

2003 Reports

INNOVATION IN TEACHING GRANTS

DEVELOPING NEW ZEALAND BUSINESS CASE STUDIES FOR EXPOSING STUDENTS TO REAL PROBLEMS

MR TOM BATLEY, DEPARTMENT OF MANAGEMENT

The CALT grant of \$6945 was used for travel and accommodation costs when visiting six businesses for writing case studies for use with students. All the businesses were New Zealand owned and typical of local businesses.

The cases were intended to give tertiary students the opportunity to learn about how local real businesses operate and the typical decisions which have to be made to keep them operating effectively. Most business cases published are from Europe and America and students need local New Zealand cases to give experience of New Zealand management conditions.

Each of the business cases was researched through the literature and then visits to meet with managers and discuss their work. Each case was then written and the draft submitted to the managers for their approval. Draft cases were also given to colleagues in the Management department for analysis and constructive criticism. After re-writing each case was sent to the managers concerned for their approval. This was required before the cases could be used on trial with small groups of students. Feedback from students was then used to further refine each case and questions with answers in a Tutor's Guide were then published.

Four of the case studies have since been used successfully with students and the others are also being worked on. Two of the cases have been published, one in a text book and another in an international case clearing house. Several of the other cases are expected to be published in international texts. This will give them a wide exposure to tertiary students internationally.

WORKPLACE LEARNING PROGRAMME

ASSOCIATE PROFESSOR GRAHAM ELKIN, DEPARTMENT OF MANAGEMENT

COMPUTER-AIDED LEARNING PACKAGE FOR PRINCIPAL COMPONENTS ANALYSIS

ASSOCIATE PROFESSOR KEITH GORDON, DEPARTMENT OF CHEMISTRY

DR THOMAS RADES, SCHOOL OF PHARMACY

Over the past 3 - 4 years vibrational spectroscopy has been used at the University as a method of quantifying mixtures of materials. This has developed an expertise in such quantitative analysis and this grant provided the underpinning support to develop a module in which an interactive computer package was used in as part of research-based module of Chem306. In this module students working in groups prepared mixtures of differing polymorphs of drugs. These were analysed using Raman spectroscopy and the levels of the differing polymorphs quantified using multivariate analysis. The package dealt with Principal Components Analysis (PCA) of samples run on state-of-the-art equipment within the Chemistry department.

TE WHANAKE ONLINE

PROFESSOR TĀNIA KA'AI & PROFESSOR JOHN MOORFIELD, TE TUMU

The objective of this project was to develop a plan to provide an online resource that will complement the four textbooks and resources of the *Te Whanake* series for teenage and adult learners of Māori. The design objective of the online resource is to encourage intellectual independence in learners by providing learning which students can use when they wish and from wherever they have access to the online environment.

After completing a requirements analysis, the structure of the proposed online resource was modelled and representative storyboards produced. A questionnaire was then prepared and seven students and three staff were asked to work through the storyboards and respond to the questionnaire. The goal of this evaluation process was to test whether an attractive, educationally sound, online environment that would enhance the learning of Māori and complement the receptive and productive skills being developed in class activities, could be created from the plan.

A key recommendation is that the immersion/game part of Te Whanake online be delivered via Blackboard rather

than duplicating functionality. The possibility of developing a Māori language pack for Blackboard should be investigated to fully meet the aims and objectives of providing Te Whanake online.

SIMPLE SEQUENCING: AN INNOVATIVE PROGRAMMING DEVELOPMENT TO ENHANCE FLEXIBILITY IN THE USE OF BLACKBOARD.

MS JENNY MCDONALD, HIGHER EDUCATION DEVELOPMENT CENTRE

University teaching staff are using Blackboard in increasing numbers. Its main value is seen as facilitating administrative and communication tasks. Nonetheless, there is justified criticism from many quarters that Blackboard itself is inflexible and imposes a particular teaching paradigm (instructor led, top down, objectivist approach). Our aim was to develop a prototype tool, which facilitates the provision of choices and allows the learner some control and flexibility in how they work through materials, moving more towards a constructivist paradigm and encompassing goals outlined in the University Teaching and Learning Plan.

A case study, requirements analysis, storyboard and specification were developed for such a tool. In the course of the project it became clear that open source and commercial software was becoming available which individually met parts of the specification and when combined, could potentially meet the specification. Some of these tools are presently being evaluated and planned for use and evaluation in teaching during 2004.

CD-ROM AND WEB BASED LEARNING OF ADAPTED PHYSICAL ACTIVITY FOR PRE-SERVICE STUDENTS

DR MOTOHIDE MIYAHARA, SCHOOL OF PHYSICAL EDUCATION

To help pre-service students learn about the practice of adapted physical activity before they actually start to engage in the direct service delivery, three DVDs have been developed:

1. Clinical Communication Primer, Initial Meeting, Intake Interview, and Teaching Motor Skills at the Movement Clinic;
2. Movement Assessment Battery for Children: Examples of Performance Test Administration;
3. Adaptive Snowsports.

The first DVD has an accompanying workbook for students to answer questions raised in the DVD. These teaching materials helped to

1. prepare students with the knowledge of ethical practice, a variety of disabilities, adaptation required for special needs in terms of equipment and instructions;
2. to develop skills for teaching, coaching, consulting, and behaviour management;
3. to enhance students' self-efficacy to deliver service in adapted physical activity.

Although a web-based discussion forum was set up, no student has used the page to discuss among themselves and to interact with professionals working in a variety of real-life adapted physical activities.

"NEW ZEALAND MEDICAL STUDENT JOURNAL"

MR DAVID TORDOFF, FACULTY OF MEDICINE

From the [NZMSJ web site](#).

The New Zealand Medical Student Journal has two primary aims. Firstly, to assist medical students make the transition from writing for medical school to writing as a graduate, by publishing:

- Quality research already produced by medical students.
- Case reports
- Literature reviews
- Other content deemed suitable by the NZMSJ Editorial Board

The review process will provide comprehensive feedback so that students not only benefit by being published in the NZMSJ, but are also assisted in their learning of good academic writing.

Secondly, the journal aims to publish content that is educational, interesting, readable and presented in a professional manner. In doing so, the NZMSJ hopes to provide medical students with a forum for discussion at a national and international level.

The establishment of the NZMSJ is the initiative of students at the Dunedin School of Medicine, with strong support from the faculty, including a CALT grant which allowed the project to go ahead. An editorial board governs the journal, with student and faculty membership. The journal aims to be at least at a national level in its content and readership.

INNOVATION IN TEACHING

DR RICHARD WELCH & DR RUTH PANELLI, DEPARTMENT OF GEOGRAPHY

SIMULATION-BASED TEACHING OF EFFECTIVE MANAGEMENT OF MEDICAL EMERGENCIES IN THE UNDERGRADUATE CURRICULUM

DR JENNIFER WELLER, DEPARTMENT OF GENERAL PRACTICE

THE DEVELOPMENT OF AN AUTHENTIC LEARNING TOOL AND ITS APPLICATIONS FOR ASSESSMENT IN MEDICAL EDUCATION

DR MARTYN WILLIAMSON, DEPARTMENT OF GENERAL PRACTICE

Students work through a series of carefully controlled clinical situations, produced to strict guidelines, which together simulate a general practice clinic. Information and advice may be accessed in ways typical of everyday clinical practice but not usually permitted in current high stakes assessments.

The desired outcomes are specified for each scenario. These are based on current evidence and are patient-centred and context-specific.

The proficiency of practice (the ease with which safe and effective outcomes are achieved) is assessed by measurement of time and resource use. This is a reflection of the relative usefulness of a clinician in a given clinical context.

An electronic database maintains the cases, student instructions, marking schedules and results.

Students describe a strong positive effect on their learning. It has since been adopted for postgraduate general

practice training.

Results suggest that students' proficiency increases with experience but experienced students may be less likely to seek advice, sometimes resulting in failure to achieve safe and effective outcomes.

A possible trend that sacrifices safe and effective outcomes for proficiency has significant implications for medical care and medical education.

INTERNATIONALISATION OF THE CURRICULUM GRANTS

HONOURS IN-COUNTRY LANGUAGE STUDY PROGRAMME

PROFESSOR JOHN DRUMMOND, SCHOOL OF LANGUAGES, LITERATURE AND PERFORMING ARTS

In 2004, University of Otago was the first New Zealand university to introduce one semester of in-country study to its 400-level languages programmes. For the first time, students of Chinese, French, German, Japanese and Spanish, are able to take language and culture classes to an advanced level in Europe, Asia and Latin America as part of their Otago Honours degree. Special academic and pastoral arrangements were needed in order to be able to provide, with confidence, a suite of suitable Honours-level papers and solid research supervision while our students are overseas. These agreements were negotiated by languages programme staff in visits to partner host universities. During 2003, visits were made to France (Lyon 3), Germany (Heidelberg) and Japan (Hirosaki, Ochanomizu and Tokyo).

INTERNATIONALISATION

ASSOCIATE PROFESSOR GRAHAM ELKIN, DEPARTMENT OF MANAGEMENT

PCCM CASE REPORTER**DR PATRICK FARRY, DEPARTMENT OF GENERAL PRACTICE**

To produce a secure web-based template for students to write up core cases while on rural attachments. The template to encourage the use of the "Patient Centred Clinical Method". Faculty development included. Students to receive formative feedback from faculty and peers online.

The second phase of the project was to have included an international trial involving the Universities of Sydney, Ontario and Flinders. But no grant was provided for this phase.

Our students and faculty at DSM find the system very useful.

CROSS CULTURAL PHYSIOTHERAPY REHABILITATION IN VIET NAM**MRS HILDA MULLIGAN, SCHOOL OF PHYSIOTHERAPY**

The aim of the project undertaken for this grant was to develop cross-cultural aspects of the physiotherapy curriculum, so that students have deeper understanding and appreciation of cultural aspects to health beliefs and attitudes. With this ability, they should be better prepared and able to provide a suitable service to patients from cultures other than their own.

Students from the class of 2003 helped prepare and adapt physiotherapy teaching material for use in Viet Nam. The grant enabled two senior students to accompany staff from the School of Physiotherapy on a teaching and working project in Viet Nam during 2003, to work with the local physiotherapists and physiotherapy students in Viet Nam. They learnt that health service delivery is linked to cultural beliefs and attitudes and that one cannot assume things on the basis of one's own cultural beliefs. They also experienced personal growth and enhanced leadership qualities by having this opportunity to explore personal values in a challenging situation.

On their return, the students created a learning package to facilitate understanding of the role of culture in health

beliefs. It consists of video clips, photographs, explanations and comparisons and worksheets for students in PHTY 327 (Community Physiotherapy).

As a result of this project, we have been able to develop a Memorandum of Understanding between the University of Otago and a New Zealand organisation that delivers health care aid to Viet Nam. This has enabled a number of students to experience clinical work exchange during 2004 in Viet Nam, including attending lectures and working with students at the Physiotherapy teaching institution in Ho Chi Minh City.

ASSESSING STUDENTS KNOWLEDGE OF HEALTH CARE NEEDS AND HEALTH SYSTEMS IN DEVELOPING COUNTRIES, AND DEVELOPING METHODS OF TEACHING IN THIS AREA
DR PAULINE NORRIS & MR DAVID WOODS, SCHOOL OF PHARMACY

This project assessed pharmacy students knowledge of health, pharmaceuticals and pharmacy in developing countries. Many pharmacy students at the University of Otago are from developing countries, and many students will spend at least some of their lives working in developing countries. The work lives and issues facing pharmacists in developing countries are often very different to those facing pharmacists in developed countries like NZ. Our survey found that most students were interested in learning more about healthcare in developing countries. They knew about some pharmaceutical issues in developing countries, but they tended to underestimate the extent of the health problems faced by those countries. The study team, and Aarti Patel, a new lecturer from South Africa are developing teaching materials for pharmacy students. Contacts made while developing country case studies have also led to opportunities for undergraduate pharmacy students to experience pharmacy and pharmacy practice research overseas.

INTERNATIONALISATION OF ON-LINE HAZARD PAPERS
PROFESSOR BRIAN ROBINSON, DEPARTMENT OF CHEMISTRY
DR WAYNE TEMPLE, DEPARTMENT OF PREVENTIVE AND SOCIAL MEDICINE

A new modular web course, HAZX411- Globally Harmonized Chemical Hazard Management- which deals with chemical hazard management from an international perspective, has been developed. Topics include an historical overview, how the globally harmonised system arose and what is its current status, chemical weapons of mass destruction and terrorism. Pedagogical, assessment and delivery methods have been devised to cope with what is a continually changing topic of international endeavour. A first-year knowledge of chemistry is assumed but the modular format allows for people who are not current students, or who have a broad rather than detailed chemical knowledge, to do the course. Important learning outcomes are the ability to critically analyse new international procedures and treaties dealing with chemical hazard management, to assess the impact on society and commerce and suggest remediation in contentious areas.