviours, yet they make up a significant portion of enrolments.

Setting for the pilot study

The pilot study discussed in this paper took place within the university counselling service of a large metropolitan Australian university. The University of South Australia (UniSA), encompasses two city campuses, two suburban campuses and two regional campuses. The mean student population over the duration of this study (2014-2016) was 33,074 students, including 6,847 international, 7,200 post graduate and 6,877 students identified as low socioeconomic status. Although research reports low levels of help seeking among university students, the UniSA counseling service experienced increasing demand for one to one support with students presenting with increasingly complex issues. The elevated levels of distress among students and the impact this had on their overall wellbeing and capacity to study raised concerns for the counselling service. As a pro-active approach for managing the demand and providing skills for managing stress, improving study capacity and overall well-being, the "Improving Focus and Concentration" group program was developed.

Rationale for choosing a group approach

A psychoeducational group based approach was chosen as it focuses on knowledge acquisition and skill development. It is also the most widely implemented group modality within educational settings (Gerrity & DeLucia-Waak, 2007). This approach focuses not only on the content but also on the group learning process (Champe & Rubel, 2012; Brown, 1997). It was chosen to provide participants with additional advantages such as peer support, the opportunity to learn from others, increased motivation for making changes and to break down some of the barriers to help seeking.

This method of establishing connections with students, especially international students, is also supported by research (Bradley et al. 1995), which suggests that outreach programs exposing counsellors to students are well received. Bradley et al. (1995) also identified that group programs where students are able to learn relaxation skills are valued by students.

Rationale for choosing a mindfulness-based program

A mindfulness-based approach was chosen due to evidence of its effectiveness for improving various cognitive skills required for academic performance (Zeidan, Johnson, Diamond, David & Goolkasian, 2010; Mrazek, Franklin, Phillips, Baird & Schooler, 2013) as well as reducing stress (Shapiro, Schwartz & Bonner, 1998) and increasing psychological (Van Gordon, Shonin, Sumich, Sundin & Griffiths, 2014) and physiological wellbeing (Hassed, Lisle, Sullivan & Pier 2009). Mindfulness practice has also been shown to facilitate improvements in adaptive coping style (Palmer & Rodger, 2009) as well as assisting in the reduction of negative mood (Lynch, Gander, Kohls, Kudielka & Walac, 2011), mood disturbance (Rosenzweig, Reibel, Greeson, Brainard & Hojat, 2003) and emotional regulation (Van Gordon et al. 2014).

What is mindfulness?

Mindfulness has been defined as "paying attention ... on purpose, in the present moment," (Kabat-Zinn, 1994, p. 4). It involves consciously bringing ones awareness to the present moment, with curiosity, openness and acceptance of both pleasant and unpleasant experiences. Emphasis is placed on seeing and accepting things as they are rather than trying to change them. Through that purposeful focusing of attention, mindfulness also encourages awareness of our habitual mental functioning or what is sometimes called "the auto-pilot mode".

Mindfulness practice involves the focusing of attention on a sensory or mental experience, such as the sensation of the breath or body, with full acceptance of the experience, while being aware of any distractions. When the mind wanders due to internal or external distractions, the practitioner's task is to gently bring the attention back to the breath or body and maintain a state of relaxed alertness. Although it is not a goal-directed activity the practice can have additional benefits. For example, it may bring about relaxation although it is not primarily a "relaxation exercise".

Mindfulness can be cultivated by a variety of techniques both formal and informal. Formal practices include sitting or lying down meditations. Informal practices can include mini-meditations throughout the day or bringing awareness to and stepping out of "autopilot" mode when performing everyday tasks.

Mindfulness based therapeutic programs

Two seminal programs include the Mindfulness Based Cognitive Therapy (MBCT) program (Segal, Williams & Teasdale, 2002) originally developed to prevent relapse into major depression, and the Mindfulness Based Stress Reduction (MBSR) program (Kabat-Zinn, 2005), created to assist patients to better cope with pain and distress (MBSR). A meta-analysis of the 8 week MBCT program has indicated that it is an effective intervention for relapse prevention in people experiencing major depressive disorder (Piet & Hougaard, 2011). A meta-analysis on MBSR reported decreased levels of stress and depression as well as improvements in quality of life in healthy individuals (Khoury, Sharma, Rush & Fournier, 2015). A further meta-analysis on these programs (Gu, Strauss, Bond & Cavanagh, 2015) provided evidence for decreased levels of rumination and worry, improved cognitive and emotional reactivity, and suggested some improvement in psychological flexibility. Khoury, Lecomte and Fortin (2013) concluded that mindfulness based therapies are effective for reducing depression, stress and anxiety.

Although these programs have been effective in a range of settings, including universities (Collard, Avny & Boniwell, 2008; Shapiro et al. 1998) and have provided evidence based interventions for increasing wellbeing and reducing psychological distress, anxiety and worry (Ruths, de Zoysa, Frearson, Hutton, Williams & Walsh, 2012), they require extensive time commitments. The UniSA counselling service's previous experience of running group programs on campus indicated that time constraints and life pressures experienced by university students resulted in high drop-out rates from workshops. In order to reach a broader, more diverse audience and increase retention, a shorter program than the standard 8 week MBCT and MBSR courses was needed.

There is evidence that supports brief mindfulness training as an effective intervention for improving wellbeing and cognition. For example, Zeidan et al. (2010) found that a four day (20min/day) meditation training program increased the ability to sustain attention, improve cognition and mood, reduce fatigue and anxiety and increase mindfulness. Moreover, brief mindfulness training significantly improved visuospatial processing, working memory, and executive functioning (Zeidan et al. 2010). Five days of Integrative Body Mind Training also improved mood and cognitive processes (Tang, Yinghua, Wang, Yaxin, Feng & Lu, 2007). In another study Zeidan, Gordon and Goolkasian (2009) found that three days of meditation training was more effective at reducing anxiety in participants compared with other cognitive interventions such as a relaxation exercise or a math distractor task.

Mindfulness research has also indicated that various practices correspond with the activation of distinct areas of the brain (Holzel, Lazar, Gard, Schuman-Oliver, Yago & Ott, 2011; Tang, Holzel & Posner, 2015) which may enable practitioners and therapists to fine-tune the use of specific mindfulness exercises to target specific psychological issues. This research has helped to inform the process of creating mindfulness based programs focusing on treating specific psychological issues or improving the function of specific cognitive processes.

Using mindfulness with university students

A number of studies among university students (Shapiro et al. 1998) including senior medical students (Warnecke, Quinn, Ogden, Towle & Nelson, 2011) and student nurses (Kang, Choi & Ryu, 2009), have shown that the practice of mindfulness contributes to a reduction in stress and anxiety. Further research has indicated that mindfulness practice is effective at reducing fatigue (Zeidan et al. 2010) and symptoms of psychological stress (Shapiro et al. 1998). A number of cognitive factors essential for study have also been enhanced using various mindfulness techniques, leading to better

academic performance. Students practicing mindfulness were better able to maintain focus and sustain attention, showed greater efficiency in higher order processing and long term memory retrieval (Zeidan et al. 2010). One study indicated that university students with two weeks of mindfulness practice increased levels of reading comprehension and working memory capacity while reducing the occurrence of distracting thoughts and mind wandering (Mrazek at al. 2013). These students practiced maintaining their focus on a single aspect of experience, e.g., their breath, and were then able to redirect this same focus and concentration to a challenging task. This assisted with reduced levels of mind wandering despite frequent internal or external interruptions. Through these findings, this study confirmed that mindfulness practices can deliver immediate short term benefits for students (Zeidan et al. 2010).

In summary, based on research evidence a brief mindfulness based program that carefully selects mindfulness exercises to target the functions of specific cognitive processes was chosen as a valid pro-active intervention for helping students improve both academic performance and general wellbeing.

The Improving Focus and Concentration workshop

This initial research into the short term effectiveness of mindfulness interventions for wellbeing and academic success led to the development of the three week "Improving Focus and Concentration" workshop. The aim of this workshop was to provide students with the fundamental knowledge of mindfulness as well as simple tools and techniques that students could use to support their learning and wellbeing.

The three week program consisted of a one hour session per week over three weeks. Each week a different theme was introduced which guided the content of the session; (1) introduction to mindfulness; (2) being aware; and (3) being present with your thoughts. The sessions consisted of formal practice, discussions and debriefing of the exercises to provide participants with opportunities to share their experiences and learn from each other. Week two and three also incorporated elements of Cognitive Behaviour Therapy (CBT) and Acceptance and Commitment Therapy (ACT) to bring awareness to the relationship between thoughts, feelings and actions. The workshops were delivered by members of the UniSA counselling service who had received training in mindfulness interventions including MBCT and ACT.

Each session started with a "five minutes of mindfulness" exercise designed to assist participants to redirect their focus to the workshop. Week one introduced the concept of mindfulness by using the experiential exercises of "mindfulness of eating" and "mindfulness of the body". Time was allocated after each exercise for debriefing and discussion focused on barriers to being mindful. Home practice was set, encouraging students to choose a regular activity to do mindfully each day. Week two focused on "being aware" and introduced the "hands as thoughts" exercise to aid in defusing or distancing oneself from thoughts. Various visualisation exercises were also used to assist with learning to let go of thoughts. Week three focused on "being present with your thoughts", accepting thoughts and feelings, and learning strategies for creating distance from thoughts. It also introduced a longer "mindfulness of breath" exercise. There was discussion on how to use these skills in daily life, to reduce study stress and increase overall wellbeing. Students were given a number of handouts to assist with ongoing home practice.

Methodology

The findings discussed in this paper are based on evaluations from workshops run between 2013 and 2016 across the four metropolitan campuses. A total of 23 workshops was run during this period.

The three-week workshop was evaluated by a survey (see Appendix 1) which was created primarily to capture information to assist in program development. The survey comprised of open ended

questions. It was given to students in paper format to complete at the end of week three. Completion of the survey was voluntary. In 2013 and 2014 most of the workshops were evaluated to assist in the development of the program, however evaluations were not collected from one workshop in 2014. In 2015 and 2016 a decision was made to only evaluate one workshop per year due to consistent high levels of satisfaction reported by participants in previous years.

The data reported in this paper consist of a random sample of 40 completed surveys including data from each year. Thematic analysis was used to identify the main themes in the qualitative data. This type of analysis searches for repeated patterns, themes or meaning across a data set (Braun & Clarke, 2006) and provided the means to analyse the open ended questions in the survey.

Registration data

Registration data were collected for the first two years, 2013 and 2014 to assist with the development and promotion of the program and to ensure that the program was reaching a cross section of the university population. Workshop registration data were split by local and international student registrations, gender and degree level. The data were also compared against UniSA enrolment data.

Table 1. Registrations by campus, local and international students

Campus	City West		City East		Mawson Lakes		Magill		Total
	Local	Int	Local	Int	Local	Int	Local	Int	
2013	40	14	24	9	38	12	25	5	167
2014	36	7	30	5	18	9	n/a	n/a	105
Total	76	21	54	14	56	21	25	5	272

Local students represented 78% while international students represented 22% of the total registrations. The data are representative of the overall UniSA enrolment data which indicate that international student enrolments fluctuated between 19% and 22% for 2013 and 2014.

Table 2. Number of registrations by gender

Male	112 (41%)
Female	159 (59%)

In table 2 the data were split by gender. Registrations for the workshops are slightly higher for females when compared to the overall enrolments which indicate that around 57% of enrolled students are female at UniSA but the difference is not significant.

Table 3: Registrations by degree level

Undergraduate	226 (83%)
Postgraduate	47 (17%)

Table 3 shows the data split by undergraduate and postgraduate registrations. The majority of registrants were undergraduate students. This is what the authors expected since most postgraduate students have had previous experience of study at tertiary level and time to develop successful strategies for improving their ability to focus and concentrate. The majority of postgraduate students who registered for the workshops were studying a master's degree by coursework. These

students may be more likely to be attracted to this type of workshop as many of them would have had a significant break before returning to study.

Overall, the data show that registrations for the workshops match enrolment data indicating that the workshops attract a cross section of the university population. Once the data confirmed that the program was reaching our intended audience no further registration data were collected.

Student Evaluations

Of the respondents, 100 percent indicated that they would recommend the workshop to others. They identified the skills and techniques learnt as useful and beneficial to all university students. This strongly suggests that this type of workshop is relevant to tertiary students.

Respondents were asked to specify what was most useful from the three week program. They were able to provide multiple responses. Seventy percent of respondents identified the exercises that were taught, and tips given in the workshop as most useful, followed by learning to manage thoughts (27.5 %) and learning to focus (27.5 %). The authors undertook careful and thorough research in selecting the weekly exercises to support the development of skills most relevant to tertiary students. Evaluation responses indicated that the types of exercises chosen were very relevant to this population. See Figure 1 below.
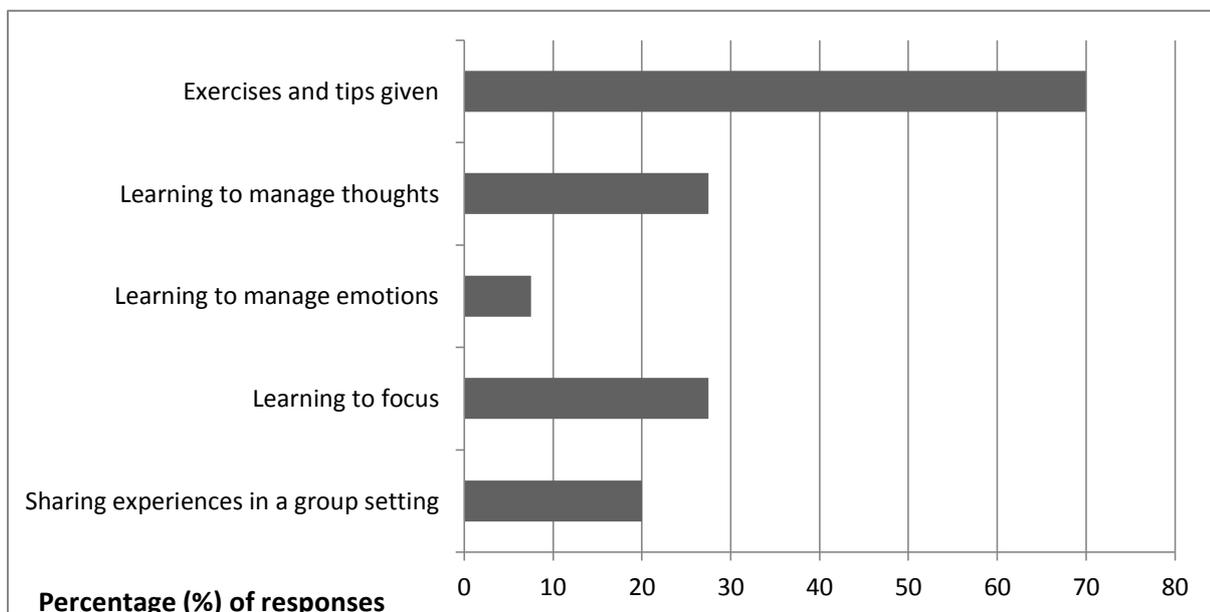

Figure 1. What was most useful from the 3 week workshop?

There were no specific questions seeking feedback from participants about the delivery mode and format. However one question asked participants what was most useful to them. Twenty percent of respondents reported that the group program assisted them to normalise thoughts and feelings. They also stated that the opportunity to share their experiences and support each other provided them with new ways of coping with the pressures of study. Below is a sample of comments from participants that highlight the importance and benefits of being part of the group:

• *Hearing other people's experiences was really helpful to make me feel not alone.*

• *Learning about the different distractions experienced by students and what techniques work for them.*

These comments indicate that students benefit from the skills being taught in the workshop. Being part of a group also has benefits in terms of supporting student wellbeing and normalising some of the challenges of being a student.
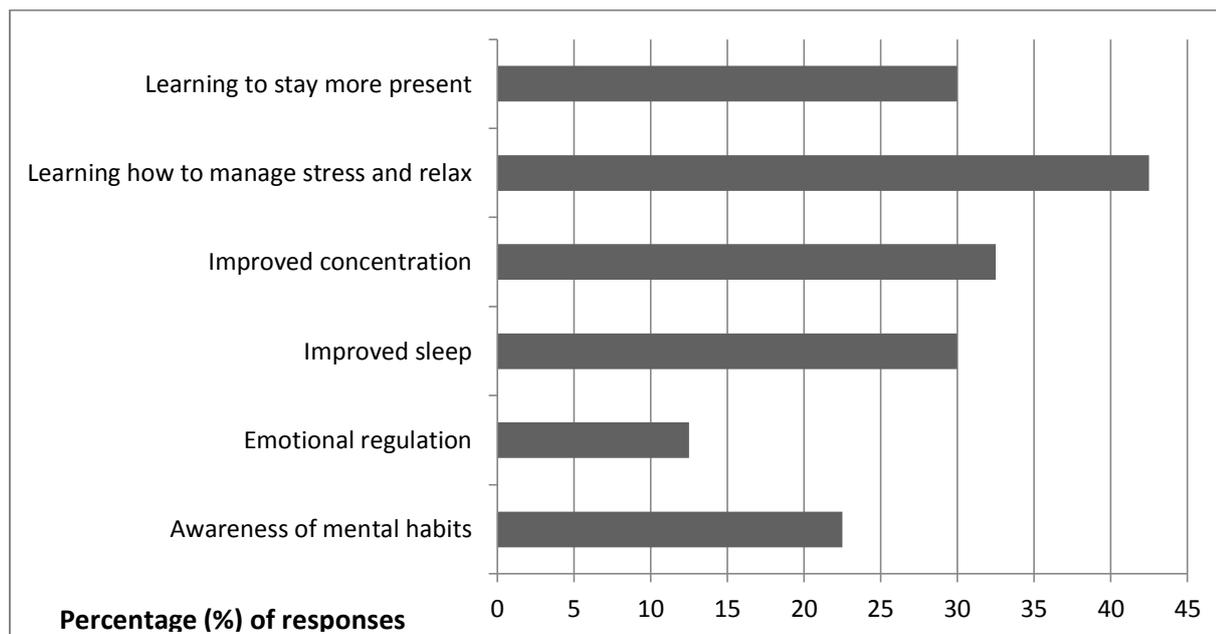
Figure 2. Question 3. How has it helped you?

Participants were also asked to give feedback on how the skills that they learnt helped them with their studies and in their day to day lives. Feedback from participants highlighted that after three one-hour sessions they were able to apply these new skills to their study and daily life. Participants identified improved life and study skills across a number of categories as listed in Figure 2. The main benefits reported by respondents were learning how to manage stress and relax (42.5%); the ability to stay more present (30%); improved concentration (30%) and improved sleep (30%).

The comments below highlight some of the skills students developed as a result of the workshop:

- *I am able to catch myself when I overthink and worry.*

- *I realise when my mind is drifting, when I really need to be focused and I can bring it back now.*

- *Being able to accept how I am thinking and feeling and just getting on with what I have to do.*

- *It's given me skills to deal with the pressure of full time study and it's a reminder to take time for myself.*

These self-reported benefits are consistent with those of longer mindfulness based interventions such as the MBSR program, and support earlier research findings by Zeidan et al. (2009; 2010) and Tang et al. (2007) that brief mindfulness training is an effective intervention for improving wellbeing and cognition.

Finally, participants also provided feedback that indicated an impact on student retention and success. This was not expected, as this had not been identified in any of the previous research explored. Here is a small sample of those comments:

- *This was a really valuable experience & has helped me feel more on top of my study.*

- *Without these tips I probably would have quit, but with these new skills I feel I can deal with the pressure.*

Conclusion

Tertiary study is stressful for many students. Learning practical strategies for managing stress appears to be beneficial to academic performance and overall wellbeing. In recent times

mindfulness practice has attracted significant attention in research. It is also being used in psychological intervention practices as a useful technique for managing stress and increasing wellbeing in a variety of settings. Analysis of evaluations from the Improving Focus and Concentration workshops run by the counselling service at UniSA, indicates that mindfulness, when used as an intervention technique in a tertiary setting, can help students to improve life and study skills that support positive learning and wellbeing outcomes.

Based on the findings from this analysis, it appears that a group model may work well for students, and that learning mindfulness techniques in a group setting may have some broader benefits. These include the opportunity to learn from the presenters and each other, and to normalise experiences. Using a group model offers possibilities for meaningful student engagement outside of the classroom as well as opportunities for skills development, sharing of experiences and coping strategies. A group model, such as the one described in this paper, also appears to improve motivation to learn new skills and to make changes through having peer support. This is likely to be particularly beneficial to students who are new to the tertiary environment and for those such as rural, interstate and international students who have moved away from the normal support networks.. It may help to break down barriers to help-seeking for some students as they get to know and learn to trust staff. However, as a program it does require the facilitators to have both mindfulness training and experience in facilitating groups. Both of those skill sets need to be learnt.

It is likely that a brief intervention model is more manageable for tertiary students who are often time poor. Both the literature and our experience show that mindfulness can be taught effectively as a brief intervention, with positive outcomes for participants, as long as the exercises are carefully selected to meet the goals of the program. The skills learnt can then be supported further by information sheets, online recordings of exercises, the multitude of online apps available, on campus mindfulness clubs and community groups.

This was a real world study conducted within an Australian University counselling service which resulted in a number of limitations to the design and type of methodology used. The program was run by members of the counselling team across four metropolitan campuses. The measures used were designed by the counselling service to provide information to assist in the development and delivery of the program. Therefore no statistically valid measure was used. Only some of the workshops were evaluated providing a limited sample size of completed student evaluations, and registration data were only collected for the first two years. There was no control group to measure against the attendees. Limited resourcing allowed no follow up with students after the program to see if they continued to use the skills they developed in the workshop. There was also no measure to determine any changes to students' academic performance, apart from self-reporting.

Despite these limitations, the findings indicate that learning mindfulness techniques to improve focus and concentration in a group setting has the potential to offer a cost and time effective model for staff and students. More broadly it demonstrates that mindfulness based interventions are applicable and appropriate to a tertiary setting and provide a unique model that can support both student wellbeing and academic success. They also have the potential to be incorporated into a number of other educational contexts in and outside of the classroom to support students.

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The authors can be contacted via
Ania Zysk
Ania.Zysk@unisa.edu.au

Appendix 1

Focus and Concentration Workshop Evaluation

- How did you find out about the workshop?
- What was most useful from the 3 week workshop?
- How has it helped you?
- Would you recommend the workshop to other students?
- Any other comments?

Thank you

Knowledge and Attitudes to Sexual Health and STI Testing for Students at an Australian Regional University: A Cross-sectional Study

Catherine MacPhail
School of Health,
University of New England

Tinashe Dune
School of Health Science
University of Western Sydney

Gina Dillon
School of Rural Medicine
University of New England

Saifur Rahman
Murrumbidgee Medicare Local

Rasheda Khanam
International Centre for Diarrhoeal Disease Research, Bangladesh

Laura Jenkins, Marnie Britton, Bernie Green, Christine Edwards
Hunter New England Local Health District

Annette Stevenson
Student Support Counselling
University of New England

Dedication

This publication is dedicated to the memory of Dr Gina Dillon (1963 - 2017)[1].

Abstract

Notifications for sexually transmitted diseases in young people in Australia are increasing. Young people are a priority population within the National Sexually Transmissible Infections Strategy, yet their knowledge of sexual health issues is limited. In the context of Health-Promoting Universities, we examined sexual health knowledge and access to care of both on and off-campus students at a regional university. In late 2012, 418 tertiary students aged 18-29 years completed an online baseline survey on their recent sexual behaviours and attitudes. In mid-2014, 956 students aged 18-31 years, of which 105 had completed the 2012 survey, completed the same or "endline" survey which also measured exposure to a university sexual health campaign. The low response rate to both the baseline and endline surveys meant only endline survey data were analysed. Two-thirds of students had been sexually active in the past 12 months. Students had positive attitudes towards condom use and STI screening. Around half reported using condoms at last sexual encounter. Students were positive about condom use, but hesitant about instigating it. STI screening was more prevalent than in the general Australian population, and largely accessed at General Practices. Screening was least likely in those with the greatest number of recent sexual partners and highest for those in de facto relationships. Students felt annual reminders or scheduled appointments would assist in ensuring STI screening. Findings showed regional university students are positive and knowledgeable about sexual health issues. Despite this, condom use is not consistent and more emphasis needs to be placed on STI transmission in this population. Students were willing to increase STI screening, and current initiatives to increase chlamydia screening in Australia are relevant to this population.

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[1] Gina brought her statistical expertise to this project which could not have been completed without her. Gina was awarded her PhD at UNE in 2015 and she received the VC Doctoral Research Medal that same year. Her PhD research investigated intimate partner violence experienced by young Australian women and its mental health consequences, comparing metropolitan, regional and remote areas of Australia.

Introduction

Despite significant success in control of HIV and delivery of the HPV vaccine, notifications for other sexually transmitted infections (STIs) in Australia continue to increase (Department of Health, 2014). While this increase has been largely across the board, chlamydia and gonorrhea are particular concerns, specifically among younger age cohorts (The Kirby Institute, 2015). Seventy-eight per cent of chlamydia notifications during 2014 were attributed to the 15-29 year old age group (The Kirby Institute, 2015). Given that young adults continue to contribute substantially to Australian STI notification rates, young people under 30 years of age have been included in the Third National Sexually Transmissible Infections Strategy as a priority population, with specific objectives directed towards reducing the incidence of chlamydia and increasing chlamydia testing for this sector of the population (Department of Health, 2014). Young people in Australia, particularly in rural and remote regions, are particularly at risk of STIs as many lack basic comprehensive information about safer sex practices and implications and have limited access to sexual health services (Garrett, Hocking, Chen, Fairley, & Kirkman, 2011; Kang, Skinner, & Usherwood, 2010; Senior, Helmer, Chenhall, & Burbank, 2014).

Within this context, and given exposure to ideas about Health-Promoting Universities (Tsouros, Dowding, Thompson, & Dooris, 1998) and a partnership with Hunter New England Local Health District (HNELHD), the student support staff at a regional university embarked on a process of increasing student awareness of sexual health issues. This focus was specifically chosen due to NSW Health notification data indicating that the Local Government Area (LGA) in which the university is located had the highest chlamydia notification rates in the LHD. There were also anecdotal reports of high chlamydia rates within some residential colleges. Intervention through a number of sexual health promoting activities was undertaken in the university from early 2013. New students on campus were, where possible, provided with talks about sexual health and risk minimisation; free condoms were made available at social events for new students and at cost through vending machines located in some of the residential colleges; posters calling attention to sexual health were placed in key venues across campus from September 2013 to May 2014. At the same time, focus groups with students were conducted to determine how best they would like to access information about sexual health. While the original plan had been to develop peer-driven workshops, evidence from the data collection showed that students most valued anonymity and all-hours access. For these reasons, a sexual health website (http://www.une.edu.au/current-students/support/student-support/counselling/sexual-health) was developed for students which provided information about various aspects of sexual health (STIs; healthy relationships; lesbian, gay, bisexual, transgender, intersex and questioning [LGBTIQ]] sexual health and safer sex practices), as well as links to other reliable sources of sexual health information and services. During the latter half of 2013, HNELHD conducted training with the university health clinic and GPs in the area about managing sexual health problems for young people in order to ensure that health care centres provided young people with appropriate STI screening and treatment.

Methods

A cross-sectional online survey of students was conducted to examine their sexual behaviours and attitudes and to measure exposure to the intervention. A hard-copy of the survey was first piloted on a small sample of (n=8) international students to ensure questions were unambiguous and easily understood. In view of time constraints for further piloting, the survey included, where possible, validated and piloted sexual health knowledge questions drawn from the Australian National Survey of Secondary Students (Smith, Agius, Mitchell, Barrett & Pitt, 2009). The survey also included sexual health attitude questions drawn from a United States national survey (Hoff, Green & Daws, 2003), and questions about sexual behaviour which are standard population health questions. The survey particularly focused on sexual health knowledge about HIV, fertility and cancer because of a belief that more nuanced information about STIs might be missing from this

population. No significant change in sexual behaviours pre and post intervention was anticipated in the 18 month period from baseline to endline surveys, however, a positive change in sexual health knowledge and attitudes between baseline and endline data was hypothesised. Differences by exposure to the intervention from baseline and endline data were also assessed.

Study site

This study was conducted with students at a regional university in NSW with a population of approximately 25,000 students. The university has a strong online teaching presence; therefore participants were both students studying online (therefore resident anywhere in Australia or abroad) and those resident in the regional town in which the university was located; either in university colleges or private accommodation. The town has a regional referral hospital and numerous private GPs, including a university health service that offers bulk billing for students. There is no public sexual health clinic in the town and the nearest facility is approximately 90 minutes' drive away. Recent NSW Health notification data have shown that this LGA has the highest chlamydia rates of its LHD, and might be attributed to the large number of students in the town and limited accessibility to timely sexual health care (Roberts, 2014).

Recruitment of survey participants

In late 2012, an email was sent to all students aged 18-29 years who commenced undergraduate study that year. The email notified students of the survey that asked about their demographics, sexual health knowledge, attitudes and history, as well their current access to sexual health resources, and requested them to complete it anonymously. The online survey included an information page, online consent page, and anonymous responses. This baseline survey was sent to 2,438 students, of whom 452 logged in and made an attempt, and 418 completed the survey. In mid-2014 a second email with a link to an endline or post-intervention survey was sent to all students aged 18-31 years old who had commenced study from 2012; the aim being to capture students in the 2012 sample (some of whom would have turned 31 by then) as well as undergraduate students who had enrolled since that time. The email again notified students of the survey and requested them to complete it anonymously. The endline survey was sent to 5,185 students, of whom 1,016 logged in and made an attempt and 956 completed the survey. Of these 956 students, 105 had also completed the 2012 survey. The low response rate to **both** the baseline and endline surveys meant than only endline survey data were analysed.

Analysis

Survey data were collected in SurveyMonkey (Palo Alto, Ca, USA, www.surveymonkey.com) and exported to SPSS version 22. Descriptive statistics were compiled for demographic variables and percentage responses for attitude and knowledge questions. Chi-square analyses were conducted to test for significant differences in responses between groups based on gender, relationship status and number of sexual partners. Given that Chi-square contingency table cells involved data from the same sample configured in different ways across different analyses, it was considered appropriate to use a more stringent alpha level; differences were assumed to be significant at the $p<0.01$ level.

Ethics approval

Ethics approval was granted by the University of New England Human Research Ethics Committee (approval number: H12-173).

Results

Of the 1,016 students who logged into the endline survey and initiated a response, full data were available for 956 students. Responses were heavily weighted towards female students, who comprised almost two-thirds of the participants (Table 1); and reflect the gender profile of new enrolments in the 17 to 29 age group generally (ratio of one male to every two females in 2012 new-student-enrolment-data for this age range). Transgender students accounted for a very small

(0.2%) proportion of respondents. The vast majority of participants (96%) identified themselves as non-Indigenous Australians and English speaking. Worth noting is that within the sample, 3.9% identified as Aboriginal, Torres Strait Islander or both (A and/or TSI), which is comparable with 3.3% of students new to this university aged 17 to 29 identifying as A and/or TSI (based on this university's new-student-enrolment-data for 2012 for this age group). Slightly over half of participating students attended university on campus (57.6%) and the remaining were online students; an over-representation of on-campus students in the survey sample when compared with the 35% who comprised this university's new-student-enrolment-data in 2012 for the 17 to 29 year old age group. A third of participating students reported living on campus (35.7%). The mean age of participants was 21.9 years. Further demographic information is available in Table 1.

Table 1: Demographic characteristics of student participants (n=956)

	All participants n=956		Male n=272		Female n=682	
	n	(%)	n	(%)	n	(%)
Gender						
Male	272	(28.5)				
Female	682	(71.3)				
Transgender	2	(0.2)				
Aboriginality						
A,TSI, or both	37	(3.9)	7	(2.6)	30	(4.4)
Nil	919	(96.1)	265	(97.4)	652	(95.6)
Language spoken at home						
English only	897	(93.5)	250	(91.6)	646	(94.7)
Other	59	(6.2)	22	(8.4)	36	(5.3)
Relationship status						
De facto	129	(13.5)	26	(9.5)	103	(15.1)
In a relationship	300	(31.4)	87	(32.0)	212	(31.1)
Married	102	(10.7)	31	(11.4)	71	(10.4)
Single	425	(44.5)	128	(47.0)	296	(43.4)
Sexual orientation						
Heterosexual	772	(80.8)	222	(81.8)	548	(80.4)
Homosexual	41	(4.3)	27	(9.9)	16	(2.3)
Bisexual	112	(11.7)	15	(5.5)	96	(14.1)
Not sure	24	(2.5)	6	(2.2)	18	(2.6)
Prefer not to say	7	(0.7)	2	(0.7)	4	(0.6)
Age						
Range	18 – 31 yrs		18 – 31 yrs		18 – 31yrs	
Mean	21.9 yrs		21.8 yrs		21.9 yrs	
Std Dev	3.5 yrs		3.5 yrs		3.5 yrs	
Living on campus						
No	615	(64.3)	144	(52.9)	469	(68.8)
Yes	341	(35.7)	128	(47.1)	213	(31.2)
Study on campus						
No	405	(42.4)	90	(32.8)	315	(46.2)
Yes	551	(57.6)	182	(67.2)	367	(53.8)
Sexually active in past 12 months						
No	37	(3.9)	12	(4.4)	24	(3.5)
Yes	728	(76.0)	205	(75.4)	523	(76.7)
Did not answer	191	(20.1)	55	(20.2)	135	(19.8)
Sexual partners in past 12 months						
1 to 2	571	(59.6)	143	(52.2)	428	(62.8)
3 to 5	103	(10.8)	36	(13.1)	67	(9.8)
6 or more	51	(5.3)	25	(9.1)	26	(3.8)
0 or did not answer	231	(24.2)	68	(25.5)	161	(23.6)
Condom use at last sex						
Yes	370	(38.7)	116	(42.3)	253	(37.1)
No	320	(33.5)	94	(34.3)	226	(33.1)
Not sexually active/did not answer	266	(27.8)	62	(23.4)	203	(29.8)

Sexual health behaviours

Of the 956 participants, the majority reported being sexually active in the past 12 months (76.0%). Almost a quarter of participants chose not to answer this question and the remaining 3.9% noted that they had not been sexually active over this time. Focusing on the 728 participants who reported being sexually active in the past 12 months, we asked about health promoting sexual behaviours such as condom use and seeking care or support for sexual health issues.

When asked to report on condom use at last sexual encounter, only 52.5% of participants, shown in Table 2a, reported that they had used condoms at last sex-repeated. The use of condoms at last sex was not associated with the number of sexual partners reported in the last year (p=0.232), however we saw the lowest condom use among those with the highest number of partners in the past 12 months (46.9% of those with 6 or more partners). Condom use, as shown in Table 2b, was associated with relationship status; a significantly lower proportion of participants who were married or in de facto relationships reported using a condom at last sex, compared to those who were single or in a relationship that was not marriage or de facto (p<0.01). Participants reported buying condoms largely from supermarkets, convenience stores and pharmacies (39%). A far smaller proportion got condoms from friends (2.7%) or for free on the university campus (1.8%). Accessing condoms from community or sexual health clinics was rare (0.7%).

Table 2a. Use of a condom at last sex reported by sexually active respondents[1] categorised by number of sexual partners in the past year.

Use of a condom at last sex	Number of sexual partners in past 12 months								Chi-square
	1 to 2		3 to 5		6 or more		Total		
	n	(%)	n	(%)	n	(%)	n	(%)	
No	244	(48.4)	38	(40.0)	26	(53.1)	308	(47.5)	$\chi2(2) =2.918$ p = 0.232
Yes	260	(51.6)	57	(60.0)	23	(46.9)	340	(52.5)	
Total	504	(100)	95	(100)	49	(100)	648	(100)	

[1] Includes only respondents who reported having had sex (vaginal, oral or anal) in the past 12 months.

Table 2b. Use of a condom at last sex reported by sexually active respondents[1] categorised by relationship status.

Use of a condom at last sex	Relationship status										Chi-square
	De facto		In a relation-ship		Married		Single		Total		
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	
No	67	(62.0)	99	(42.9)	60	(69.8)	84	(37.0)	310	(47.5)	$\chi2(3)$ =38.272 p < 0.001
Yes	41	(38.0)	132	(57.1)	26	(30.2)	143	(63.0)	342	(52.5)	
Total	108	(100)	231	(100)	86	(100)	227	(100)	652	(100)	

[1] Includes only respondents who reported having had sex (vaginal, oral or anal) in the past 12 months

Sexual health attitudes and knowledge

Overall, students who participated in this study had relatively good knowledge about STIs and positive attitudes towards condom use. In a range of questions about knowledge and attitudes (see Table 3); students displayed particularly good knowledge regarding when STI transmission is possible and the need to use condoms irrespective of partner number. Participants were largely positive about condoms, agreeing that if a partner suggested using condoms they would be relieved (75.4% agreed) and feel that their partner respected them (85.1% agreed). Only 2.3% reported that they would feel insulted if a partner suggested condoms, although almost half thought it might make them feel that their partner was suspicious or worried about their sexual history. There were a number of significant (p<0.01) differences by gender: women were significantly more likely to report positive attitudes towards a partner suggesting condom use than were male participants. Despite these largely positive attitudes, more than a third of participants agreed with or felt neutral about the statement 'If someone I was dating had an STI, I would know it' and a significant proportion acknowledged the challenges associated with discussing STIs and discussing or

obtaining condoms. Almost half (44.7%) thought it was hard to bring up discussion of STIs with a partner and 30.5% said that buying condoms was embarrassing. There were no significant differences by gender for these variables.

Table 3. Knowledge, attitudes and behaviours with regard to STIs and condoms (n=956)

Statement	All participants			Male			Female			Chi-Square Sig3
	Agree1 n (%)	Neutral n (%)	Disagree2 n (%)	Agree1 n (%)	Neutral n (%)	Disagree2 n (%)	Agree1 n (%)	Neutral n (%)	Disagree2 n (%)	
It's OK to have sex without a condom once in a while	197 (21.4)	203 (22.1)	520 (56.6)	79 (29.8)	66 (24.9)	120 (45.3)	118 (18.0)	137 (20.9)	399 (61.0)	*
Unless you have a lot of sexual partners, you don't need to use condoms	118 (12.8)	88 (9.5)	716 (77.7)	43 (16.2)	28 (10.6)	194 (73.2)	75 (11.4)	60 (9.1)	521 (79.4)	ns
Buying condoms is embarrassing	280 (30.5)	166 (18.1)	472 (51.4)	73 (27.5)	49 (18.5)	143 (54.0)	206 (31.6)	117 (17.9)	329 (50.5)	ns
It is hard to bring up the topic of condoms	202 (22.0)	157 (17.1)	561 (61.0)	52 (19.6)	47 (17.7)	166 (62.6)	149 (22.8)	110 (16.8)	395 (60.4)	ns
Sex without a condom is too risky	627 (68.0)	159 (17.2)	136 (14.8)	160 (60.6)	50 (18.9)	54 (20.5)	466 (70.9)	109 (16.6)	82 (12.5)	*
Once you have had sex once, it is harder to say no to having sex the next time	289 (31.4)	220 (23.9)	411 (44.7)	109 (41.4)	63 (24.0)	91 (34.6)	180 (27.4)	157 (23.9)	319 (48.6)	*
STIs can only be spread when symptoms are present	38 (4.1)	39 (4.2)	842 (91.6)	12 (4.5)	19 (7.2)	234 (88.3)	26 (4.0)	20 (3.1)	607 (93.0)	ns
If someone I was dating had an STI, I would know it	141 (15.4)	171 (18.6)	606 (66.0)	51 (19.3)	62 (23.5)	151 (57.2)	90 (13.8)	109 (16.7)	454 (69.5)	*
It is hard to bring up the topic of STIs with a partner	410 (44.7)	180 (19.6)	328 (35.7)	132 (50.0)	52 (19.7)	80 (30.3)	278 (42.6)	127 (19.4)	248 (38.0)	ns
If someone I was about to have sex with suggested using a condom I would feel: ….										
-like the person respected me	782 (85.1)	125 (13.6)	12 (1.3)	186 (70.5)	70 (26.5)	8 (3.0)	595 (91.0)	55 (8.4)	4 (0.6)	*
-insulted	21 (2.3)	54 (5.9)	845 (91.8)	12 (4.5)	31 (11.7)	221 (83.7)	9 (1.4)	23 (3.5)	623 (95.1)	*

Table 3. cont'd

-suspicious or worried about the person's sexual history	160 (17.4)	207 (22.5)	551 (60.0)	55 (20.9)	73 (27.8)	135 (51.3)	105 (16.1)	133 (20.3)	416 (63.6)	*
-that the person cared about me	623 (67.8)	246 (26.8)	50 (5.4)	138 (52.5)	100 (38.0)	25 (9.5)	484 (73.9)	146 (22.3)	25 (3.8)	*
-relieved	689 (75.4)	190 (20.8)	35 (3.8)	144 (55.0)	97 (37.0)	21 (8.0)	544 (83.6)	93 (14.3)	14 (2.2)	*
-like the person was suspicious or worried about my sexual history	157 (17.1)	238 (26.0)	521 (56.9)	64 (24.5)	85 (32.6)	112 (42.9)	93 (14.2)	152 (23.2)	409 (62.5)	*

[1] Includes "strongly agree" & "somewhat agree"   [2] Includes "strongly disagree" & "somewhat disagree"   [3] * = p < 0.01, ns = not significant

Sexual health care: STI screening

Over 80% of sexually active participants had been to a GP or health clinic in the past 12 months however, only 58.8% reported discussing sexual health issues with a health practitioner during this time. Women were significantly more likely to report discussing sexual health issues with a GP in the past 12 months than men (80.8% vs 37.9%; p<0.001). Among sexually active participants, a third had tested for STIs in the previous 12 months. Given that chlamydia is the most prevalent STI in Australia, and particularly among this age group (The Kirby Institute, 2015), we specifically asked about chlamydia testing. A third of sexually active participants had tested for chlamydia in the past 12 months. Women were significantly more likely than men to have tested (39.5% vs 24.1%; p<0.01 for any STI testing; 33.8% compared to 21.5%; p<0.01 for chlamydia testing). Relationship status and number of sexual partners were significantly associated with both STI testing generally and chlamydia testing specifically. Individuals with one to two sexual partners in the past 12 months were less likely to test for any STIs or chlamydia than those with three to five or six or more partners (see Table 4). Married participants were least likely to have tested for STIs in the past 12 months, while those in de facto relationships were most likely to have tested (Table 4).

Among participants who were sexually active in the past 12 months, the most common rationale for STI testing was that this was something that they did 'routinely' (14.7%). Other reasons cited were having unprotected sex (8.0%) and a change in relationship status (8.1%). Very few participants said that they had been tested for STIs because of symptoms or because they had sex with someone who had an STI (<5% in both instances). Most participants reporting STI testing had been tested at their GP as opposed to specialised sexual health venues. Participants appeared to be positively inclined to have more regular STI screening. When asked what might prompt them to test for STIs more frequently (more than one response possible), a third noted that they would test if their medical provider offered them a test at their next visit, two-thirds would be more likely to test if the associated visit was bulk billed or free and half felt they would be more likely to test if they received an annual reminder. With regard to an annual reminder for STI testing, more than half would want to receive the reminder via email and just under forty per cent would prefer to receive a text message to their mobile phone.

Table 4. STI and chlamydia testing by relationship status and number of partners (only participants reporting sexual activity in the past 12 months n=756)

	Any STI test n (%)	No STI test n (%)	Chlamydia test n (%)	No chlamydia test n (%)
Relationship status				
De facto	53 (42.4)	72 (57.6)	46 (36.8)	79 (63.2)
In a relationship	91 (34.1)	176 (65.9)	83 (30.7)	187 (69.3)
Married	17 (18.3)	76 (81.7)	10 (10.6)	84 (89.4)
Single	94 (39.3)	145 (60.7)	82 (34.3)	157 (65.7)
Sig1	*		*	
Number of partners				
1 or 2	173 (30.4)	396 (69.6)	145 (25.4)	425 (74.6)
3-5	58 (56.3)	45 (43.7)	54 (52.4)	49 (47.6)
6 or more	24 (47.1)	27 (52.9)	21 (41.2)	30 (58.8)
Sig2	*		*	

[1] * = p < 0.01, Chi-square $\chi2(3)$=16.443 p=0.001   2 * = p < 0.01, Chi-square $\chi2 (2)$=28.979 p <0.001

Exposure to sexual health interventions on campus

Awareness of the three key elements (posters, website, condom-vending machines) of the university sexual health intervention was low. Twenty-eight per cent of participants were not aware of any of the interventions; 37% were aware of only one element of the intervention and only 1.4% were aware of all three. We found that participation was also low. Only 2.7% of all participants had visited the university's sexual health website. Among students on campus (n=551), 4.3% had purchased condoms from the campus vending machines and 56.9% participants reported that they had seen the posters. Not surprisingly, awareness of the campaign was generally higher among students who lived and studied on campus, compared to all students (on-campus and on-line) combined.

Sexual knowledge and behaviour by intervention exposure

We were interested in examining knowledge about STIs in this population, but focused our attention on three key issues: increased risk of HIV when infected with an STI, problems with fertility associated with STIs and vulnerability to some cancers as a result of STIs. We found that overall knowledge about increased risk of both HIV and cancer was low in this population, although understanding the link between STIs and fertility issues was almost universal. There were no differences in knowledge between those exposed to the university sexual health program (i.e. those who reported awareness of posters, website, condom vending machines) and those not exposed, except for understanding the increased risk of HIV infection associated with having an STI (59.5% vs 49.2%; p=0.016). There were also no differences in sexual health behaviours, such as reporting STI testing, whether they had been exposed to the intervention or not.

Discussion

Overall, students included in this assessment of knowledge and attitudes towards STIs and sexual health had good levels of sexual health knowledge and positive attitudes. However, while condom use was high in single participants and those in non-married or de facto relationships, it was still far from the consistent condom use required for adequate protection against STI transmission.

We found the lowest condom use in the past 12 months was among those potentially at greatest risk of STIs - those reporting more than six sexual partners in the past 12 months, although the highest reports of condom use at last sex was among single participants. This contradictory finding could be related to the small sample size in the study. In contrast to other Australian studies with (male) university students (Flood, 2003), it would appear from these data that while students have positive attitudes towards condoms and are willing to use them, they lack self-efficacy when it comes to taking the initiative in condom use. A third of students thought that buying condoms was

embarrassing, and another 20% were neutral about this issue. While the vast majority of participants viewed having condom use suggested by a partner as positive, the fact that two-thirds would feel relieved suggests limited confidence in their own ability to raise this issue and a desire for the decision to be taken out of their hands. Gender differences in attitudes towards a partner suggesting condom use were particularly striking, with women more likely than men to value a partner's suggestion to use condoms. This finding is not surprising and in keeping with social constructions of the difference between male and female sexual agency, acceptability of perceived sexual availability and concerns with pregnancy. Other research with Australian university students has found that different factors affect condom use with regular and casual partners. Specifically, condom use in casual sexual relationships tends to be determined by interaction between the partners during the sexual encounter. With casual partners, condom use is likely to be determined by the partner's intention to use condoms rather than one's own intentions (de Visser & Smith, 2001). Our findings appear to echo this previous study.

Participants in this sample had significantly higher STI testing rates than has previously been documented among Australians in this age group. (Kong et al., 2011) reported testing rates over 12 months adjusted for the proportion of the population sexually active of 12.1% for women and 4.8% for men, compared to 39.5% for women and 24.1% for men in our sample. Our data support previous findings that this population does undertake annual GP visits at which STI screening and testing might be opportunistically offered. Women, in particular, discussed sexual health with their GPs, likely during consultations for contraception. It would appear that, like other studies of chlamydia testing in general practice, GPs providing care to these students are not taking full advantage of opportunistic chances for chlamydia testing for this age group (Lorch et al., 2013). Significant work is being conducted in this regard with the ACCEPt (Australian Chlamydia Control Effectiveness Pilot trial) assessing the impact of providing GPs with training and regular feedback about chlamydia testing (Lorch et al., 2013). Preliminary results indicate that GPs feel the intervention is effective in increasing their offers of chlamydia testing (Yeung et al., 2015) and that practice nurses might also be recruited to provide this service to young people if organisational barriers could be overcome (Lorch et al., 2015). Given the objectives of the latest National Sexually Transmissible Infections Strategy, research is currently underway to improve detection and treatment of chlamydia in young people aged 16 to 29 years of age (Hocking et al., 2015). Currently, almost 20% of chlamydia testing of young women aged 18-30 years occurs opportunistically at a Pap smear appointment. Changes to the Australian National Cervical Screening Program increasing the age of first recommended Pap smear from 18 to 25 years, might significantly impact young women's chlamydia testing opportunities (Moreira et al., 2015).

In general there appeared to be positive attitudes towards sexual health checks, but participants appeared to need assistance with scheduling STI testing. In particular participants in this study would welcome reminders about STI testing either via email or text message. A systematic review and meta-analysis of randomised control trials evaluating the impact of text messages on uptake of clinic appointments has shown an increased odds ratio of 1.48 (95% CI: 1.33-1.72) over relatively short periods of time of up to 72 hours prior to already scheduled appointments (Rebecca Guy et al., 2012). In Australia, text message reminders have been successfully used to increase re-testing after chlamydia infection (R. Guy et al., 2013) and qualitative research has shown that text messages are an acceptable method for providing health related information and reminders for young Australians. In particular, a study with young Victorians found that young people found text messages particularly useful when they were engaging, positive, relevant and different: text messages with these characteristics reduced young peoples' trepidation about STI testing (Gold, Lim, Hellard, Hocking, & Keogh, 2010). These initiatives might be used in combination with GP-focused interventions currently being trialed in Australia. (Walker et al., 2010) Despite a universal national medical insurance scheme which covers the majority of patient costs for GP visits, screening and treatment; students in this study still felt that cost was a barrier to more regular STI screening.

Given that more than 80% of Australians over 15 years visit their GP annually (Duckett & Willcox, 2015) this provides further incentive to integrate STI screening into regular visits, thereby limiting additional costs to the patient.

The finding that participants in de facto relationships report the highest prevalence of STI testing in the past 12 months is puzzling. We speculate that this may be a reflection of the life stage of these students; perhaps moving to a university town (which we appreciate is not necessarily the case for the on-line students in our sample) results in new couples living together (and therefore reporting as de facto) sooner than might otherwise have been the case. Partners in these relatively new relationships might have done away with condom use to signify transition in their relationship (Macaluso, Demand, Artz, & Hook, 2000), but still be relatively unsure of sexual history. The impact of cohabitation, in the context of moving to another town to engage in study, and/or living in residential on-campus accommodation, on sexual health indicators and outcomes is potentially an area for further research. Equally, distance students might be undergoing similar transitions, although not in the university town.

Limitations

The sample frame for this study was not the complete student population and we had a relatively low response rate. That said, demographics for participants were reflective of "new to this university" 2012 enrolment demographics for 17 to 29 year olds in terms of gender (1:2 male to female ratio) and representation of indigenous students (3.3% within the sample and 3.9% enrolment). Females were more likely than males to participate in this survey but the higher representation of females may not be generalisable to all Australian university students. Similarly, evidence from research with Australian university students aged 17-19 years suggests that generalisations to non-university students from these type of data might be inappropriate (de Visser, Smith, & Richters, 2005). The study was conducted at a regional university and might therefore have limited generalisability to metropolitan areas. That said, nearly two thirds of the sample were not living on campus but numbers of students studying on-campus or online were comparable. Yet, given the cross-sectional nature of the data collected, we cannot be confident that differences in knowledge are directly attributable to the intervention mentioned earlier.

Conclusions

This study of sexual health among a population of students studying at a regional university confirms findings from previous research in Australia. Despite relatively high levels of knowledge, students' condom use is not consistent and there is worrying evidence that condom use is least prevalent among those with the greatest number of recent sexual partners. Students in this study had generally positive attitudes towards condoms, but responses suggest that they would prefer their sexual partner(s) to broach condom use.

Recommendations for student services

Although students in this study were more likely to report having screened for STIs in the past 12 months than previous Australian studies of the general population, they still perceived barriers to accessing services. In particular, students wanted additional assistance in remembering to screen and with overcoming financial barriers to GP visits. Initiatives currently underway to address the high rates of STIs in Australia, chlamydia in particular, are focused particularly on making STI screening routine in already scheduled GP visits. This strategy will address the perceived needs of students in this study. Recommendations for student services from this study include:

- Working closely with health services / medical practices to promote routine STI screening

- Promotion of services that offer bulk-billed or free sexual health screens and/or provision of routine on-campus or accessible STI screening clinics

- Use of email and/or SMS annual STI check reminders to students

- Student education re: availability / access to condoms; the promotion of positive messages and attitudes towards condom use; education about the when, how and why of initiating or instigating conversations with sexual partners about protected sex (i.e. promote intentionality in all sexual partners re: condom/oral dam use irrespective of gender)

- Education around the increased risk of both HIV and cancer from STIs

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The authors may be contacted via

Catherine MacPhail

cmacphai@une.edu.au

Applying the Okanagan Charter in Aotearoa New Zealand

Craig Waterworth
School of Nursing
Massey University.

Anna Thorpe
Community and Public Health
Canterbury District Health Board.

Abstract

In 2015 the International Conference on Health Promoting Universities and Colleges was held in the Okanagan, Canada. At this conference, a new international charter focusing on health promotion in tertiary education was ratified. The Okanagan Charter was developed with input from 45 countries, including Aotearoa New Zealand and Australia. The Okanagan Charter builds on existing charters and declarations to apply health, wellbeing and sustainability to tertiary settings. This paper outlines how the Okanagan Charter relates to health promotion approaches that are used in Aotearoa New Zealand in higher (tertiary) education for the benefit of students, staff and stakeholders. The principles and action areas of the Okanagan Charter are discussed in their application to health promotion practice in the higher education setting of Aotearoa New Zealand.

Keywords

determinants of health, Fonofale model, Higher Education, International health promotion, Māori, Okanagan charter, Settings based approach, Te Pae Māhutonga, Students, Tertiary Education, Te Tiriti O Waitangi, Te Whare Tapa Whā, Wellbeing.

Introduction and background

Contemporary ideas about health promotion have been developing through charters, declarations and research activity for over 40 years, starting with the Lalonde Report, 1974; the Alma Ata Declaration, 1978; the Ottawa Charter, 1986; the Jakarta Declaration, 1997; and the Bangkok Charter, 2005, as summarised by Signal and Ratima (2015). The Ottawa Charter introduced the idea of the settings-based approach, recognising that health is best facilitated through the communities in which people work, play, learn and love, across the life span (World Health Organisation [WHO], 1986).

Higher education is an important setting for health promotion for several reasons. 64% of tertiary enrolments in 2015 comprised of people aged 24 or younger (Education Counts, 2016). This is a time of life in which the brain is going through the final stages of developmental maturation, when many ways of thinking and being become well established (Dumontheil, 2016) and personal skills are developed, including knowledge of self-care, care for others, and for the environment. Students have also been found to be more likely to enrol and achieve in places of learning that demonstrate a commitment towards their health and wellbeing (Bradley & Greene, 2013). Positive effects on tertiary staff have also been reported from exposure to and involvement in health promotion activity, including increases in recruitment interest, role satisfaction and retention, as well as reductions in sickness absence (Bevan, 2010).

Higher education students and staff participate in learning, teaching and knowledge generation, all of which can include a focus on health, wellbeing and sustainability. Large numbers of staff and students are involved in higher education, and graduates are decision makers of the future. Consequently, health promotion in tertiary settings is potentially far reaching in its influence.

In 1996, the first International Conference of Healthy Universities was held in Lancaster, United Kingdom (UK), initiating the 'Health Promoting Universities' framework for action (Tsouros, Dowding, Thompson, & Dooris, 1998). This framework emphasised that healthy higher education should focus on three key elements: a healthy working and living environment (policies and

culture); the integration of health promotion into the daily activities of the setting (teaching, learning and researching); and reaching out into the community (collaborating with stakeholders). These elements are as valid today as they were in 1998, and mature national higher education health promotion networks now exist in many countries, including the UK, Germany, Chile and Canada.

The Rio Declaration on Social Determinants of Health (WHO, 2011) reinforced the idea that health is not a simplistic matter of individual lifestyle choice, but also a result of environmental settings and social and policy factors. Social determinants of health were identified as those conditions in which people work, play, learn and love, and the wider set of forces and systems shaping the conditions of daily life. Determinants which have clear implications for students include the quality of housing (including halls of residence and rental housing); income and debt levels; access to healthcare and support, and the inequities that people experience in relation to these. Inequalities can be reduced and health determinants influenced by action at social, policy and environmental levels.

More recently, health promotion has been influenced by developments in the concepts of wellbeing, flourishing and positive psychology (Oades, Robinson, Green, & Spence, 2011). In Aotearoa New Zealand, the five ways to wellbeing (Mental Health Foundation, 2015), based on extensive research by the New Economics Foundation (2008), provide value to the health promotion toolkit. These ideas focus both on individual and community wellbeing, across all levels of social ecology (Bronfenbrenner & Morris, 2006). The five ways to wellbeing and positive psychology are focused on the idea of creating health, also known as salutogenesis (Lindstrom & Eriksson, 2006), rather than narrowly focusing on preventing ill health and tackling the causes and manifestations of pathogenesis. Organisational, public policy and community actions are also central approaches in working for the elimination of inequalities, and ensuring that optimum levels of health are achieved for all.

The Okanagan Charter (2015) synthesises earlier health promotion principles and concerns. This international charter for higher education health promotion was ratified following the contributions of 605 people from 45 countries. The Charter provides higher education settings with a useful structure to effectively respond to the evolving health challenges of the 21st Century.

In early 2016, the Tertiary Wellbeing Network Aotearoa New Zealand (TWANZ, 2016) was formally launched, following consultative work over the preceding three years. Australia also launched a Health Promoting Universities network in 2016, which has high level support from Vice Chancellors and Universities Australia. Both of these Australasian networks support and endorse the Okanagan Charter.

The next section provides an overview of the Okanagan Charter and its principles, making reference to core elements of some of the most commonly used models, approaches and tools relevant to the Aotearoa New Zealand context. This is followed by examples and suggestions applying the Charter's action areas on campus.

The Okanagan Charter overview

The Okanagan Charter explicitly supports the WHO definitions of health and health promotion (WHO, 2006). Health is viewed as fundamentally holistic. Health promotion is seen as incorporating social and environmental interventions that include, but go beyond, a focus on the individual. The Charter is also explicit in its linkages with the Ottawa Charter, and usefully, a number of the Okanagan Charter's action areas are very similar to those of the Ottawa Charter. A definition of wellbeing is not explicit, but reference to wellbeing is situated within the principle 'build on strengths', which is congruent with the ideas of positive psychology and increased happiness. In positive psychology, happiness is most powerfully generated through eudaimonic and hedonic sources working together. Hedonic sources of happiness include activities that bring about feelings of personal pleasure, enjoyment and satisfaction, whereas eudaimonic sources of happiness

include activities that focus on social connectedness, development of potential, and optimal levels of functioning (Huta & Waterman, 2014).

The Okanagan Charter identifies higher education as having a unique and central role in society, in providing and generating transformational knowledge for the benefit of citizens and communities that can lead to the enhancement of health for the people who study, work and are collaboratively engaged with the activities and functions of higher education.

The Okanagan Charter has eight key principles for action, which underlie and apply to all of the Charter's eight action areas. These action areas are interconnected with substantial areas of overlap, encouraging flexible and simultaneous use. Table 1 shows a summary of the principles and action areas of the Okanagan Charter. Summary phrases have been used to distil the intent and core meaning of each principle and action area to assist practitioner and leadership thinking.

The eight action areas are spread across two Calls to Action. The first Call to Action has five action areas to 'embed health into all aspects of campus culture, across the administration, operations and academic mandates'. These five action areas directly reflect the five action areas in the Ottawa Charter and are focused primarily on the operational delivery of day to day health promotion activity. The second Call to Action incorporates three action areas to 'lead health promotion action and collaboration locally and globally'. These three action areas are more concerned with leadership, health promotion knowledge development and partnership building.

Table 1. Principles and Action Areas of the Okanagan Charter

Principles for Action apply to all Action Areas	Action Areas
	Call to Action 1: *Embed health into campus culture*
a. Settings & systems approaches b. Campus wide approaches c. Participation from student voices d. Collaborations & partnerships e. Research, innovation & evidence use f. Strengths based g. Value indigeneity h. Universal rights	1.1 Campus policies 1.2 Supportive environments 1.3 Culture of wellbeing 1.4 Personal development 1.5 Reorient services
	Call to Action 2: *Lead health promotion actions*
	2.1 Multidisciplinary change agents 2.2 Advance knowledge 2.3 Local and global collaborations

Applying the Okanagan Charter principles in Aotearoa New Zealand

The eight principles of the Charter are identified as guiding principles for mobilising systemic and whole of campus actions. The principles are designed to be used in multi-layered, flexible and localised ways.

a. Use settings and whole system approaches

The Okanagan Charter is focused on health promotion within higher education settings. In Aotearoa New Zealand, higher education is delivered from universities, polytechnics, institutes of technology and wānanga (Māori tertiary providers). A healthy settings approach is based on the principles of community participation, partnership, empowerment and equity (WHO, 1986). The Charter is similarly oriented, to contribute to conditions for health in tertiary settings and in wider society.

Relevant cultural models in Aotearoa New Zealand provide various means of increasing campus responsiveness to staff and students. A central model for understanding health is Te Whare Tapa

Whā (Durie, 1985). Shaped like a whare or traditional Māori house, this model has strong foundations and four equal sides depicting tinana (physical health), hinengaro (emotional health), wairua (spiritual health) and whānau (social and family health). These dimensions of health need equal attention: The stronger each of these four walls is, the more likely the house of hauora, or health, will stand strong and experience wellness.

Te Pae Mahutonga (the Southern Cross star constellation) is the primary Māori model of health promotion in Aotearoa New Zealand (Durie, 1999). It is a model that follows a Māori kaupapa (themes), although, like Te Whare Tapa Whā, it can be used to work with peoples from all ethnicities. Six stars are shaped like the Southern Cross constellation, representing six areas of health promotion action. The two pointer stars are the prerequisites for health promotion action: Ngā Manukura (community leadership) and Te Mana Whakahaere (autonomy). In tertiary settings, these two stars can be applied to mean leadership and empowerment at all levels, including management support, peer educators, and change agents. Once these two pre-requisites are met, the other four key tasks of health promotion can be undertaken.

The four central stars of Te Pae Mahutonga represent the four central tasks of health promotion. Mauriora refers to cultural identity, including language, customs and the bonds shared with others. Waiora means the physical environment, including connection with, and action to protect the air, water, land and the biodiversity that sustains life. Toiora denotes healthy lifestyles, acknowledging that choices can be enabled or limited by the determinants of health. Te Oranga refers to participation in society, including equal access of individuals, groups and communities to life opportunities. Higher education institutions can support a Māori worldview by focusing on collective wellbeing, intergenerational connections, and through acknowledging the relationships between the physical and spiritual realms.

The Educultural Wheel is a teaching model promoting educational engagement for Māori (Hall, Hornby, & Macfarlane, 2015), which could be applied in tertiary settings to help facilitate cultural safety (Ramsden, 2002). The model has circular and interwoven concepts of whānaungatanga (interdependent relationships), manaakitanga (respect and care), rangatiratanga (leadership) and kotahitanga (solidarity). Te Ture Whakaruruhau, the Code of Ethical Principles for Public Health in Aotearoa New Zealand (Public Health Association, 2011) also provides useful guidance for working with others, particularly around the concepts of manaakitanga and whānaungatanga.

The Fonofale Model is a Pacific Island model of health, designed specifically for working with Pasifika in Aotearoa New Zealand (Pulotu-Endemann, 2001). Health is represented as a fale (house), held up by four pou (posts) that represent spiritual, physical, mental and other interactive aspects of health, sitting on the foundation of family, sheltered by the roof of cultural beliefs and values. The fale is surrounded by the influencing factors of time, context and environment, which link to settings and systems. Using the Fonofale Model in higher education settings will increase the effectiveness of health promotion with Pasifika.

b. Ensure comprehensive and campus-wide approaches

Tertiary campuses are complex settings. Staff are spread across many teams with differing roles; students study diverse programs in varied ways, and multiple campuses have differences in environmental configurations and resources. Tertiary organisations provide a range of health promotion actions. The challenge is to develop processes and systems that bring people together from diverse disciplines, departments and programs, to share resources and ways of working leading to health benefits for students and staff.

The population profile of Aotearoa New Zealand is changing rapidly (Statistics New Zealand, 2013) and it is forecast that student profiles in higher education will reflect these changing demographics. Māori and Pasifika populations are younger and growing more rapidly than the general population, which will influence future tertiary enrolments. Campus populations are also

being influenced by a growth of Asian and other international students. Many Asian students hold values based on Confucianism (Ip, 2011), with a strong focus on collectivism rather than individualism; humanistic altruism and resource sharing; respect for teachers; and a duty to show benevolence and caring towards others. Health promotion practice in higher education needs to be responsive to these changing demographics in order to work effectively with Māori, Pasifika, Asian and other international students and staff.

c. Use participatory approaches and engage the voice of students and others

Actively seeking feedback and input from diverse groups of students and staff is critical for meaningful participation on campus. Participation needs to be vertical as well as horizontal; from the top down (including the Senior Leadership Team, Vice Chancellor or Chief Executive) as well as from the bottom up (with students and staff on campus). Seeking feedback from a diverse range of individuals and groups is central for increasing student and staff satisfaction and success. Participatory approaches need to include students and staff who are Māori, Pasifika, Asian, other internationals, refugees; those with additional challenges such as disabilities, young parents, LGBTI (lesbian, gay, takatāpui (intimate companion of the same sex*)*, bisexual, transgender and intersex); undergraduates and postgraduates; as well as staff from all faculties; research; teaching; management; administrative; health; recreation; and support areas.

Surveying students and staff regularly is a key means of engaging the voices of those on campus. Evaluation and surveying can be designed to achieve a greater response from diverse groups on campus whose input is sought.

d. Develop trans-disciplinary collaborations and cross-sector partnerships

Developing effective collaborations and partnerships strengthens health promotion action across diverse disciplines on campus. For example, nursing departments may add value in personal health factors, whereas psychology and social work could add value in mental health initiatives. Healthy eating or keeping active projects could be led by academic staff in nutrition and exercise science staff, and sustainability projects by environmental departments. Disciplines could collaborate in a range of ways to enhance synergies and results.

Strong relationships can help address social, economic, cultural and political determinants of health through partnerships outside the campus boundaries, such as with other higher education providers, iwi[1], local authorities, charities and industry. Developing partnerships through the national tertiary networks, such as TWANZ in Aotearoa New Zealand, or the Australian Health Promoting Universities Network are recommended. Alliances with the Public Health Association, the Health Promotion Forum, the Mental Health Foundation, the Ministries of Health, Social Development, Te Puni Kōkiri, the Ministry for Pacific Peoples and the Health Promotion Agency could all be beneficial.

e. Promote research, innovation and evidence-informed action

Higher education generates and disseminates knowledge and innovation. Curriculum and research in health, wellbeing and sustainability can play important roles in strengthening individual, group and community understandings and actions. Health promotion research, innovation and action can assist the development of skills and evidence-based approaches amongst tertiary staff and students.

Academic staff on Performance Based Research Funding (PBRF) contracts can be encouraged to engage with health promotion to develop academic outputs. Staff performance reviews, development plans and appraisals provide opportunities to discuss the development of health promotion projects and research.

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[1] the largest social unit in New Zealand Māori society

Health promotion action within and beyond campus settings could be facilitated through use of planning and assessment tools. These include the Heath Equity Assessment Tool (Signal, Martin, Cram, & Robson, 2008), Health Impact Assessments (Haigh et al., 2015) and 'RE-AIM' (Hone, Jarden & Schofield, 2015). Logic models are useful in planning interventions and lend themselves well to evaluation. Evaluation types include process, impact and outcome evaluation (Victorian Government, 2008), and if health initiatives are shown to be successful, this evidence could be useful in maintaining support from senior leadership, or to secure support from funding bodies. This includes support of evidence-based kaupapa Māori health promotion and an expansion of the criteria around what constitutes sound scientific evidence.

f. Build on strengths

In recent times, there has been recognition that a focus on strengths, rather than deficits, can be more effective for salutogenesis, to increase resiliency as well as preventing ill health. Being strengths-based is also consistent with wellness centred approaches of Māori health, rather than an individualised deficit and disease focus.

A strengths-based approach connects with sector wide imperatives, such as the New Zealand Tertiary Education Strategy 2014-2019 (Ministry of Education (MoE), 2014), with its relevant strategic priorities: 'Getting at risk young people into a career' and 'Boosting achievement of Māori and Pasifika'. The New Zealand Association of Positive Psychology has produced a useful workbook of strengths based research tools for measuring wellbeing, that could be used for baseline assessment and evaluating the impact of health promotion interventions (Jarden, 2011). The New Zealand Graduate Longitudinal Study (2016) is a recent initiative which incorporates a number of baseline measurement tools relating specifically to health and wellbeing, including self-esteem, self-efficacy and social support that could be used in local contexts.

Recent changes in health and safety law raise both opportunities and tensions for health promotion. Health is on the agenda for campus monitoring and reporting, and there is an opportunity to broaden the traditional focus on health and safety risk management outwards, to increase a focus on developing health and wellbeing. Those working in health promotion can develop alliances with those working in health and safety, to develop effective collaborations (Regional Public Health, 2012).

g. Value local and indigenous communities' contexts and priorities

Health promotion in Aotearoa New Zealand acknowledges the rights and needs of Māori, as tangata whenua (indigenous people of the land) and partners in Te Tiriti o Waitangi (The Treaty of Waitangi). Te Tiriti o Waitangi is the constitutional founding document of Aotearoa New Zealand, between indigenous Māori and migrant Europeans. The underlying aspirations of health promotion are visible in Te Tiriti, which provides opportunities for Māori and non-Māori to enhance wellbeing and tackle inequality.

Health promotion in Aotearoa New Zealand needs to refer to Te Tiriti to help address the profound and persisting inequalities that Māori experience (Health Promotion Forum of New Zealand, 2002). Te Tiriti is based on principles of protection, partnership and participation. Under protection, inequalities need addressing and Māori kaupapa and tikanga (values) respected. Under partnership, manaakitanga is used to develop plans and establish relationships in good faith. Under participation, a genuine, long term commitment to whanaungatanga is required to make progress together. These principles are reflected in the Māori Education Strategy, Ka Hikitia (MoE, 2013), which states that tertiary education has an important role to play in sustaining and revitalising indigenous mātauranga (knowledge) and te reo (Māori language), benefiting wider society (Bialysok, Craik, & Luk, 2012).

Pasifika comprise of diverse ethnic groups in Aotearoa New Zealand who trace their origins to the island nations of the Pacific. Pasifika models of health promotion show strong similarities to Māori models, including an emphasis on collective wellbeing, the family, spiritualty, cultural identity,

language and self-determination in improving health and wellbeing (Tu'itahi, S., & Lima, I. 2015). Pasifika have a special relationship with the New Zealand Government, which provides development and economic support. The Pasifika Education Plan (MoE, 2013a) aims to increase Pasifika learners' participation, engagement and achievement including at a tertiary level.

h. Act on an existing universal responsibility

A concern with human rights, social justice, equity, dignity, respect for diversity and a universal right to health are embodied in this principle. The Bill of Rights Act 1990 and the Human Rights Act 1993 are of importance. The Bill of Rights Act applies to those undertaking public functions, including higher education staff, in that everyone has the right to freedom from discrimination, which is detailed in the Human Rights Act. These grounds include sex, sexuality, gender, ethnicity and disability. The Education Act 1989 points to the higher education role as the critic and conscience of society, which combined with human rights duties, forms a powerful mandate for tertiary education staff to tackle inequalities and promote social justice.

Te Ture Whakaruruhau, the Code of Ethical Principles for the Public Health Association (2011), provides useful practical guidance around planning and delivering health promotion for justice and equity. Ngā Kaiakatanga Hauora mō Aotearoa, the health promotion competencies for Aotearoa New Zealand also provides useful professional guidance for health promoters to improve health and health equity (Health Promotion Forum of New Zealand, 2012). These competencies comprise nine knowledge clusters, including advocacy, leadership and assessment, which can be used to enhance social justice.

Action Areas of the Okanagan Charter

The eight principles described above collectively underpin the eight action areas of the Okanagan Charter. Together they guide the development of health promoting higher education. The Okanagan Charter has two Calls to Action for higher education institutions. The first being to embed health into all aspects of campus culture, across the administration, operations and academic mandates, while the second is to lead health promotion locally and globally. Examples provided under the Charter action areas are drawn from the recent strengths-based evaluation survey into health and wellbeing initiatives from seven South Island tertiary institutions (Thorpe & Collie, 2016). Table 2 also provides practical examples under each of the action areas, to consider when developing a healthier place of higher learning.

1.1 Embed health in all campus policies

The Okanagan Charter views policies as mechanisms for organisational commitment to health, wellbeing and sustainability. Policies focus energies and areas of activity for development, implementation and change and as such can provide influential direction for health promotion action on campus. Aotearoa New Zealand stands in a unique position to support Māori achievement and wellbeing through obligations outlined in Te Tiriti o Waitangi, which need to be incorporated into higher education policies. Te Whare Tapa Whā and Te Pae Mahutonga could be used to develop and embed health in policies.

Health, wellbeing and sustainability outcomes need to visibly underpin campus policies. A campus-wide strategic approach includes health for all on campus. Policies should incorporate the diverse voices of students and staff on campus and reflect national priorities and strategies. They also need to incorporate short, medium and long term goals, and be allocated adequate human, financial and material resources. Policies must be regularly reviewed, updated and communicated, reflecting the changing student population over time.

Table 2. Okanagan Charter Action Areas with Ideas for Health Promotion Action on Campus

1.1 Campus policies	**1.2 Supportive environments**	**1.3 Culture of wellbeing**	**1.4 Personal development**
Tiriti O Waitangi in policies	Built	Strengths focus	Te Whare Tapa Whā
Health in All Policies	Natural	Ethic of care	Health services
Develop & review policies	Social	Social connections	Study support
Student & staff voices	Economic	Healthy lifestyle	Programs & initiatives
Wider policy connections	Cultural	Positive psychology action	Clubs & groups
	Academic	Resilience development	Peer mentoring
	Organisational	Evaluation & evidence base	Brain development training
	Learning		Website development

1.5 Reorient services	**2.1 Multidisciplinary**	**2.2 Advance knowledge**	**2.3 Local & global collaborations**
Public Health Association Ethics	change agents	Health Promotion Forum competencies	Relationships with Māori
Increase access for all	Identify change agents	Embed health, wellbeing & sustainability in curriculum	TWANZ membership
Tackle discrimination	Wellbeing Committee	Review evidence	Networking & sharing best practice
Actively reduce inequalities	Healthy campus network	Action / Living Lab research methods	Victoria Wellbeing Symposium
Salutogenic over pathogenic	Wellbeing Coordinator	Māori & Pacific centres	South Island Tertiary Forum
	Develop strategy and work plans	Personal development plans	Local, regional & global collaborations & partnerships
	Trans-disciplinary focus	Practicums & scholarships	Industry partnerships
		Pedagogical practices	

1.2 Create supportive campus environments

The Okanagan Charter identifies a wide range of campus environments to activate health promotion: built, natural, social, economic, cultural, academic, organisational and learning environments. Campus environments can be reviewed as to their effectiveness in supporting health, wellbeing and sustainability.

The built environment can be designed to enhance interpersonal safety and access, and promote physical activity. This could include incorporating sustainability and universal design principles on campus development projects, engaging students in capital works programs, and providing disabled access and accommodation. Natural environments support sustainable practices, such as working towards a low carbon energy scheme on campus, developing community gardens, and waste reduction. Supportive social environments can include pastoral care for diverse student groups, student advocacy, and wellbeing spaces. Supportive economic environments can include zero fees schemes for students, scholarships and emergency fund provision. Supportive cultural environments influence how welcome and engaged people feel on campus, such as bicultural competency building, bilingual childcare, Confucius centres (promoting Chinese language and culture), multi-lingual staff, and the rainbow tick (awarded to organisations completing sexual and gender diversity certification). Supportive organisational environments can include diverse learning needs, staff development and supervision, and fair trade accreditation. Lastly, supportive academic and learning environments can include student representatives on programs, reviews of demanding courses and barrier free trust audits.

1.3 Generate thriving communities and a culture of wellbeing

'Building a flourishing campus involves the development of a safe and supportive environment, building a sense of community, increasing social inclusion and participation, and increasing awareness of emotional health and wellbeing issues' (Thorpe & Collie, 2016: 16). Flourishing campuses also celebrate cultural identity and diversity, promote mental health and wellbeing, facilitate social connections, promote healthy lifestyles and generate a sense of belonging.

A strengths-based approach helps develop a flourishing culture of wellbeing and increased resilience on campus, where individuals and groups feel welcome and engaged in decision making. An ethic of care can be fostered by providing comprehensive training, such as mental health first aid to staff, including lecturers and residential advisors, and through providing spaces and support for Māori, Pasifika, mature students and those from diverse faiths on campus, and through volunteering opportunities. As in other action areas, baselines and evaluation measures can also help establish development needs and track gains made.

1.4 Support personal development

Health promotion on campus supports personal and social development through enhancing life skills, providing information, and education for health, which could use Te Whare Tapa Whā as a foundation. This increases the focus on health literacy, opportunities to exercise more control over personal health and environments, and supports healthy choices. Many larger tertiary campuses in Aotearoa New Zealand have student health centres offering subsidised health care, counselling, early intervention, and screening services. Specific teams, positions and programs are commonly dedicated to supporting and improving outcomes for priority student groups, including Māori, Pasifika, international students, and those with disabilities.

Campus support of personal development can be wide ranging, including professional opportunities for staff; support for differing learning needs and disabilities; training of staff, mentors and residential advisors; wellbeing workshops; subsidised gym membership; clubs; mentorship; and peer support programs. Given many tertiary students are aged under 25 years, staff knowledge of basic brain development and brain plasticity would be helpful. Campus websites and wider social

media play an essential role in connecting students and staff to available services, programs and events, including those from relevant community providers.

1.5 Create or re-orient campus services

Health and wellbeing services on campus must be designed and delivered in such a way as to encourage uptake and overcome barriers to access. 'Access to services can be a major barrier to student success and considerable effort should be invested in the identification and removal of barriers to make campus services and programs responsive' (Thorpe & Collie, 2016). Groups that experience the greatest inequalities should be given the greatest priority. Many campuses in Aotearoa New Zealand offer tailored services for priority groups, such as those first in their families to enrol in higher education and LGBTI students. Increased use of te reo, wellness checks, and early intervention and technology support for those experiencing learning difficulties, are examples of reorienting services to support priority student success. Developing a range of support mechanisms in higher education is important for attracting and retaining Māori staff and students.

A focus on reorienting services to be responsive to those with the greatest needs is in line with the Public Health Association Code of Ethical Principles for Public Health. A wide range of student voice mechanisms can be used to represent student feedback and input into services, programs and events. Incorporating diverse student voices into decision making aids the reduction of inequalities, and is consistent with a salutogenic approach, focused on growing health and wellness.

2.1 Integrate health, wellbeing and sustainability in multiple disciplines to develop change agents

This action area focuses on the development of leadership roles to drive change and integrate health, wellbeing and sustainability across higher education disciplines and the curriculum. The identification of change agents and leaders on campus can positively influence healthy outcomes, enabling health promotion activity through individual roles, and formal or informal collaborations.

There are some useful mechanisms for developing strategy, work plans and action on campus (Healthy Universities, 2009). Much of the operational planning can effectively be undertaken by a health promotion steering committee, supported by a wider health promotion network. Bottom up energies and top down resources can form a strong partnership to represent and address the needs and priorities of students and staff. A health promotion or wellbeing coordinator can play a central role on campus to ensure that communication is effective, voices are heard, strategy remains relevant, action is taking place and outcomes are beneficial. This role needs to have recognised seniority within the organisation, to help facilitate health promotion engagement with the diversity of internal and external stakeholders and partners involved.

Challenges may be experienced when establishing wellbeing committees, networks and health promotion coordination roles, around concerns such as where they sit within the organisation, accepted understandings of roles, and financial investment. A business case is likely to be needed, as well as terms of reference and a strategic plan.

2.2 Advance research, teaching and training for health promotion knowledge and action

The role of higher education in research includes knowledge generation, learning and teaching. Opportunities exist to embed health, wellbeing and sustainability into the curriculum. Curriculum and research into health, wellbeing and sustainability provide opportunities to develop health promotion knowledge production and skills. Positive pedagogical practices can be emotionally protective for students, enhancing health (Oades, Robinson, Green, & Spence, 2011).

Examples of advancing research, teaching and training for health promotion knowledge and action include Māori and Pasifika centres on campus, adopting action research or a living lab approaches, providing practicums and scholarships for health promotion projects, and promoting sustainable values, practices and behaviours on campus. Making use of the Health Promotion Forum

Competencies and completing formal qualifications in health promotion could also contribute to this. Some activities could also be connected to PBRF requirements or personal development plans.

2.3 Lead and partner towards local and global action for health (Collaboration)

Higher education institutions in Aotearoa New Zealand are well-placed to lead local and global action for positive change in health, wellbeing and sustainability. Relationships and collaborations with external stakeholders, such as iwi, industry and the community, can help drive change both on campus and in the wider community.

There is a range of local or regional networks or collaborative groups in Aotearoa New Zealand. TWANZ offers networking opportunities, case studies and a wide range of resources relevant to healthy tertiary settings. The South Island Tertiary Forum connected with TWANZ focuses on health and wellbeing issues, research and practice initiatives in the South Island. The Victoria Wellbeing Symposium provides an opportunity for knowledge sharing nationally. Looking ahead, Universities New Zealand could be engaged more directly with health promotion issues, as could NZQA or Ako Aotearoa.

Tertiary partnerships can be fostered with other external partners, such as the Society for Youth Health Professionals, Ara Taiohi, Alcohol Action, or Fizz. International networks support global action for health, such as Healthy Universities UK (which has affiliate members from outside of the UK), the International Wellbeing in Higher Education Network, and the International Positive Education Network. Joining such networks can provide direction and support for health promotion vision and action, on and beyond campus.

Conclusion

The international Okanagan Charter builds on influential health promotion charters in higher education settings. The Charter's principles and calls to action make a valuable contribution to health promotion practice in higher education. The Charter is highly applicable and relevant to national tertiary needs and approaches, particularly with its focus on valuing indigenous communities and priorities.

The development of the Okanagan Charter has usefully coincided with the emergence of TWANZ and the Australian Health Promoting Universities Network, at a time when much health, wellbeing and sustainability activity is being generated. The Okanagan Charter is viewed as a useful and flexible framework to further develop strategic planning, coordination and integration in tertiary settings.

This paper is an early effort to develop understandings of its meaning and practice in the context of Aotearoa New Zealand. Institutions of higher education are encouraged to work with the Okanagan Charter and its Calls to Action, to embed health across campuses and lead health promotion action and collaborations locally and globally.

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The authors may be contacted via
Craig Waterworth
c.waterworth@massey.ac.nz

To Cross or Not To Cross:
Ethical Boundaries in Psychological Practice

Stephanie C. Black

Edith Cowan University, Perth, Australia

Abstract

This article examines multiple relationships and discusses ethical boundaries in psychology practice. Correct handling of potential multiple relationships is important for staff at educational facilities, where students may simultaneously act as counselling clients, teaching assistants, peer supervisors, supervisees, mentors, mentees, research partners, etc. The basis for the discussion includes the role of the client-therapist power differential, fiduciary duty and the code of ethics. An overview is given regarding types of multiple relationships, differentiation between potentially beneficial boundary crossings and potentially detrimental boundary violations and the 'slippery slope' concept. Taxonomy of boundary violators considers individual differences, incompetence and situational circumstances. Recommendations for risk management include training in ethical standards and decision making techniques, self-awareness, supervision and adherence to good professional standards in general. Opportunities for further research include the correction of methodological errors in older surveys, more research regarding the efficacy of training and interventions for boundary violations and efforts to provide more tools for risk assessment. It is important to acknowledge that differentiation between boundary crossings and boundary violations can be challenging: whilst practitioners always need to guard against boundary violations, the literature offers examples where boundary crossings may be therapeutic. Ultimately, the therapist makes a choice about how to deal with any given boundary; and the therapist needs to make this choice from the viewpoint of fiduciary duty with the client's best interest in mind.

Keywords: ethics, multiple relationships, boundary crossings, boundary violations, slippery slope, risk management, best practice

To Cross or Not To Cross: Ethical Boundaries in Psychological Practice

The Australian Psychological Society has recently released new guidelines for dealing ethically with multiple relationships ("Revised APS ethical guideline", 2016). The psychological profession has a long history of trying to prevent unethical multiple relationships via prohibitions and ethics codes (Ivey & Doenges, 2013), but it similarly has a long history of unethical relationships between psychologists and their clients (Gottlieb & Younggren, 2009). The present article examines multiple relationships. The ethical basis for the discussion of multiple relationships is reviewed, and multiple relationships, boundaries, boundary crossings, boundary violations are defined and their interconnectedness are examined. Recommendations for managing the risk of boundary violations are made, including requirements for training; and opportunities for further research are suggested. It is posited, that, ultimately, the therapist makes a choice about how to deal with boundaries and multiple relationships. The therapist needs to make this choice from the viewpoint of fiduciary duty with the client's best interest in mind.

Ethical Basis

Power differential

Any discussion of professional ethics in psychology must acknowledge the power differential that exists between the therapists and clients. The literature attributes this power differential primarily to the therapists' expert knowledge and the patients' role as seeking help (DeLeon, 2001). However, power issues are not restricted to the configuration of therapist and patient. Power differentials can also exist in such diverse situations as, for example, internship settings (Slimp & Burian, 1994), research projects (Haverkamp, 2005), community psychology (Perlman, 1977) or sport performance psychology (Aoyagi & Portenga, 2010).

Fiduciary duty and codes of ethics

Given the psychologist's position of power, any client-therapist relationship is automatically a fiduciary, i.e. a trust relationship; in that the psychologist's first and foremost concern should be the client's best interest (Smith, J.A., Pomerantz, Pettibone, & Segrist, 2012; Sonne, 1994). Fiduciary relationships in psychological practice are covered by the professional codes of ethics that exist in many countries, including Australia, New Zealand, and the United States (Allan & Love, 2010; Barnett, 2014). These national professional codes of ethics all stress in various forms the importance of clear boundary delineations in providing clarity (Sawyer & Prescott, 2010), preventing harm (Jorgenson, Hirsch, & Wahl, 1997) and giving the client a sense of safety (Barnett, Lazarus, Vasquez, Moorehead-Slaughter, & Johnson, 2007).

Multiple relationships

Definition of multiple relationships

Multiple relationships in psychological practice refer to situations where multiple roles exist between therapist and client (Barnett, 2014). Multiple relationships are distinct from incidental contacts, such as passing a client in the grocery store (Werth, Hastings, & Riding-Malon, 2010).

Types of multiple relationships

Multiple relationships can occur concurrently, consecutively or sequentially to the established relationship (Lamb, Catanzaro, & Moorman, 2004). Multiple relationships are classified most commonly as non-professional (e.g., social, familial, communal and business) and professional (e.g., non-therapy-professional, institutional and therapeutic) relationships (Slimp & Burian, 1994). Notably, multiple relationships are not static and can evolve or change over time (Davidson, 2006).

Non-professional multiple relationships.

Non-professional multiple relationships include social relationships, such as membership of a therapist and a client in the same social club (Campbell & Gordon, 2003); familial relationships, such as a relationship between a therapist and a client's family member (Werth et al., 2010). Non-professional multiple relationships also include business relationships, where therapist and client are business partners or one employs the other (Lamb et al., 2004) and communal relationships, where the therapist and client live in the same community or attend the same place of worship (Campbell & Gordon, 2003). Communal multiple relationships are common in rural areas, where the social network is denser than in urban areas (Helbok, Marinelli, & Walls, 2006) and where distance from and availability of services is an issue (Osborn, 2012).

Professional multiple relationships.

Professional multiple relationships are evident in a range of professional situations. The treatment-professional relationship is where a therapist also provides non-therapeutic professional services (Lamb et al., 2004), while the non-treatment-professional relationship may locate the practitioner and client as colleagues (Sonne, 1994) and not involved in a therapeutic relationship (Younggren & Gottlieb, 2004). Multiple professional relationships are also observed where the psychologist acts as a consultant, such as in sports performance psychology (Aoyagi & Portenga, 2010) and community and organisational psychology (O'Neill, 1989), and also where a therapist also acts as a forensic expert witness in legal proceedings that involve their therapy client (Greenberg & Shuman, 1997). Such forensic relationships are strongly discouraged due to the conflicting goals of therapy and psycho-legal assessment and potential harm to the client (Greenberg & Shuman, 1997). Supervisory relationships also involve professional multiple relationships, as the practitioner may be both supervisor and superior, such as during internships, graduate study, or as part of professional

supervision (Seto, 1995).

<u>Institutional multiple relationships.</u>

A special category of multiple professional relationships is institutional relationships, which occur, for instance, in the military, in correctional facilities, or in educational situations. Military psychologists face a particular dilemma in that they are both a psychologist and a commissioned officer, and thereby subject to the psychological code of ethics as well as the applicable defence legislation, which sometimes conflict. Extreme examples of this conflict are a case where a military psychologist's compliance with the Code of Ethics of the American Psychological Association resulted in a reprimand for violating the legislation governing the Unites States Department of Defence, and conversely, another military psychologist's compliance with Defence legislation resulted in a sanction for a violation of the Code of Ethics of the American Psychological Association (Staal & King, 2000). Additionally, the military psychologist often has difficulty in ascertaining who the client is - is it the recipient of the therapy or the military organisation (Staal & King, 2000)? Moreover, the military psychologist in a combat situation might be obliged to provide therapy to subordinates; friends etc., as there are no other psychologists available. This is comparable to the remoteness and scarcity of service in rural situations (Staal & King, 2000). However, in the military context, the psychologist-officer holds a further exalted position of authority regarding a client's life, which intensifies the power differential (Johnson, 2008).

The institutional multiple relationships found in correctional facilities occur where therapy, assessment and custody-oriented roles may be mixed and therapeutic and security goals may conflict (Haag, 2006; Weinberger & Sreenivasan, 1994). Such multiple roles become even more pronounced in cases of involuntary therapy of sexual offenders, where therapeutic roles may be confounded with parole board duty (Sawyer & Prescott, 2010).

Multiple relationships also occur at educational facilities, where students may simultaneously act as counselling clients, teaching assistants, peer supervisors, supervisees, mentors, mentees, research partners, etc. (Sharkin, 1995). In qualitative research projects, where there is an intense connection between researcher and research subject, the boundaries may be blurred (Appelbaum & Rosenbaum, 1989).

In summary, multiple relationships can arise in many settings. Not all of these can be avoided, and some multiple relationships are even mandatory, as in the case of military or correctional psychologists. Therefore, it is imperative that the practitioner remain focused on the client's best interest and the maintenance of appropriate professional boundaries (Sawyer & Prescott, 2010).

Boundaries

Definition of boundaries

Boundaries are defined as the limits of what is appropriate in a given circumstance (Gutheil & Gabbard, 1993). While boundaries are inherent to all human relationships, they become most salient in professional psychological practice, with the onus being upon the psychologist to ensure appropriate boundaries are maintained (Jorgenson et al., 1997). The literature differentiates between structural and interpersonal boundaries (Sawyer & Prescott, 2010). Structural boundaries include details such as time and location of appointments and billing practices (Jorgenson et al., 1997). Interpersonal boundaries include concerns such as gifts, self-disclosure, and physical contact (Sawyer & Prescott, 2010).

Setting boundaries

Boundary setting is influenced by external circumstances, cultural context and theoretical

orientation of the practitioner, type of treatment, therapist intentions and reception by the client. External circumstances, for instance, could be the practitioner's location in a rural area or on a military base (Jorgenson et al., 1997). Cultural context is exemplified by differing cultural norms regarding boundaries for gift giving or self-disclosure (Barnett, 2014). The influence of the theoretical orientation of the practitioner is illustrated by the different attitudes to self-disclosure that traditional psychotherapists have compared to humanist psychotherapists (Zur, Williams, Lehavot, & Knapp, 2009). The nature of the treatment also influences the delineation of boundaries; for example, insight therapy may require stricter boundaries than cognitive behavioural therapy (Younggren & Gottlieb, 2004). Lastly, it is important to consider the therapist's intent and the client's response to the proposed boundaries (Barnett, 2014).

Boundary crossings

When a therapist deviates from the commonly accepted practice but the client is not harmed, then this is classified as a boundary crossing (Gutheil & Gabbard, 1993; Sawyer & Prescott, 2010; Sude, 2013). The literature offers many examples of positive therapeutic boundary crossings, two of which are gift acceptance and self-disclosure (Barnett et al., 2007).

Gift acceptance.

One such boundary crossing concerns accepting gifts from clients. While the traditional view of gift acceptance was that the therapist should not accept gifts from a client under any circumstances, recently the opposite view has gained traction (Knox, Dubois, Smith, Hess, & Hill, 2009). Proponents of gift acceptance argue, for instance, that rejecting a small token gift for ethical reasons might be interpreted by the client as a rejection of their person and endanger the therapy's success (Knox et al., 2009).

Self-disclosure.

Another example concerns self-disclosure by the therapist. Psychologists increasingly view self-disclosure as both safe and unavoidable (Barnett, 2014) and even outright therapeutic (Gutheil, 1999). For example, clients who feel marginalised due to minority group membership may experience affirmation from therapist self-disclosure (Barnett et al., 2007). Moreover, practitioners of cognitive behaviour therapy might use self-disclosure to enrich the process of modelling and norming for the client (Zur et al., 2009). However, practitioners are cautioned against excessive self-disclosure that could lead to boundary confusion (i.e., starting to view the client as a personal friend) and subsequent loss of the therapist's objectivity (Gabbard, 1997). A case-by-case assessment of the appropriateness of self-disclosure is necessary, as self-disclosure might be therapeutically beneficial in one case but detrimental in another (Gutheil, 1999).

Boundary violations

In contrast to boundary crossings, boundary violations are defined by the harmful and exploitative aspect of the action (Gutheil & Gabbard, 1993). Boundary violations can be non-sexual or sexual.

Non-sexual boundary violations.

Examples of non-sexual boundary violations include accepting inappropriately large gifts from the client or issuing invitations to the therapist's home (Jorgenson et al., 1997), extending appointments inappropriately (Swiggart, Feurer, Samenow, Delmonico, & Spickard Jr, 2008) or engaging in excessive self-disclosure (Barnett et al., 2007). Non-sexual boundary violations can unbalance the client-therapist-relationship and thereby undermine the therapy's progress and potentially harm the client (Pope & Keith-Spiegel, 2008).

Sexual boundary violations.

Sexual boundary violations are considered to be the most egregious examples of boundary violations (Wierzbicki, Siderits, & Kuchan, 2012), and, due to the strong potential for harm, are prohibited by many professional codes of practice, including the American Psychological Association (Barnett, 2014) and the Australian Psychological Society (Allan & Love, 2010). Historically, many psychologists considered post-termination sexual relationships unproblematic (Lamb et al., 2003). Recently, however, the profession increasingly seeks to ban all sexual relationships with clients, including late-onset post-termination relationships (Appelbaum & Jorgenson, 1991; Seto, 1995). It is noteworthy that 80% of boundary violators sought peer consultation in an effort to handle the overwhelming sexual attraction to their client (Lamb et al., 2003).

Effects of boundary violations.

The literature cites many negative effects of boundary violations, including loss of objectivity by the therapist and harm to the client, ranging from discomfort to severe anxiety, suicide and hospitalisation (Seto, 1995). Boundary violations also negatively affect the community in which the client and therapist are embedded (Slimp & Burian, 1994), the profession's reputation (McNulty, Ogden, & Warren, 2013), and the therapist's capacity to practice (Lamb, Catanzaro, & Moorman, 2003). Observations of positive effects in relation to boundary violations are rare and are usually concurrent to and overshadowed by negative effects (Seto, 1995). Moreover, these positive effects are reported by the inflicting therapists and possibly constitute bias rather than genuine observations (Seto, 1995).

Differentiating between boundary crossings and boundary violations

The literature emphasises that all multiple relationships, by definition, involve boundary crossings, but not necessarily boundary violations (Tirpak & Lee, 2012). To differentiate between boundary crossings and boundary violations can be challenging (Barnett et al., 2007). This is exacerbated by the context of the situation, including cultural norms: what is considered acceptable in one culture might be a boundary violation in another culture (Barnett et al., 2007), as exemplified by varying propensities for and acceptance of physical touch as a form of greeting. The differentiation between boundary crossings and violations is filtered through an individual's interpretation of the situation (Heaton & Black, 2009); for instance, a proffered gift may appear large to a low-earning staff psychologist but small to a high-earning owner of a successful psychological practice. The increasing use of social media makes it harder to ring-fence personal information, which can lead to accidental self-disclosure (Hammond & O'Donovan, 2015), and overly casual online communication could constitute a boundary violation (Sude, 2013).

The *slippery slope* from boundary crossing to boundary violation

The potential of a correlation between boundary crossings and boundary violations is a hotly debated topic referred to as the *slippery slope* from boundary crossing to boundary violation, which is a term coined by Gutheil and Gabbard (1993). Proponents of the *slippery slope* hypothesis argue that seemingly minor boundary crossings lead to a cascade of increasingly larger boundary crossings, non-sexual boundary violations and eventually sexual boundary violations (Gutheil & Gabbard, 1993). This view was historically widely accepted, and, as a result, psychologists were advised to be extremely conservative in their risk management and avoid all potential boundary crossings (Gutheil & Gabbard, 1993, 1998). More recent studies have found no correlation between boundary crossings and boundary violations and no conclusive evidence that boundary crossings inevitably lead to boundary violations (Gottlieb & Younggren, 2009). Newer literature points out that the *slippery slope* concept may harm clients by prohibiting boundary crossings that might be

therapeutic (Barnett, 2014). Examples are rejecting a small holiday gift from a child (Barnett, 2014), refusing to extend a session for a client in crisis (Barnett et al., 2007), shaming ethnically diverse clients by refusing an ethnic greeting ritual that involves touching (Barnett et al., 2007), or denying service to a client in a rural setting due to overly strict avoidance of multiple relationships (Osborn, 2012). Notably, the legal system still subscribes to the original *slippery slope* hypothesis: a therapist guilty of minor non-sexual boundary crossings is also assumed to have engaged in sexual boundary violations (Gutheil & Gabbard, 1993).

Given the varied contexts and circumstances that differentiate boundary crossings from boundary violations, and the question as to whether the former will predicate the latter, it is important to acknowledge that, ultimately, the therapist makes a choice about how to deal with any given boundary (Campbell & Gordon, 2003; Ivey & Doenges, 2013; Sawyer & Prescott, 2010). The therapist needs to make this choice from the viewpoint of fiduciary duty with the client's best interest in mind (Jorgenson et al., 1997).

Taxonomy of boundary violators

Various attempts at a taxonomy of boundary violators have been made (Barnett, 2014). The considered aspects can be roughly grouped into three categories: individual characteristics, lack of competence, and situational circumstances of the perpetrators.

Individual characteristics

Individual differences considered to be predictors for boundary violations include prior experiences of violations (Lamb et al., 2003), particular vulnerability to transference (Perlman, 2009), affinity to risk taking (Lamb et al., 2003), defensive or self-aggrandising personality styles (Celenza & Gabbard, 2003), overcompensating for hostility (Gabbard, 1997), commanding strong authority and respect (Ruskin, 2011), hostility towards authority (Perlman, 2009), and a tendency towards narcissism and sociopathy (Celenza & Gabbard, 2003). However, narcissists and sociopaths constitute a minority, with most transgressions more likely being perpetrated due to incompetence or situational factors (Celenza & Gabbard, 2003).

Incompetence

Incompetence includes situational misinterpretations (Perlman, 2009), cognitive errors (Pope & Keith-Spiegel, 2008), difficulty in setting boundaries with demanding clients (Gabbard, 1997), mismanagement of transference from the client (Gutheil & Gabbard, 1993), and the challenges related to supportive modalities of therapy, which include more opportunity for transference and less availability of training (Gabbard, 1997). One notable cognitive error is that therapists assume a client's consent to boundary violations as being valid; however, in light of the fiduciary nature of the client-therapist relationship, the power differential and the potential for transference, even competent consenting adults may be subject to undue influence, and it could, therefore, be argued that client-consent in a client-therapist relationship is invalid (Slimp & Burian, 1994).

Situational circumstances

The literature considers several situations and circumstances that may make a therapist more likely to engage in boundary violations. These include personal dissatisfaction (Lamb et al., 2003), crisis events such as divorce, death or litigation, prolonged excessive self-deprivation (Celenza & Gabbard, 2003), and stress (Gabbard, 1997).

In summary, there is a substantial literature giving insight into aspects of boundary violations. This helps to inform recommendations for minimising the occurrence of boundary violations.

Recommendations to prevent the occurrence of boundary violations

Ethics training. There are many recommended options to decrease the incidence of boundary violations. Firstly, given the correlation of boundary violations with lack of ethics training, one very important recommendation is to ensure sufficient training in ethical standards. Inherent to this recommendation is the requirement to reliably measure the efficacy of such training.

Risk management training. Secondly, training in risk assessment and decision making techniques is recommended (Barnett et al., 2007; Heaton & Black, 2009). Again, it is important to reliably measure the efficacy of such techniques.

Professional standards. In addition to the above recommendations, good professional standards also include a number of general recommendations that also act as defences against boundary violations. This includes practising self-awareness (Barnett, 2014), participating in supervision and consultation (Celenza & Gabbard, 2003), keeping good client documentation and considering drafting one's own policies for dealing with boundaries (Younggren & Gottlieb, 2004).

Suggestions for further research

There are several avenues for further research. Firstly, the literature notes methodological errors and limitations in previous surveys regarding self-reports, retrospective reports and sampling bias (Seto, 1995) – new surveys could be designed with improved methodologies to avoid these limitations.

Secondly, further research is needed regarding the efficacy of training and interventions in regard to boundary violations (Seto, 1995). Measures need to be developed to simplify the assessment of training methods to ensure future psychologists are getting sufficient high quality ethics training to yield results in teaching the skills necessary to handle boundary conflicts.

Lastly, more risk assessment techniques and tools such as the Boundary Violation Index are needed to help with the risk assessment for boundary violations (Swiggart et al., 2008). Moreover, more measures need to be developed to assess the effectiveness of such tools and techniques.

Conclusion

In conclusion, it is important to acknowledge that differentiation between boundary crossings and boundary violations can be challenging: whilst practitioners always need to guard against boundary violations, the literature offers examples where boundary crossings may be therapeutic. Ultimately, the therapist makes a choice about how to deal with boundaries and potential multiple relationships. The therapist needs to make this choice from the viewpoint of fiduciary duty with the client's best interest in mind.

The present article examined multiple relationships. The ethical basis for the discussion of multiple relationships was reviewed, and multiple relationships, boundaries, boundary crossings, boundary violations and their interconnectedness were examined. Recommendations for managing the risk of boundary violations were made, including requirements for training. Moreover, it was suggested that future research should attempt to correct previous methodological errors, further examine the efficacy of training and interventions for boundary violations and provide more tools for risk assessment for boundary violations and reliable measures for assessing their efficacy.

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The author may be contacted via
 https://www.researchgate.net/profile/Stef_Black

Keys to Resilience at ANU:
An Exploration into Student Resilience
Approaches and Needs

Melissa Pech

Clinical Psychologist, Mental Health Adviser

The Australian National University Counselling Centre

Abstract

Resilience, often referred to as the ability to 'bounce back' from stressful circumstances, is an integral quality for academic success and personal health. Maintaining strong resilience in the face of academic demands enables tertiary students to reach their potential and obtain a sense of fulfilment in their university experience. This project explored the range of ways students engage their own skills to foster resilience and how these might be supported by their institution of study. Students (N= 290) completed an anonymous survey regarding their resilience approaches and suggestions for institutional support. Results from the current study demonstrated that a wide and varied range of approaches to resilience were reported to be helpful and utilised. The most commonly reported categories included accessing social support (21%); engaging in physical exercise (21%); active personal self-care (e.g. prioritising sleep, healthy diet, regular breaks and relaxation; 17%); psychological or cognitive approaches (13%); and regular engagement in personal interests (10%). Preferences were indicated for improvements to existing student services and support (19.5%); additional facilitation of social events, functions or groups (18%); increased promotion of student resilience and mental health support (13%); additional or ongoing availability of free or low-cost fitness activities on campus (12%); incorporation of resilience into academic support (11%); and facilities or spaces more favourable to both social interaction and for individual self-reflection (9%). This project highlights the importance of resilience in tertiary education, along with promoting a range of ways educational institutions could bolster and support student resilience.

Background

The concept of resilience

Resilience is a widely researched concept, with the primary feature often being identified as the psychological ability to 'bounce back' following exposure to negative life events or challenges (Pooley & Cohen, 2010). However, definitions of resilience have varied widely, being a complex and multi-faceted notion to understand. Debate continues as to whether resilience is a personal characteristic or quality which provides stress-resistance (Ahern, Ark & Byers, 2008), a dynamic process between person and environment (Curtis & Cicchetti, 2007), or a positive outcome following a threat to adaptation or development (Masten, 2001). More flexible definitions are warranted, to consider that resilience can be both an outcome and a process, for example, when defined as successful coping following a challenging circumstance (Pooley & Cohen, 2010). A range of personal and environmental factors have been highlighted in the literature as influencing resilience and contributing to the thriving or flourishing of an individual, despite exposure to negative events. This approach to resilience is in line with the World Health Organisation's concept of mental health as being more than the absence of mental illness, but "*a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community*" (WHO, 2014). Factors commonly associated with resilience include positive emotions such as optimism and humour, the ability to find meaning in challenging circumstances, having a positive self-concept, applying cognitive flexibility, learned helpfulness, using active coping styles for stress, and having good social support or a sense of belonging and connectedness (Davydov et al. 2010).

As a multi-dimensional construct, Pooley & Cohen (2010) offer an expanded definition of resilience as "the potential to exhibit resourcefulness by using available internal and external

resources in response to different contextual and developmental challenges" (p. 30). They review the support from previous research and conclude that internal resources such as self-efficacy or competence, coping skills, and a sense of belonging are important factors of resilience, along with external resources such as social support. The current research will be interpreted through the lens of Pooley & Cohen's (2010) conceptualisation. It is important to note that the emphasis of resilience is not on the avoidance of stressful circumstances or distress, but on the individual's ability to encounter life stress whilst maintaining a sense of self-confidence, social competence, mastery, and appropriate responsibility in their actions and adaptive response (Rutter, 1985; Windle, 2011).

Resilience in university students

University students have been identified as being at a potentially elevated risk of distress and mental ill health, due to the increased demands of the academic environment combined with personal factors, along with the need for adjustment to the challenges of tertiary study (Cvetkovski, Reavley & Jorm, 2012). Mental illness is estimated to affect more than one in four (26%) young people aged 16-24 in Australia in a 12-month period (Australian Institute of Health & Welfare, AIHW, 2010), with the majority of mental illness onset occurring before 25 years of age (Kessler et al., 2007). University populations are estimated to be equally, if not more, at risk of mental ill health than their age-matched peers in the general population, and there is an association between mental health problems in university students and reduced educational outcomes (Stallman, 2010). However, despite this increased risk and the inherent challenges, many university students maintain good health in the face of academic and environmental or cultural challenges. Providing adequate support to students during their tertiary study presents an opportunity to bolster their individual resilience and enhance both academic and health outcomes (Veness, 2016). Typically, Australian universities offer this support via psychological, social work or counselling support, along with academic adjustments for students self-nominating for these types of assistance. Based on the current definition of resilience, wider opportunities are presented to support student resilience across the spectrum of university services, policies, systems and activities to enhance both individual and external resources.

Keys to Resilience at ANU

Aims

The current project aims to explore existing student approaches to resilience in order to highlight individual variability, strengths and resourcefulness, and also to discover opportunities for further intervention or support beyond traditional means. The project invites direct student feedback on the current approach of the university and suggestions for enhancement.

Method

This research was conducted for one month as a part of Australia and New Zealand University Mental Health and Wellbeing (UMHW) Day, held on 27 April 2016, with the view to exploring the state of student resilience at the Australian National University (ANU). The research has been conducted with the approval of the ANU Human Research Ethics Committee. Students were invited via an online survey link (using the Apollo system) sent to all-student email or via hard-copy postcard provided to students during wellbeing events (both Australia and New Zealand University Mental Health and Wellbeing Day, and during Spoon Week) held between 27 April and 27 May 2016 at the ANU. The survey involved two questions, the first of which asked students to list their current approach to resilience and wellbeing, and the second eliciting feedback on any additional ways the university could support this. Responses were anonymous and via open-ended text, in the absence of demographic data for the sake of anonymity and ease of response. Responses were grouped during analysis using pre-assigned coding categories based on initial review of data ranges. Proportions (via percentages) were calculated to reflect the range and strength of response types.

Results

In total, 290 student responses were received – 142 students completed the online Apollo survey, 105 completed the postcard on UMHW Day, and a further 43 completed the postcard during the Spoon Week event. Incomplete and invalid responses (e.g. yes/no answers, absent responses) were excluded from analysis. For Question 1, 283 valid responses were analysed and for Question 2 there was analysis of 276 valid responses.

Question 1 – Individual Resilience and Wellbeing Approaches

On average, students provided 2.12 separately categorised responses each to the first question, with a range of 1 – 8 categories listed by each student. In general, responses tended to be more detailed and numerous when completed online. Responses to Question 1 were coded into the following categories and percentage totals were calculated for each category as in Table 1 below.

Table 1. Response categories and percentages for student resilience approaches

Category	Code	#	%
Physical/Exercise	1	128	20.88
Social	2	130	21.21
Psychological/Cognitive	3	81	13.21
Spiritual	4	23	3.75
Academic/Occupational	5	34	5.55
Personal Interests	6	63	10.28
Active Self-Care	7	104	16.97
Nature & Travel	8	23	3.75
Professional/Medication	9	15	2.45
Other	10	12	1.95
Total:		**613**	**100**

As can be seen from Table 1 above, the most commonly reported resilience categories for this student group included accessing social support (21%); engaging in physical exercise (21%); active personal self-care strategies (e.g. prioritising sleep, healthy diet, regular breaks and relaxation; 17%); psychological or cognitive approaches (13%); and regular engagement in personal interests (10%). Less frequently reported categories (i.e. under 6% each) which students deemed conducive to resilience included academic or occupational approaches, spiritual practices, interacting with nature and travel, and accessing health professionals or medication.

Further detail is provided for the top five responses.

1. **Social**: General responses to this item included talking with friends or family, socialising, being with people, talking through problems with others, or seeking help from non-professionals.

Sample statements

"Confide in others", "Spend time with my family", "Seek help from family, friends, social groups…", "Find positive people and support networks", "Socialise", and "Talk to people and include yourself with the community."

2. **Physical/Exercise:** General responses included exercise, attending the gymnasium, playing team sports, and participating in group or individual fitness activities such as yoga classes, walking, running, or soccer.

Sample statements

"I go for a walk or do some sports", "I do aqua classes, yoga and go cycling", "I try to take regular walks", "Gym, run, workout", "Yoga", "Fitness" and "Exercise."

3. **Active Self-Care**: General range of responses included being attentive to diet, sleep, taking regular breaks, relaxing and spending time for self with intention of self-care.

Sample statements

"Find ways to relax", "Get enough sleep, take lots of baths, force myself to take breaks", "Taking care of myself with my own means", "Listen to my body and mind, when it starts to tell me I need a break…", "8hrs sleep", "Eat well", "I do a lot of self-care activities" and "Treat yourself."

4. **Psychological/Cognitive**: General responses pertaining to thinking strategies, such as avoiding thinking about negative aspects and focusing on positives of situations, active meditation, problem-solving, self-encouragement and reflection.

Sample statements

"Self-talk", "I always try to think positively and turn negative thoughts into more positive ones", "I try to work towards becoming conscious of my thoughts and emotions, and promoting positive attributes", "Stop comparing my achievements to others" and "Believe in one's self."

5. **Personal Interests**: Generally included themes of engaging in personal pursuits, hobbies, enjoyable activities, and individual extra-curricular activities.

Sample statements

"Taking time out to do something I enjoy", "Hobbies", "Read", "Play violin", "Play video games", "MUSIC", "Enjoy memes."

Responses from the remaining categories were broadly represented by the following:

6. **Academic/Occupational**: Work or study practices such as participation and planning or organisational strategies.

7. **Spiritual**: Identified religious or spiritual practice, prayer, reading religious texts and drawing on one's faith.

8. **Nature & Travel**: Spending time in natural environments, with pets or travelling to other locations.

9. **Professional/Medication**: Consulting with a professional (typically a counsellor) or using medication for health purposes.

10. **Other**: Responses which do not fit into the specified categories, which included being unsure, doing nothing, doing "*lots of things*", or other unrelated comments about university structures or facilities.

Question 2 – Suggested Improvements

On average, students provided 1.36 separately categorised responses each to the second question, with a range of 1 – 5 categories per student. Again, online responses tended to be more detailed. Coding categories and percentage data for Question 2 are presented in Table 2.

Table 2. Response categories and percentages for institutional improvement suggestions

Category	Code	#	%
Facilities & Spaces	1	35	8.97
Student Services & Support	2	76	19.49
Social Functions/Events/Groups	3	70	17.95
Academic	4	41	10.51
Individual Responsibility	5	8	2.05
Fitness Activities	6	46	11.80
Resilience/Mental Health Promotion	7	49	12.57
Policy/Attitude/Culture	8	16	4.10
Leadership	9	2	0.51
Positive Feedback	10	23	5.90
Other	11	24	6.15
Total:		**390**	**100**

When asked what students felt the university could do additionally to support their resilience, responses indicated preferences for improvements to existing student services and support (19.5%); additional facilitation of social events, functions or groups (18%); increased promotion of student resilience and mental health support (13%); additional or ongoing availability of free or low-cost fitness activities on campus (12%); incorporation of resilience into academic support (11%); and facilities or spaces more favourable to both social interaction between students and for individual self-reflection (9%). At a lower frequency (less than 6.5% each), some students reported alternative ideas (e.g. petting zoos, music in public spaces); provided positive feedback on existing support; suggested changes to university policy, attitude, culture or leadership; or stated an opinion that resilience is the individual responsibility of each student.

Further response detail is provided for the top six responses.

1. **Student Services & Support**: General responses to this item included expanding availability of general and supportive university services for students, and having more staff across the university provided with training in supporting student wellbeing and resilience. In particular, the Counselling Centre was listed as a well-appreciated, high demand service which students would like to access more quickly than currently availability allows. Suggestions were also

made for specific support in the areas of postgraduate student health, and in offering classes on campus.

Sample suggestions

"More funding to mental health services and decrease in waiting times", "More counsellors", "Better pastoral care for postgraduate students (e.g. a student liaison officer for pastoral issues)", "Perhaps more people that are specifically employed to monitor health and wellbeing of students and staff", "More responsive and readily available Student Support for wellbeing, health, and mental health."

2. **Social Functions/Events/Groups**: A wide range of responses suggesting an increase in general university events, social networking opportunities, group or community activities and peer support.

Sample statements

"More inclusive group activities aimed at getting everyone involved", "More social activities through the week", "...pizza and movie nights too, and get international students involved", "...more events that encourage outdoor activities. More team building events and group projects to create a fun environment", "Group activities such as trivia or a networking night every week or fortnight", "Help people who don't have older peers that they trust to find mentors of this form", "Meetings with art activities", "Music shows", "More support for clubs and their social events."

3. **Resilience/Mental Health Promotion**: General suggestions about information sessions on resilience and mental health; free meditation, mindfulness or relaxation classes; community awareness-raising activities on wellbeing topics.

Sample statements

"Events or regular activities about discussing resilience", "More funding towards wellbeing", "More promotion to drink responsibly, eat well - that the cultural norm would be to take the healthy option of looking after one's health", "Different discourse around hardship", "Classes/seminars about building this resilience and discipline", "Free meditation and mindfulness classes, yoga classes etc."

4. **Fitness Activities**: Responses expressed appreciation for the fitness services already available on campus and suggested expansion of these including additional group exercise programs and lunchtime sports (yoga was the predominate suggestion).

Sample statements

"Lunch time yoga classes", "Group exercises", "Free lunchtime sports", "More free group exercise classes + training", "Consider running support for students of different ages and social backgrounds", "Casual sports, show up and play type thing."

5. **Academic**: Suggestions were wide and varied and included a focus on incorporating wellbeing into teaching and learning practices; having more flexible study requirements and class times; having confidence that academic staff understand and are supportive of student wellbeing; providing clear academic expectations on entry to courses; and offering early intervention processes for students whose academic achievement is of concern.

Sample statements

"Well-being for students (in my experience) would seem to be a school/discipline-specific issue", "Facilitators are needed in classrooms to bring students together, to help make ties, to make the learning a relaxed communal experience, and lecturers should take an interest in their students", "More flexible but still keep the baseline of academic study", "I think it is important lecturers understand more about student wellbeing", "Ask more open questions about goals and reflecting on what we've learned", "More flexible assessments", "Less of a focus on the culture of consistently studying...support regular self-care practices", "Approach students who failed and provide assistances, but not pressure", "More Academic skill tutors and support available", "I think that it would be helpful to run compulsory short courses for first year students that deal with core study skills (time management, citation, essay planning, etc.)."

6. **Facilities & Spaces**: General emphasis of responses on increasing access to campus areas for relaxing, recharging, reflection, and socialising.

<u>Sample statements</u>

"More areas for relaxation/'chilling out'", "Having somewhere small and quiet to retreat to (close to Union Court), purely for 'recharging', no talking", "Make more areas where students can hang around and chat with others. Encourage interaction between students of different races", "Places to sleep, nap & rest", "Stress-free locations", "More reflective spaces", "Prayer rooms."

The less commonly reported responses were represented as follows:

7. **Other**: A range of responses not fitting the specified categories, with no specific themes. Multiple suggestions around having petting zoos or therapeutic animals available , along with increasing music in public spaces, supporting students extra-curricular activities, enhanced "*free time*", being unsure or having no suggestions.

8. **Positive Feedback**: Responses which were complimentary about existing university facilities or services, especially fitness, counselling, indigenous student support, libraries, outdoor spaces, and generally being satisfied with the campus and university as a whole.

9. **Policy/Attitude/Culture**: General comments on existing university culture on topics of wellbeing, mental health, and religion, along with suggestions on embedding a wellbeing culture (including open dialogue) into university policy and guidelines.

10. **Individual Responsibility**: A small proportion of respondents made firm statements on wellbeing as an individual (not a university) responsibility, referring to the importance of individual attitudes and coping.

11. **Leadership**: Comments on management and leadership roles and their impact on wellbeing.

Discussion

It is apparent from the results that wellbeing and resilience are maintained in a variety of ways by existing students of the ANU and that students have a range of valuable and applicable suggestions on how to improve the support offered by the university. Key components of a student approach to resilience were identified including the value of social support, physical exercise, personal self-care strategies, individual psychological coping, and regular engagement in personal interests. The approaches reported by students reflect well the elements of resilience identified in the literature such as self-efficacy and competence, using active coping styles for stress, applying cognitive flexibility, possessing a sense of belonging, and accessing social support (Pooley & Cohen, 2010; Davydov et al. 2010).

Student support needs also paralleled and complimented their existing resilience approaches. Suggestions were made in particular for improvements in access to existing student services and support; additional facilitation of social events, functions or groups; increased promotion of student resilience and mental health support; additional or ongoing availability of free or low-cost fitness activities on campus; incorporation of resilience into academic support; and the creation of facilities or spaces more favourable to both social interaction between students and for individual self-reflection. Suggestions made by students were largely practical and within the scope of the university's current structures and systems. For example, the upcoming re-development of Union Court will provide opportunity to address health, fitness and wellbeing needs via improved facilities and support, along with improvement to existing university spaces to encourage social connection and engagement.

The theme of suggestions offered by students in the current research are reflected both in the recommendations from a recent report on improving student mental health (Veness, 2016) and in the Okanagan Charter (2015), an international charter developed to support health-promoting

universities and colleges. The Okanagan Charter (2015) presents two Calls to Action. Firstly, it proposes embedding health into all aspects of campus culture, administration, operations and academic mandates – this includes recommendation 1.3 'Generate thriving communities and a culture of well-being' with the aim to "*Be proactive and intentional in creating empowered, connected and resilient campus communities that foster an ethic of care, compassion, collaboration and community action*" (p. 7) and recommendation 1.4 'Support personal development' by creating opportunities to "*build student, staff and faculty resilience, competence, personal capacity and life enhancing skills*" (p. 7). Practical and evidence-based suggestions for incorporating wellbeing and resilience into academic settings are contained within the Healthy Campus Community resources provided freely by Simon Fraser University (Stanton, Dhaliwal, Black & Hutchinson, 2015) at https://www.sfu.ca/healthycampuscommunity/academic-settings.html

Core conditions for wellbeing in an academic setting are identified as incorporating social connection, supporting an institutional culture of wellbeing, reducing undue stress, providing opportunities for personal development, strengthening balance and resilience, fostering inclusivity, and promoting involvement and meaningful engagement (Stanton et al. 2015). There is some suggestion that within the realms of leadership (Jackson & Daly, 2011) and in the academic health disciplines in particular (e.g. medicine, nursing, psychology, social work, allied health) that embedding resilience and self-care components should be a priority "in order to give students strength, focus and endurance in the workplace" (McAllister & McKinnon, 2009, p. 371). Amongst the key recommendations for universities in supporting student mental health are nurturing a leadership and organisational tone committed to student wellbeing and mental health; supplementing on-campus treatment services with preventative health ventures, local partnerships and possible governmental support; matching screening programs with support services; and offering group programs such as mindfulness meditation (Veness, 2016). As a result of the current project, The ANU Counselling Centre plans to consider facilitating free resilience-themed group workshops for students throughout 2017 to begin addressing these needs.

The Keys to Resilience project represents one component of the ANU's commitment to student mental health and wellbeing, serving primarily to increase awareness of current effective student wellbeing and resilience approaches and to assess student needs with the view to improving institutional support. Opportunities presented as a result of this research could include consideration of expansions to existing student support structures such as social, counselling/pastoral and fitness opportunities. This research could also inform upcoming improvements to campus groups, academic programs, policies and facilities with the view to embedding resilience and wellbeing as core foundations of thriving in academic, personal and health domains.

Acknowledgement

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The author may be contacted
Melissa Pech
melissapech@yahoo.com.au

The Academic Learning Centre's Innovation to Supporting Diverse Cohorts with Academic Literacy through an Embedded Approach

Valerie Cleary
Danielle Clarkson
Edward R. Pember
Karin F Stokes
Central Queensland University

Abstract

Australia's responses to changes in the diversity of the educational sector have within them the potential for a number of viable future alternatives. Tertiary education's contemporary dilemma of greater need for assistance in the transition of a growing, diverse cohort, and the effectiveness of traditional add-on and remedial offerings have brought to light a number of differing approaches. Consensus does appear to surround the innovation of embeddedness, where fundamental academic literacy is integrated into first-year core courses. This operates as both a pedagogical device intent on creating a level playing field for students, and as a rapid induction into the relevant academic discipline. Research supports the educational outcomes for the students involved and fiscal outcomes will almost certainly be positive as the primary source of its concern, student attrition, diminishes.

In the past year the Academic Learning Centre (ALC) has developed a multi-pronged approach, and has built support for its embeddedness innovation in courses whose students contribute to the high attrition figures in the programs. We have created a cross-collaboration between library, faculty and student academic services that had not previously existed at CQUniversity. We are moving away from add-on services towards preventative pedagogies, and our expectation of increased retention rates is high. The study is ongoing as interest grows within faculties.

Introduction

While regional universities are traditionally strong at attracting diverse students, one of the major challenges they face is attrition, which continues to be high in comparison with state and national averages. Since its establishment in 1984, a number of changes has occurred in the Academic Learning Centre (ALC) which has enabled staff to keep abreast of the needs of the changing student population at CQUniversity. However, there are still shortcomings in the style of learning support offered. Although the numbers of students seeking assistance have increased Academic Learning Advisors (ALAs) are acutely aware of the repetition in the advice given and the low numbers of students attending workshops. There are however, increased numbers of students looking for assistance a few days before the assignment due date and these assignments show a lack of preparedness for university study. Accepting and understanding the diversity and behaviours of CQUniversity students has resulted in a review of services and the development of a set of goals that staff felt would guide the ALC to continue to improve service and reputation. The embedded approach to providing academic advice outlined in this case study is in the early stages of implementation and continues to grow and change in order to develop a service that suits diverse student cohorts. Its purpose is to add another layer of support that assists all students with academic literacy skills instead of only those who proactively or reactively seek help.

Context

The Academic Learning Centre (ALC) is one of two arms of the Academic Learning Services Unit (ALSU). The second arm of the ALSU is Skills for Tertiary Education Preparatory Studies (STEPS), an enabling program that provides a pathway for people wishing to gain entry to and excel in higher education. The ALC has grown to offer a number of on-campus and online services in four discipline areas: Academic Communication, Maths and Statistics, Computing, and Science. Due to increasing demand and a desire to increase student independence, a range of learning and

teaching strategies has been implemented and improved strategies for engaging distance students utilised. An increase in online services has required a change in the way ALAs view their role, and professional development has been undertaken by all staff interested in online support and resource development. Greater interest from other support staff and academics has assisted in raising the ALC profile and an interest in the approaches this unit is taking to assist with attrition.

ALC staff members have known for some time that the add-on style of assistance and provision of workshops is insufficient for a number of reasons. Firstly, as the ALC's promotion platform and reputation have grown, an increasing number of students is self-nominating for one-on-one support through face-to-face consultations, or submitting online for review, and in peak periods staff struggle to manage the load. During these consultations, ALAs give feedback on similar academic skills, resulting in repetitive teaching but highlighting students' lack of preparedness for university literacy tasks. The requests for support are frequently one off visits rather than one in a series that would enable a student time to develop skills. Wingate (2006) argues that academic literacy support as a reactive or deficit approach is an ineffective way to enhance student learning. Although ALC promotion focuses on educating students about what support is available and espouses the value of the assistance to their success at university, asking for this assistance requires students' to take risks and practice behaviours that are unfamiliar to them or may make them uncomfortable (Lawrence, 2005). These behaviours are related to the development of socio-cultural competencies, specifically help and information seeking behaviours, and attitudes about seeking feedback (Lawrence, 2005). These socio-cultural competencies are necessary for a successful transition to university; however, they may take some time and scaffolding to develop (Lawrence, 2005; Wilson, 2012). As a result, many students who should seek assistance in their first year do not choose to attend; they may be embarrassed or afraid to ask, and some see it as an admission of failure (Bloy, Buckingham & Pillai 2006). Although the ALC provides many adjunct workshops both on campus and in online sessions, and encourages students to interact with ALAs, another blocker to seeking assistance identified by Chanock (2007) is that these are largely generic, servicing students from many disciplines, and as such are often regarded as remedial. Kift (2009) also contends that many students do not attend these add-on services due to varying life factors, or competing demands. As a result, there are still many students who view the ALC services as a quick fix or do not seek assistance, and some only do so when they fail.

It is clear that a far more proactive approach is needed than has been adopted in the past; one that meets the needs of an increasingly diverse university student population. This includes not only international students but also domestic students who have a non-English speaking background. It also includes: those who are underprepared for university education and who have not undertaken STEPS; students who have the capacity to achieve higher education success but, due to a long absence from study, lack confidence; "first-in family" students who have no family tradition in higher education; students with disabilities; distance students or those studying by flexible modes; and mature-aged students who may be on a determined quest for high distinctions. "With widening participation across tertiary education and the increasing numbers of international students, it can no longer be assumed that students enter their university study with the level of academic language proficiency required to participate effectively in their studies" (Department of Education, Employment and Workplace Relations [DEEWR], 2008, p.1). Understanding student diversity and identifying the risks that they face, enables the ALC to provide appropriate scaffolding of learning to increase their independence and success.

An embedded approach to providing student support

A body of knowledge has emerged in the last 20 years, which focusses on the embedding of academic literacy skills into university programs, as well as demonstrating agreement on the benefits of such initiatives. The benefits have been documented via a meta-analysis of 51 studies by Hattie, Biggs, and Purdie (1996) as well as in research by Tinto and Pusser (2006). Furthermore,

DEEWR (2008) outlines 10 good practice principles for English language proficiency in academic studies for international students, and suggests that examples of good practice demonstrate integration of these skills. Additionally, foundation literacy skills can increase potential for the success of students transitioning to university and can also bridge the gap for students from diverse backgrounds (Black & Rechter 2013; Cuseo, 2003). The DEEWR steering committee was guided by a number of other key ideas, as illustrated by the following quote from the report: "Development of academic language and learning is more likely to occur when it is linked to need (e.g. academic activities, assessment tasks)" (2008, p. 2). Additionally, Tinto (2009, p. 9) sees linked units as a way to "provide a coherent, shared learning experience that is tailored to the needs of the students". The positive views of this approach indicate that it should be incorporated into learning centre strategies to support students.

It is clear that there are many advantages of an embedded approach. Firstly, it enriches student learning and provides a supported learning environment that, in particular, links to several of the scales identified by the Australian Survey of Student Engagement (ACER, 2009). Additionally, this approach does not target a particular group of students and so normalises the focussed approach to learning about academic literacies (McWilliams & Allan 2014). Black & Rechter (2013) and Murray (2013) propose a transitioning program and suggest that improved English Language Proficiency levels are necessary for all students, irrespective of Socio Economic Status or non-English speaking backgrounds (NESB). These approaches assist in creating a multi-layered approach which is designed to benefit all students with the development of fundamental skills and confidence, while continuing to offer individual services. Furthermore, the embedded approach focuses on assessment as a point of integration and engagement, provides specific learning opportunities and links to a model that aids transition to university (Taylor, 2008). DEEWR (2008, p. 2) states that "development of academic language and learning is more likely to occur when it is linked to need (e.g. academic activities and assessment tasks)". Benefits of collaboration between ALAs and academics around assessment will be valued by students if they contribute a small percentage to the final grade (Taylor, 2008). In this model, assessments link both to the learning centre teaching and to the discipline as they allow feedback to be given on course content and writing processes. Furthermore, Brooman-Jones, Cunningham, Hanna & Wilson (2011) describe a model of academic literacy support that is embedded through assessment where discipline and academic literacy assignments connect outcomes from both. As a result of the benefits outlined, many learning centres have refocussed their mission statement to one that involves creating engaging learning environments that include collaborations between discipline-specific academics and academic advisers.

To implement this approach it is necessary to develop partnerships between academic and support staff. Dudley-Evans (2001) describes collaborative and team teaching approaches as those that involve working together to provide benefits for the student, learning centre and faculty staff. However, initiatives featuring a range of collaborative approaches are documented. Some studies debate the pedagogy that could be used and others attempt to identify best practice models (McWilliams & Allan, 2014; Dudley-Evans, 2001; Brooman-Jones, Cunningham, Hanna & Wilson, 2011); however, several authors indicate that if it is to be successful, a flexible approach is needed: one that is a fit for the students and context where it will operate. Others positively evaluate collaborations that have adopted a holistic approach to university transition and retention (Einfalt & Turley, 2013; Kift et al., 2010). These initiatives support the view that the responsibility of providing support is not an individual faculty or department concern, rather whole of institution. This view aligns with CQUniversity's Retention Plan titled: *It's everyone's business* (2014).

Impacts of students' backgrounds and behaviours

Students' diverse backgrounds and behaviours must be examined and their needs considered in any new approach. One of the first cohorts targeted for an embedded approach was the undergraduate

nursing cohort. Their need for extra support with academic literacy skills had been evident in the high levels of support sought from the ALC over the previous few years. The Bachelor of Nursing program has the highest intake of all undergraduate students from a single program at CQUniversity, as well as the highest level of attrition from any one program (see Figure 1 below); as such, this is a vulnerable group. The vast majority of CQUniversity Bachelor of Nursing students are non-traditional students, with 81% being mature-aged in Term 1 of 2015 and 83% in Term 2 (CQUniversity, 2015). These students are likely to have responsibilities such as work and family that compete with their study. The University of Western Sydney - Mature Age Student Equity Project 2009 -2011 (De Silva, Robinson & Watts, 2011) showed that students with varied time commitments may seek 'quick-fix' solutions rather than developing skills for lifelong learning. It also showed that 30.5% of students surveyed, were unaware of the range of services available to support them. ALC usage figures confirm this trend of quick-fix behaviour from Bachelor of Nursing students, as evidenced by the high level of online submissions in comparison with attendance at Blackboard Collaborate sessions. Additionally there are still many who do not access services promoted by email, via Moodle (the learning management system) or during residential schools and orientations.
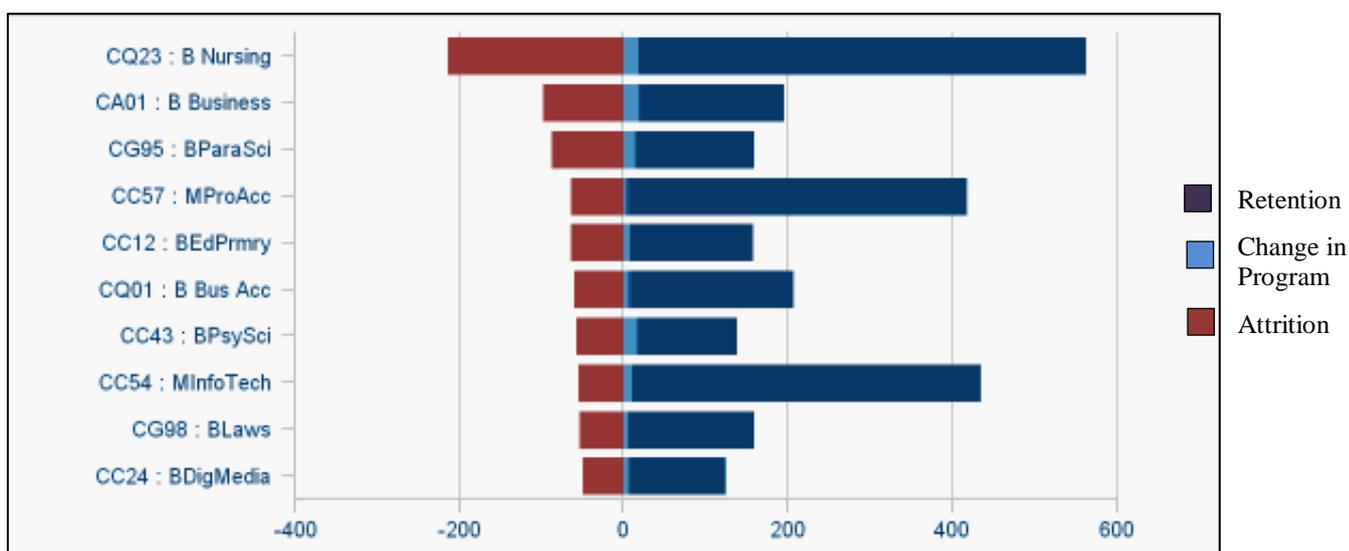
Figure 1: 2015 Comparative attrition numbers (CQUniversity 2016, Academic Dashboard, Attrition & Retention (1st Year) Dashboard, Program Performance)

Another factor that may impact on the success of this group is the mode of entry into the Bachelor of Nursing degree. According to the Queensland Tertiary Admissions Centre (QTAC, 2015), the entry figures for a Bachelor of Nursing undergraduate degree range from Overall Position (OP): 7, Selection Rank (SR): 88, Australian Tertiary Admission Rank (ATAR): 86.67 to OP 19, SR: 60, ATAR: 49.95 with a significant number of universities opting for OP: 15, SR: 66, ATAR 62.25. The current prerequisite for entering the Bachelor of Nursing degree at CQUniversity is at the lower end of the range: an OP: 17, SR: 63, ATAR: 56.55, with no prerequisite for English or Maths. Moreover, Norton (2014, p. 3) warns that there appears to be a correlation between the number of students who struggle academically and the easing of entry requirements. In addition, there has been a significant increase in the number of students making the transition from Vocational and Educational Training (VET) to higher education qualifications (CQUniversity, 2015). Research has found that those transitioning from VET to higher education are likely to face many and varied challenges (Watson, 2008; Watson, Hagel & Chester, 2013; White, 2014). Urban et al. (1999, cited in Watson, 2008) suggest that the method of entry to university has been shown to affect students' completion rates. Endorsed Enrolled Nurses (EENs) who transition to university after studying at TAFE are often given credit for most first year Bachelor of Nursing courses. Yet they may be

disadvantaged by academic elements affecting VET transition to undergraduate study which include:

- Understanding of the task and preparation of the task (White 2014)

- Academic literacy (writing arguments, self-reflection, critical thinking and analysis) (Catterall & Davis 2012)

- Expectations around referencing and information literacy skills (White 2014)

- Academic numeracy (Catterall & Davis 2012).

- Putting highly context specific content and theory into practice (Watson 2008).

The comprehensive embedded model being undertaken by the ALC will make such a pathway more accessible for students such as these in the future and enable success.

It is evident in the pass rates of non-traditional students that factors that may put students at risk can be overcome by the adoption of productive approaches to learning and support in their first year (Bradley et al., 2008; Lizzio & Wilson, 2010). Investing time in attending lectures and tutorials, and/or engaging with the online environment, developing a social network of peers, seeking help where needed and achieving an appropriate work-life-study balance can all be crucial for students to succeed (Wilson, 2012). These behaviours are reflected in the "five senses of success" identified by Lizzio (2006) namely, felt levels of connection, capability, purpose, resourcefulness and their sense of academic culture. These factors are represented as some of the 30 reasons that students were considering an early departure (Figure 2) in the 2013 University Experience Survey (cited in CQUniversity, 2014). This survey identified the most common reason cited by first year students was study/life balance, while later-year students identified that their expectations were not met. However, of concern for the ALC is the high proportion of students who cited lack of academic support as a key reason for leaving (See Figure 2). Promotion of ALC services is occurring in a range of forums but still many students did not access the centre. Providing support in an embedded way could improve this factor and reduce the need for promotion of the service.

Learning by distance mode is also recognised by some studies as a factor contributing to failure of students and attrition. In 2015, there were 64,342 undergraduate enrolments at one of eight campuses at CQUniversity, or enrolled as distance education, or a combination of both. Approximately 50% of these students chose a distance enrolment in terms one and two and approximately 60% chose distance in term three (CQUniversity, 2016), which traditionally has more distance offerings. Furthermore, in 2015 a vast majority of CQUniversity Bachelor of Nursing students elected to complete their degree via distance mode: 73% in Term 1; 88% in Term 2; and 100% in Term 3; hence, another possible risk factor for this group. In fact, in 2014 the rate of attrition amongst distance students was 10% higher than that of on-campus students (CQUniversity, 2015). Surprisingly however, in the previous five years there was also a higher rate of withdrawals and absent fails (none or insufficient assessment items completed) in the nursing cohort. Current ALC approaches to assistance with academic literacy skills are cognisant of these patterns and inclusive of distance students, providing a range of modes of access for students, and it is evident in the number of consultations that this group accesses this support, yet many do not use these adjunct services.
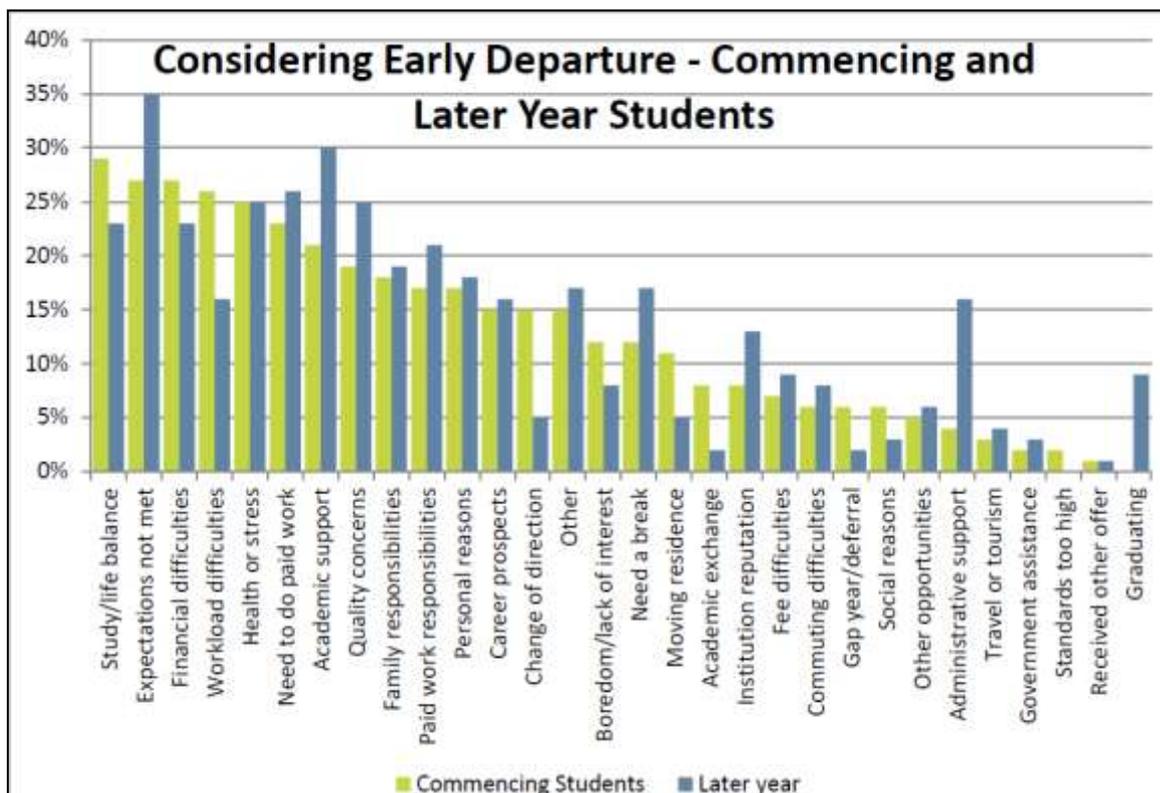
Figure 2. Reasons students consider leaving university by CQUnversity 2014, Retention Plan 2014 – 2019: It's Everybody's Business

There are other programs recognised by the ALC that have similar diversity in their cohorts as the nursing students, similar patterns of access, and which may also be at risk. One of these is the Bachelor of Business cohort. This is a smaller group but the attrition in this group is high (see Figure 1). This group can also enter by VET pathways and as mature age students with credits for experience in the business field. They are also school leavers entering with low OP scores. Additionally, programs where high numbers of international NESB students are enrolled, such as Information Technology degrees (masters and undergraduate), come to the attention of the ALC, as these students tend to be high users of individual services for English Language assistance; these programs also have high numbers of academic misconduct penalties. In 2015, there was a 34% rate of attrition from the Bachelor of Information Technology degree. While, in contrast, the Masters of Information Technology has a low attrition rate, yet large numbers of international students enrolled in this program are given academic penalties for plagiarism each term. Such issues can result from low literacy proficiency and a lack of understanding and knowledge of the requirements for referencing or Australian university culture in general (Bretag, 2005; Devlin & Gray 2007; Wearring et al., 2015). However, there is evidence that plagiarism can be significantly reduced if students receive adequate training in academic literacies (Bretag, 2005); hence, it is important for the ALC to adopt more effective ways of addressing the academic needs of these diverse groups of students.

The model adopted

In an attempt to reduce the high intensity and quick-fix approach to advising, and encourage students to see help-seeking as normal behaviour the ALC has added embedded modules of academic literacy skills to their repertoire of services. This also makes better use of resources, while supporting student success and reducing academic risk. In developing an appropriate model, it was important to not simply replicate other models outlined in case studies, as the vast diversity and numbers of distance students at CQUniversity required a much more flexible and multi modal approach. These modules are designed around fundamental skills but linked closely to the

assessment task of the courses in which they are embedded. The model adopted is such that academic literacy teaching is embedded into four core discipline courses at CQUniversity, utilising four to six hours of tutorial time. The amount of time given for Academic Literacy module, the choice of delivery weeks and modes vary, depending on the academic staff, the course, the cohort, and the due date of the task. Dudley-Evans (2001) describes the most effective approach of academic literacy support as one that is embedded in the discipline subject, so that discipline and academic literacy staff co-teach in the same space. Therefore, in the ALC model when classes are internal, discipline and academic literacy staff co-teach in the same space on campus. The focus is on the generic structure and features of the first assessment piece, as well as on analytical thinking, referencing and writing skills. This model provides an opportunity for greater collaborative support, founded on a juncture of goals to provide for the needs of the diverse student cohort.

The Academic Literacy Skills project is funded by the ALSU, but there has been participation through several strands. The initial modules were developed when funding was provided by one Dean of Teaching and Learning to employ a staff member to work closely with the ALC during the development of the embedded component for one of his school's core courses. This was vital to ensuring the modules were relevant and linked to the core course chosen as a pilot. Wingate (2006) points out that academic literacy cannot be separated from discipline/subject content and a built-in or embedded approach where learning is developed through the discipline teaching should be adopted. During development of subsequent embedded modules, collaboration occurred between ALC staff and course coordinators via phone, video conference, or on one of the ten campuses where ALC advisers are employed. Thirty four academic lecturers were involved in the courses; many liaised only with staff on the campus where internal teaching occurred. These collaborations enable ALAs to gain deeper knowledge of the coordinators concerns and goals, as well as lead a backward-mapping process to determine the academic skills that students require to be successful in the assessment task. Academics assist by providing models of assessment tasks, insight into student needs and ensure that outcomes and learning resources are suitable. These collaborations also ensure that the modules and resources align to the assessment and that appropriate scaffolding is provided. As staff and situations vary the level of collaboration on the assessment tasks, modules and resources also varies.

Another key in this collaboration and in delivery are other support services. Librarians provide research skills online and linked to the ALC designed Moodle site, and counsellors deliver time management and stress management techniques to internal students through face to face and video conferencing modes. Although this project has been predominantly led by the Academic Communication discipline area of the ALC, the computing team has a role in providing resources to assist students with formatting essays, reference lists and assignments that are visual texts such as brochures.

As a result of the range of teaching modes and spread of the staff across numerous locations, technology is a key to ensuring the smooth delivery of the modules. Therefore, the process of collaboration between ALC staff who assist with resource development, on campus commitments, or provide on line support via Blackboard Collaborate is done via jabber and video conferencing. This situation is unlike other case studies where students are taught these skills internally. At CQUniversity a variety of modes for implementation of the modules is necessary as students enrol in these courses both internally or distance. As a result, in some situations the delivery of academic skills becomes the sole role of the ALC. The breakdown of distance and internal students is almost equal (see Table 1); consequently, a Moodle site was developed for each of the courses by the ALC. Here learning is sequenced, and learning experiences are provided through a selection of audio visual materials. Furthermore, the ALC has developed a series of *Info Sheets* with accompanying activity sheets and recordings. Additionally, online quizzes provide opportunities for students to self-assess on topics and answer sheets are provided to check skill development. Other resources

are developed for the online and on campus environments including power points and learning activities. These are developed initially for classroom delivery and later adapted for online use through Blackboard Collaborate, ensuring that the collaboratively determined outcomes stay the focus no matter how the modules are delivered. These provide opportunity for internal students to review content and skills in their own time using. Additionally, students are provided with a timetable of Blackboard Collaborate workshops organised by the ALC which enables them to have an interactive experience while developing the skills required. Alternatively, both distance and internal students can access ALC staff on a campus near them for face- to- face interactive sessions, advertised as workshops linked to their course, instead of joining via a virtual room. Academics promote these many modes of delivery showing the value of them to the students and explaining their links to the assessment task.

Table 1.Students by their primary campus plan who have had at least 1 enrolment in the term.

Term	% Flex Students	% Internal Students
2015 T1	51.00	49.00
2015 T2	52.56	47.44
2015 T3	59.06	40.94

Note: *CQUniversity 2016, Academic Dashboard, Attrition & Retention (1st Year) Dashboard, Program Performance*

Benefits to students engaged in the project are evident already. Although there are some students who have not accessed the material, the improved quality of tasks submitted to lecturers has been noted and feedback from students seen in forum posts indicates the value of the method of support. Academic staff have also been very grateful for the modules and praised the quality of the material and the comprehensiveness of the Moodle sites Furthermore, improvements in assessment tasks occurred, moving towards providing formative assessment tasks in first year subjects that allow students to develop their academic literacy skills. Additionally, as ALC staff examined the assessment tasks to carry out back mapping and identify possible obstacles for students, conversations took place and some academics began to adjust assessment tasks to ensure students success with them.

As well as benefits for students, there have been some unexpected benefits related to professional development and skill development for ALC staff. Prior to this project ALAs had limited skills with some of the technology, and as a result training and confidence building have been required. This was provided by specialist staff to small groups of ALAs online and via Collaborate. Additionally, a number of team leaders has emerged and these staff now have course coordinator roles within the ALC. Tasks such as scheduling workshops, on campus and Blackboard Collaborates has become part of their role, along with curriculum development and liaising with academics. ALAs are supported by the Head of Services and an administration officer. Another benefit has been the raising of our reputation within the university as a unit that has a range of skills and backgrounds. Additionally, his project has also provided practical strategies and resources to assist academic staff to utilise skills they learn in other class groups. It is evident that many lecturers did not have the confidence and skills to deliver the initiative themselves but it is envisaged that their observations of ALAs, and the resources provided will assist them to deliver this in other courses. A positive outcome can be achieved from the sharing of expertise which results in capacity building amongst staff involved (Hillege, Catterall, Beale, Stewart 2014), and ALAs are only just starting to see the possibilities this approach brings.

The future

Curriculum is a dynamic process and in curriculum development there are always changes that occur that are intended to improve. These changes are occurring in the project described above, and as the ALC moves into the third iteration of some of the modules, and new courses are added to the project, comments from staff and students who have engaged in the material are used to inform future sites resources and activities. The formal evaluation of the project will enable the ALC to adjust the approach and promote it to other discipline staff, as well as garner support for such changes in proactive teaching of fundamental skills.

The size of the project has grown quickly and the organisation of it has become a complex task but benefits are already evident. The ALC hopes to encourage staff to consider collaborating as a broader team to embed these skills into other core courses using a carefully planned and meaningful approach. Additionally, sustainability is expected as evidenced in the follow up results of studies from a range of universities and involving a range of different cohorts. These indicate that students were able to transfer the knowledge they had gained to other courses. This success also has "a flow on effect in the development of motivation and self-empowerment" (Hillege et al., 2014, p.690). This approach can also extend to embedding more computing as well as maths, statistics, science fundamental skills into core courses. Finally, greater connections to course assessments would be a valuable change, as early assessments in embedded academic literacy units will be valued by the student if they contribute a small percentage to the final grade making them both summative and formative (Taylor, 2008). Such tasks will also allow the staff to identify students who are at risk or lacking confidence.

A collaborative support model is the long term goal of the ALC yet there is a still a disconnection between academics in schools, advisers and support staff in a range of areas, all working in silos but with a similar purpose. The recently adopted retention statement indicates that providing support should not be the responsibility of an individual unit. Other authors concur, stating that members from all services attempting to support students need to move beyond the separateness of academic, administrative and support services and create a whole of institution system (Kift et al., 2010; McInnis, 2003). This initiative of embedding Academic Literacy Skills into courses provides an opportunity to trial a model, evaluate its effectiveness and identify the best approach for adverse group of students to develop academic literacy skills. It is an essential contribution to a comprehensive, integrated, coordinated and collaborative strategy that will assist with "improving the student learning experience in order to boost retention, progress and ultimately, competition rates" (DEEWR, 2009, p.15).The ALC's belief is that embedding academic literacy skills into discipline courses through collaboration with lecturers and library staff will assist all students to improve their writing, and should increase students' confidence in approaching their study as well as encourage them to see 'help seeking' as a useful addition to the solution. The ALC has confidence that staff at CQUniversity can develop a common goal in providing greater thinking, research, referencing and writing skills for the diverse student group.

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The authors may be contacted via
Valerie Cleary
v.cleary@cqu.edu.au

Interactive Online Student Transition to University

Vandana Minhas-Taneja
Student Engagement
University of Auckland

Abstract

An extensive research project was conducted by the University of Auckland in 2012, which showed that many first year students wanted information from the University to be available online, both pre and post arrival. In response to this, Online Orientation was launched in 2015 to all new to University undergraduate students.

Online Orientation was designed to give new students access to key information about the University that all first year students needed to know in order to transition smoothly. It was a huge success, with more than 80% of the new undergraduate student population accessing the various modules in 2015, and more than 88% in 2016. The biggest factor behind the success was not only that information was available online, but also because elements within the modules were gamified. The rationale behind this was to allow students to actively engage with the material presented, and develop their knowledge and understanding about the various services around campus.

Student feedback gathered over two years shows that many enjoyed the pages that were gamified more, over pages that included text only. This was further affirmed by data gathered from Google Analytics which showed students stayed longer on pages that were interactive over pages that contained just static text.

This paper explores how:

- *Gamification is used to enhance student engagement and motivate them to further enrich their knowledge about the University in a fun, interactive way.*

- *Interactive material within Online Orientation is now used by other support services around the University to augment the way students learn about support on campus.*

Introduction

A First Year Transition project began in 2012 to change the transition experience for all first year, new to University students at the University of Auckland. This was initiated after a survey was conducted by market research company Colmar Brunton, that summarised students' expectations pre-arrival, and reflected on their experience into University two months later. Along with this, two interns from Bowling University carried out extensive desk research, and identified current University programmes and compared it with best practice in key first year transition areas. The findings from the survey along with the desk research concluded that the University had to take some informed steps to change the experience for incoming students to ensure that they are well informed, and well educated about the University environment. To initiate these changes, it was recommended that a First Year Transition working group be established; comprised of key influencers to promote and advocate this project across the University.

This paper outlines the journey of this project, from forming an online tool for students, to rationalising the use of gamified components, to how gamification has shaped the way other stakeholders around the University are including gamification as part of their services to drive motivation and engagement.

Project background

The University of Auckland is a large research-led institution that spans over six campuses and has approximately 40,000 students. Roughly 13% of its population include international students, while 80% are from various regions around New Zealand. Each year, approximately 5,000 new first year undergraduates enrol with the University.

Various support services and programmes around the University are aimed at providing services to support student engagement and retention. Service operations vary, as either internal to each individual faculty or centrally based such as the UniGuide Programme, that pairs all incoming students with a peer mentor. All of these groups have a vested interest in conveying information to students during Orientation and all compete for students' attention during this time. Other groups are less focused on issues of first year transition, but arguably place even more value on Orientation because it is their only chance to give students vital information. The previous Orientation Programme spanned a full week, with a range of face-to-face general information and faculty-specific sessions which new students could elect to attend. However, it is estimated that only a third of all first year students attended.

The previous approach raised a number of concerns:

- Orientation sessions were too long and students felt that most of the information that they received during the week wasn't relevant to them at the time it was delivered.

- Messages between various sessions were duplicated and repeated – they didn't feel information was tailored to their needs (Singh & O'Donoghue, 2004).

- Students struggled to find information that they needed via the University's website.

These concerns along with the research conducted, concluded that with ongoing changes to the digital environment, it was essential for the University to introduce an interactive online element of Orientation.

Following the recommendations from the First Year Transition group, and recognising the needs and concerns addressed by commencing students (Lizzio, 2006), the Orientation programme for the university was improved and rolled out at the beginning of 2015. Online Orientation went live, and along with this the format of faculty orientation days changed to include more interactive and engaging one day sessions. Online Orientation comprised of six modules that included information for students that was relevant, timely and available in one platform. The key driver of Online Orientation success was however, the inclusion of interactive/gamified elements within each module.

What is gamification and why include it?

Many scholars note that the learning environment, whether it is school or a university, is gamified in its own respect (Li, Dong, Untch, & Chasteen, 2013). Students attend classes; they are then presented with tests/exams (challenges), which they must complete in order to receive grades (points). If they achieve those grades, they are then allowed to progress through to the following year of studies (level up). It is also well known that many lecturers and tutors use aspects of gamification as part of their teaching method, by including short and interactive quizzes at the end of each learning module. Meanwhile some (where possible) also design their entire coursework around the concept of gamification, in that students complete quests as part of their tests or assignments (Dicheva, Dichev, Agre, & Angelova, 2015) and results are put up on a leader board to see how they are placed in comparison to their peers. Research also supports that gamification is used by many large organisations, including universities, as part of their marketing campaigns to promote desired behaviours from their target customers (Lee & Hammer, 2011).

Students are stakeholders in identifying problems and solutions (Wankel, 2013), and taking this into consideration, a focus group comprised of students that had just completed their first year of University study was conducted to analyse their take on Online Orientation, and what elements of interactive elements they deemed beneficial for new incoming students.

This focus group provided recommendations for the project coordinators to consider including in Online Orientation:

- An interactive map that will allow students to learn more about the campus environment. New students are able to navigate their way around with the use of mobile maps, but need information around what the campus environment is like, and what services are available in each building/facility.

- Interactive games/quizzes on support services. Students felt that just reading through a list of services with a definition explaining those services didn't provide sufficient in-depth information.

- Include games/quizzes on how to use some of the online tools that students are expected to be aware of, and use in their day to day lives.

Before launching Online Orientation, further work was conducted to ensure elements of gamification are included in each module of Online Orientation. However, we noted that 'gamification', while attractive and appealing to students, and increasing the likelihood of repeat visits, doesn't necessarily result in an enhancement in student learning (L. & Grabowski, 2004). Therefore, it was essential to maintain a good balance between games/quizzes and information in static text.

Implementation

Game design

While the theory of gamification may be simple, effectively gamifying a concept isn't. Research suggested that we follow a basic five step process on good game design (Huang & Soman, 2013):

12. Understanding the target audience and the context: based on University data, we were aware that our target audience for Online Orientation would mainly consist of high-school leavers. Hence it was crucial for us to ensure that each gamified element didn't take too long for students to complete and that the tone was also student friendly.

13. Defining learning objectives: what did we want students to accomplish by completing each module of Online Orientation and how will we get them to the end of each module? Keeping this in mind we ensured that the gamified elements allowed students to understand a concept. For example the 'Email Challenge' quiz. This was created to allow students to learn how to best manage their University email account, and provided information on how often they should check this account to ensure that they didn't miss any emails related to their studies.

14. Structuring the experience: this involved ensuring that timely and immediate feedback is provided to students at the completion of each quiz (Gee, 2008).

15. Identifying resources: tracking the engagement within each quiz, it was important to analyse the number of students that not only visited each page within Online Orientation but how many of those interacted with the gamified components.

16. Applying gamification elements: which aspects of Online Orientation do we continue to gamify, and which sections are best fit for another medium?

Initial stages of gamification

During the initial stages, the first elements of gamification that could be launched included the interactive campus maps and simply designed Adobe Captivate quizzes. The campus maps were designed keeping the target audience in mind, ensuring that they were interactive, and included some elements of good game design, such as animation (Dicheva, Dichev, Agre, & Angelova, 2015) and user control over navigation. The quizzes however, although gamified and much simpler in design, complemented the text presented in each module and allowed students to test their knowledge on what they learnt in each particular module (L. & Grabowski, 2004).

Figure 1. Interactive map of City Campus

Other gamified elements were designed to test students' own knowledge of the new environment they were about to enter. One such example includes the 'Kiwi as' quiz that was made available for international students to see how much they were aware of common kiwi slang terms. Not only did this gamified medium allow international students to transition to a new university, but also to a new country. This proved highly effective and was well received by international students as well as the International Office within the University. The International Office reported that they had received feedback from international students stating that they felt more included in conversations, as they were already aware of common kiwi terms.

Results

Google Analytics

The results since the launch of Online Orientation have been pleasing in terms of the number of students accessing the modules. Google Analytics allowed us to analyse detailed statistics about Online Orientation's traffic and traffic sources.
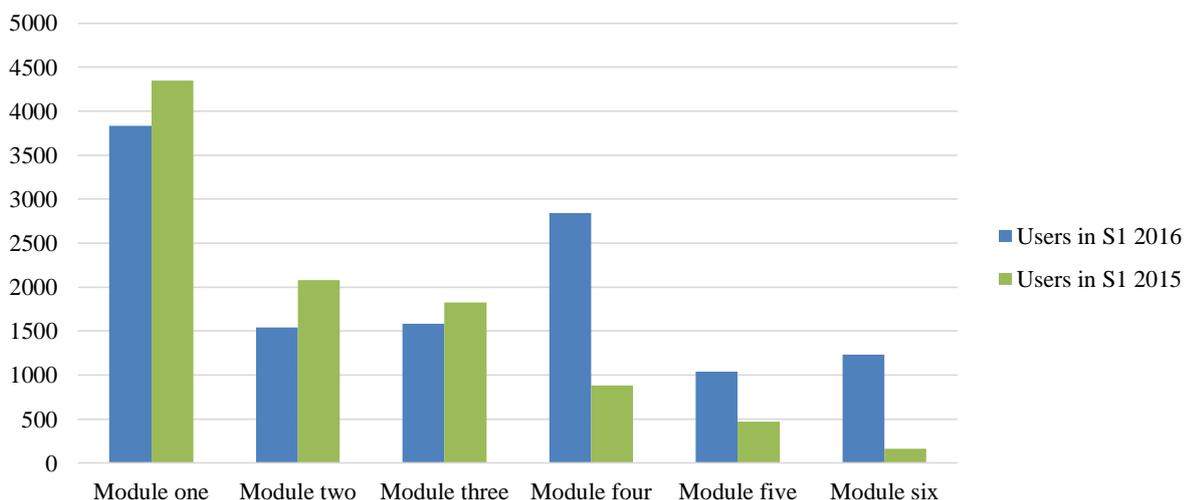
Figure 2: Data gathered from Google Analytics on number of users accessing each module.

Further analysis was required to review online engagement (Krause & Coates, 2008) and to assess student behaviour on pages that were interactive in comparison to those that contained static text. Analysis of time spent on particular pages revealed that certain content the University thought would be important to new students was not viewed in the same manner by the students themselves.

We also reviewed how well each page was received by students and the average time students spent on those pages. This allowed us to evaluate certain pages' relevance, review content in those pages,

and show our stakeholders that information presented in an interactive way, such as videos, games or quizzes, is well-received by students.
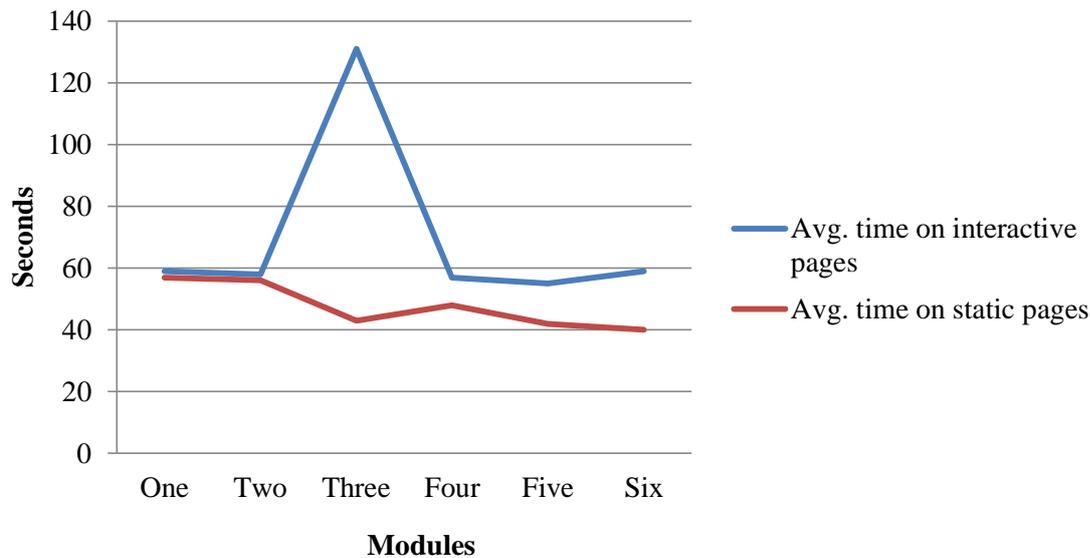
Figure 3: Google analytics analysis on time spent on pages

Learnings from Google analytics and student feedback

Evaluating student experience (Robinson & Hullinger, 2010) of not just Online Orientation as a whole, but also around the gamified components was essential for the University to undertake. Google analytics allowed us to evaluate the quantitative information, but a post launch survey needed to be sent as well, to assess and gather student feedback on their experience of Online Orientation.

At every stage of the change process, gathering and analysing data was critical. In-house research formed the basis of the business case for change, alongside the data capture undertaken by Colmar Brunton. Work was also undertaken to analyse the financial impacts of the change and examine the institutional benefits in terms of student retention.

The student voice was also a powerful driver for changes (Fielding, 2004), with various student groups consulted throughout the project implementation. While the results of student consultation provided useful data, the First Year Transition group was also mindful of the concerns around implications that the group often has one "voice" and that a "monolingual assumption is illusory" (Robinson & Taylor, 2007, p. 6).

Common feedback and trends that emerged from the post survey and Google Analytics were taken into consideration.

- Ensure that there is a good balance between, videos, static text, and gamified elements.

- Test usability of games on all mobile devices (Salen & Zimmerman, 2003). Feedback suggested that some students had difficulty accessing the Adobe Captivate quizzes on their mobile devices. This is urging us to consider moving all quizzes and games out of Captivate and into HTML instead. Although this increases cost for the University, it does however ensure that the students who are motivated to access the online material are not disappointed by technological errors.

- Engage in house support around creating gamified elements. 'The Email Challenge' quiz was created by one of the University's Computer Science lecturers and some of his students. This quiz proved highly successful as it was created by students for students.

Gamification support to other departments within the University

Following the success of Online Orientation, many other departments within the University approached the First Year Transition Group to investigate how certain elements within their services could also be gamified. Meanwhile other Support Services wanted to utilise the gamified elements already in Online Orientation to support the services they were providing or to 'nudge' students towards certain behaviour (Desouza & Smith, 2016).

- The Schools Partnership Office is now using the interactive campus maps during their High school presentations. This medium allows students to click through various hotspots around the University and learn what's on offer. This has proven successful for the team, and can be seen as a method to increase revenue for the University as prospective students are more engaged with the University (McGonigal, 2011).

- An interactive financial literacy quiz was added to Online Orientation to increase students' knowledge about financial management (Klopfer, Osterweil, & Salen, 2009). This has since been included in the University's central website.

Discussion

The term gamification is new, especially to the education sector, but the concept of gamification has been around for many years (Zichermann & Cunningham, 2011). It is clear that the implementation of Online Orientation has largely uncovered the problems stated earlier in this report. Faculty Orientation attendance is up, interaction with the Online Orientation resource is high and feedback from students is encouraging. Similarly, staff who engage with students during their transition report that there is an improvement in the levels of preparedness in the first weeks of the semester. Furthermore, the nature of questions being asked at the University's Student Information Centres and call centre are well thought out, reflecting a smoother transition for some students.

Gamified components within Online Orientation have been a success factor behind the online tool, and enabled others within the University to consider gamification where possible. But this raises further challenges as we continue to expand gamification within Online Orientation and in other support service areas.

Considering that good game design is imperative to the success of all gamified materials (MacMillian, 2011), it is crucial that we continue to develop meaningful games/quizzes that engage students and also deliver the key messages from the University.

It is also known that with all blended learning initiatives it is difficult to say with any certainty whether online learning contributes to better student success at University (Lizzio, 2006). More work is required to better understand the connections between technology, the student experience and student outcomes (Robinson & Hullinger, 2010).

Conclusion

This paper has explored how Online Orientation and the inclusion of gamification within modules has shaped the way we look at student transition, and how it was used to enhance Online Orientation further. Survey results and Google Analytics both echo that students are more absorbed in pages that are gamified over pages that contain text.

As Online Orientation continues to be embedded into the students' transition experience, work continues to make the resource accessible, relevant and engaging. One of the challenges for the institution is to take key content which does not necessarily lend itself to gamification and find innovative ways to present it. We note that while gamification is clearly desirable – and even expected among large sections of the student community, the challenge for the institution is to gauge whether this has true learning benefits for all.

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The author may be contacted:
Vandana Minhas-Taneja
v.minhas-taneja@auckland.ac.nz

Incorporating Peer Mentor Tutorials into a
Success Course for Diverse Students

Sheilagh Grills
Brandon University
Canada

Abstract

This paper describes weekly tutorials led by a peer mentor which have been embedded into a one-semester Success Course to assist students transitioning to tertiary studies. The activities and material for the tutorials are interdisciplinary and can be adapted to a variety of central themes for a learning community or cohort-based program. Critical thinking and inquiry based learning exercises are integrated throughout the weekly meetings, and each session is designed to address a particular problem or bottleneck to learning. Peer mentors model individual responsibility and self-regulation and emphasise learning as a process rather than an end product. A series of small assignments with multiple opportunities for feedback, and high academic standards promotes increased confidence and skill levels.

Keywords

learning strategies, self-regulation, critical thinking, peer mentoring

Introduction

The Center for Educational Policy Research (2003) concluded that first-year students need to develop habits of mind, or learning and thinking skills. One approach that many institutions have taken to try to encourage these learning skills is to offer Freshman Seminars, Learning Framework Courses or Success Courses. These programs can range from extended orientation or induction workshops to a series of full-year for-credit courses. Induction or orientation support initiatives have fewer contact hours than other programs, often meeting once or twice a week for the first six weeks of the first term, and may carry half-credit weight or be non-credit. Orientation support differs from the Success Course discussed in this paper in that it has a greater emphasis on social integration including outings or events to integrate new students into the campus culture.

First-year programs that emphasise critical thinking, such as Learning to Learn courses, have been shown to improve students' attitudes towards learning, their performance in later classes and retention (McKeachie, Pintrich & Lin, 1985; Pintrich, McKeachie & Lin, 1987). Learning Framework courses root theory and research in cognitive and behavioural psychology within the core of the course along with the application of learning strategies. These have been shown to result in higher grade point averages, first year retention rates and six-year graduation rates (Hodges, Sellers & Dochen, 2001; Weinstein et al., 1998). Regardless of differences in curriculum, delivery or terminology, these programs share a common goal to effectively integrate new students into their learning environment.

Collecting students in small groups to increase interaction is only the first step. James, Bruch & Jehangir (2006, p. 11) distinguish between the functions of a learning *community* "working together as a group with a shared mission" and a *learning* community, where "members help each other learn to join the academic community by supporting each other through listening, disagreeing, and working together, students build academic skills and explore ideas in ways that value individual knowledge." The peer mentor tutorials of the program described herein are similar to the Supplemental Instruction (SI) or Peer Assisted Study Session (PASS) programs, in that they encourage interactions that focus on building academic success. The tutorials involve on-campus only instruction to emphasise academic preparation and interaction rather than social integration into the wider community. This decision was made to try to engage student populations similar to those in some institutions in Australasia - commuter students, part-time students, those who work more than 20 hours a week or students opting for three year degrees.

The Success Course, called 'Fundamentals of Inquiry', uses strategic learning to explicitly teach under-prepared students to monitor their knowledge acquisition and comprehension. The focus of the tutorials is not on the discipline-specific content of the at-risk courses traditionally found in PASS or SI programs. Rather, they are geared to the undecided student who often gravitates to humanities or social science classes. The Success Course and the tutorials themselves are fundamentally interdisciplinary. First year students often have little experience with the distinct models of thinking present in different disciplines, especially with the vast array of arts and humanities disciplines. They have little to no experience with cross-discipline discussions unless they have come from an International Baccalaureate program.

An interdisciplinary theme serves as the organising principle for the program, and is central to the research paper at the conclusion of the course. Students read articles and complete assignments on themes such as self-efficacy, motivation, diversity, relationships, poverty, success, health or resilience. The interdisciplinary subject matter is designed to emphasise skills that transfer broadly across disciplines and form the foundation for subsequent studies. This credit-bearing course counts as an elective towards degree completion, and requires students to complete a ten-page research essay in addition to weekly assignments and midterm exams. As Kuh et al. (2005, p. 301) argue, "set performance standards for students at high but attainable levels consistent with their academic preparation."

The tutorials form the basis of a peer cooperative learning program that provides a combination of interdependence and self-directed learning through scaffolded instruction. Informal interactions and explicit lesson plans provide an environment that encourages the discussion of affective components of learning. Even conversations with others about common learning experiences can "serve as vehicles to transgress the limits of dualistic thinking (Aleman, 1994, p. 38). The peer mentors do the socialisation work of integrating first-year students into an academic community by being an accepting audience, facilitating open discussions, and modelling individual responsibility for learning. They are a personal, non-threatening contact that can provide information and answer questions about institutional policies and procedures.

Peer mentoring

Many transition programs make use of senior students as peer leaders or mentors to encourage new students to participate in the activities on campus and feel engaged in their new community. According to a survey by the Policy Center on the First Year of College, the use of peer leaders was linked to higher student perceptions of belonging, campus connections, time management and study strategies. We know from a wide range of research that the more students are involved in shared learning experiences, the more likely they are to be active participants in their own learning (e.g., Kuh et al., 2005; Tinto, 1993, 2000). Students in collaborative or shared learning approaches are more likely to engage in elaboration, comprehension monitoring and critical thinking. As Pascarella & Terenzini (2005, p. 121) write, "peer interactions, particularly those that extend and reinforce what happens in the academic program, appear to influence positively knowledge acquisition and academic skill development during college."

Success Courses with peer leaders or mentors can be particularly important for the adjustment of under-represented populations (Kuh, Kinzie, Buckley, Bridges & Hayek, 2006). A report on two-year community colleges in the United States found that those with a Success Course had a higher proportion of students earning a certificate or transferring (O'Gara, Karp & Hughes, 2008). This is noteworthy given these institutions tend to enrol a greater proportion of socially, economically and academically challenged students.

The Canadian context

The tutorials for Brandon University's Success Course are based on cognitive theory, use a variety of teaching techniques, and integrate classroom and tutorial instruction, as Boylan's (2002) research

suggests. Such elements are central not only to developmental education but also for institutions with more open access policies. Brandon University is a predominantly liberal arts and sciences undergraduate institution located on the traditional territory of Anishinaabeg, Cree, Oji-Cree, Assiniboine, Dakota, and Dene peoples, and the homeland of the Métis Nation. While ten percent of the student population *self-declare* aboriginal ancestry, anecdotal evidence suggests this is a low approximation. The Indigenous Peoples Centre is an active hub in student life providing a place to socialise, share soup or bannock, talk with Elders and advisors, or work on the bank of computers or on the tables in the study room. The university offers a number of very innovative programs which attract a diverse student population, such as Applied Disaster, Creative Arts, and a Clinical Specialisation stream within Native Studies. Some programs such as nursing, music and education have tight entrance competitions, while the general arts or science degrees have an open admissions policy. Canadian high school graduates with a minimum 60% high school average are admitted with regular status, while those who have not completed high school (or a General Education Development certificate) and are at least 21 years of age are admitted with mature student status.

Many students are non-traditional, with circumstances or backgrounds that would have made them unlikely to attempt or be successful at other institutions. Almost one-third of the student population is over 25 years of age and more students are married than live in residence. In any given year, approximately six percent of undergraduates come from the northern or remote Frontier school division in the province of Manitoba. This is the largest geographical school division in the country, covering over 440,000 square kilometres and operating a formal bus route with snowmobile and sleigh (Derksen, 2014). Some First Nations reserves in northern Manitoba suffer from crowded housing and undrinkable water. While the provincial capital has the highest Indigenous child poverty rate for a city in the country at 42%, the poverty rate for First Nations children living on reserves in Manitoba is a staggering 76% (Macdonald & Wilson, 2016). Stone, Walton, Clark & Ligertwood (2016) found that working with an educational advisor was one of many support initiatives that improve the academic performance of students from low socioeconomic status backgrounds. It is in this context that the peer mentor tutorials were incorporated into the Success Course to provide additional support and skill-building practice for transitional learners.

Objectives for the peer mentors

The roles and responsibilities for the peer mentors were developed based on Cuseo's (1992, 2010) extensive work in the area. Senior students are treated as professionals with challenging responsibilities, within a highly structured curriculum (Keup, 2012). As peer mentors, the primary duties of senior students are to be coaches, confidantes and role models. They are tasked with being an accepting audience, and facilitating open discussions in their small group work. They model individual responsibility, self-regulation and the value of inquiry. As academic community interpreters or meaning-makers, they act as referral agents and answer questions about policies and procedures.

Zevallos and Washburn (2014) argue that peer leaders should have a wide range of skills to facilitate small groups and should explicitly model learning and study strategies. Senior students for this project are recruited from graduates of the Fundamentals of Inquiry course as well as previous student leaders. They receive large group, small group and individual training on leading small groups, boundaries and expectations. Training stresses that peer mentors are neither counsellors nor professors, but conduits and advocates (Bonin, 2013). Like other senior students leading PASS programs, training for these peer mentors includes learning and study strategies (Price, Lumpkin, Seeman and Bell, 2012).

Each peer mentor is assigned a small group to lead in weekly exercises and discussions (10-15 students depending upon enrolment). First-year students enrol in the section of tutorial at the same time as they register for the lecture component of the Success Course, similar to a chemistry lab. During training, peer mentors are given the curricula for the semester, and complete each task they

are expected to lead. Additionally there is an electronic group for discussion and questions as well as weekly short individual meetings with the instructor. In this way, senior students are supported, issues are identified quickly, and concerns of first-year students are referred to appropriate resources early in the semester.

Mentor voices

Through mentoring, both transitioning students and senior students benefit and grow from interacting with one another. Peer leaders learn skills that may encourage them to pursue future leadership roles including careers in education (Arendale & Hane, 2016). Former peer mentors in the project described in this paper have continued on to such leadership positions as teacher, student union president, nurse, mental health counsellor, educational advisor and university registrar. It is particularly important that minority or marginalised students are visible as leaders on campus.

In semi-structured interviews about their experience, a peer mentor who is older than average said that one of her goals in participating in this project was to help other mature students realise that they have peers on campus (Grills, 2008). She became a peer mentor to try and demonstrate to others that they are not alone in their desire to achieve higher education at a later stage of life than many of the students on campus.

> *I hope to be teaching high school eventually, so being able to instruct and help direct is invaluable. It's all about helping the individual and working with other mentors that are doing the same. Every time I help somebody, I learn something else from that person, or I learn another skill. It's all based on learning ... for everyone. It's really, really wonderful.*

Another mentor started as a stellar high school student with great expectations. When she struggled in her first attempt at university, it produced a great deal of self-criticism and conflict at home. She returned to university on probation into Fundamentals of Inquiry, was successful, and the following year became an excellent role model for the struggling and perfectionist students in the class.

> *One interesting thing I came to value and observe is the benefits of having students 'work' for knowledge. What I mean by this is that I was always just so tempted to explain everything to them, because I wanted them to be able to see the whole picture. But what I came to realise and respect is that professors make you work for that understanding and for good reason. In the tutorials where I clearly spelled it out for them, they often lacked that 'aha' moment, whereas when I gave them the clues and let them put the pieces together themselves – I found those tutorials exceptionally effective!*

What problem are the tutorials trying to solve?

The journal *New Directions for Teaching and Learning* devoted an issue to a model for integrating critical thinking across disciplines called "decoding the disciplines". The issue addresses the question of how to overcome obstacles to learning for specific disciplines and provides insight into what can be wrong with the first-year experience. As Middendorf & Pace (2004, p. 3) write, "the mental operations required for undergraduates … are rarely presented to students explicitly, [and] students generally lack an opportunity to practise and receive feedback on particular skills in isolation from others."

If educators agree that this is a problem, then they can try to address it by being explicit about what is meant by 'critical thinking', and what is expected in tertiary studies in terms of information processing. They can demonstrate how an expert performs the art and science of thinking by exposing first-year students to lecturers who are open to exploring their own metacognition and how they were able to move from novice to expert. They can have peers explicitly model their own learning skills and they can also utilise scaffolded instruction by both lecturers and peer mentors. Therefore, the tutorials were organised around a central question: what are potential (or known) bottlenecks to learning? Which specific problem is this week's lesson attempting to address? The topics and problems vary by year and theme but include:

- Learning and Intelligence

    - Thinking that 'learning' is an either/or switch common to everyone
    - Equating learning with intelligence

- Time Management

    - Thinking that most of the work necessary will happen in the classroom
    - Procrastination
    - Weak digital literacy skills

- Motivation

    - Inaccurate expectations of the difficulties common to the first-year experience
    - Difficulty persevering after an initial poor performance
    - Not taking personal responsibility for own learning
    - Expecting failure or expecting that others will 'fix' things

- Reading and Studying

    - Thinking that reading texts passively is sufficient for studying
    - Not being able to identify what is important in text

- Taking Notes and Memory

    - Thinking that remembering is rote memorisation rather than understanding
    - Not making the connections between reading, taking notes and memory

- Doing Research: Finding Appropriate Materials

    - Relying on description rather than inquiry in term papers
    - Weak research skills
    - Not knowing how to start a research paper or how to narrow down a topic

- Writing

    - Weak technical writing skills
    - Poor formatting and referencing skills
    - Inaccurate knowledge of plagiarism resulting in either copying or over-quoting

- Oral Presentations

    - High anxiety about public speaking

Tutorial activities and rationale

Each of these bottlenecks to learning is addressed in tutorials through a range of activities for the peer mentors to work through in their weekly small group meeting. A set of these exercises has been collated elsewhere (Grills, 2011) but the general work and rationale are described briefly below.

The objectives for the peer mentors in the first week of tutorials include explaining the expectations of weekly sessions, building a sense of togetherness through an icebreaker exercise and leading the first group discussion. The group also works through basic university expectations using handouts on *Student Rights and Responsibilities* and an exercise on analytic, creative and practical thinking from Carter, Bishop, Lyman Kravits & Maurin (2010). By this time in the semester, classroom discussions have included theories of intelligence, bias in IQ testing, and concepts of thesis, antithesis and synthesis. A classroom visit during this unit has often included an Elder or Counsellor to discuss incorporating the medicine wheel from Indigenous cultures into tertiary learning. To emphasise that learning is a process, an early assignment requires students to identify and describe a Learning Artefact or item that can motivate them throughout the upcoming term. Past Learning Artefacts have included pictures of loved ones or home communities, diplomas or

certificates from the students' own past or from family members, and art work. At the conclusion of the term, students do an oral presentation to the tutorial group describing their Learning Artefact and often invite family and community members to join in this celebratory tutorial.

Procrastination and time management are the focus of the second unit in the semester. Peer mentors demonstrate how to use technology on campus and ensure that each student is properly registered and accessing the on-line supports for each of their courses. Monthly reading and task schedules for all classes are assigned, while weekly study schedules are completed in tutorials. Peer leaders demonstrate how digital schedules save time and keep them on track when *used* rather than simply completed as an assignment.

First-year students, particularly under-prepared or non-sequential learners, often have difficulty with expectations at university and motivation. They may be passive, expecting others to 'fix' errors or problems, or they may be hyper-sensitive expecting failure but not knowing how to proceed when faced with the first set-back. Attribution theory, self-efficacy and motivation have been introduced into the curricula to explicitly address these more affective barriers to first-year success. Motivation is first discussed in class during the time management unit. Students are instructed that scheduling and being organised help "to capture the planned, concentrated and goal-directed energy use that is necessary to get and keep the learning and studying process on track" (Olaussen and Bråten, 1998, p. 91). Peer mentors later lead their tutorial group in a "Booster Exercise" adapted from Martin's motivation scale (2001). Students are asked to identify *boosters* or factors in their life that can increase resilience and motivation, and *guzzlers* or factors that may be self-sabotaging or less adaptive to success. Discussions in tutorials help students more accurately perceive the difficulties common to the first-year experience. Weekly journaling assignments throughout the term also encourage students to monitor their self-regulation while receiving regular feedback on informal writing.

For the Reading and Studying unit, students practise underlining text, summarising content, and making notes from reading. The goal of this unit is to assist students in learning how to accurately identify important parts of text (Dunlosky et al., 2013). Content includes active reading and study questions, and a Reading Game based on small groups compiling jeopardy-style questions. Peer mentors lead their tutorial group in summarising passages into alternative formats to practise distinguishing main ideas from details and to get experience with a variety of organisation methods (e.g., timeline, mind map, chart, and process diagram). In pairs, they then teach the content of the passage to a partner using only their alternative format summary. The class is also assigned an excerpt of a journal article about the interdisciplinary theme and asked to summarise each paragraph into a sentence without using words from the text. This task leads to discussions of adequate paraphrasing and plagiarism in anticipation of the major research paper for the course later in the term.

Peer mentors lead students in a note-taking exercise based on Bransford and Johnson's (1972) work on the importance of contextual knowledge in understanding prose passages. Adequate note-taking is more than recording or scribing, but should involve interpretation. Students are given an ambiguous passage and asked to take notes as if the reading were from a textbook. Half of the group is given one set of directions concerning how to interpret the passage while the other half is given a contradictory set of interpreting directions. If the directions suggest the passage is about doing laundry, the interpretation of the passage is quite different from the one given if the directions suggest the text is about making pizza. The tutorial leader then discusses the cues that are used to determine what is important when taking notes, and the recommendation to preview learning objectives for a unit prior to reading the text in order to identify concepts that are judged to be important by the professor. Later in class, students are asked to recall their notes from this exercise, and usually recall details consistent with the interpretation as directed by their original set of

directions. This leads to a productive discussion of the role of prior knowledge in both interpreting text and enhancing memory.

While lectures examine information processing theory, tutorials give students the opportunity to experience shallow and deep processing in an activity adapted from Craik and Lockhart (1972). Students are given a list of words and phrases and given instructions which encourage a shallow processing of the seemingly disjointed words, such as counting the vowels. After a brief superficial study time, students are asked to recall the words, and are usually unable to do so effectively. They are then given access to the words again, but this time the group is tasked with finding a pattern or theme in the list. Peer mentors give hints if necessary until the group can identify a sequence or pattern, and they are then asked for recall again. By focusing on the meaning of the words, a deeper level of processing is encouraged, and memory is enhanced. The tutorial leaders stress that the group is no "smarter" after identifying the pattern in the words; the improved recall the second time is not a function of intelligence, but of processing the information on a deeper level. As Lonka, Olkinuora, & Mäkinen (2004, p. 303) argue, it is important to differentiate a surface approach to studying as "aiming at investing minimal time and effort to meet the requirements, in contrast to the deep approach that is seen as an intention to maximise understanding". Peer leaders are well placed to point out that surface studying may have been sufficient for high school but will be inadequate for conceptual questions at the university level.

Exercises to address bottlenecks of writing and doing research form approximately a third of the tutorials. First-year learners often rely on description rather than inquiry in essays, and may need instruction in how to start a research paper, how to find and identify peer-reviewed journal articles, how to decide on or narrow down a topic and how to develop a thesis statement. A tutorial early in the term is devoted to a library scavenger hunt. Each student is tasked with using the library database search engine to find a specific book, a journal article by a specific author, and a journal article in a specific journal. Library staff have been invaluable to the success of this exercise. Another week is devoted to grammar exercises developed by writing specialists in the Academic Skills Centre, who also instruct the class in proper formatting and sourcing requirements. Additionally, peer mentors lead a brainstorming session on 'asking questions' adapted from Hudspith and Jenkins (2001). This session gives students specific instruction and practice on narrowing down a broad topic into a researchable central question that can be answered by analysing evidence.

In order to give students more practice with the concept of peer review and adjust to receiving constructive feedback, peer review exercises are used in multiple tutorials. A journal critique assignment adapted from Paul and Elder's (2006) *Template for Analyzing the Logic of an Article* is distributed to the tutorial group for peer feedback. Students are tasked with using a rubric to provide specific feedback about their colleagues' journal article critique. Another assignment requires students to submit their introductory paragraph for the research paper for peer review in the tutorial. Using questions adapted from Hazard and Nadeau (2009), students are asked to identify gaps in logic, errors in spelling or sentence structure and to explain how the writer's approach to the common research paper assignment differs from their own. An inaccurate knowledge of plagiarism is also addressed in tutorials through the wonderful resources of York's Student Papers and Academic Research Kit (http://www.yorku.ca/spark/). The plagiarism policy on campus is discussed in class by an academic administrator, and students know that there will be a question about the policy on the first midterm examination.

Veenman & Spaans (2005) distinguish between metacognitive knowledge and metacognitive skills. They argue that metacognitive knowledge is declarative knowledge focusing on self-awareness and knowledge of the task and the learning situation, which is the usual foundation for transition to university courses. Metacognitive skills are more procedural knowledge about the actions required for self-regulation such as task analysis, planning, monitoring, checking and reflection. The goal

with incorporating more procedural knowledge through tutorials and assignments is to produce more self-regulatory learners who "establish goals and an action plan for how they will prepare for exams, carefully monitor their understanding of the material when studying, use a variety of learning strategies and ask for help when needed, take breaks to renew their concentration, and change their learning environment if it is distracting" (Dembo & Seli, 2004, p. 3).

Impact and concluding thoughts

In the first and last week of Fundamentals of Inquiry, all students complete the Learning and Study Strategies Inventory or LASSI (Weinstein, Palmer & Shute, 2002). This inventory provides standardised scores and norms for a 10-scale assessment of students' awareness about and reported use of learning and study strategies: freedom from anxiety, attitude, concentration, information processing, motivation, self-testing, selecting main ideas, use of study aids, time management and test taking. According to Weinstein, Zimmerman and Palmer (1988), higher scores on each scale of the LASSI are related to success in post-secondary educational settings. In a Research Board approved study examining 172 students completing this Success Course, there was no statistically significant change in the attitude scale, which explores the relationship between academic and life goals and asks whether school is an integral part of the student's future. However, the students significantly improved in each of the other nine scales.

Table 1. Paired sample t-test comparison of first and last week of term mean LASSI scales

Scale	First week	Last week	t (171)
Freedom from anxiety	21.30	23.65	3.94**
Attitude	31.91	32.37	2.57
Concentration	24.76	26.79	4.92**
Information processing	26.56	28.98	6.26**
Motivation	29.06	30.55	3.22**
Self-testing	22.82	24.44	3.21**
Selecting main ideas	23.91	27.90	8.27**
Use of support aids	25.09	26.45	3.08*
Time management	23.65	24.84	2.32*
Test taking	25.66	27.95	5.11**

Note: * p <0.01, ** p <0.001.

The tutorials described in this paper are embedded into a one-semester credit-bearing Success Course designed to support diverse learners. The class is divided into small groups which meet once a week to complete skill-building exercises and discuss the challenges and expectations in joining a community of scholars. Peer mentors lead the first-year students in tutorials which share some similarities with PASS and SI programs as well as extended orientation or induction services. However the tutorials and the Success Course specifically embed active learning practise into an interdisciplinary combination of learning strategy instruction, critical thinking, and cognitive psychology.

Peer mentors model resilience, and serve as advocates and conduits to campus resources. It is especially important that peer leaders are visible in under-represented populations as active, successful participants in the academic community. A future goal would be to have a leadership course or program available for peer mentors to enable expanded training and more fully credit senior students for their dedication of time and talent. The Success Course combines high academic standards with frequent feedback through a series of cumulative opportunities for success. Each tutorial explicitly addresses a problem or bottleneck of learning, and tutorial activities provide the time and support for first-year learners to practise metacognitive skills and increase their awareness and use of self-regulatory learning.

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The author may be contacted:
Sheilagh Grills
grillssh@brandonu.ca

Conference Paper

Taking a Grassroots Approach to Build Collaboration and Synergy for FYE across the University

Emma Rowbotham
Learning Adviser
Victoria University of Wellington

Suzanne Boniface
100 Level Chemistry Coordinator
Victoria University of Wellington

Abstract

Student services staff are part of an innovative learning and teaching grassroots network entitled "VicTeach", where professional and academic staff together take responsibility for developing and informing their own teaching/learning practice and their understanding of student issues. VicTeach runs sessions that aim to be informal and accessible, addressing a diverse range of topics catering to the needs of the community. One of the most successful topics in recent years has been focussed on transition pedagogy /first year experience (FYE). The VicTeach FYE Hub meetings attract around 60-70 staff, professional and academic, as well as graduate students interested in teaching. FYE Hub activities are aligned with Nelson et al.'s (2012) FYE criteria including: collaboration between academic and professional staff; synchronous combination of top-down and bottom-up activities; academic leadership; and institution-wide partnerships facilitated through formal and informal forums. The result is a lively debate about the transition curriculum and a committed group of people who are developing strategies, discussing tactics and mooting transition ideas across disciplines, faculties and campuses.

Introduction

VicTeach is a pan-University, community-led group of staff interested in developing and sharing best practice in teaching and learning across disciplines, schools and faculties. We connect with over 300 academic and professional staff, and graduate students interested in teaching across our multi-campus university.

The community began in 2013 when a small group of academics from various disciplines within Victoria University of Wellington, New Zealand met up at an off-site workshop about research into teaching. Those present at the workshop were struck by the fact that although they all shared interests in teaching, technology and research, they had never had the opportunity to connect, or collaborate on these areas (Cherrington, Macaskill, Salmon, Boniface, Shep, & Flutey, 2017). Not long after, there was a call from the University for research and teaching grant proposals focusing on "using digital technology in innovative ways to enhance learning and teaching". The group submitted a proposal that focused on developing and supporting a community of practice for teaching with technology. A monthly seminar series was established, initially focussed on teaching with technology but later, in response to community feedback, was broadened to include topics such as teaching large classes, flipped teaching, the first year experience (FYE), culturally responsive pedagogy, and graduate attributes. In 2015, "Hubs" were set up to allow more in-depth focus around particular themes. VicTeach is recognised by the University's Vice-Provost (Academic and Equity) who generously supports the model and grants research funding for the group.

VicTeach and the FYE Hub

The First Year Experience (FYE) Hub is one of the more active VicTeach Hubs and exemplifies pan-University engagement. The organising group consists of three academic staff, from various disciplines; and two professional staff. Participants attending workshops facilitated by the FYE Hub are representative of all faculties as well as several central service units. To date, the FYE Hub has held a range of events, including a funded full-day workshop led by international FYE expert, Sally

Kift from James Cook University in Australia. VicTeach funding has also been received to allow one of the professional staff members of the organising group to undertake a literature review of current FYE and transitions research so that a position paper on the future of FYE at our institution can be developed. The groundswell of interest in the FYE Hub's activity has also sparked an initiative for a pan University research project lead by the Faculty of Education in 2017.

The success of the FYE Hub can be attributed to its alignment with FYE transition pedagogy. Nelson and colleagues (2012) state that successful FYE approaches contain:

- A collaboration between academic and professional staff

- A synchronous combination of top-down and bottom-up activities

- Academic leadership

- Institution-wide partnerships facilitated through formal and informal forums and actively facilitated by champions at a senior level.

Practical examples of how the FYE Hub links in with each of these criteria are provided below.

The grassroots nature of VicTeach and the FYE Hub allow for collaboration between academic and professional staff. One such example is this paper delivered at the 2016 ANZSSA conference. It was delivered by one academic (a Course Coordinator and lecturer in first year Chemistry) and one professional staff member (a Learning Adviser with particular interest in FYE pedagogy). Working together to co-create content and deliver a message that represented their various perspectives and experiences was an enjoyable exercise and provided development opportunities for both participants.

Evidence of top-down activity is the support of the Senior Leadership Team in the form of funding for VicTeach activities and ongoing research opportunities and the public acknowledgement of the role that VicTeach plays in promoting and strengthening learning and teaching within the University. Bottom-up activities, as mentioned above, have included: a funded full-day workshop led by an international expert; a funded literature review; a two hour workshop about assessment practices in relation to FYE; a workshop with a local Career Advisor and Secondary School Teacher to discuss students' expectations; and a number of opportunities for first year teachers to network and discuss their ongoing challenges and successes in working with first year students. Attendance at these workshops and seminars has consistently been around 70 participants.

Academic leadership is evidenced through the make-up of the VicTeach steering committee. Of the fifteen current members, eleven are academic staff. It is important to note that VicTeach has not usurped the work of our institution's academic developers. Rather, VicTeach liaises with the academic developers and further explores topics and areas that are of interest for our teaching and learning community. Furthermore, the emphasis on academic leadership here is not to suggest that professional staff are not an important part of the steering committee. However, without academic leadership, the strength and breadth of VicTeach's impact would not be as robust.

The institution-wide partnership that is available for VicTeach members provides both formal and informal opportunities for involvement. Members who want to engage in a more focused, on-going basis can become part of the steering group for one of the Hubs. However, there is always an open invitation to participate in events, so members can also participate at a looser level if their main goal is mostly to learn new techniques and meet other members of the community (Cherrington, et al., 2017). This informal aspect of VicTeach is what attracts many of the members, evidenced by a participant's comment below:

> *I like its amateur aspect - in the positive sense of the word. It's not dogmatic or policy-driven, it's just (in my experience) some people sharing fun things and useful tactics with colleagues*

Using Nelson and colleagues' (2012) criteria for successful FYE approaches has allowed us to reflect on and celebrate our Hub's efforts to date, however we are also aware that challenges and opportunities remain.

Challenges and opportunities

The culture of tertiary institutions often limits collaboration between academic and professional staff and this remains a challenge for our FYE Hub. We try to mediate this by having regular meetings, and annotating documents by email when our workloads are too heavy for us to meet in person.

One key area for further opportunities is stronger collaboration with school teachers. FYE research tells us that it is the university's responsibility to understand where students are coming from when they transition to tertiary studies (Kift, 2009) and therefore a stronger relationship with schools in our community could strengthen the reach and impact of our FYE Hub's initiatives (see Emerson, Kilpin & Feekery, 2015). The presenters of this workshop recently collaborated to deliver a workshop for secondary school chemistry teachers from the Greater Wellington region. While the context of the workshop was on careers in chemistry, the focus was on skills needed for future employment and how the related habits can be developed and encouraged through both High School and University programmes. The ensuing discussion provided a networking opportunity for teachers to learn from each other and for University lecturers to learn more about the attributes of their prospective students, which, in turn, will inform future curriculum design. There is certainly scope to extend these opportunities to other disciplines in our institution.

Where to next

Last year the FYE Hub hosted several well-attended workshops and seminars, and produced a funded literature review focused on the themes, enablers and barriers for first year students. This literature review has informed a position paper for our Senior Leadership Team that outlines the need for instructional adoption of transition pedagogy and recommends strategies towards this. The paper has been used as a starting point for a pan University research project investigating students' transition experiences from secondary school to university in 2017; clearly there has been progress from the ground up.

However, the FYE Hub is all too aware that much of the grassroots work that we have done is fragile and that its sustainability relies on the enthusiasm and commitment of individual staff members. As a result, we must look to celebrate and reward FYE best practice that is already happening on our campus, as this is the 'critical success factor' (Boyle & Lee, 2010) to sustaining such practices. The literature also tells us that it is crucial for all institutions to have a centrally positioned FYE coordinator who can provide academic leadership in this area (Nelson et al., 2012). We believe that such an appointment would foster even stronger synchronous combinations of top-down and bottom-up activities. However, in the meantime, our grassroots community continues to gather to discuss, workshop and debate topics that are relevant to the teaching and learning community in our institution. We would encourage all institutions to explore the possibility of starting a grassroots community to explore teaching and learning issues, as we have benefited greatly from being involved in our own.

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The authors can be contacted via:
Emma.Rowbotham
Emma.Rowbotham@vuw.ac.nz

Across Borders: A Dual Perspective

Nikki Cleary
International Buddy Programme Coordinator
Victoria University of Wellington

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At the beginning of December last year I attended the 2016 ANZSSA Conference, held in Auckland, as a lucky recipient of the ANZSSA Student Scholarship award. Alongside staff from Victoria University of Wellington, I attended my first ever student services conference. I had been nervous about representing my university and departments, and unsure if I would be able to contribute anything useful. However, I met some incredibly passionate and friendly people from all over with whom I shared a common bond; the desire to improve student services and support .

It was a truly eye-opening experience for me and I still feel deeply honoured that I could be a part of something so inspiring. At the time, I was a full-time student as well as a part-time staff member at Victoria University in student services roles, which placed me in the unique position of allowing me to experience the conference from a dual perspective. I was excited to learn about the different concepts and services other universities were implementing to promote student support and involvement in and around their campuses, and adopt them to aid in boosting ideas that I could bring into my own work. The speakers in keynote and soundbite sessions were engaging and thought provoking, the student panel discussion provoking, and the workshops a demonstration of the innovations in action.

The ANZSSA Conference really helped expand my limited staff-based understanding of the student services world. Much more thought and consideration went into each aspect of implementing a new process than my student-self had realised. The conference hosted a variety of people who truly had the best student experience in mind. Not only were they willing to listen to students' view-points, as shown by the student panel session and the workshop showcasing Massey University's Co-Lab, but were willing to shift to student-preferred methods of contact, as discussed by Eric Stoller and Shanton Chang in their keynote presentations. These and other aspects highlighted the clear desire of staff and universities wanting to connect with their students.

Among the presentations over the course of the three days, one that really stood out to me in both elements of my position was the Over The Rainbow But Under The Radar workshop led by Deborah Lee of Massey University and Audrey Hutcheson from the University of Auckland. At the very beginning of the workshop, we were asked to measure how 'rainbow friendly' our home institutes were by the space between our palms, and I was surprised to see that only I had indicated more than a shoulder's worth of space. I remember directing a confused frown towards a co-worker who I was sitting with when I observed his quite limited space.

Called on, I explained that I knew of safe student spaces available for queer students, movie and quiz social nights and personalised mentoring. Others from Victoria University had not known about some of these services which had made my ranking so much higher. In learning how Massey University and the University of Auckland earned their Rainbow Tick and seeing some of their materials, such as their booklet on explaining the gender-spectrum and their rainbow stickers, I came to realise that while Victoria University is doing well in regards to how they look after their rainbow community, they still have some work to do.

Although not a presentation, something else that captured my interest during the conference was that at the end of each of the keynote and house-keeping sessions we sang a short waiata, or Māori song. We also dined on the delicious Pacific Island themed food by chef Robert Oliver who cooked the dinner for the conference, which was accompanied by beautiful Island dancers and music. These

two elements left a strong impression on me, so much so that I wanted to implement something like it into my own program, the International Buddy Programme. I connected with a personal contact in Te Pūtahi Atawhai at Victoria University to discuss my idea and we are now in the process of making the idea of hosting a Māori and Pasifika evening come to life.

Te Pūtahi Atawhai is a unit within Victoria University which specialises in assisting Māori and Pasifika students, giving them a space of their own to study and offering services such as a mentoring programme to aid the students in reaching their academic and personal goals. The International Buddy Programme is a programme in which new international students are paired with a current Victoria University student, who then offers social support while the new students are settling into their life in Wellington. By working with Te Pūtahi Atawhai, the students in the International Buddy Programme will be able to experience a deeper cultural experience and will learn more about the history of New Zealand and the neighbouring Pacific islands.

The ANZSSA Conference was truly inspiring for me, allowing me to widen my thinking about the possibilities and options available to connect with and involve students within the university. It was such a humbling experience and it has left me with the desire to explore ways to innovate, inspire and involve students to help create a safe and welcoming space for them to create and explore. As I go forward in the role of staff member only, I keep with me the idea of "with students, not for students", reminding me that students have their own voice and as staff, part of my job is to help them be heard in their own words.

The author may be contacted:
Nikki Cleary
Nikki.Cleary@vuw.ac.nz

JANZSSA Submission Guidelines 2017

Manuscripts for submission to JANZSSA must be submitted electronically at https://janzssa.scholasticahq.com/for-authors

JANZSSA publishes *Refereed* (peer-reviewed by double-blind process) and *Professional* papers; which are reviewed by the Editor/s of JANZSSA to ensure their suitability for publication. Within the Professional category are included full-length papers as well as shorter *Best Practice Case Examples, Book Reviews, Reports* and *Conversation Pieces.*

Word Processing platform

All articles should be submitted electronically using Microsoft Word or in another commonly used word processing format able to be converted to an MS Word document.

Language and spelling

JANZSSA uses Australian English so please adjust your spell check in Word to ensure compliance.

Journal format

JANZSSA is published online at https://janzssa.scholasticahq.com/issues with full pdf versions of each edition also stored at http://anzssa.com/Public/JANZSSA/Public/JANZSSA/JANZSSA.aspx

Article Length:

Manuscripts would normally be fewer than 6,000 words to be accepted.

Manuscripts longer than 6,000 words may be returned to authors to be shortened.

Abstract is required:

All manuscripts submitted must include a brief (<250 words) abstract.

Page layout required:

Articles for inclusion in JANZSSA in either the referred or non-refereed suctions need to be submitted electronically using the following layout instructions.

The following is a normal page layout in MS Word:

Top: 5. 5   Bottom: 5. 5
Left: 2. 54   Right: 2. 54
Gutter = 0   Header = 1   Footer = 6

Font type:

Times New Roman

Font pitch:

Manuscript Title:	14 point **BOLD**
Author/s Name, Role, Institution:	12 point
Abstract header:	12 point **BOLD**
Abstract body:	10 point *italics*
Body text:	12 point
Header within body of the text:	12 point **BOLD**
Footnotes:	9 point

Diagrams tables and drawings:

Any diagrams and tables included in the text must be no larger than 21 cm in depth x 17 cms wide.

Any drawings included are inserted with **Paste Special** function so that the drawing is stable in the body of the text.

Text within a table is preferred as centred or left margin aligned.

Use of references:

Referencing protocol is the APA Referencing System. Examples of the APA Referencing system are easily found using an internet search. Below are two examples from Australian Universities.

https://student.unsw.edu.au/american-psychological-association-apa-referencing-system

http://libguides.murdoch.edu.au/APA

Suitable content for articles submitted for publication in JANZSSA:

Manuscripts may include comment and debate on current issues, reports of student services in practice, policy matters, research projects, and reviews of relevant books. The guiding editorial policy is that manuscripts are of interest to student service staff, and are of a high standard.

JANZSSA publishes both Refereed and Professional papers:

Authors who wish to submit an item to be published as a refereed article must include a written note to that effect at the time of submission. If an author does not specify for inclusion in the refereed section the editors will consider the article for publication in the professional section.

Refereed (double–blind peer reviewed) Manuscripts:

JANZSSA uses a double-blind peer review process for refereed articles. The editor of JANZSSA will consult with the Editorial Board to identify at least two expert referees (who may not necessarily be members of ANZSSA). Each referee will be unaware of the identity of the other referee/s. Each of the referees will be provided with an electronic copy of the article from which the author's name has been removed.

As author/s you should also remove other identifying information, and replace any such words or sentence with "words removed for purposes of author anonymity" so that you are not identifiable as the author/s once the author names have been removed.

Referees will submit a report back to the editor that contains one of three recommendations. These are:

1. That the manuscript be accepted (usually with minor amendments to be approved by the Editor/s of JANZSSA).
2. That the manuscript be revised and re-submitted with major amendments to be approved by the reviewers
3. That the manuscript not be accepted for the refereed section. (Reviewers may choose to recommend that it be accepted as a professional paper, with or without amendments)

At least two referees must be in agreement for an manuscript to be published as a refereed paper.

Professional manuscripts:

Manuscripts submitted for publication without being peer-refereed will be published at the discretion of the editors. Authors may be asked to make amendments to the manuscript prior to publication.

Best practice case examples to showcase:

JANZSSA includes in its non-refereed section examples of best practice and innovation emerging in Student Services.

Contributions to this section would normally be descriptive and not evaluative.

Length of submissions can vary but the upper word limit will normally be 1500 words. Contributions of longer length may be returned to the author for editing or considered as Professional manuscripts.

A Showcase Best Practice Report Template is available from the Editors. See contact details below. Use of the template is not compulsory and is offered simply to assist if required.

Reports, Reviews and Conversation Pieces:

Reports and discussion pieces on aspects of policy and practice within Student Services and the Post-Secondary Education sector are invited. Short reviews of books, articles, journals, reports which would be of general interest to JANZSSA readers are also very welcome.

Quality submissions:

All submissions for publication are required to comply with the layout requirements, and edited for grammar, punctuation and spelling accuracy prior to submission to the JANZSSA co-editors. Manuscripts will be returned to authors for corrections, if required, prior to consideration for publication or distributed for peer review.

Submission deadlines:

JANZSSA publishes issues in April and October each year.

Deadline for submission of professional manuscripts, reports or reviews, and contributions to the section, Best Practice Case Examples:
- January 31 for the April issue
- July 31 for the October issue.

Deadline for submission of refereed manuscripts:
- October 30 for the April issue
- April 30 for the October issue.

Enquiries:

Any queries regarding submission format should be directed to either of the co-editors. See contact details below.

JANZSSA Co-editors

Annie Andrews   Dr Cathy Stone
a. andrews@unsw.edu.au   cathy.stone@newcastle.edu.au

Before submitting your manuscript:

Please refer to the following check list and complete these actions prior to submission of the manuscript.

Please check:
- JANZSSA page layout has been used
- JANZSSA font type and font size requirements have been used
- JANZSSA referencing system (APA style) has been used throughout and that all references are included in full.
- Spelling, grammar and punctuation reviewed.
- All diagram and table contents are position and text correct (i. e. text abbreviations used are consistent throughout diagram or table and that text is centred or left margin aligned.).

- Drawings included are inserted with Paste Special function so that the drawing is stable in the text.

- Do print and read for final corrections.

- De-identified version of paper as reviewer copy completed and attached (if the manuscript is for submission for the refereed section of JANZSSA).

ANZSSA Executive Team and Advisory Council

This group also functions as the Editorial Board of JANZSSA

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Dr Sean Murray Head, Counselling, Disability and Multi-faith Services Curtin University of Technology Kent Street, Bentley, Perth Western Australia 6102 +61 8 9266 7850 Email: s.murray@curtin.edu.au	Vacant	Christopher Jenkin Senior Counsellor/Psychologist Health Wellbeing and Development Caulfield Campus Monash University Vic 3162 Ph: 61 3 9903 2500 Email: Christopher.Jenkin@adm.monash.edu.au
Convenors of State and Regional Group Queensland	**Convenor of State and Regional Group Tasmania**	**Higher Education Health Providers**
Brad Inglis Health and Counselling Services (Gold Coast) Southern Cross University brad.inglis@scu.edu.au binglis@scu.edu.au Clare Moseley Welfare Officer Student Services and Amenities University of Southern Queensland Ipswich +61 7 3812 6070 email: clare.moseley@usq.edu.au	Colin Clark Head of Student Wellbeing University of Tasmania Locked Bag 1335 Launceston, Tasmania. 7250 Ph: +61 3 63 243787 Email: colin.clark@utas.edu.au	Kim-Jane Turudia Medical Service Practice Manager DSL Health Service Melbourne Burwood Campus Deakin University +61 3 9246 8027 kim-jane.turudia@deakin.edu.au
Heads of Counselling (Australia)	**Heads of Counselling (New Zealand)**	**Student Financial Advisors Network**
Jeremy Cass Manager, RMIT Counselling Service RMIT University City Campus Bldg 74 G.P.O. Box 2476V Melbourne 3001 +61 3 9925 4365 jeremy.cass@rmit.edu.au	Gerard Hoffman Manager, Student Counselling Service Victoria University of Wellington gerard.hoffman@vuw.ac.nz	Stuart Martin Student Welfare Officer Victoria University +61 3 9919 4180 stuart.martin@vu.edu.au

Information about ANZSSA

The Australian and New Zealand Student Services Association provides development opportunities and sector representation for professional staff working in post secondary student engagement, student participation, student wellbeing and student development throughout Australia and New Zealand. Through meetings, seminars, workshops and conferences, experienced practitioners share information, ideas and research within their areas of expertise.

ANZSSA is focused on:

- The quality of the student experience
- Supporting and empowering students to achieve their educational and life goals
- Enhancing student wellbeing and development
- Improving student success and persistence
- Providing outreach to students at-risk
- Raising institutional student retention rates

Membership

Whilst ANZSSA is based in Australia and New Zealand, anyone is welcome to join us, no matter where you may be located. Full details of current membership categories and registration costs are available via the ANZSSA website members' page at www.anzssa.com

Belonging to ANZSSA will connect you to a community of professionals across many institutions and support areas – including:

First year experience and transition services - Mentor programs - Counselling - Learning support - Careers - Academic advisors - Health services - Student advisors - Disability support - Welfare advisors - Housing services - Recreation services - Student guild advocates - International offices - Grievance/Conflict Resolution officers - Chaplaincy and other faith officers -–Equity staff - Financial advisers - Volunteer and leadership program coordinators - Directors and Heads of operational areas.

Professional Development and Communication Activities

The ANZSSA Annual Conference attracts international participants as well as delegates from across Australia and New Zealand and internationally.

Regional and State meetings range from informal workshops to visiting speakers and annual conferences.

Information about how to join and subscribe to the ANZSSA members' mailing list (listserv) is at http://lists.vuw.ac.nz/mailman/listinfo/anzssa while information about joining Professional Focus Groups and Regional Groups is located on the ANZSSA web site at www.anzssa.com

These provide opportunities for members to share information and collaborate on programs and issues.

Publications

JANZSSA, the Journal of ANZSSA, is published online twice per year with further information available at https://janzssa.scholasticahq.com/ and on the ANZSSA website at http://anzssa.com/Public/JANZSSA/Public/JANZSSA/JANZSSA.aspx

A monthly newsletter is published and emailed to all members; also available on the ANZSSA website   at http://anzssa.com/Public/Resources/ANZSSA_Newsletter/Public/News/ANZSSA_Newsletter

The ANZZSA web site is a comprehensive resource offering a broad range of information to professionals working in student support and student services' roles.