CREATING A COMMUNITY OF UNDERGRADUATE RESEARCH SCHOLARS

ISP Project Final Report

Project Team
- Prof. Angela Brew, Learning and Teaching Centre
- Mr Aron Downie, Department of Chiropractic, Faculty of Science
- Mr Ademir Hajdarpasic, Undergraduate student, Faculty of Arts
- Ms Lilia Mantai, Administrative assistant LTC and sessional teacher, Faculty of Arts
- Dr Penny Van Bergen, Department of Education, Faculty of Human Sciences.

Project Steering Group:
- Dr Trudy Ambler, Faculty of Arts
- A/Prof Judi Homewood, Faculty of Human Sciences and Macquarie Matrix
- Mr Brian Hurd, Manager, Coursework Scholarships and Prizes Unit
- Dr Mitch Parsell, Faculty of Human Sciences.

Summary of the project and project outcomes
The project aimed to begin a revolution in the way we think about higher education learning and teaching by inviting students untainted by tradition, to develop as a strong and vibrant community of scholars; a community that will provide a focus for undergraduate research activities on campus, carry out research on learning and teaching, and act as ambassadors for creative curriculum change.

Expected Outcomes:
1. Increased awareness and involvement of undergraduate students in research, specifically, research designed to enhance learning and teaching.
2. Greater involvement of undergraduates in the scholarly life of the university in a variety of ways.

ACHIEVEMENTS
The project promoted student and teaching staff scholarship by involving undergraduates in the design and implementation of original research projects. Undergraduate research internships were established for students to carry out research on aspects of learning and teaching. By encouraging undergraduates to devise, with faculty academics, projects of relevance to their particular departments, this project began to grow a community of undergraduate researchers with an interest in higher education learning and teaching. Five undergraduate research projects were completed involving seven students. Students were supervised and/or sponsored by departmental academics. In addition, each student worked in partnership with a member of the project team.

List of projects

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<th>Joel Evans</th>
<th>Mentoring across the Ages</th>
<th>Supervised by Dr Lea Beness, Department of Ancient History</th>
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Regular meetings of the scholar/ambassadors and the project team, individual meetings with their designated team member and monthly reporting of progress ensured that projects were kept on track, completed in a timely manner, and delivered the outcomes and fulfilled the objectives of the ISP. The scholar/ambassador undergraduates were actively encouraged to take a lead in becoming ambassadors for undergraduate research; thus becoming initiators and drivers of change in learning and teaching (see Appendix A).

**Other activities**
With the support of the project team, a group of undergraduates established the **Macquarie University Undergraduate Research Student Society** (MUURSS). The group consists of undergraduate students with a common interest to engage in research. Leading members of this group are Elizabeth Tran (Business and Economics/Arts), Emma Wu (Actuarial Studies), Kelera Butu-Levu (Business and Economics), Sumiya Sultan (Faculty of Sciences), Chi Quoc (Business and Economics) and Cevi Seto (Business and Economics), who were past volunteers from the first Australasian Conference for Undergraduate Research in 2012. New leading team members have just been recruited: Mara Hammerle (Business and Economics/Arts and ACUR presenter), Nava Mostajabi (Law/Business and Economics) and Cynthia Yuan (Law/Business and Economics). Students who had already participated in undergraduate research experience programs, Honours students and students participating in research in courses or who show interest are encouraged to join. MUURSS officially became an affiliated group at Macquarie University on the 19th of March 2013. As a Student Society they attract university resources for publicity and incidental expenditures. MUURSS aims to be a bridge between academics and students to collaborate in sharing and developing new found knowledge through the involvement of research. There are about 50 members.

The Society hosted several events including stalls at O-Week in Semesters 1 and 2, a Meet & Greet session and a barbeque for delegates during the **Second Australasian Conference of Undergraduate Research**. Many members also volunteered to help with the running of the conference. MUURSS displays information about events and activities in the undergraduate research display area in C5C courtyard. As Ambassadors for undergraduate research across
the university MUURSS provides a pressure group to lobby for changes to curricula, including undergraduate research experiences at the departmental level.

The Undergraduate Research Student Society together with the scholar/ambassadors and the project team provided the core organising team for the planning and running of the Second Australasian Conference of Undergraduate Research (ACUR) held on 19-20th September 2013.

Around 55 Undergraduate, Honours and Master of Research students from all over Australia and New Zealand presented their research at the conference, either as a spoken or a poster presentation. 150 visitors came to hear and be stimulated by the wide variety of presentations on offer each day. Research presented covered diverse topics ranging across all disciplines. The conference attracted some $7,000 in prize money this year. In presenting the prizes, Macquarie’s Vice-Chancellor Professor Bruce Dowton congratulated the organisers Angela Brew and Lilia Mantai on this “terrific initiative”.

The scholar/ambassadors who had carried out research on teaching and learning presented their findings at the conference and at Working Group meetings. One of the four $500 Travel Scholarships for students who have engaged in online education, (donated by the Faculty of Human Sciences, Macquarie University) was won by scholar/ambassador Dean Croxon, for his paper: “Fair Go with Web 2.0: Effective strategies for the democratisation of teaching and learning processes using Web 2.0 technologies”;

Daniel Gilbert another scholar/ambassador, was a runner-up to the prize for the best paper and received a Coop book voucher for his paper: “Student engagement or disengagement with research”.

Macquarie University library provided vouchers to the 40 volunteers without whom the conference would undoubtedly not have run as smoothly. The BBQ for all ACUR attendees was organised by MUURSS on the first conference day which was a welcome opportunity to socialise and network.

Feedback returned after the conference demonstrated again that students appreciated the opportunity of presenting their research, sharing ideas with others and making valuable connections at a conference like ACUR. For example, one student commented:

“I’d like to thank you so very much for organising the ACUR 2013 - I’m so glad to be able to come down to Macquarie University, learn about other people’s research, and mingle with like-minded peers.” (Australian National University student and ACUR presenter)

DESCRIPTION AND EVIDENCE OF HOW THE OUTCOMES HAVE BEEN DISSEMINATED

The scholar/ambassadors presented their projects at a meeting of the Undergraduate Research Working Group, and at the conclusion of their project each wrote a paper, all of which were presented at the Second Australasian Conference of Undergraduate Research.

It was the intention that the undergraduate scholars’ research would be published in international peer reviewed journals in Higher Education. However, due to the short time allowed for research, the necessity of obtaining ethics approval and the specificity of projects which in many cases were tied to specific units of study, it was decided that many of the individual projects were too limited in scope to constitute a peer reviewed article.
One scholar, Daniel Guilbert, has recently submitted an article based on his project to a well-regarded and peer-reviewed international teacher education journal. The project as a whole is also to be the subject of a journal article for one such publication, and work on this is ongoing.

In lieu of additional publications in peer reviewed journals in Higher Education by the student scholars, the ACUR Conference proceedings are featured on the undergraduate research website. As in 2012, the best papers are the subject of a special issue of the undergraduate research journal *Macquarie Matrix* to be published early in 2014. The papers by undergraduate scholar/ambassadors Dean Croxon and Joel Evans will feature in this publication. An article about the Undergraduate Research Student Society was published in *Undergraduate Research News Australia* (Issue 6), which was disseminated to 350 people on the mailing list for this publication. An article for publication in *The Conversation* was prepared by one of the scholar/ambassadors, but this was not published owing to an editorial policy that this publication does not include papers by students.

As stated above, the project team is keen to also publish the outcomes of the project. Experience shows that there is an inevitable time lag in doing this. For example, a publication in 2013 that focused on the work of undergraduate scholars was:


A poster outlining the project was presented at a meeting of the ISP project leaders, at Learning and Teaching Week in 2012, and at a national meeting of the Australian Learning and Teaching Fellows.

**THE POTENTIAL AND REALISED IMPACT OF THE PROJECT ON LEARNING AND TEACHING**

The project is part of a broader program of work designed to promote cultural shift in how departments think about and act in relation to undergraduate research. For example, the 2011-12 Priority Grant project: “The development of students’ awareness of, and engagement in, research” enabled the establishment of the Working Group. There are 32 academics and students in the Working Group who have demonstrated considerable interest in and progress towards engaging undergraduates in research and inquiry, and are working towards developing greater understanding of the different ways in which this can be done. The 2012-13 Competitive Grant project: “Stimulating strategic teaching and learning initiatives through enhanced familiarity with undergraduate research and inquiry” also enabled the Working Group to continue discussion about how undergraduate research and inquiry.

While further sponsorship for pedagogical projects has not directly been forthcoming, there is evidence that the existence of the project has encouraged the setting up of further schemes. For example, the opportunity for subsequent ISP projects to include an undergraduate researcher; ten new undergraduate research opportunities in the Merit
Scholar Program, and the growth of various departmental schemes; and the equity scholarships. We do not claim that these have grown as a direct result of this ISP project: however, there is some evidence that the cultural shift is happening.

Although the funding has ceased the Working Group have expressed a desire to continue to meet into 2014. Further pedagogical projects and the involvement of these and other staff in reviewing papers the Australasian Conference of Undergraduate Research is creating a self-sustaining momentum which will continue into 2014 and beyond. Further, the research carried out by the undergraduate scholar/ambassadors has benefitted the participating departments through the involvement of academics in those departments in critically reflecting on aspects of teaching and learning. Interviews with academics are being carried out as part of another project and these demonstrate considerable use of and interest in undergraduate research across departments both within the curriculum and in special scholarship or internship programs.

The ongoing sustainability of the project is dependent on the activity and involvement of undergraduate students demanding research and inquiry opportunities in their departments and courses. There is evidence that the Student Ambassadors have been raising issues in departments and disseminating ideas amongst the student population. For example, some undergraduate scholars have been invited to present to peers in lectures about their experiences. The undergraduate student society has encouraged undergraduate research through events including its stall at O-Week. Evidence of the spread of interest in undergraduate research is provided by the numbers of students who have volunteered to help with the conference. In 2012 there were 50 volunteers and in 2013, there were 160!

An indication of the interest of students in undergraduate research within the university has been demonstrated by high attendance at the two previous Australasian Conferences of Undergraduate research. Through an OLT Seed grant we are now working to ensure the sustainability of these conferences. The intention is that the conference, which will be run in other universities in future, will become an annual event. The 2014 conference will be held in the ANU in September. It should be noted that each of the students who submit an abstract is supported by a named academic supervisor in their university. There is evidence that supervisors are using the conference as an assessment strategy for particular units of study where there is an inquiry component. The support of these supervisors as well as institutional leaders is currently being canvassed for future events through the work of the SEED grant Steering Group.

Angela Brew
Aron Downie
Lilia Mantai
Penny Van Bergan

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