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Welcome to the SIT Staff Research Report for 2012. The report highlights the diversity of research interests among our staff and celebrates a wide range of research studies and creative projects.

Research at SIT continued to develop and flourish during 2012. Our strong commitment to this area is important in ensuring that teaching and learning on higher level qualifications are supported by research. The SIT Research Fund, a contestable fund to support staff carrying out research, has been heavily utilised in 2012. The second SIT Research Symposium was held in December 2012 and gave staff the opportunity to share the results of their research projects with their colleagues. This year also saw the inaugural publication of a special edition of Southern Institute of Technology Journal of Applied Research (SITJAR) that showcased student research projects.

SIT continues to play an increasingly important role in regional research outputs. As the pre-eminent vocational tertiary institute in southern New Zealand, SIT is an important part of the local and regional community. The SIT Research Institute, led by Research Manager Dr Sally Bodkin-Allen and Research Officer Dr Jo Whittle, worked together with Gillian Sim, Nurse Researcher, Practice Development, Southern District Health Board of the District Health Board (SDHB), to host a research forum at SIT in October 2012. At the Five Minute Findings Health Research Forum researchers working in this field came together to share the results from their projects in presentations that each lasted just five minutes. The event attracted interest among researchers from SIT, Otago University, SDHB and local and regional groups such as Sport Southland and Our Way Southland. The five minute format provided a stimulating and fast paced celebration of research for a fascinated audience, and there have been calls to repeat the forum in the near future.

The two-year Committed Learners Project was completed in 2012. This project was led by the SIT Research Institute and supported by the New Zealand Institutes of Technology and Polytechnics. It drew together examples of good practice in the area of student engagement from institutes of technology and polytechnics around Aotearoa/New Zealand. The final report highlights key recommendations in the area of improved outcomes for student learning and its findings continue to be implemented in teaching practice at SIT. The Research Institute was involved in another collaborative project in 2012, working with the Otago University Centre for Research on Children and Young People to support a local community programme to develop a parenting strategy for Southland. Collaborations such as these build research capacity and create important networks.

The extensive range of projects highlighted in this report reflects the areas of interest and expertise among staff. Some have sought to explore environmental concerns including a case study of natural resource management in a South Island community, research into Southland’s cold water springs, and a survey of pest mammals in the Waitutu Forest. Tutors from the School of Sport and Exercise worked with members of the New Zealand Sprint Cycling team who represented New Zealand at the 2012 World Championships and London Olympics. Works of art and creative projects are also featured here. This year saw the first joint exhibition showcasing the artistic talents of all the teaching staff in the School of Design and Visual Art and School of Digital Media. Called Oceans Eleven the exhibition held at the Riverton Arts Centre presented works of sculpture, photography, painting, print and design. Interesting research projects have also been carried out into online learning communities, nursing education, the professionalisation of massage therapy and the negative impacts of casual employment on the lives of the workers, to mention just a few.

I hope you enjoy reading about the diverse research activity at SIT and look forward to the continued development of our research capacity in the future.

Penny Simmonds
Chief Executive Officer
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Committed Learners Project

This two-year project drew to a close in 2012 with completion of the final stages of data collection and analysis at the end of 2011 and publication of the report in March 2012. It was a collaborative project led by SIT with the participation of eight other institutes of technology and polytechnics. The project was carried out by the Research Institute team of Dr Sally Bodkin-Allen, Dr Jo Whittle and Dr Jerry Hoffman with support from the New Zealand Institutes of Technology and Polytechnics.

The aim of the Committed Learners Project (CLP) was to identify practices to foster student engagement, improve student retention and enhance successful completion of programmes. The project brought together a ‘basket’ of good practice examples gathered from Institutes of Technology and Polytechnics (ITPs) around Aotearoa/New Zealand in 2010-2011. ‘The CLP was based on the assumption that tertiary providers themselves can make a major impact on student commitment to learning,’ Jerry explains. ‘Motivation for the project in part was in response to current government policy that links a proportion of government funding for tertiary providers to student educational performance. From 2012 a maximum of five per cent of a tertiary provider’s tuition funding is at risk each year, based on its performance the previous year against educational performance indicators of qualification and course completion rates, retention and progression.

The project involved three phases: a review of the literature relating to student engagement; a questionnaire distributed to a variety of staff employed at ITPs, including those in administrative and management roles, and interviews with teaching staff and those involved in learning support. One hundred and forty-three questionnaires were returned, and 39 interviews were carried out. The questionnaire data and interview transcripts were analysed against the student life-cycle model:

‘The research provided some very rich data and we really appreciate the help that was given to us by staff at the participating ITPs,’ says Jerry. ‘When we were working through that data we found four themes emerging in addition to the student life-cycle. ‘These themes were: promoting student engagement as a whole-of-institute goal; engagement of Māori and Pasifika students, engagement of international students and the role of technology in fostering student engagement.

One of the findings of the project was the paramount importance of tutors taking a personal approach in successfully engaging students right from the outset as well as throughout the student life-cycle. As Jo explains, ‘teaching staff saw the first four to six weeks of the course as a vital time for developing a sense of belonging for students through social orientation activities, and so it is important to establish an inclusive class culture right from the start.’

Perhaps one of the most interesting findings of the study was the lack of literature and information available about what happens when students finish their courses of study. ‘The post-course stage of the student life-cycle was regarded as a time to celebrate success, however, on-going contact with past students was an under-developed component of student engagement,’ advises Sally. She suggests that institutes explore ways to develop the engagement of graduates through providing ‘stair-casing’ into other programmes of study and by drawing on past students, for example as mentors or guest lecturers.

One of the main recommendations from the project was that teaching staff be involved in the promotion, enquiry and enrolment stages of the student life-cycle, and that there is some form of pre-course interview or meeting with students before they commence their studies. ‘Where pre-course interviews occurred, it was clear that there were benefits for both the student, who got to learn a little about the programme, and the teaching staff, who were able to learn about the student,’ says Jerry. ‘This is also a good way of ensuring the student is enrolling in the right course for the right reasons.’

Other recommendations from the study include: that support services need to be present and incorporated throughout the mid-course and end-course stages of the student life-cycle; assessment practices need to be timely and to ‘feed forward’ into future assessments, and there should be opportunities for students to build and maintain positive relationships with their peers and teachers (such as end of term shared lunches or marae visits). ‘The social relationships that students form throughout their studies are an integral part of student engagement and retention,’ explains Jo. ‘If students have strong social bonds with their peers, they are more likely to complete their studies.

The CLP combines a wealth of data from questionnaires and interviews, provided by a wide variety of staff both academic and general, from nine different institutes of technology and polytechnics around New Zealand. It provides a snapshot of current practices relating to student engagement at different stages of the student life-cycle, from the processes involved in promotions and enrolment through to what happens when a student finishes a course of study. It represents the collective knowledge and experiences of ITPs in working towards the goals of student engagement, retention and completion. The researchers hope that the information contained in the report will be of use to administration, teaching and managerial staff within their own institutes and in their particular programmes.

Copies of the full report can be found on the NZITP website (http://www.nzitp.ac.nz/projects.html) and also on the SIT research website (http://www.sit.ac.nz/pages/research/Research-Publications).
In October 2012 SIT and the Southern District Health Board hosted the inaugural Southland Health Research Five Minute Findings Forum. This was a collaborative forum designed to share the results of health-related research in or about Southland. The Five Minute Findings Forum challenged those who have carried out projects or studies on health-related topics to share their findings with a non-specialist audience in just five minutes. It was a very successful day, attended by approximately 70 people from around the community and the region. It provided a great opportunity to find out about a fascinating range of projects, all in the one place at the one time. There were presentations by speakers from SIT, the Southern District Health Board, Environment Southland, Sport Southland, University of Otago and Our Way Southland, and presentation topics covered an enormous range of research.

Mandy Pagan, from the SDHB, for example, spoke about an evaluation of a wound care programme in an aged care residential facility, while Leanne Liggett, from the Dunedin School of Medicine gave a presentation on her evaluative study of the Healthy Me and You programme, a community based lifestyle intervention among pre-schoolers. Other topics included a presentation on the New Zealand Ethics Committee by Martin Tolich, an examination of the impact on a family living with a child with Type 1 diabetes from Julie Simons, and Shontelle Dixon’s update on the Southland Māori Traditional Games Project.

The Five Minute Findings format provided a stimulating and fast paced morning of research ‘bites’ and all the presenters certainly rose to the occasion. Presentations were strictly limited to exactly five minutes with a maximum of three PowerPoint slides. A prize of book vouchers to the value of $250 for use at the SIT Bookshop was awarded for the best presentation. A panel of three judges was appointed: Dr Sally Bodkin-Allen, Research Manager, Southern Institute of Technology; Dr Norman MacLean, Department of Obstetrics & Gynaecology, University of Otago, and Ali Timms, Chairman of Environment Southland (Southland Regional Council). They really had their work cut out for them in choosing the best presentation of the day out of so many excellent presentations. The winner was Yvette Hodges, Active Lifestyles Manager, Sport Southland, for her presentation on the 2012 Annual Green Prescription patient survey results for Southland.

### 2012 Southland Health Research Five Minute Findings Forum

- **Keynote address:**
  - Dr Dayle Matthews
  - Health Research South
- **Topics include:**
  - Elderly care
  - Diabetes
  - Green prescriptions
  - Nursing practice
  - Massage therapy
  - Water quality
  - Child health
  - Parenting
  - Elective surgery
  - Ethics
  - Disability
  - Personality typing
  - Healing touch

**For more information please contact:**

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**Five Minute Findings challenges researchers to share the results of their projects in just five minutes. A prize will be awarded for the best presentation, decided by a panel of three independent judges.**

**Thursday 18 October**

9.00 am to 12.30pm

**Hansen Seminar Centre**

**Southern Institute of Technology**

**Morning tea provided**

Please RSVP to:

- Gillian Sim: Gillian.Sim@southerndhb.govt.nz
- Jo Whittle: joanne.whittle@sit.ac.nz

by Friday 5 October 2012

*Invitation poster for the community Southland Health Research Five Minute Findings Forum held at SIT in October 2012.*
Strengthening parenting in Southland

What do Southland’s children and young people think about parenting? Research Institute staff Dr Sally Bodkin-Allen and Dr Jo Whittle went along to ask them!

The SIT Research Institute was contracted by the Centre for Research on Children and Young People at University of Otago to run focus groups with children and young people around Southland. This was part of a larger project: the Strengthening Parenting in Southland project, involving 24 government, health and community agencies working together to develop a regional parenting strategy. This strategy, spear-headed by the local government agency Our Way Southland, aims to increase awareness of the importance of parenting to the health and wellbeing of the Southland community, and to promote the coordinated delivery of services, information and support to families. In developing the strategy it was important to the project team to include the views of children and young people, which is where SIT became involved.

‘Between March and May 2012, the Centre for Research on Families and Children and Jo Whittle and I interviewed 137 young Southlanders, ages 7-24, from all around the region’, Sally Bodkin-Allen explains. ‘This included carrying out 16 focus groups in 15 rural and urban schools, as well as in local training organisations and businesses.’ The interviews were carried out in a focus group setting, where children and young adults were asked about their experiences of being raised or growing up in Southland, and on parenting and parental support. ‘We asked them what were the good things about growing up in Southland, as well as what they didn’t like about it,’ says Sally. ‘We also asked them what issues children and young people were facing in their area and what they thought made a place friendly for children, young people and families.’

Participants were also asked for their views on parenting. ‘We asked them what makes a good father and a good mother, for example, and what sorts of things made parents happy,’ explains Jo. Some of the questions that raised the most interesting responses were those that asked children what they thought it would be like to be a parent, and what parents worried about. ‘Most children and young people said it would be hard work to be a parent, as well as being expensive, frustrating and tiring!’ says Jo. Participants also identified positive aspects with some saying that being a parent would be fun, rewarding and fulfilling, if you were a good parent. They thought that parents faced difficulties around work-life balance, employment and financial pressures, knowing how best to discipline children and generally dealing with the enormous responsibility of being a parent.

Key findings included in the final report highlight both the benefits and challenges faced by young Southlanders. Overall, the children and young people were generally positive about growing up and living in Southland, and showed a strong sense of connectedness and belonging to their community. While sports and outdoor activities were important in the children and young people’s lives, many older participants would like more entertainment and recreational facilities and venues for them to socialise. Transport was an issue for many children, young people and their families, particularly when living in rural areas, and for working parents. Children and young people thought that parents face lots of challenges – both in their parenting and from other stressors, particularly work and financial pressures.

Sally reports that the researchers thoroughly enjoyed being part of the Strengthening Parenting project. ‘Working with the children and young people was a research highlight for me,’ she says. ‘The participants were articulate and many came up with great suggestions about what could be done to help resolve challenges for families in Southland.’ The research also represented an important opportunity for the Research Institute to work in collaboration with local authorities through Our Way Southland and with the University of Otago. ‘We really enjoyed working with Megan Gallop and Associate Professor Nicola Taylor of the Centre for Research on Children and Families,’ says Sally. ‘They are both highly experienced researchers with a wealth of knowledge about the issues facing parents, children and young people.’
SIT Staff Research Symposium 2012

In December 2012 teaching staff at SIT presented their research at the annual Staff Research Symposium. Fifteen staff shared their research findings with their colleagues in what was a packed and varied agenda. The day was well attended, and participants appreciated the opportunity to sample research carried out within the organisation that contributes to the current SIT curriculum. The day was spilt into four sessions, with staff presenting from across two faculties: Health, Humanities and Computing, and New Media, Arts and Business. As SIT Research Manager Dr Sally Bodkin-Allen explains, ‘this is the second year we have run the symposium. This year’s agenda was much bigger than last year’s and there was more time available for questions and discussion.’

The topics of research ranged from water quality of cold water springs in Southland to the effect of music tempo on cycling performance. ‘It’s important that our degrees are supported by staff doing research,’ says Sally. ‘It is also a chance to celebrate the diversity of staff research that is going on here.’ This year inaugurated the ‘People’s Choice Award’ which involved audience members voting for their favourite presentations of the day. The award was won by Warrick Low, tutor in the School of Business, for his presentation on faculty perceptions of cooperative education.

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Keeping it real: assessing the teaching and learning value of client-based fashion design projects

Research by Bachelor of Fashion (Design and Technology) programme manager Paulette Caulton supports the value of using ‘real world clients’ to enhance the discipline-based skills of students. She was recently awarded a Good Practice Publication grant to share her findings on the AKO Aotearoa website.

A newly introduced element in the Bachelor of Fashion (Design and Technology) programme at Southern Institute of Technology as the use of client-based, real-world projects as a major student assessment. As Paulette explains, internationally students from fashion schools regularly design collections, produce garments and enter competitions. ‘These sorts of activities are a necessary part of their education, so they can gain the skills and knowledge requirements of the discipline’, she says. ‘It is much more unusual, however, to require students to use real clients for these projects.’ This is understandable as it imposes a new level of complexity for students and teachers. Paulette used the first two phases of implementation of the assessment at Southern Institute of Technology as a case study into its effectiveness as a teaching and learning tool. ‘My research assesses whether the benefits outweigh the pitfalls on these projects.’ It draws on work she undertook in 2011 and 2012 as part of her Master in Professional Practice at Middlesex University in the UK. Her findings are available as a good practice publication on the website of the AKO Aotearoa National Centre for Tertiary Teaching Excellence.

Paulette was inspired to introduce the use of real-world clients into the Bachelor of Fashion (Design and Technology) programme as a way of increasing graduate confidence in their abilities to work with industry clients. She had found that, given the option, most fashion students choose to design garments that fit within their own target markets or taste. ‘Even if the target market outlined in an assessment brief is quite different, students still end up making something they would be happy to wear themselves,’ she says. While it is understandable that students will choose to design garments that reflect their own aesthetics, only a few graduates will find themselves in careers that enable them to design their own looks. ‘Most will work for other designers or for companies, and this means they need to think outside their areas of taste, and focus on what clients want.’ Giving them the extra challenge of working with real clients while still studying encourages the students to step out of their comfort zones and stretch themselves to satisfy the wants and needs of another person. ‘There are considerable challenges for a student in developing patterns and constructing garments to fit the physique of a real person’, she says. ‘It is much harder than designing to a standard-sized mannequin.’

The client-based assessment process draws on learning theories that stress the importance of learners being challenged outside of their perceived physical and social comfort zones in a positive way that enables them to develop from these new experiences to fully embrace their learning. Client focused, real-world projects also offer students the novelty of a student-to-client relationship. The assessment process is supported by classroom teaching where theoretical and practical components of teaching are related to real-world experiences.

The assessment required students to create a total look for their clients. Each student chose a client to work with closely, meeting regularly for feedback during the design development process and for fittings during the production process. In the first phase of implementation, students chose a client that was outside the institution to make the project more authentic. Following feedback from students and tutors the assessment was altered in the second phase to allow students to choose clients from among their classmates. ‘This change responded to concerns that the less experienced students struggled with limited access to their clients during the production process,’ Paulette explains. To resolve this issue, less-experienced students are now encouraged to choose a client more familiar to them until they have gained the basic made-to-measure skills, and are ready to work with a client less familiar and less available to them. ‘This still allows the students to get a real idea of what’s involved in working with clients, what sorts of questions they need to ask and how organised they need to be in their fittings and with their design and fabric choices.’

Paulette’s research draws on formal feedback from the students and tutors involved in the client-based assessments across two consecutive student groups. Once their projects were complete, the students were interviewed to see if there was any change in their confidence to work with clients, topic-specific confidence and motivation to complete their assessments. She used an action research methodology that enabled her to initiate improvements to the assessment process even as she continued to gather data. ‘It is expected that this action research cycle will continue on until both students and tutors are satisfied that we have a robust package in place for future years,’ she says.

As Paulette’s findings clearly demonstrate, both students and tutors involved in the client-based assessments believed that it was a valuable experience. Almost all the students indicated that both their confidence and their motivation to complete assessments improved during the real-life project. Some students also mentioned an improvement in their motivation for a higher quality finish of garments. They also found their projects highly challenging, and that designing for their ‘real world’ clients required greater levels of skill than that required for simulated assessment briefs. Tutors considered the process had resulted in improved student learning outcomes. They also found that the client-based assessment tested students’ communication and life-skills as well as their technical knowledge. ‘Tutors reported that having real clients added a real-life dimension to the design process and really made the students think and act more responsibly,’ Paulette reports.

Designs by School of Fashion students, created for real clients.
Recommendations from the research include ensuring that participating students are made fully aware of the potential challenges involved, and allowing less-experienced students to choose clients more familiar and available to them until they have gained the basic made-to-measure skills. ‘Tutors facilitating the assessments also need to ensure that their students choose projects at suitable levels of complexity,’ Paulette recommends. ‘This will mean that the more experienced students will be sufficiently challenged, while reducing the risk of less-experienced students becoming overwhelmed.’ Another innovation coming out of the research is to allow those students who have previously completed the assessment to discuss its potential challenges with new cohorts of students, giving them an opportunity to gain peer advice first-hand.

Her findings support theories outlined in a wide variety of literature that authentic assessment practices in the form of client-based, real-world projects are beneficial to student learning. By designing and producing for a real client, the students have been challenged to become more client focused during the design process and the projects have also developed their pattern making and garment construction skills as they custom make garments for very real human figures.

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Designs by School of Fashion students, created for real clients.

Paulette Caulton, Programme Manager, School of Fashion.
Isolation, influence and identity: the influences of Māori and Pasifika design in fashion in New Zealand

Emma Cathcart is currently engaged in a two-year research project investigating how New Zealand fashion design has been influenced by Māori and Pasifika designs.

Emma is a tutor in the Bachelor of Fashion (Design and Technology) degree. She has a Bachelor of Fine Arts Honours Degree from Coventry University in the United Kingdom, and a Diploma in Fashion and Design from the Southern Institute of Technology. Her current research topic was inspired by a desire to understand more about how its history and unique mix of cultures has informed design in fashion in New Zealand. There has been limited research into this aspect of fashion design to date. As someone coming here from the northern hemisphere, Emma found the Māori and Pasifika influences on New Zealand's fashion and design to be immediately obvious. ‘New Zealand fashion is different, and so is the way people wear clothes here,’ she says. ‘It is probably not so obvious to those who have always lived here but it is something I was very conscious of when I first arrived here from the UK.’

Through her research Emma hopes to be able to isolate some of the historical influences that have created these differences. She considers that some of this can be explained by the relative isolation of the New Zealand fashion industry which encouraged the expression of local inspirations. She has found her sources in the examination of archival imagery, media footage, fashion stores and art pieces.

Module featuring designs by Lindah Lepou at Te Papa, Wellington, 2012 (photographs by E Cathcart)

Emma is particularly inspired by work by designers like Miranda Brown, Doris De Pont and Lindah Lepou who incorporate Pacific motifs, techniques or materials in their designs. In addition, some very well-known fashion brands have incorporated Māori and Pasifika design themes into their products. Emma gives the example of Canterbury which produced a range of swimming costumes between 1965 and 1975 with patterns inspired by Māori koru & kōwhaiwhai. She is also keen to include contemporary designs in her research and ideally would like to interview some of this country’s leading fashion designers about the sources of their design inspirations.

A highlight in 2012 was the opportunity to share her research interests with Claire Regnault, Senior Curator of History at Te Papa Museum of New Zealand and the author of several histories of New Zealand fashion design. ‘She introduced to me to a number of Kiwi designers who incorporated Māori and Pasifika styles into their fashion design, including Annie Cole, Fanny Buss, Michael Mattar and Vinka Lucas.’ Emma also examined a range of traditional and more recent Pacific dress items in the archives of Te Papa, with the assistance of Collection Manager Grace Hutton. Similarly she was inspired by a visit to the Kahu Ora – Living Cloaks exhibition where she was fascinated by the many and varied examples of woven cloaks adorned with feathers, tāniko (woven patterned borders) and kuri (dog) skins. ‘I was excited to be able to find some parallels between these items and contemporary fashion design in New Zealand,’ she says.

Emma has an interest in the issues of cultural appropriation – or misappropriation – that can arise when indigenous designs are co-opted into fashion labels. She raises the question of whether this is an act of appropriation or one of homage by designers to these cultural influences. ‘There has been an increasing awareness of these issues in recent years,’ she says. ‘Many New Zealand fashion and textile designers have chosen to work around this potential minefield by collaborating with Māori and Pacific designers.’ Another area of controversy that she is exploring in her research is the use of traditional motifs in modern materials. ‘People are quick to dismiss more contemporary interpretations of traditional arts, such as making cultural items out of plastic,’ she says. ‘An object may not be made in a traditional way but to its creator it may hold the same resonance and meaning as more traditional items. Historically people have always made their artistic statements with whatever materials were at hand, and I think it is fantastic to find examples of this in fashion and fabric design.’

There is a strong link between Emma’s research and her teaching practice. She teaches fashion history and has been able to integrate her findings into teaching material. ‘I am keen to encourage my students to appreciate the unique and diverse cultural influences in New Zealand design, and perhaps to draw on that more consciously in their own work,’ she explains. ‘I am also keen to analyse how the influences of Māori and Pasifika design come to impact on my own practice.’

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Sharing skills and knowledge among hairdressing and beauty therapy educators

Southern Institute of Technology hosted the New Zealand Hairdressers and Beauty Therapy Educators Conference in 2012. The conference brought together educators from around the country to share their expertise and discuss current issues affecting the industry.

Donna Bowman is a tutor in the School of Hairdressing. She and her colleague Trish Dowling organised the national conference, with the support of Gail Whalley and Linda McDowall in the School of Beauty Therapy. The conference was held in Queenstown in September 2012. In hosting the conference Donna and her team put together a programme focusing on important issues for the industry and for teaching and learning. ‘It was also great to be able to showcase staff from the Southern Institute of Technology, and to share our knowledge and skills,’ Donna says.

The conference is held annually, and is targeted at people who are directly responsible for educating the hairdressers and beauty therapists of the future. ‘Attending this conference is always the best professional development I do each year,’ Donna says. ‘It is not just the access to new ideas or updates on changes to industry requirements that makes it so useful. It’s also a really good opportunity to make contact with colleagues around the country who you can call on in the future.’

Educators from Institutes of Technology and Polytechnics, Industry Training Organisations and Private Training Enterprises around New Zealand came together at the Queenstown conference. They were able to showcase their own expertise, learn new skills and pick up useful tips that could help enhance teaching and learning. Donna is a strong advocate for a collaborative approach across all involved educational institutions. ‘I think the more that we can do to work together as a whole, the better it is for our students and the industry as a whole,’ she explains. ‘We’ve all got the same issues, and we are all focused on the factors that make for student retention and success.’

The conference format allowed for some innovative approaches to discussions around assessment, moderation, and student motivation and support. In one session each delegate shared a key resource with their colleagues, such as an approach they had developed to teach a skill or enhance knowledge understanding, or websites, magazines or other resources they found particularly useful in their teaching practice. ‘This was a great opportunity for us all to tap into some of the fantastic resources tutors have developed or drawn on to enhance their teaching,’ says Donna. Another session involved delegates sharing photographs of completed hairdressing skills from their various institutions. The delegates provided a commentary on the skills as to whether the style would be up to an accepted level of execution to meet the national hairdressing unit standards. ‘This provoked plenty of healthy debate,’ Donna reports. ‘One thing it shows is that, even though all institutions teach the same unit standards, there is still plenty of room for discussion.’ The session came to conclusions about where tutors and institutions needed to improve their focus, in a forum in which they felt safe to offer critiques. Donna recommends that this sort of sharing and debate be undertaken on a regular basis within individual institutions.

‘Sometimes teachers don’t realise the value of the approaches they’ve developed,’ she says. ‘It doesn’t always have to be a major innovation. Sometimes even just a single idea or piece of knowledge can assist in improving teaching practice when shared among your colleagues.’

The keynote presentation by motivational speaker Amy Scott, a recognised authority in the art of communication, was a highlight of the conference. Donna is enthusiastic about the inspirational impact of the presentation. ‘Amy’s talk was aimed at helping understand the people you work with, and it was also relevant for relating to students.’ The talk helped ‘break the ice’ at the conference by bringing all the delegates together to share good ideas and a laugh.

The conference included a presentation on the innovative national charity ‘Look Good Feel Better’, which offers beauty and hairdressing advice to women undergoing treatment for cancer. ‘Volunteers work with groups of women to help them develop a beauty regime, including things like wigs and makeup,’ Donna explains. ‘This can help women to feel better about themselves and gives them a sense of control over their lives at such a difficult time.’ The conference delegates also came together to make a donation to the charity by purchasing tickets in a raffle.

Another highlight was provided by Invercargill’s award-winning hairdressing and beauty salon ‘Pure Venom’. The salon ‘wowed’ delegates with a choreographed show with live models, lighting and music, highlighting new hair and beauty trends. Salon owner Adrian Barclay and hair and makeup artist Kerry Peninsular Spain also demonstrated innovative techniques for producing different looks. ‘This was an awesome show, and it was great to be able to showcase leading-edge design from our own region,’ Donna says.

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Donna Bowman, Hairdressing Tutor
A study of Southland’s cold water springs

Erine van Niekerk, programme manager for the Environmental Management Degree, is monitoring water quality of cold water springs adjacent to the Mararoa River in Western Southland. The aim of the research is to establish a baseline set of data that will contribute toward the future management of the water quality of this unique environment.

Until recently there has been limited scientific research into New Zealand’s fresh water springs and little is known about their hydrology, biodiversity and water quality. Water quality in cold water springs is usually very high and springs are ‘hot spots’ for aquatic diversity due to their location at the interface of groundwater, surface water and terrestrial ecosystems. As they are also vulnerable to impacts from human activities it is important to monitor springs to ensure that water quality is not degrading. Data obtained through regular monitoring over time, therefore, can provide essential information for the management and improvement of these water resources. ‘The lack of investigation into these unique ecotones allows a wide scope for research for many years to come,’ Erine says. ‘My current focus will contribute toward a greater understanding of water quality and hydrology of the Southland area.’

The research into the water quality of springs in the catchment of the Mararoa River is aimed at establishing baseline water quality data on the springs as compared with adjacent river sites. Since July 2011, Erine and research assistant Jason Holland have been collecting data every month from five cold water spring sites near the Mararoa River. Three of the sites were selected specifically for their proximity to the Mararoa River to determine whether changes in water quality in the river have any immediate effects on water quality of the springs. A range of tests are carried out including temperature, pH levels, total suspended solids and electrical conductivity. This year, and with the support of the regional council, Environment Southland, Erine was able to expand the range of parameters tested to include levels of chemicals in the water such as dissolved boron, bromine, total nitrogen and phosphorus and faecal coliforms. Some parameters can be analysed directly in the field, while others are sent away to an accredited laboratory. ‘Including these additional parameters will give us a more holistic result and greater insight into the health of the ecotone of the spring as a whole,’ Erine says.

Objectives of the research are in line with current regional and national priorities for monitoring and managing water quality in springs, and fit within the context of a wider study recently instigated by Environment Southland to assess the water quality of springs throughout Southland. One area of focus is establishing variation between spring and river sites, to improve understanding of any link between water quality in the river and adjacent springs. Erine is also exploring the connections between the different springs occurring along the river. ‘Springs occur at the point where water flows to the surface from underground,’ she explains. ‘There is still so much to learn about how water behaves underground and how the different springs are linked. I’m hoping my research can also contribute towards our knowledge in this area.’

Results to date have identified some interesting differences between the water quality in the river and the springs. Of particular note are high faecal coliform readings for one spring site in mid-2012, which may have been caused by farm animals grazing near the unfenced spring. The research also shows that factors such as electrical conductivity and total dissolved solids are significantly higher in the springs than at the river test sites. Water temperature is more constant in the springs than the river, with the majority of readings at the spring sites between 2° and 4°C, which Erine believes could indicate a common occurrence for the ground-water fed systems. Results for 2012 also show some instances of reduced levels of dissolved oxygen at two of the spring sites. These readings are of some concern, Erine notes, as dissolved oxygen is a measure of the ability of a water body to support life. ‘Insufficient oxygen can suppress the presence of aerobic organisms such as fish and macro-invertebrates,’ she says. ‘Long-term recording will show the possibility of a trend in this particular parameter.’

A key factor in the choice of river and springs was the fact that, while the freshwater algal pest didymo is present in the river, it is currently absent from the springs. Didymo (Didymosphenia geminata) – also known as ‘rock snot’ – is a microscopic pest that can be spread by a single drop of water. It was first reported in New Zealand in 2004 in the Lower Waiau River and it has now spread to many South Island rivers. ‘It is important to monitor the springs for any occurrence of didymo,’ Erine says. ‘I am also curious about why the invasive alga is present in the closely adjacent water course but does not yet occur in the spring water.’ In the longer term she hopes her research will contribute toward a greater understanding of the susceptibility of spring sites to didymo.

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Whose knowledge counts? Building adaptive capacity for natural resource management

Local communities and environmental scientists may have different but equally valuable knowledge about the environment. Anna Palliser is investigating this idea in her PhD research into how natural resource management is operating in the Banks Peninsula region of South Island New Zealand.

Anna teaches on the Environmental Management Degree programme at Southern Institute of Technology. She holds a Master of Environmental Education and Sustainable Development degree from University College of Wales, Trinity College Carmarthen. She is analysing the factors that assist or impede local people in developing the capacity to take a central role in the sustainable management of their environment through a case study of the Banks Peninsula.

Anna describes her methodology as interpretative, critical and reflexive. "My study involves embedding myself in the case study location." She interviewed a wide range of local people, groups and government agency representatives, attended community meetings and spent periods working with two local community groups to achieve resource management and conservation outcomes. Her work has opened up fundamental questions for her around what types of environmental knowledge are given priority in addressing environmental management issues. She has examined the different types of knowledge generated by scientists and by local people and has found that the two do not necessarily come to the same conclusions about environmental realities in what is a complex socio-ecological system. She argues that scientific knowledge should not necessarily be given privilege over the knowledge of people who live and work in the area. "Scientific knowledge is often seen as more authoritative than other sorts of local knowledges," she says. "But I argue that scientific knowledge is just one type of knowledge among many of equal value." This argument is controversial in the field of natural resource management which continues to be heavily based on scientific knowledge but Anna believes it is important to draw on local knowledge to support environmental decision-making.

Her current work draws on research in the areas of knowledge and complexity. "The exciting thing about this year’s work is a shift in my methodological approach as a result of discovering the phronetic research approach developed by Bent Flyvbjerg, a professor at Oxford in the UK," she says. "Flyvbjerg looks at how the current dominance of instrumental rationality in our approaches to gaining knowledge has devalued the practical wisdom that Aristotle considered equally important when dealing with social issues. Consequently intuitive wisdom is marginalised in the face of the prevailing perception that..."
only considers “real” that which can be see and recorded in an objective, rationale way.” In contrast, Flyvbjerg’s research approach places a high value on contextual knowledge, and is based on an overt awareness of the relative link between knowledge and power. ‘I think the approach has great potential for educational research as well as the managerial field and I urge everyone interested to explore it!’

Anna has combined this approach with critical systems thinking that is based on the assumption that the comprehensive understanding of a complex system is an unrealisable goal. ‘Ecosystems, institutions and natural resource management systems are all complex systems,’ Anna explains. ‘Reductionist approaches are not appropriate because of the irreducible uncertainty and non-linear relationships inherent in complex systems, therefore a plurality of perspectives is necessary when making decisions or policies that engage with these systems.’

Anna believes that these perspectives are very appropriate for the analysis of complex socio-ecological system of natural resource management with a focus on developing practical knowledge that can be applied directly by communities living and working on the Banks Peninsula. ‘What I especially like is that this approach places all knowledge about the social ecological system on an equal footing to be deliberated by people who will gain or lose from the application of it. This means that scientific, indigenous and local ecological knowledge has an equal opportunity to be evaluated for how it will benefit or harm those people and ecosystems.’

More controversially perhaps, Anna argues that natural resource management needs to move away from a focus on understanding an entire ecosystem before making changes, to allow people to begin making behavioural changes while accepting that uncertainties will remain about the impacts of such changes. ‘In this way of thinking, ideas for ecological change do not necessarily stem from trying to establish a base “truth” to work from.’ Anna is also attracted by approaches to resource management that move away from finding responsibility for current environmental issues to focus instead on shared responsibility for change. ‘It is an approach focused on finding solutions rather than determining causes.’ She adds that ‘it is really important to recognise how much our complex social systems, which are so much a product of historical and political context, affect our ecosystems in a multitude of ways. One of the approaches I have been trying to follow from the field of social-ecological systems is not to compromise on the complexity. Don’t make it simpler than it really is but, at the same time, make it as simple as it is possible to do.’

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**Fighting pest mammals in Fiordland’s Waitutu Forest**

Dr Ross Ramsay is heading a collaborative project to survey and manage possums, rats and stoats in the Waitutu Forest in eastern Fiordland, an untouched, lowland broadleaf-podocarp forest.

Ross teaches on the Environmental Management Degree programme. He holds a Bachelor of Science and Master of Science (Hons) from the University of Auckland, and a PhD in geology from the University of New England. His work at Waitutu involves surveying and trapping pest mammals on land owned by the Waitutu Incorporation and managed for conservation purposes by the Department of Conservation (DOC). The project is supported by a research grant from Southern Institute of Technology in addition to funding from the regional council Environment Southland’s Environmental Enhancement Fund. The project team also receives support from DOC and its work is sponsored by the Waitutu Incorporation and Wairaurahiri Jet. ‘The support of these organisations has made this project possible,’ says Ross. ‘The project also provides a great opportunity for our students to get direct, hands-on experience of a conservation project in a pristine and important environment.’ A number of students on the Environmental Management Degree programme are involved in the project, setting out and checking traps and collecting data on pest numbers and trapping results.

One of the key aims of the project is to compare the effectiveness of the variety of traps available on the market. In 2012 the research team deployed standard 150 box traps, alongside A24 automatic Henry rat and stoat traps and A12 possum traps produced by GoodNature. This New Zealand company, which has also been very supportive of the Waitutu project, recently developed the automatically resetting traps that need to be checked much less often than traditional pest traps. ‘At Waitutu we are able to gather data that directly compares the facility and effectiveness of these newer traps against traditional trapping methods,’ Ross explains.

A total of 34 traps have been deployed in the Waitutu Forest west of the Wairaurahiri River, and the results documented and collated. The project will continue into 2013 and the additional data will help develop a clearer picture of pest types, numbers and range, as well as furthering the comparative trapping information. ‘The project not only offers an important learning opportunity for our students, but it also has environmental benefits for the forest,’ says Ross. ‘Bird species likely to benefit from reduced pest numbers include tomtits, grey warblers, rifleman, mohua, kaka and ruru.’

**Expanding the boundaries of knowledge about English ceramics and early glass-making in Burma**

During 2012 Ross also continued his on-going research into the development of the English porcelain industry and the ceramic compositions made at the Limehouse potworks, located on the Thames River in Fore Street in 1746. Chemical analysis can reveal a great deal about when and where these objects were made and where the materials came from to create them. Ross has analysed minute samples of ceramic objects held by museums and private collections around the world to identify their ‘ceramic recipes’ and reveal the various non-metallic raw materials that were used in the development of the early English porcelain industry. The research has been funded by a research grant from Southern Institute of Technology and by the American Ceramic Circle.

To date Ross has been able to isolate three different porcelain compositions that were made at Limehouse, namely: a silicon-aluminium body, a silicon-aluminium-calcium body, and a magnesium-phosphate porcelain. Based on the analyses of a number of porcelain items dating back to the Burghley House jars made prior to 1683, Ross is now able to trace a line of compositional ascent from medieval silicon-aluminium crucibles made in Stamford, UK, to the Burghley House silicon-aluminium and silicon-aluminium-calcium bodies, and on to experimental firings in 1708 by or commissioned by members of the Royal Society of London. Development can then be traced on through to silicon-aluminium and silicon-aluminium-calcium bodies made at Bow, UK, in the late 1730s to mid-1740s, and thence to the Limehouse production in 1745 to early 1748.

Ross and co-workers Pat Daniels and Gael Ramsay have established that the ceramic technology employed in England was much more advanced than had previously been recognised. Based on the results of their recent research they argue that the English were firing a hard-paste body some 30 years before Meissen in Germany, and that by the 1730s London was the world centre for porcelain technology and experimentation.
In a separate project Ross has been carrying out analytical work on glass and glazes recovered from the site of the 10th century city of Bagan in Northern Burma. ‘This site was first recognised by my fellow researcher, Dr Don Hein of Adelaide,’ Ross explains. ‘It is arguably the first glass-making centre discovered in South East Asia.’ More than 20 of the 2,000 surviving Buddhist monuments at Bagan have facings of glazed bricks or glazed architectural fittings comprising narrative plaques, decorative panels, cornices and floor tiles. Ross and his colleague have recognised two broad groupings of glass composition: a lead-rich variant with high lead oxide levels and a lead-free, sodic glass with sodium oxide up to around 15 weight per cent. Ross argues that ‘the preliminary analytical data has shown chemical linkages between glass being made at Bagan for trade glass beads and for glazes used on pottery tiles for temples and monuments.’ Their findings were announced in a joint paper by Ross and Dr Hein at the 14th Annual Conference of the European Association of South East Asian Archaeology in Dublin in September 2012.

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Setting out to lay the first group of 150 box traps, March 2012.
From the left: Environmental Management students Josh Fisher and Andrew Cousins with Dr Ross Ramsay
Sizing up performance measures for ITPs

Recent work by Paul Marambos questions the theoretical basis for measures used to assess the performance of tertiary institutions.

Paul Marambos teaches on the Bachelor of Commerce degree programme where his area of interest is management accounting. He is a chartered accountant and has a Bachelor of Commerce from University of Witwatersrand, South Africa and a Master of Science from Skema Business School in France. His current research examines whether management accounting theories can provide a basis for improving strategic performance measures (key performance indicators) in the Institutes of Technology and Polytechnics (ITP) sector. ‘The focus for me has been to gain an understanding of how ITP performance is measured,’ Paul explains. ‘He is focusing in particular on determining whether current performance measures are effective motivators for achieving the educational goals of both ITPs and the government.

The study provides the basis for his planned doctoral study into this topical area of research. Paul is also keen to generate debate among staff at Southern Institute of Technology and other ITPs about how the performance of educational institutes should be measured. ‘Tutors all have their own ideas about how teaching is best measured in their own fields,’ he says. ‘I am hoping to initiate what I believe is a very necessary and important discussion on how we can measure teaching and learning outcomes effectively at institutional and national levels.’

As the main funding body of tertiary education the government wishes to ensure that the large amounts of funds allocated to education are being utilised effectively. There has been, therefore, an increased focus in recent years on the measurement of performance in the New Zealand education sector including ITPs. The government has begun measuring the performance of individual ITPs based on four Educational Performance Indicators (EPIs): qualification completion rate; course completion rate; retention, and progression from lower to higher level qualifications. Performance measurement in the public sector is still a relatively new field. Consequently, Paul believes that specific measurement techniques are still in need of further investigation and development, particularly when it comes to understanding the medium and long term effects of the performance measurement process. ‘This is certainly the case for the range of measures that have been introduced into the ITP sector over the past few years,’ Paul states. He refers to international literature that calls for a greater emphasis by the public sector on researching performance measurement systems as they operate in practice. ‘This would help ensure that the many factors that influence the results of a control system’s operation are considered,’ he argues. ‘It would ensure that there is focus on issues that are relevant to organisations, and that they allow change over time to be monitored.’ He is particularly concerned that inappropriate performance measures could lead to a number of dysfunctional consequences. ‘One of my research objectives is to consider whether the performance measures introduced in the ITP sector are likely to lead to dysfunctional behaviour.’

Paul is also concerned that the EPIs are based on a theoretical assumption that all institutions start from the same point, something that is rarely the case in reality. For example an ITP that traditionally accepted a larger number of students who previously had not achieved good academic results would be at a disadvantage with regard to course completion rates when compared to an ITP that restricted entry to higher-achieving students. ‘This could penalise institutions enrolling school leavers under the government’s Youth Guarantee Scheme and other categories of less academically orientated students,’ Paul says.

The government has a strategic education goal of improved rates of course and qualification completion and increased rates of student progression to higher level courses. It believes that this can be achieved through higher quality teaching and learning along with more effective and culturally-responsive pastoral care. Paul questions whether the use of the abovementioned four EPIs will contribute toward higher quality teaching and learning or more effective pastoral care. ‘It can be argued that the EPIs actually have the opposite effect,’ he says. ‘It should be considered whether the focus on these EPIs could put pressure on ITPs to lower educational standards in order to improve student completion and progression rates.’

The indicators used to measure ITPs could therefore pose a problem. ‘While graduation rates can potentially be increased by more effective teaching and student learning, they can also be increased by lowering academic standards.’ Paul sees a real need to identify alternative performance indicators that could contribute to teaching practices that are consistent with current educational strategic objectives. He notes that it is extremely difficult to comprehensively and objectively measure the quality of teaching, and consequently a level of trust should be placed in educators that they will maintain high standards in their profession rather than fostering an over-reliance on key performance indicators.

International research highlights the issues with focusing too much on educational measures that are easily quantifiable, when so many factors in good teaching performance and effective learning are very difficult to measure objectively. ‘The main danger in the design of modern performance measurement systems is that it is these aspects that get relatively less emphasis,’ says Paul. ‘We see an almost inevitable tendency towards various forms of “short-termism” by focusing on the most convenient and readily available measures.’ In the United Kingdom feedback from students is widely used as one of the key measures of teaching performance. At the same time there have been criticisms about the reliability of student feedback of teaching as a comprehensive measure of performance. Student feedback can be an effective measure of whether for example a lecturer answers students’ questions effectively, and a lecturer provides adequate feedback on assessments. However, student feedback is not an appropriate way to measure other important factors such as the extent to which lecturers have improved students’ critical thinking or kept up to date with their subject areas.
As part of his ongoing research in this area, Paul plans to undertake a field study focusing on the current EPIs in New Zealand, exploring how these impact upon education standards in the ITP sector. He plans to utilise management accounting theory to analyse the EPIs. In addition to developing an understanding of the impact that current performance measures can have on the quality of education, Paul also plans to suggest ways to improve the long-term strategic value of performance measurement in the ITP sector. ‘You tend to get what you measure – but will the current system of measuring the effectiveness of education help move us toward the kind of education systems and society that we want?’ he asks.

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Paul Marambos, School of Business
Casual or temporary workers make up an increasing proportion of the New Zealand labour force but relatively little is known about the negative impacts of casual employment on the lives of those workers. John Archer breaks new ground with his recent research into workplace factors that influence employees’ perceptions of the precariousness of casual work.

John Archer, a tutor on the Bachelor of Commerce, recently completed his Master of Management Degree at Massey University. His thesis, New Zealand Prime-age (25-55 years) Worker Perceptions of Casual Employment, explores the precarious experience of the casual worker. He researched workplace variables impacting on casual workers’ perceptions of their employment experiences. His work draws on in-depth research interviews with 14 casual workers between the ages of 25 and 55 years with at least two years of casual work experience. His participants were chosen from a range of New Zealand industries experiencing significant levels of casualisation.

Within the international research literature, casual work – also often called temporary work – fits into the general category of ‘non-standard employment’, a broad term that covers work that is not full-time or tenured employment. It includes work arrangements such as: contracting, part-time, temporary, fixed term, seasonal and casual. ‘The rate of non-standard employment in most Western countries has been steadily increasing since the 1990s,’ John explains. While the flexibility of non-standard employment suits the lifestyles of some people, many others would prefer full-time work but find themselves trapped in these non-standard arrangements. ‘These are the kinds of workers I was interested in learning more about,’ he says. He uses the term ‘precarious work’ to describe casual employment where people work in low quality, insecure work that has negative consequences for workers. Precarious workers are likely to face lower rates of pay in comparison to permanent employees, work unconventional hours with a wide variability in the hours worked, receive little notice of when they have to work, and often have poor knowledge of employment rights. If a worker perceives that their job is precarious then this is likely to result in higher levels of stress and have negative impacts on psychological well-being and the casual workers’ personal lives.

The research focus was on identifying the workplace variables that influence casual workers’ perceptions about the precariousness of their work. He explored the experiences of individual workers as a way of understanding their own perceptions of their work situations. He interviewed casual employees working in the labouring, call centre, care-giving and hospitality areas. ‘These are industries that have traditionally identified as being more likely to have precarious work,’ John states. He also interviewed people working in the field of education, an industry where casualisation is increasing among workers who until recently would have been permanent employees.

John’s research breaks new ground in New Zealand, where little is known about the level and consequences of casual employment. As he explains, ‘there was not much prior research in this field in New Zealand, and there is not really even a clear and generally accepted definition of what casual work is.’ In stark contrast to many other countries there are no regular official statistics on the rates of casual work in New Zealand, and increases in non-standard work have attracted little attention here. His research is also unique in its focus on a particular segment of the casual workforce: the growing pool of prime-aged (25 to 55 years) workers in casual and potentially precarious employment who live off their casual income. This cohort of casual workers makes up a vulnerable and growing sector of the national workforce.

A key issue for John’s research was the lack of a clear definition of ‘casual work’. The main employment legislation in New Zealand, the Employment Relations Act 2000, does not define different types of employees. The key characteristic of casual employment, however, is a lack of any commitment to ongoing employment from the employing organisation. It is generally accepted that the percentage of the working population employed in temporary or casual jobs has increased significantly since the 1990s and continues to increase. This is particularly the case following the global financial crisis. In places where employment growth has resumed it has largely been in the area of temporary or precarious work.

Another research challenge was the inconsistency of and difficulty in comparing existing international literature with the under-studied New Zealand context. In Australia and New Zealand, casual employment is identified to be the dominant form of precarious employment because labour laws don’t legislate against or limit this form of employment contract. In many other industrialised countries, particularly in Europe, there are legislative controls and protections for temporary or casual work. Even comparisons between Australia and New Zealand are difficult because significant national differences exist. Many casuals in Australia are union members, for example, and are covered by awards which regulate the employment conditions for casual employees and are paid a 20% loading to cover lack of sick days, holidays and the general inconvenience of being a casual worker. In contrast casuals in New Zealand are mainly non-unionised and tend to be paid lower rates of pay than their full-time colleagues. This made it clear to John that New Zealand’s unique social and political environment means that the full impacts of significant workplace developments like increasing levels of casual work cannot be generalised from the findings of overseas research.

While the uncertainty of the tenure and hours of their casual work was a concern for all research participants, John found that much of the interview dialogue related to feelings about management practices. ‘The way these casual workers were managed at work was a real concern to them,’ he says. ‘Management styles obviously have enormous impacts on the lives of these workers.’ Participants reported that as a casual worker it is vital that the supervisor likes you and many of these casuals worked very hard to stay in the ‘good books’ of the supervisor. They understood that one wrong move with a supervisor or an influential permanent worker could spell the end of that job or the loss of preferential treatment.

Another major concern for many of participants was the effect of short-term rostering of working hours on the lives of these workers. Some workers, in particular those in the labouring and hospitality industries, could be called up only minutes before they were required to work, which made planning activities outside of work virtually impossible. Many workers also felt that they could not turn work down or they risked being relegated to the bottom of the list for call-ups in the future. Along with ongoing job insecurity comes financial insecurity. The participants were reliant on their casual jobs to be able to pay the bills, so they had to worry about whether they would get enough work each week to be able to meet their financial obligations. As they were in such a volatile work situation, many of those inter-
viewed would take on a number of different casual jobs at any one time in order to try to ensure a consistent liveable income. John notes that all of the participants in the research were looking for more stable work – either part-time or full-time jobs – but they had found it very difficult to move out of the casual workforce into permanent positions. ‘I heard the comment that being too good and too useful as a casual worker can mean that there is no incentive for the employer to make that person permanent,’ John says. ‘One person I interviewed described it as like being permanently on probation. Feeling trapped contributed to strong feelings of precariousness.’

As John points out, not all participants felt uniformly negative about their work experience all the time. ‘Some had a more positive attitude towards their casual work, and I think that this showed itself particularly where people were finding some satisfaction in the job they were doing.’ This tended to make things like low pay and uncertain work hours less significant for them, and thus their employment situation felt less precarious. ‘The negatives were still there but they were able to be positive in their casual work despite the down-sides.’ Once again, the quality of their relationships with management was important even for those workers who enjoyed their jobs. Workers who had a good relationship with their supervisors felt more positive about their work experience.

John’s research has revealed a number of areas for further investigation. The key issue is in the area of appropriate practices for the management of casual workers. John also recommends research into the perceptions of the supervisors of casual workers. When analysed alongside research on worker perceptions this information could support recommendations for the management of casual employees. ‘Given the importance of management practices on the lives of casual workers, this is definitely an important area of focus,’ he states.

John is planning to explore the perceptions of the supervisors of casual workers next to see how they view their casual workers and identify if they realise the huge effects they can have on the lives of their employees. ‘There has been very little research on this topic to date so I hope my work will provide a fuller picture of the use of casual workers in our organisations,’ he says.

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Business accounting to become easier

In 2012, the Ministry of Economic Development announced simplified financial reporting requirements for Small and Medium Enterprises (SMEs). Accountancy tutor Daniel Hunt has analysed the implications for businesses of the proposed changes.

Daniel is a chartered accountant and also runs his own consulting business, Daniel Hunt & Associates (DHA). He is a facilitator on the National Diploma in Business programme at the Southern Institute of Technology. His keen interest in teaching is informed by his ongoing research in the areas of business, accounting and taxation. Daniel’s recent research interprets the implications of changes to the legal requirements for the preparation of financial statements. He and business colleague Sharon Cohen published an article on this topic in the August 2012 edition of Innovate, the Auckland Chamber of Commerce magazine.

Currently all companies – regardless of size – are required to prepare financial statements, and there is also a confusing range of disclosure and audit requirements. Disclosure requirements vary according to company size, while audits are compulsory for some companies and not others. The needs for users of financial statements differ and it is questionable whether the same information is required for micro, small, medium or large companies. The Inland Revenue and the New Zealand Institute of Chartered Accountants are currently developing the financial reporting requirements for SMEs. The effective date for the proposed changes is financial periods beginning on or after 1 July 2013. For a typical March balance date, the first effective year end would be 31 March 2015.

The changes are aimed at simplifying these financial reporting requirements from the current preparation of General Purpose Financial Reports (GPFR) to Special Purpose Financial Reports (SPFR). As Daniel explains, ‘the reasoning behind the changes is that currently the costs of preparing financial statements outweigh the benefits.’ New Zealand has over 460,000 SMEs, defined by the Ministry of Economic Development as enterprises with 19 or fewer employees, therefore approximately 98% of all New Zealand businesses will be affected by the changes to reporting requirements. This means that nearly half a million companies will no longer be required to prepare financial statements. This change is expected to cut business compliance costs by $90 million annually.

The Inland Revenue is a major user of financial statements which form the basis of tax return preparation. Daniel argues that there is likely to be an impact on tax compliance if SMEs are not required to prepare accounts. ‘The changes are described as a “simplification”, however the reporting requirements for different entity classes are not consistent, and this inconsistency could create complexity and confusion,’ he says. ‘A lack of understanding of the new requirements may lead to an increase in tax avoidance or evasion, so the change process must be risk-managed.’

Another potential issue raised by Daniel stems from the fact that SMEs rely on banks for finance, and financial statements play an important role in lending decisions. The banks use the accounts to assess the liquidity and profitability of a SME, and thus its ability to repay its liabilities. ‘If the legislation is changed and SMEs no longer have to prepare accounts there will be a flow-on effect, from delays in producing accounting information, to delays in decision-making,’ he notes. SME owners tend to rely on their accountants and tax advisors to manage their tax compliance and tax risk. ‘If the financial statements are going to be prepared mainly for tax purposes, does this mean that there will be less emphasis on assessing accounting compliance risks?’ asks Daniel. ‘The financial reporting function will be simplified, but just how simple does it need to be so as to ensure that taxes are accurately calculated?’

Given these risks, although there will no longer be a requirement to prepare General Purpose Financial Reports, Daniel strongly recommends that SMEs prepare Special Purpose Financial Reports. ‘SPFRs are prepared for specific purposes such as tax reporting, credit line facility applications and business sales,’ he says. ‘These financial reports can also assist business owners or managers in monitoring business performance, improving cash-flow and planning for taxes.’ He recommends that SME owners and their advisors assess the tax risk profile of their businesses, and work out how best to manage and monitor the identified tax risks. ‘Having robust tax risk management strategies and processes will increase tax compliance for the business and decrease the exposure to penalties or use of money interest.’

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The art of storytelling

‘When the storyteller speaks, the sun and the clouds stop to listen.’ Fiona Forrest’s research in 2012 has focused on exploring the art of storytelling, in particular the use of story as a teaching method at primary school level.

Fiona has always had a fascination with the telling of stories. ‘Storytelling is the origin of oral communication and dramatic performance,’ she says. ‘As long as there have been human beings, there have been stories.’ The premise of her research is that stories are important, and that the power they contain can be channelled into many directions. Fiona finds that the stories we are introduced to as children are particularly powerful. ‘They can be used to order our lives, create an imaginative dimension to our day to day existence, and tap into the universal currents of change, crisis and disorder that underpin our lives.’

The primary aim of Fiona’s research was to investigate the use of story as a teaching method in a primary school. She also sought to examine the special contribution storytelling can make to drama, and to explore the potential it has to develop students’ skills within the drama curriculum. Fiona facilitated four drama workshops that introduced the storytelling techniques to three male, Year 7 students to explore the story The Lion King. On completion of the workshops the students performed a twelve minute scene of their choice from the story as part of the end of year school show.

The approach to story that Fiona took was skills based. ‘In this approach the initial skills of story-telling – eye contact, vocal projection and tone – are developed into drama skills of narration, mimed action, and character voices,’ Fiona explains.

‘The focus was placed on building confidence with new skills, rather than on students generating ideas about content. Their energies were directed into the storytelling treatment of the material.’ The element of performance that was the primary focus was the connection with the audience. Fiona encouraged the students to really think about how they looked and sounded and this was initiated through simple repetition: ‘Have I got a story to tell you!’ The students were asked to focus on how they looked at the audience, how they stood and how they delivered their lines to create a moment of impact.

During the workshops the students were required to improvise and re-enact the entire story of The Lion King. They worked individually on their characters and designated song parts, and then worked collaboratively to create each scene. The students also contributed their own ideas to the look of the set. As Fiona reports, ‘instead of just taking up the teacher aide’s offer of artificial trees, they stated: “We’re going to collect our own real jungle from out the back paddock.”’

Fiona says that the students performed their work with a strong sense of fun, pride and ownership. ‘The importance of sharing their work with all the school students and parents emphasised the value of performing story as drama, and the value of the collaborative process of group work to reach a creative quality art form,’ she explains.

James and the Giant Peach

Fiona also directed Roald’s Dahl’s James and the Giant Peach, performed during the Southland Festive of the Arts at SIT’s Centrestage Theatre, from 30 April to 3 May 2012, with up to three shows running each day. The production featured performers from both the Sir Antony Hopkins School of Dramatic Arts and the Cats Pyjamas Theatre Company. Fiona describes the play as ‘an uplifting story, which embraces song, dance, and audience participation.’ A review of the show in The Southland Times commended the ability of the performers to keep the young audience engaged. As stated by the reviewer: ‘The laughter, the jeering, the singing, and the pointing out of looming disaster – whether it was the blind earthworm hurtling toward the edge of the stage or a flock of hungry seagulls approaching – was lovely to watch.’

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being made, the other is you...

Artist Ruth Myers’ major exhibition being made, the other is you showed at the Blue Oyster in Dunedin in October 2012. This visual arts sculpture and video project played with notions of ambiguity, identity and performance.

Ruth is an artist and a tutor in the School of Design and Visual Arts. She has a Master in Art and Design from Auckland University of Technology and plans to begin PhD studies in 2013. Her exhibition being made, the other is you explored processes of identification as reflexive and performative. It consisted of three parts comprising: five acrylic mirrors that appeared to be suspended beyond the wall; stairs up to a box containing a video loop viewed through three peepholes, and a series of images viewed by looking down into a tall box. Together the works generated an embodied viewer performance of ‘looking’ in a reflexive sense. They show what Ruth describes as a staging of partial and ambiguous bodies that solicit but also thwart recognition, that encourage prolonged but frustrated attempts at identification. ‘These partial bodies, performed “privately” for the lens of the camera, are screened and looped in digital sequences that appeal to the viewer simultaneously as both subjects and objects,’ she explains.

Ruth intended this work to raise doubts and even some discomfort for viewers. Her work experimented with ideas of identities – including sexual identities – as fluid, interactive and performative processes. As she puts it, ‘we perform ourselves (and others) through our actions and practices. In doing this we are involved in the reiteration of norms which also create opportunities for disruptive gestures.’ being made offered such disruptive moments where the force of identity as performative lies in the inability of viewers to fully establish the identity of the viewed. The video installation ‘Witness’, for example, raised the question: What am I witnessing? It was aimed at provoking a reflexive viewing encounter that prompted reflection and accountability within looking.

being made represents a shift in Ruth’s artistic practice towards the use of video installations as part of her works. She drew on both contemporary and historic video art practices, particular those that address ‘out of time’ experiences and viewing as endurance. ‘It takes time to view this work and you need to work to be able to look through the peepholes,’ she explains. ‘Viewing durations and positions demand a physical effort and the resignation to remain looking long enough to consider “something else”’. In its deployment of partial bodies, being made explores the notion of ‘appeal’ where onlookers may seek that which is unattainable. The exhibition environments deliberately limited viewing access, creating a kind of erotic ‘offer’ in a conflicted physical and ambiguous positioning where objects were both intensified for and distanced from the viewer. ‘My project explored embedding screens within structures, and was viewed via peepholes in order to explore how restricted and disorientating viewing can “jolt” the viewer and then solicit a more intentional return view.’ This, alongside the physical engagement of leaning, stepping on, bending over and so forth draws a commitment or effort from the viewer that insinuates as well as distances—encouraging and simultaneously halting a kind of promise of knowing that could disclose too much. ‘I was interested in developing this engagement towards a physical “liveness” that encourages an embodied and reflexive viewing encounter.’

The exhibition created considerable interest. Point reviewer Pieter Haydensiek (Issue 2, October – November 2012) found elements of the exhibition to be ‘quite disturbing’ and described the collective impression of the works as ‘alive and compelling’. Ruth was also interviewed about the exhibition by Gilbert May for Radio One 91fm.

Ruth pays tribute to the Blue Oyster art space which she considers to have been very useful in her work. ‘This is an important space that allows programmes and practices that sit slightly outside what you would expect to find at many galleries,’ she says. being made forms the basis for Ruth’s next big research project. ‘These explorations have been pilots for my PhD, which I plan to begin in 2013,’ she says. ‘This work has given me a lot of confidence that I am ready to take into the PhD, knowing exactly what I am trying to do.’

The Blind Idealist’s Black Dog
Ruth wrote the catalogue essay for the prestigious exhibition The Blind Idealist’s Black Dog by Jo Torr, recipient of the 2011 William Hodges Fellowship. The exhibition ran from February to April 2012 at the Southland Museum and Art Gallery. In her essay Garment Ruth analyses the relationship between garment and body, wearer and worn. ‘We intrinsically understand something of the relationship between the wearer and the garment,’ she explains. ‘Garments speak for us; they are texts.’ She identifies the inherent performativity in the relationship of the garment to the body. ‘Garments can become biographical objects and they become invested with memory.’

Ruth draws out the distinctive deep-southern flavour of Torr’s garments. ‘Several have fabric with specific imagery that references the short-lived 1850s whaling settlement...’
on the Auckland Islands,' she says. At the same time, as she argues, these are highly contemporary, sculptural works that raise relevant issues for viewers today. ‘They remind us that our representations of history are fabricated constructions, always created from a particular point of view, even while we experience them from our own positioning.’

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On being there

In addition to contributing to the Oceans Eleven exhibition with several of his colleagues, during 2012 Peter Belton has focused on his preparation for an invited solo exhibition that will run from February to April in 2013 at the Southland Museum and Art Gallery.

Peter has always been fascinated by movement. ‘Music and dance are performed within discrete frames of time, as are spoken presentations and their putative products in cinema,’ he says. ‘Yet each performance is a discrete event with a beginning and an end. It arrives in a particular moment, then, following a sequence of movements, it departs from us.’

According to Peter, ‘two-dimensional art, drawing and painting present us with the challenge of making sense of any representation of an event or idea declared in a single moment. How then does the artist signal the process of devolution, of depicting an engagement with the phenomenal world through a register of time?’ These concepts have been explored in his current practice. The depiction of people and elements of landscape are chosen because people and places inhabit time and space, both near and far. ‘Seeing is always partial and is, in itself, a process in time.’

‘I seek to connect the constructed space “on the wall” to the “space” of the person who comes to stand in the same room,’ Peter states. ‘My intent is to engage the viewer with “seeing into” and finding.’ He has done this through exploring the working of the ‘skin of the painted surface with shifts and resultant tensions in an internal architecture of lines, shapes and colours that apparently structure into movement.’

Peter would contend that each time his drawings and paintings are revisited they will appear to be slightly different, depending on where, when and how they are approached. ‘I would argue that each time these drawings and paintings are revisited they will appear to have subtly altered, depending on when and where they are approached and on what we bring to them. Different moments of seeing, when we return, will open to us the possibilities of epiphany and recognition.’

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Peter Belton, Tutor, Bachelor of Applied Media Arts (Visual Media)

Torrent by Peter Belton

Pigeon Bay by Peter Belton
**Oceans Eleven**

An exhibition featuring the talents of eleven SIT art and design tutors was held at the Riverton Arts Centre from 12 May to 4 June 2012.

Fittingly titled *Oceans Eleven* the exhibition showcased works by Peter Belton, Karl Hart, Stu King, Chris Macdonald, Rachel Mann, Kevin Miles, Kathryn Mitchell, Andy Mosse, Ruth Myers, Craig Storey and David Woolley, along with Doug Heath of the School of Audio Production. It is the first time that all SIT staff in the department have featured in an exhibition together. The exhibition was coordinated by Kathryn Mitchell, Programme Manager in the School of Design and Visual Arts.

*Staff from the School of Design and Visual Arts pose for their collaborative exhibition Oceans Eleven.*

*Below a selection of works exhibited as part of Oceans Eleven at the Riverton Arts Centre, May to June 2012.*
The odd one out: addressing the gender imbalance in tertiary IT education

Women make up only one in six students studying towards computing-related degrees. Bachelor of Information Technology tutor Scott Morton is researching why females continue to be the ‘odd ones out’ in tertiary IT education.

Scott Morton teaches on the Bachelor of Information Technology degree programme at SIT. He has a background in the computing and information technology (IT) industry and holds a Master of Advanced Computing from Bournemouth University in the UK. His current research explores the reasons for the striking imbalance between male and female students entering the Bachelor of Information Technology degree from high schools within Invercargill and surrounding areas. ‘You would think that the gender imbalance in IT degrees would have really reduced in recent years’, says Scott. ‘But that is certainly not the case. I was intrigued why, despite the widespread use of computer technologies at home and school, males still greatly outnumber females in our classes.’

His research gives a local perspective on what is a global issue. The gender gap in IT is an area that has received considerable international research attention. As Scott outlines, the literature shows that internationally one in six students entering higher education to study computer related degrees are female. The past two decades have seen exponential growth of employment opportunities within the IT industry, and yet at the same time there has been a downturn in the number of females entering this market, to the extent, says Scott, that there is a real risk that women will be almost entirely absent from the IT sector. Globally, females make up only 10% to 30% of students studying IT related subjects, and less than 20% of the IT industry workforce.

The international literature suggests that occupational stereotyping can be linked to the decline in the number of females entering computing degree courses. ‘The popular stereotype of people working in the IT sector is that they are “geeks”, hiding in darkened rooms, staring at computer screens all day,’ says Scott. It is an image reinforced in popular media which tends to enhance the stereotype that IT is a male occupation, that people working in the industry are not creative, and that the work itself involves little more than coding or dealing with masses of data. School students’ perceptions of IT jobs mirror the stereotypes that they have been presented with throughout their teen years, and therefore the way students are taught IT at school also has a significant influence on career choice. Other strong influences on how young people feel about IT as a career are family, friends, and school careers advisors. ‘Careers advisors are a strong influence on career choice at school,’ says Scott. There is a risk that poorly informed advice from some advisors who may only have access to outdated information will reinforce perceptions of IT as a male career. In the absence of good information, careers advisors often revert to stereotypes, steering boys rather than girls towards IT as an area of employment traditionally perceived as ‘masculine’.

Prior research has concentrated on factors influencing career choice among students in tertiary education or already working in the IT sector. ‘There is plenty of evidence that actually most career paths are chosen much earlier in life,’ says Scott. Long before many girls enter higher or tertiary education they have already decided not to follow careers in maths, science and technology. ‘Girls typically lose interest in IT between the ages of 14 to 17, and so I wanted to focus on researching the perceptions of school students.’ His study examines the perceptions about IT subjects and careers of both male and female students leaving Southland high schools in 2012. He wanted to find out what were the major influences on students when deciding whether to follow a career in IT. In particular he was keen to find out whether these factors are perceived differently by male and female students. Scott distributed a questionnaire to students in their final year of schooling, the majority of who were between 16 and 18 years old, and from a range of secondary schools in Invercargill and surrounding rural areas. Scott asked research participants to think back on their whole secondary school IT experience. The questions were designed to elicit information on those influences that the students had been exposed to both within school and outside of school including popular media and social conditioning.

Scott found that, overall, a similar proportion of male and female students said they liked IT lessons. There was a slight difference between the males and females on perceptions of the difficulty of IT lessons, with 30% of female students indicating that they found IT ‘really easy’ or ‘easy’, compared with 22% of male students. IT subjects are often compulsory at junior high school levels, but once the subject became optional the numbers studying IT dropped considerably. Only 42% of participants, and 39% of the females, were taking IT subjects in their final year of schooling. The reasons they gave for not taking IT subjects was that the subject was ‘boring’ and they did not find the way it was taught to be interesting. Only 13% of participants and only 4% of females surveyed indicated that they would go on to study IT at tertiary level.

Participants were also asked where they looked for careers advice. Careers advisors were the primary source, with 92% of girls and 88% of boys going to them for advice, with other major influences being parents and teachers. According to Scott, this finding reinforces the importance of careers advisors being well informed about IT careers options. ‘Another really interesting thing to come out of the data was how young students – boys and girls – were when they started using a computer,’ says Scott. Sixty per cent of the students surveyed had started using a computer at or below eight years of age. ‘This shows that students are coming into secondary education with a level of general computing knowledge that is often beyond the level of the current secondary IT curriculum. This could help explain why so many students indicated that they found IT a “boring” school subject.’ He considers that the IT syllabus needs to be updated to ensure its relevance for the ‘tech-savvy’ students coming into secondary education now. ‘This is important to make it a more compelling subject for both girls and boys and to inspire them to go on to further IT study at tertiary level,’ he says.

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The technology outlook for tertiary education in New Zealand

Teri McClelland has been part of a panel of experts forecasting the ways in which new digital technologies are likely to change the face of education in the coming years.

Teri McClelland manages SIT2LRN, the distance learning facility at Southern Institute of Technology. Teri was invited to become a member of the 2011 Horizon.NZ Advisory Board, a think-tank of 38 knowledgeable individuals, all highly regarded in their fields and representing a range of diverse perspectives across the learning sector. Their brief was to develop a consensus viewpoint on the impact of emerging technologies on teaching, learning, research and information management in New Zealand tertiary education over the next five years. The project responded to the need for more strategic forecasting in order to understand both the opportunities and the challenges related to leveraging emerging technologies in tertiary education.

Teri was able to draw on her experience in developing online education for this role, and on her strong interest in the teaching and learning potential of emerging technologies.

The findings of the expert group have been published in the New Media Consortium (NMC) Horizon Report: Technology Outlook for New Zealand Tertiary Education 2011-2016. The report, which is available online, provides examples of innovative use of these new technologies in New Zealand and internationally, and recommends sources of further information about them. It will be consulted by tertiary institutions making investment decisions about new hardware and software and when designing new curricula. ‘It is also likely to be used by big technology companies like Apple,’ says Teri. ‘These companies use it as an indication of what educationalists see as upcoming opportunities and issues.’

The research covered software, hardware and new pedagogy. ‘We were looking at what technologies are likely to be major game-changers for New Zealand education,’ Teri explains. ‘Our role on the advisory board was to predict how technology is going to change the face of education in New Zealand in the short term, and also out to a five-year horizon.’ This was the first time a board has reported specifically on the New Zealand situation. ‘In the past, New Zealand has just been one chapter in the Australian report,’ she says. ‘It is really useful to have a report tailored specifically to our education environment.’

The collaborative process the board used to reach agreement on key trends drew on some of the new technologies they were examining. Deliberations and discussions were carried out using a wiki: an online cloud technology that allows multiple users to write documents collaboratively. ‘The wiki discussions could get quite animated at times,’ says Teri. ‘We had to make a case as to why we thought something was going to be significant, and this was debated back and forth, until a consensus decision was reached.’

The advisory panel agreed that mobiles, in forms such as tablets and mobile apps, are coming into mainstream use in education settings. Tablets are easily adaptable to almost any learning environment, with tens of thousands of educational applications emerging. They are particularly conducive to engaging in learning outside the classroom, with a suite of tools for capturing data in real-time and collaborating on projects. Other rapid-adoptions technologies identified by the board are those that support collaborative online environments where the focus is on making it easy to collaborate and work in groups no matter where the participants may be physically. This creates opportunities for educators as well as students, allowing them to share good practice with colleagues around the country and around the world. In classrooms too, joint projects with students at other institutions or in other countries are increasingly common. One example given in the report is Sakai, a virtual environment consisting of a global community of educators who are collaborating to design and create open software for teaching, learning, and research.

The advisory board noted that cloud technology is already being rapidly adopted in New Zealand and globally, while game-based learning will see mainstream adoption within two to three years. This is in line with findings from similar international studies. Gesture-based computing and smart objects were considered to be in the far-term horizon. Interestingly, digital identity, electronic publishing and personal learning environments are topics of unique interest in New Zealand that have not been so prominent internationally.

An upcoming technology, identified by the advisory board is that of next-generation batteries. While at first glance it may not appear to be particularly revolutionary, this emerging technology will result in batteries with long lives that do not need to be replaced and require minimal charging. The significance of this technology in New Zealand is that it creates more potential for teachers and students to use their devices with a greater sense of freedom, without needing to plug-in or recharge as often.

As for what the education world can expect in the next two to three years, the expert group notes digital identity management, as an upcoming issue. This enables users to create a single digital identity that can be used in any place where a login is required to access a website or service. The report notes that digital identity has the potential to personalise curricula through profiling learners’ interests based on their historic content consumption.

The advisory board found that navigating through the rapidly growing technologies and online resources, while still ensuring quality information and applications, is a challenge that will impact on curriculum design and on tertiary education generally. ‘The role of educators is changing,’ Teri says. ‘The Internet has brought fundamental changes to how our students approach learning, and this means that educators must adapt to accommodate these changes.’ People increasingly want to learn, work, and play wherever — and whenever — they want, and this trend is pushing tertiary providers to be increasingly entrepreneurial and innovative. The board also noted that the increased availability of ultra-fast broadband is likely to dramatically change user behaviours in teaching, learning and research over the next five years.
A key issue identified by the board is that, despite the strong emphasis on equipping students with the skills for understanding and creating digital content, most academics are not using these new technologies themselves. ‘This is a major challenge,’ Teri argues. ‘If we want students to learn how to use technology, then educators must find ways to embrace it in their own teaching and research.’

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Exploring the forgotten world of knowledge management

Modern, knowledge-based organisations rely on effective records management systems. Julian Galt shared the results of action research into this complex area with local authorities in Australia in a presentation to the Conference of the Municipal Association of Victoria.

Julian Galt led the implementation of a comprehensive new records management system at the institute. In collaboration with organisational psychologist Stewart Hase of Stewart Hase & Associates, Australia, Julian has published research on lessons learned through the process. Julian and Stewart were invited to present their findings at the Municipal Association of Victoria conference, ‘Creating the Knowledge Based Organisation’, in Melbourne in July 2012.

There is a risk that, in focusing on the challenge of day to day operations, the pivotal importance of knowledge management can be overlooked. In their joint paper, entitled ‘Knowledge management – a forgotten world’, Julian and Stewart focused on how an effective knowledge management strategy can support the creation of knowledge-based organisations. ‘Knowledge management is often the forgotten factor in organisational change processes,’ says Julian. ‘Our experience reinforces the need to strategically align knowledge management with general business strategies so that it becomes an integral part of the fabric of the organisation.’ He and Stewart urged organisations to view records management as an enabling factor that contributes to their strategic direction, efficiency and effectiveness.

Their joint paper is based on lessons drawn from analysis of a case study in knowledge management reorganisation. A comprehensive restructuring of records management across the organisation tackled what they describe as a ‘chaotic’ situation with confusion among staff over accountabilities and a multitude of differing approaches among individual departments. The absence of any clear, standardised processes had led to duplication, overflowing storage areas, and severe difficulties in retrieving information. ‘There are real risks for an organisation operating in an incoherent records situation like this,’ warns Julian. These risks include delays in retrieving data, and the loss of important records with associated liability. ‘Ineffective records management also means that the organisation is dependent on memory for retrieving data,’ he says, ‘and that is simply not a sustainable knowledge management solution in the longer term.’

He and Stewart point out that even highly innovative and productive organisations can find knowledge management to be a challenge. ‘In fact, it is often at a time when an organisation is growing rapidly and responding to market changes that knowledge management can be overlooked,’ says Julian. He urges organisations to support their growth and market strategies with complementary comprehensive knowledge management procedures. In order to be truly effective, these procedures need to be understood as part of the daily business of organisations, rather than being regarded as minor ‘add-ons’. As he explains, ‘effective knowledge management actually assists with work performance, and therefore should be aligned with the organisation’s core competencies.’

They acknowledge that there may be significant challenges to organisations as they implement new knowledge management strategies. Change managers may have to overcome internal resistance and inertia as they seek to transform cultural norms and reshape organisational priorities. The challenges are multiplied when a strategy is applied across a complex organisation with diverse and dispersed operations and among staff with differing levels of knowledge management competency among staff. To help overcome these issues Julian and Stewart recommend taking an ‘action-learning’ approach to implementation of a new knowledge management strategy, with actions at each stage followed by a period of reflection to review and address emerging issues, before moving on to further action. They also contend that organisational resistance can be overcome when staff are made fully aware of the purpose and importance of knowledge management. Commitment from staff across the organisation is key to successful implementation of a new knowledge management system, supported by a high level of commitment from senior levels of management. According to Julian, ‘if staff have been involved in decision-making they are more likely to commit to the new system.’ In the case-study example, the uptake of the new system was enhanced by consultation, training and mentoring to assist staff with the change to new ways of doing things, backed by on-going support and training for new staff.

The benefits for organisations of effective modern knowledge management processes include meeting external legal obligations, as well as operational gains such as a consistent approach to managing information, reliable retrieval of information, and improved security of organisational knowledge. At their case study institution Julian and Stewart found that the improved records management processes support product development, service extension and operating efficiency. ‘Good records management systems are also central to maintaining institutional memory,’ Julian says, ‘and the process of upgrading systems may throw up potential opportunities for innovation as the records are refined and sorted.’

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Building a community of practice among Year 3 student nurses: a case study in the use of Peerwise

During 2012 nurse educator Johanna Rhodes successfully piloted an online community of practice to support knowledge building and consolidation among student nurses.

Johanna teaches in the undergraduate and postgraduate programmes in the School of Nursing. She holds a Master of Health Science and a Master of Teaching from the University of Otago. Her current research assesses the perceived value to student nurses of participating in an online community of practice for building and consolidating knowledge. Participants were drawn from students in the final year of their Bachelor of Nursing programme at Southern Institute of Technology.

Johanna developed the community of practice to support the students as they prepared for the ‘state final’, the national examination graduating students must pass in order to be able to practice as a registered nurse. ‘My research was built on a need to support meaningful revision for students about to sit the state finals examination’, Johanna explains. Changes to the Bachelor of Nursing curriculum have reduced the classroom time available for revision and knowledge consolidation. ‘I recognised a window of opportunity that opened up in the third year curriculum to provide for this need and reinforce classroom and clinical learning.’

Online learning communities encourage mutual exchanges between community members, and offer a collaborative forum for building knowledge and sharing understanding. Johanna chose to use Peerwise as the software platform for the online community. Peerwise is an interactive educational programme that is widely used internationally for teaching in the health sciences area. It allows the formation of closed groups where all information is confidential to the participating students, making for a safe sharing environment. It is based on multiple-choice questions (as is the state finals examination), with the additional feature that the reasoning and references for the correct answers can be supplied. It was designed as a student self-directed learning tool, however Johanna found it to be sufficiently flexible to be used to support teacher-led revision. Johanna used the Peerwise community of practice to support scenario-based learning and to embed knowledge throughout the academic year. Rather than giving out reading before classes, Johanna instead put a series of multi-choice questions on Peerwise and encouraged the students to attempt to answer these prior to each classroom session.

Students could also use the platform to formulate their own revision questions. ‘This encouraged them to be proactive about their own learning, which is exactly what we want to see happening,’ says Johanna. ‘It also enabled me to see what they knew and what they wanted further information about, and I could then build on that in my teaching.’ Johanna also found that Peerwise allowed her to model good revision practices to her students. ‘They tended to follow my lead, and included explanations and references to text books in the revision questions they formulated,’ she says. ‘This really encouraged the students to think about the reasoning behind any answers, and also to consider where information was coming from.’

As this was the first time Peerwise has been used at the Southern Institute of Technology, Johanna was very interested to assess whether it was worth using again in this way. All Year 3 students were invited to participate in the online community, and were invited to complete an evaluation questionnaire at the end of the academic year. Thirty two students chose to participate in the research. The results of the questionnaire confirmed that Peerwise had provided students with an opportunity to build and consolidate their knowledge through the year. All participants reported that they found the process helpful to their learning, in particular the provision of a rationale for each answer. Students reported that they did feel part of a community of practice when using Peerwise, and that a number had taken the opportunity to develop and post their own revision questions. Other benefits students identified included that it had provided them with developing knowledge about what they knew about a topic, and provided a direction for further knowledge building.

Johanna’s findings suggest that when revising or consolidating their learning, students are not necessarily able to identify ‘gaps’ in their own knowledge. Peerwise supports a more positive approach to revision where students are able to recognise what they do know and then build on this knowledge. ‘This may be more effective for the student’s learning process.’ She found that all students attempted the pre-session questions and it was evident that significant reading had occurred when the students were in the sessions. Many students said they found this method interesting and ‘better’ than having to do ‘lots of reading’. Although not the main focus of her research, this finding raises questions for Johanna about the effectiveness of pre-reading as compared to the quiz-based approach. ‘We know that many students don’t do the set readings before classes. By using Peerwise, students were encouraged to go back to the text books and seek out additional information,’ she says. ‘They told me that they actually found themselves doing more reading than they would normally have done, rather than less.’

Another unexpected outcome has been the on-going expansion of the online community. The graduating students asked to remain part of the project during 2013 and Johanna anticipates that the community could continue to grow in coming years. Past graduates may therefore be able to ask and answer questions from current students and Johanna will also be able to use Peerwise to keep in contact with graduates.

The positive results of the pilot study have encouraged Johanna to include Peerwise as part of a formative assessment for the Year 3 students in 2013. She also intends to repeat her study with the 2013 student cohort to provide data for the on-going assessment of the effectiveness of the online community of practice. She plans to publish her findings, which she considers will be of interest to other national providers of Bachelor of Nursing programmes.

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Experiences of overseas nurse educators in New Zealand nursing schools

New Zealand tertiary institutes are welcoming an increasing number of nurse educators from around the world into their teaching teams. Reen Skaria is researching the experiences of overseas-trained educators as they adapt to the local teaching and learning environment.

Reen has a Masters in Nursing from the University of Manipal Academy of Higher Education and has extensive experience in nursing and working as a nurse lecturer. She arrived in New Zealand in 2004 and is a nurse educator and programme manager in the School of Nursing. She is currently undertaking doctoral research into the issues faced by nurse educators from diverse cultural backgrounds when teaching in New Zealand tertiary institutions.

New Zealand, in common with many other developed countries, is increasingly reliant on health professionals from overseas. Globalisation and a shortage of registered nurses in New Zealand have together led to an increase in the number of overseas registered nurses and nurse educators migrating to this country. Overseas-qualified nurses accounted for nearly 50% of nurses registered in New Zealand in 2010-2011. ‘The solution that is typically suggested to resolve nursing shortages is to train more nurses within New Zealand,’ says Reen. ‘But that in turn requires more nurse educators in order to train them, which again results in a demand for overseas-trained educators.’ There were 1450 registered nurses working in the field of nursing education in 2010-2011, of whom 345 were recruited from overseas. The majority of overseas nurse educators were from the United Kingdom, Australia, South Africa and the USA. Reen believes that the proportion of overseas nurse educators is likely to increase significantly in the future. ‘The demand for more nurse educators in New Zealand is continuing to grow,’ Reen says. ‘This makes it very likely that there will be more overseas educators teaching in nursing schools here, and so we need to know the challenges they face and how we can help them meet those challenges.’

Reen’s research explores the experiences of overseas nurse educators teaching in New Zealand nursing schools. Travelling to a new country as an immigrant and moving from a familiar culture to one that is unfamiliar is a stressful experience, and this stress is experienced by migrant nurse educators as they work to understand their new environment and local nursing and teaching practices. The cultural diversity of both providers and recipients of health care represent a further challenge to nurse educators who are expected to facilitate culturally sensitive learning environments and ensure culturally competent nurse graduates.

The impetus for her research stems from her personal experience as an overseas-trained nurse educator. ‘My study draws on the challenges I faced, and also what I have learned from speaking with colleagues from overseas,’ Reen says. Some of the challenges she has identified include differences in teaching and student cultures, codes of conduct in the classroom and cultural differences among colleagues. ‘Findings from international research in this area reveal frustrations experienced by migrant nurses when interacting with bureaucratic agencies, and communication problems due to accents and use of colloquial language among host nurses,’ she explains. Some overseas trained nurses also have to cope with racism such as negative attitudes held by some patients and staff. ‘I expect that overseas nurse educators working in New Zealand will experience similar issues to a certain extent, but there are also factors related specifically to teaching at tertiary level.’ One important issue is the difference in expectations by teachers and students about classroom culture and behaviour. ‘In some cultures, avoiding challenging the teacher, and regarding the teacher as being imbued with parental authority, is a social norm,’ says Reen. ‘Overseas trained nurse educators, who are used to this kind of classroom etiquette, might find the attitudes of students in the western world disrespectful.’

The role of the New Zealand Nursing Council, and the notion of Nursing Council competencies which are used to assess the students’ competence in the practice environment, are new to many overseas nurse educators. There are also issues around expectations on the nursing faculty to prepare students for the increasingly complex health care system. Western educators use student-centred approaches and encourage active learning, independent learning and questioning, and they focus on individual rather than group achievement. ‘The overseas nurse educator who is used to an eastern approach may find these different expectations of the nurse educator role challenging, and this is something I would like to explore.’

Reen’s research approach draws on phenomenological methodologies that she considers will allow her to examine the cultural adaptation experience of her research subjects from both personal and nursing perspectives. Her research participants are overseas nurse educators who have completed their nursing training overseas and who are currently teaching in New Zealand schools of nursing. ‘There is a real dearth of suitable studies that answer the question about challenges faced by overseas trained nurse educators in New Zealand,’ Reen says. In addition to researching the challenges faced by overseas nurse educators she is also asking her research participants about positive experiences they may have had while teaching in New Zealand nursing schools and what support helped them adjust to the New Zealand context. ‘I would like to explore the lived teaching experience of the overseas nurse educators in New Zealand,’ she explains. She expects her data to reveal insights into the real experiences of overseas nurse educators as it is presented in the everyday world of nursing practice, education and administration.

Reen hopes that her research will help in formulating specific strategies to help prepare overseas nurse educators to face the varied challenges of a new system and society. In particular she wishes to identify whether there is a need for a faculty development programme to assist newly arrived nurse educators. ‘There is international evidence that structured support by institutions can really help overseas-trained nurse educators get established in their new roles,’ she explains. Another idea she is exploring is the value of systematic mentoring. ‘Mentoring can help establish healthy working environments and facilitate the ongoing career development of nurse faculty,’ she argues. She also points out that good support for overseas-educated staff can help in retaining staff. ‘These educators will become valuable assets for the country and will help to enrich and deepen the experience of New Zealand trained nurses.’

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Using Facebook to enhance student engagement

Social media is an increased presence in our lives. When it became obvious that students checked their Facebook updates more often than their SIT emails, Dr Sally Bodkin-Allen decided to start a Facebook Group for the Bachelor of Contemporary Music programme.

Sally is the Academic Leader for the Bachelor of Contemporary Music and Audio Production programmes. She is responsible for teaching research, Year One theory, and two of the new music education papers on the Contemporary Music Degree. Her research in 2012 focused on the potential of a Facebook group to increase student engagement. The initiative was partially inspired by her involvement in the Committed Learners Project (CLP) during 2010 to 2012. ‘The CLP really made me think about the importance of engaging students through developing bonds with one another, having good communication channels and extending the ways that technology can be used in the classroom,’ she says. With this in mind Sally created a closed group on Facebook for students studying on the Bachelor of Contemporary Music (BCM) programme and she also invited graduates and staff to join.

The main aims of the research were to see if the Facebook group had an impact on student engagement, and if it improved communication amongst students and staff in the department. The outcomes were measured by observing the ways in which the Facebook group was used by its members and, more formally, through questionnaires distributed to the students at the end of each semester. Interviews were also carried out with staff teaching on the degree programme to gather their perspectives on the effectiveness of the Facebook group in enhancing student engagement.

The results indicated that the Facebook group was a useful tool for fostering student engagement in the department in 2012. Findings from the CLP suggest that the social relationships formed by students are significant in supporting engagement with learning. Sally found that the BCM Facebook group provided many opportunities for students to connect with each other, from the sharing of music jokes and cartoons to advertising their own gigs. The data from the questionnaires showed that the group was also useful to students because it gave opportunities to ask questions about assignments, made contacting tutors easy, and provided information about timetable changes. ‘There was an increase in use of the Facebook group during the year as well,’ says Sally. ‘While only 13% of participants looked at the page daily in semester one, this had grown to 53% by the end of semester two, suggesting that the group had become more useful to students.’

Interviews with teaching staff also provided some useful data. The Facebook group was seen as a useful and effective tool for communicating with the students that has ‘way more chance of getting hold of them than through email,’ as expressed by one participant. Staff also found it useful for posting inspirational videos and sharing wider musical examples. They saw the value of the Facebook group for creating a sense of identity within the department, as expressed by a participant who described it as ‘beneficial for cross-year communication, building a sense of community and culture.’

Sally has actually continued the Facebook group beyond the life of her research project. ‘I think the research established that it is definitely a worthwhile tool, on so many levels,’ she says. ‘It is a way for graduates of the degree to keep in touch, and it has really created a sense of culture within the school.’

Sally presented her findings in a presentation at the SIT Staff Research Symposium and is planning to present at the National Tertiary Learning and Teaching Conference to be hosted by SIT in October 2013.

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Are we having fun yet?

Each year the Bachelor of Contemporary Music Year 2 students join the Bachelor of Audio Production Year 1 students to put together the live performance Epic Jam. Jason Sagmyr examines the value to student engagement in this project-based assessment.

Jason teaches on the Bachelor of Contemporary Music and Audio Production programmes. He is responsible for teaching first year ensemble, singer songwriter classes and music industry papers in both programmes. In 2012 Jason combined his research and teaching interests and designed a research study that would focus on Epic Jam, a concert organised and run by year one and two students on the Audio Production and Music programmes. Jason felt that while the concert provided valuable, real-world learning opportunities for the students, the process of putting the show together proved emotionally demanding for some students. ‘I had students bursting into tears in my office, so I needed to know there was valuable learning involved, and I wasn’t being too demanding,’ Jason explains.

Epic Jam is a two-hour show of original music. The Music students take responsibility for organising and structuring the concert, which also acts as a fundraiser for a local charity of the students’ choice. They organise who will play, resolve artists’ logistical issues, organise the venue, attract sponsorship, promote the gig and oversee any financial aspects. The Audio students are responsible for the live sound, lighting, stage layout, stage safety and any other technical aspects of running the show. The students must work together to make the event happen. The concert itself is not assessed but the process and the learning that occurs throughout it forms a major element of the students’ assessments for the BCM200 Music Industry Studies and BAP120 Music Industry papers.

Jason’s research grew out of his own enjoyment of teaching the industry papers as Epic Jam is one of the highlights of the year for him. The assessment is designed to allow students to develop the key skills they need to attract work in the music industry. ‘It is always a challenge but I enjoy seeing the students working through the processes of putting the show together,’ says Jason. ‘The research context allowed me to assess the process from a teaching point of view and it gave me the opportunity to evaluate the effectiveness of the assessment.’

The results show that the project is a useful and pertinent piece of assessment. ‘I found out that the assessment does work,’ says Jason, and that it does equip students to step into various employment roles.’ Jason’s methodology used both questionnaires and focus groups. Students were asked if the project based assessment of Epic Jam had provided them with learning opportunities not normally found in a classroom environment. Some of the comments from the students were: ‘what you learn sticks, rather than talking about doing,’ and that it was a ‘test of initiative’. Some of the results were rather mixed, with both positive and negative responses to the question of whether the assessment had allowed them to become more involved in their own learning. One student said that it was easy to be passive if you weren’t actively doing something, while another response was that self-direction enabled learning.

Jason is excited at the prospects of incorporating the results of his research directly into his teaching in 2013. ‘I will be able to apply the findings to my teaching practice when I next teach the industry papers,’ he explains. He is planning to incorporate a lecture on group management techniques into the course outline, as this was an area highlighted in the research as one where the students lacked knowledge and understanding. ‘What also came through in the results is that I need to set clearer boundaries for the students on where their responsibility for the Epic Jam concert lies and where my teaching responsibility starts.’

Jason presented his findings in a presentation at the SIT Staff Research Symposium and is planning to present at the National Tertiary Learning and Teaching Conference to be hosted by SIT in October 2013.

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Speed and strength: a study into muscle activation patterns in New Zealand’s Olympic track cyclists.

Will Payne and Hennie Pienaar have completed a two-year project analysing the biomechanics and muscle activation patterns of elite track sprint cyclists. They have been able to put the results of their research to work to enhance the training regimes of New Zealand’s top cycling athletes.

Will Payne, tutor on the Bachelor of Sport and Exercise degree programme, is a sports nutritionist with a Master of Human Nutrition, a Postgraduate Diploma in Sports Medicine and a Bachelor of Physical Education and Human Nutrition from the University of Otago. Fellow tutor Hennie Pienaar is an accredited exercise physiologist and has been teaching in the Bachelor of Sport and Exercise programme since 2002. Will and Hennie have combined their expertise to carry out research aimed at improving the performance of New Zealand’s top cycling athletes. They drew upon the support of research technician Damian Tippen, and also took the opportunity to involve the Years 2 and 3 Bachelor of Sports and Exercise students in the project. ‘Our students ran the pilot testing as a teaching and learning exercise,’ says Hennie. ‘We also involved students as research assistants.’

This year was the second in a two year project for Will and Hennie. Their research was motivated by the goal of improving the performance of the New Zealand track cycling sprint team, and was supported by New Zealand’s national cycling federation Bike NZ and the regional sports organisation Cycling Southland. Will has been the principal conditioner for the national cycling team for seven years. He also works with other elite athletes including rowers, motor racing drivers and para-athletes.

‘This has been a huge year for our sprint cyclists,’ he says. ‘In 2013 the team won a silver and in 2012 the team won a bronze medal at the World Championships and came fifth at the London Olympics where they also broke the New Zealand record.’

The team sprint event consists of three riders who compete over three laps, with one rider dropping off each lap. The New Zealand team was looking to improve its time in the first or ‘standing’ lap in which it was less competitive than the teams of other major cycling countries. Improvement in the way the cyclist tackles the first lap leads to improvement in the overall speed and performance of the team. Through their analysis of the biomechanical performance of top cyclists Will and Hennie were able to gain a better understanding of the role and characteristics of the first lap in sprint cycling including muscle activation patterns and how these are involved in force and power development. Together the studies allowed Will and Hennie to analyse the starting sequence of the track cyclists and apply basic biomechanical principles to make improvements in their standing start performances to enhance overall performance.

Their wide-ranging project encompassed three major studies into: muscle activation in a standing lap for trained track sprint cyclists; biomechanics and muscle activation patterns and optimal gate starts for trained track sprint cyclists, and a comparison of muscular power output using the Schoberer Rad Messtechnik (SRM) cycling power meter. Twelve top cyclists (six males and six females) were invited to participate in the study. Testing was done under controlled conditions at the ILT Velodrome in Invercargill, and at the Southern Institute of Technology’s Human Performance Laboratory. ‘Access to the latest equipment in the Performance Lab was a real advantage for us,’ Hennie says. The researchers took a wide range of measurements from each athlete including: heart rate; anthropometric measurements; biomechanical analysis (using the computer programme SiliconCoach Pro6); muscle activation patterns, and power measurements. All data collected was tested statistically using SPSS v.20 to ascertain the level of significance. Muscle activation patterns were measured throughout the testing sessions, as were power measurements which were recorded by a power meter fitted in the crank arm of the bike and transmitting data to a remote device. Will and Hennie also assessed the results of video footage they took of the athletes in motion on their sprint race bikes.

‘Some of the results surprised us,’ says Hennie. ‘We found that the start is not necessarily the most important factor in riding a fast first lap. It is actually the acceleration during the initial parts of the first lap that is a defining issue.’ The researchers also had to readjust their methodology in response to unanticipated technical difficulties. At one point the athletes had to return to the Performance Lab to repeat the power testing on a Velotron (a computer controlled, precision electronic bicycle ergometer), due to difficulties experienced in downloading data from the SRM power meters. ‘The redesigned tests worked very well,’ says Will. ‘The results established a direct relationship between power and time, which allowed us to conclude that increasing the bulk of specific muscles leads to increased speed.’

Their research has also identified a potential need for clarification of the protocols around testing sprint cyclists for maximum muscle contractions. ‘This is an issue that actually arose from some student research work,’ says Hennie. Data collected by Year 3 student Jelana Keith indicated inconsistencies in isolating the optimum biomechanical angles. ‘Even though we were using existing approved protocols, we found a disparity between biomechanical angle measurements when athletes had their legs straight as opposed to bent,’ he explains. ‘This is something that is particularly relevant to cycling and we needed to set clear parameters for measurements before we could draw conclusions about muscle action at different stages of the cycling gait.’

The findings of their research were directly incorporated into the training regimes of the athletes, leading to cycling training methods and technique and also off-track training such as gym work to improve specific muscle groups that can be activated to improve strength and technique. Their findings also answer questions about what muscles are firing during cycling and
therefore where athletes need to focus when training. ‘We were particularly surprised by the imbalance in the firing of particular muscles,’ Will says. ‘Even in top athletes there is bilateral asymmetry between muscles – and we could also see how the body adapts to compensate for these imbalances.’

‘It is an incredible privilege to work with athletes of this calibre,’ says Hennie. ‘It was also great to be able to help improve the performance of the Olympic sprint squad members.’ He reports positive feedback from the athletes involved. ‘They felt that they had received valuable information about what specific muscles were more active and therefore what muscles they really need to work on in their training regime.’

The impact of sports drinks on the recovery of competitive swimmers

Will Payne published his research into the impact of commercially available sports drinks on the recovery of athletes in the international journal Medicina Sportiva 16 (3) in September 2012. He co-wrote the paper, Glycemic and insulinemic responses to commercially available beverages, consumed during recovery from swim training, with Christine Thomson, Meredith Rose-Peddie and Tracy Perry from the Department of Human Nutrition at the University of Otago, Dunedin.

Will worked with a group of 14 adolescent competitive swimmers who were swimming 30 kilometres per week during training sessions. The objective was to investigate the impact of consuming commercially available beverages on glycemic and insulinemic response during recovery from exercise. Commercially available beverages are convenient, and are frequently used by athletes during post-exercise recovery. Following their regular two-hour training session, Will had the athletes consume one of three sports drinks with different glycaemic indices. He then monitored the glucose and insulin levels in their blood over the following two hours.

Will concluded that CHO sports beverage elicited a larger glucose response compared to the other beverages used in this study. This higher glycemic response is favourable, especially when time before the next training bout or competition is short and a quick and optimal recovery is paramount. ‘My study adds to the very limited literature available on the use of commercially available beverages during recovery from exercise,’ says Will. His research was funded by the Department of Human Nutrition at the University of Otago.

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Hennie Pienaar, School of Sport and Exercise

Hennie Pienaar (in foreground), Will Payne (in blue shirt) and students in the Degree of Sports and Exercise programme pilot their research set-up with a top New Zealand sprint cyclist at the ILT Velodrome.
Showcasing undergraduate degree staff-student research

Students enrolled in vocation undergraduate degrees at the Southern Institute of Technology typically undertake a research project in their final year of study. The findings of a number of these projects have recently been published on-line in a special edition of the Southern Institute of Technology Journal of Applied Research.

Dr Jo Smith is Programme Manager for the Bachelor of Therapeutic and Sports Massage. She has a background in health science and physiotherapy. Her research for her Doctor of Philosophy from the University of Otago involved the examination of massage therapy services for health needs. She is a strong supporter of the practice of meaningful research in undergraduate curricula across Southern Institute of Technology. She observed the growing number of excellent small-scale research projects at undergraduate level that had findings of interest to a wider community. This inspired her to put together a special edition of Southern Institute of Technology Journal of Applied Research (SITJAR) to disseminate some of the results of student research projects carried out in recent years. The special edition Highlighting Staff-Student Research features eight studies across the disciplines of massage therapy, environmental management, and sport and exercise. ‘The journal profiles the excellent research being done by undergraduate students and their supervisors,’ says Jo.

The undergraduate research projects are designed to build on theoretical research papers taught in years one and two of the undergraduate degree curricula, allowing students to apply that theory to projects of their own choosing. As Jo explains in her editorial introduction, projects comprise a systematic investigation that incorporates standard research processes including: topic selection; formulation of research plans and approaches (including ethics applications where appropriate); data collection, analysis and interpretation, and presentation of the findings, often at a public forum. The process has several important educational functions, in particular encouraging the integration of knowledge with practice and the development of project management skills. The projects also encourage independent thinking supported by collaborative practices, oral presentation skills, and critical analysis and reflective thinking. ‘Another very important purpose that the research project plays is building the ability to source, use and critique evidence-based research,’ explains Jo. Tutors act as supervisors for the research projects. They encourage students to look for innovative solutions to the challenges that inevitably arise during the research process, which further helps build student confidence and professional skills.

Projects may be individual or carried out in small groups. Supervisors are looking for students to produce tangible outcomes that have relevance to their fields or to the local or regional community. Due to the short timeframes they are often limited in scope, however, the findings from many of these projects are thought-provoking and some have practical applications. As a result of the vocational nature of the undergraduate degrees, supervisors encourage projects that can be carried out in collaboration with industry. Some projects may directly inform industry practices, or act as starting points for future research.

In addition to reporting on research the journal includes reflections by students and supervisors on the research and supervision processes. ‘This was a good opportunity to reflect on our collective practice as educators, supervisors and students as novice researchers’, says Jo. ‘It also allowed us to explore the purpose and processes involved in undergraduate research.’ Student reflections highlight some of the challenges that can arise within a research project and that may affect feasibility and completion. ‘Students reported underestimating or overestimating the level of work required, or getting sidetracked into irrelevant activities,’ Jo says. ‘Other problems were getting lost in the literature, or ending up with irrelevant or non-analysable data.’

Supervisor reflections emphasise the importance of actively facilitating the research process and the need to set explicit expectations and requirements. Supervisors see their role as to guide the scope of each project and to provide structure and support for each stage of the research journey. Drawing on their own industry networks they may assist students approach people outside SIT who may be able to help them in various ways with their research. They find that they are inspired by the interest and passion of the students for their chosen research topics, and they reveal their pride when students successfully complete and present projects.

The full report can be found at: http://sitjar.sit.ac.nz/Publications/SITJAR%20Special%20edition%20August%202012.pdf

New Zealand Massage Therapy Research Centre

The New Zealand Massage Therapy Research Centre (http://nzmtrc.sit.ac.nz/) was established in 2009 to foster massage therapy research in New Zealand. One of its aims is to integrate massage therapy research and teaching by promoting massage therapy research and research-informed education. In furthering this aim, all Year 3 students carry out research into a topical issue for the industry and massage practice. These projects gave students an introductory experience in research and promote knowledge and skills in critical analysis of relevant literature, the research process, scientific writing, and working in a collaborative team. Two of these projects are highlighted in the special edition of SITJAR: Highlighting Staff-Student Research. Barbrin Bormann and Aaron McDowell worked with supervisor Dr Jo Smith to investigate the public awareness of massage therapy. The students conducted a survey of 500 Invercargill residents and used this data to draw some conclusions on the knowledge and beliefs of the general public about massage therapy. In another project, students Tracey Senior, Georgette Yanouzas and Nicki Jury worked with the guidance of supervisor Donna Smith to assess perceptions of professionalism in a massage therapy context. They carried out interviews (focus group and face to face) with students of the Bachelor of Therapeutic and Sports Massage about their perceptions of professional behaviours and the values they hold in relation to professionalism. They developed a number of indicators of professional conduct, and their findings reiterate the paramount importance of professionalism in a health-care setting. ‘Staff-student collaboration in undergraduate research projects like these contribute to massage therapy research nationally, which is one of the principal aims of the Research Centre,’ says Jo.
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Dr Jo Smith, Programme Manager, Bachelor of Therapeutic and Sports Massage
Massage therapy in New Zealand has moved from being an accepted part of orthodox medicine to a marginalised position as an alternative or ‘complementary’ medicine. Donna Smith examines the efforts of the industry to regain legitimacy, and explores the complex issue of professionalisation.

Donna Smith is Programme Manager for the Bachelor of Therapeutic and Sports Massage. She is undertaking her PhD with the University of Otago. In a recently published paper in the International Journal of Therapeutic Massage and Bodywork Donna and fellow researchers Dr Jo Smith (Southern Institute of Technology), Professor David Baxter and Professor Rachel Spoken-Smith (University of Otago) examine the historical journey of massage therapy from mainstream to marginal. Their review of the literature reveals the ways in which therapists are resisting this marginalisation, and explores the debate within the industry as practitioners seek legitimisation and professionalisation. Therapeutic massage therapy is used to treat or help prevent musculoskeletal conditions such as back and neck pain, and to treat chronic or recurring pain. It is based on a holistic view of treating illness and promoting well-being, in which therapists support their clients to balance their mental, emotional and physical needs. The industry has a long and fascinating history. The use of the hands for treatment as a remedy for pain is believed to be as old as humankind. As medicine became professionalised in Western countries, massage therapy remained widely accepted as part of the mainstream medical community, and was formally recognised as a medical profession in Great Britain in the 1890s. The University of Otago established the first School of Massage in New Zealand in 1913, and in 1921 a Masseurs Registration Board was set up to oversee professional registration of masseurs. In the second half of the twentieth century massage therapy was increasingly subsumed into the practice of physiotherapy, as illustrated by the fact that the School of Massage became part of the University of Otago School of Physiotherapy.

In the 1980s, however, physiotherapy began to shed its association with massage therapy, and this diminished the importance of the practice of massage within orthodox medicine in New Zealand. ‘This meant that massage therapy not only lost its professional boundaries’, says Donna, ‘but was side-lined from being an integral orthodox medicine to the lesser status of a complementary and alternative medicine.’ Massage therapy is one of varied collection of therapies practiced alongside, or as an alternative to, mainstream medicine. Donna’s research shows how fluid the boundaries have been between ‘orthodox’ and ‘complementary’ medicines. She also raises the issue of the importance of how the practice is perceived at any particular time. By categorising it as ‘complementary’ the medical profession places massage therapy in a subsidiary role in primary medical care. Donna’s research shows that therapists are resisting this classification and the consequent marginalised position they hold among health practitioners. ‘They are seeking political and legal recognition through a number of different routes,’ she explains. Marginalisation is also being challenged by the increasing popularity and expansion of massage therapy.

Voluntary professional bodies have been formed to improve the image of massage therapists. Massage New Zealand is the voluntary national association specifically for massage therapists. Members are bound by a code of ethics, a complaints procedure and continuing professional development requirements. According to Donna, ‘the professional body has an important role in raising the profile of massage therapists. We have seen an increasing emphasis on higher education and professionalisation in the industry, while some practitioners go further in calling for statutory registration.’

Higher education is identified as an important means to professional recognition as well as expertise and it was one of the main factors in establishing bachelor degrees in massage. Southern Institute of Technology’s Bachelor of Therapeutic and Sports Massage was the first of these, introduced in 2002. ‘The aim was to create a course that produced independent, reflective health practitioners who are research-literate, expert in soft-tissue therapy, and seen as equals by other health professionals.’ Donna differentiates between a competent practitioner, and an interactive professional with a sense of responsibility who helps shape the industry in which therapists are working. ‘I think this is what degree-based education can offer the massage industry,’ she explains, and she argues that it can help to improve the profile of massage therapy as a recognised health profession.

Despite increasing recognition and use of massage therapists for health and wellness, they are still not an established part of the public health care system. Challenges to the credibility of massage therapy as a health service remain. The practice of massage therapy is currently unregulated, as are individual therapists, and there is no legal standard for the level of education required before someone can call himself or herself a massage therapist. ‘Anyone could set up shop without any training,’ says Donna. ‘On top of that, some massage therapists disagree with the need for higher education as a requirement within the profession.’ As the research makes clear, there is no over-riding consensus among massage therapists about the extent to which the industry should be professionalised. Some therapists argue that massage therapy is already as credible and legitimate by the most important sector: consumers. Certainly consumers are making their perceptions clear by their increasing use of the therapy. There has been a 54% growth since 2001 in the use of massage therapists, 9% of adult New Zealanders have seen a massage therapist, and there has been a huge increase in the number of people employed as massage therapists.

Donna’s research raises the question of what benefits further professionalisation of massage therapy would be likely to bring to practitioners and clients. The drive toward professionalisation has wavered over recent years, and there are concerns that regulation could lead to increased costs and a possible loss of autonomy as the government takes a greater role in the control of the industry. ‘Practitioners are asking whether there really is a need to seek professional status through regulation, or if there are other options that would be just as effective,’ Donna explains. ‘For example, massage therapists might be better concentrating on raising educational standards among therapists or sharing collective good practice.’ Interviews are currently being conducted to explore the perceptions, benefits and barriers to degree-based education for massage therapists in New Zealand.
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Staff research outputs 2012

Publications


Conference papers, public talks and lectures


Performance

Exhibitions

Reviews