

Enhancing Undergraduate Engagement through research and inquiry

New South Wales and ACT Regional Roundtable
23rd September 2009




Aim of the Fellowship

To enhance student engagement in learning through supporting the development in Australia of undergraduate research and inquiry



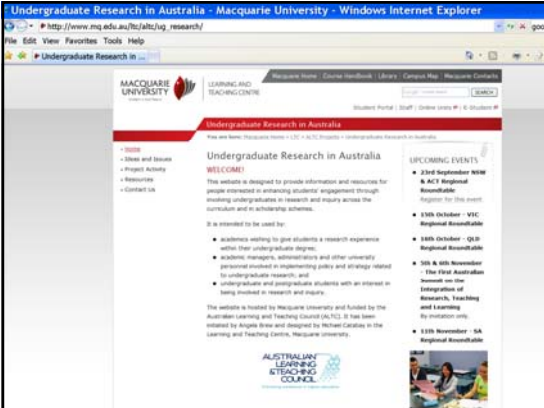

How to identify national needs

- ⊗ Study tours
- ⊗ National documents
- ⊗ Undergraduate research
- ⊗ Key personnel






Intended outcomes

- ⊗ Identify national needs
- ⊗ Enhance debates concerning engagement of undergraduate students in research and inquiry
- ⊗ Establish a set of readily available resources and protocols to bridge gaps between current and future practice
- ⊗ Disseminate these through a [website](#) and discussions
- ⊗ Provide the foundation for the establishment of a national centre for the integration of research, teaching and learning

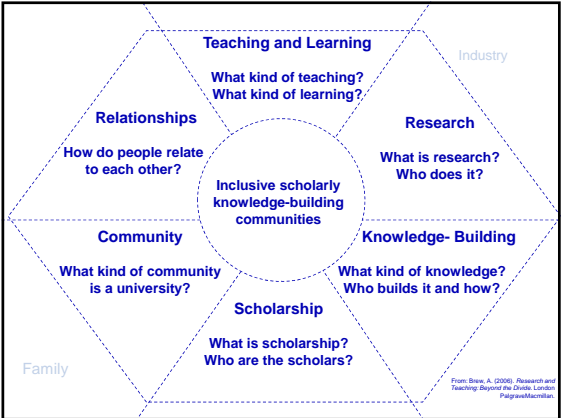



Program

- ⊗ Conversations
- ⊗ Showcase examples
- ⊗ Artifacts, resources, protocols

- ### Some issues from regional roundtables
- ⊗ Put undergraduate research as a key item on an upcoming faculty retreat (accounting, chemistry)/ heads of school retreat
 - ⊗ Use the RSD framework to have a conversation with colleagues
 - ⊗ Write a paper for the university teaching and learning committee
 - ⊗ Include poster session in a get together at the end of a course and invite outsiders
 - ⊗ Have a debate in the classroom which students have to research for
 - ⊗ Library staff to invite undergraduate scholars to present at their retreat
 - ⊗ Library staff to suggest research to students in drop-in sessions
 - ⊗ Research students' views



- ### Outline
- ⊗ Why engage undergraduates in research and inquiry?
 - ⊗ Practical implications
 - ⊗ How to move this undergraduate research agenda forward
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Definition of undergraduate research and inquiry

“An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline.”
 (Beckman & Hensel, 2007)




Definition of undergraduate research and inquiry

“[An] inquiry or investigation or a research-based activity conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline and/or to understanding.”
 (following Beckman & Hensel, 2007)




Integrating research and teaching to enhance student engagement

- ⊕ Positive impact on retention and satisfaction
- ⊕ Students learn what research is and how to do it
- ⊕ They develop a sense of professional identity
- ⊕ Increases in self confidence
- ⊕ Develops of advanced technical skills, problem solving, creative thinking and communication skills e. g. giving presentations
- ⊕ Develops independent work habits
- ⊕ Enhances teamwork and collaboration
- ⊕ Ability to deal with ambiguity and obstacles
- ⊕ Clarifies career goals



National documents

- ⊕ "Public funding should be directed only to those institutions that: encourage both students and staff to engage in critical enquiry...." (Bradley Review Report page 7)
- ⊕ "Self-fulfilment, personal development and the pursuit of knowledge as an end in itself; the provision of skills of critical analysis and independent thought to support full participation in a civil society; the preparation of leaders for diverse, global environments; and support for a highly productive and professional labour force should be key features of Australian higher education." (Transforming Australia's Higher Education System)

What the AUSSE measures...

- ⊕ Six engagement-focused scales
 - Academic Challenge
 - Active Learning
 - Student and Staff Interactions
 - Enriching Educational Experiences
 - Supportive Learning Environment
 - Work Integrated Learning
- ⊕ Six outcomes-focused measures
 - Higher-order Thinking
 - General Learning Outcomes
 - General Development Outcomes
 - Average Overall Grade
 - Retention Intention
 - Overall Satisfaction



High impact educational practices

(Kuh, 2008)

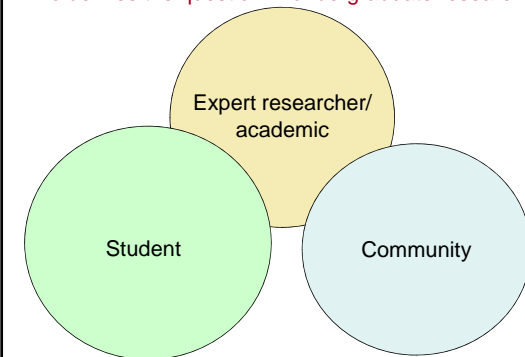
1. First year seminars and experiences
2. Common intellectual experiences
3. Learning communities
4. Writing-intensive courses
5. Collaborative assignments and projects
6. Undergraduate research
7. Diversity/global learning
8. Service learning, community-based learning
9. Internships
10. Capstone courses and projects



Tensions in implementing undergraduate research and inquiry

Student, process centered	↔	Outcome, product centered
Student initiated	↔	Faculty initiated
Honors students	↔	All students
Curriculum based	↔	Co-curricular
Collaborative	↔	Individual
Original to student	↔	Original to discipline
Interdisciplinary	↔	Discipline based
Campus/community audience	↔	Professional audience

Who defines the question in undergraduate research?



Research in the curriculum can be carried out

1. Assignments and tutorials within specific subjects
2. Whole courses or programs, for example across year levels
3. At whole of degree level e.g. PBL, IBL

What needs to change?

- ⊗ Course organisation structures: from individuals to course teams
- ⊗ Module flexibility
- ⊗ Vertical integration
- ⊗ Ideas about research and who is capable of doing it
- ⊗ Teaching spaces

Concluding key issues

- ⊗ Importance of undergraduate research as a beginning preparation for research careers
- ⊗ “The path I am setting out...raises the expectations we have of our young people and their parents and of our great institutions. It asks them to be bolder and more ambitious in what can and should be achieved” (Hon Julia Gillard MP 4th March 2009)



Brew, A., & Sachs, J. (Eds.). (2007). *Transforming a University: The scholarship of teaching and learning in practice*. Sydney: Sydney University Press.



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Further information

http://www.mq.edu.au/lrc/altc/ug_research

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