**Going URB@N: exploring the impact of undergraduate students as pedagogic researchers**

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**Abstract**

This paper reports on the impact for students of an institutional scheme designed to involve undergraduate students in pedagogic research. Through URB@N (Undergraduate Research Bursaries at Northampton), students are funded to work as researchers on pedagogic projects in partnership with academic staff. Drawing on data from a larger longitudinal mixed method study, we report findings which demonstrate the positive impact of the scheme for undergraduate learners in terms of new relationships with academic staff; enhanced research skills and career development, thus making a valuable contribution to the enhancement of the student experience. We argue that facilitating undergraduate involvement in pedagogic research enhances both a commitment to, and an engagement with, the scholarship of teaching and learning across an institution, and thus contributes to a growing community of pedagogic practice centred on the student voice.

**Keywords:** pedagogic research; undergraduate research; scholarship; linking research and teaching; research-teaching nexus; research bursaries; student experience; employability

**Introduction**

Higher education in the UK is undergoing unprecedented change. Universities are under increasing pressure to compete for students, and distinguish themselves from other providers in a more ‘open’ educational market. Given that the research agenda of most universities is commonly seen as making university education unique when compared to other teaching-only establishments (Elsen, Visser-Wijnveen & van der Rijst, 2009), finding effective ways of integrating research and teaching for the benefit of students could enable universities to provide an enhanced offer in comparison to their competitors. This issue is especially pressing if, as Buckley (2011) argues, undergraduates have only a limited involvement in the research process.

In this article, we report on an innovative institutional approach to strengthen research and teaching relationships. Undergraduate Research Bursaries at Northampton (URB@N) not only provides potential for an enriched student experience through the development of new skills and techniques, but also (as reported separately) stimulates staff engagement in pedagogic matters, develops the scholarship of teaching and boosts research activity in the institution. Through reflecting on our experience of running URB@N and drawing on evidence generated from student and staff feedback to show impact of the scheme for students, we offer a model of engaging undergraduates in pedagogic research which can be adapted in other institutions as a way of strengthening research-teaching links.

***The value to undergraduates of linking teaching and research***

The literature suggests students value learning in a research environment (Jenkins, 2004) and report frustration if they feel ‘excluded’ from research communities (Robertson & Blackler, 2006; Zamorski, 2002). Learning about research tools and techniques can enable students to develop a range of transferable skills – providing them with valuable employability and progression opportunities (Blackmore & Cousin, 2003).Additionally, being taught in an active research setting is invigorating, and can develop students’ understanding of the tangibility of knowledge (Healey & Jenkins, 2006). Students can also contribute to research knowledge by engaging in critical debates and offering different perspectives (Robertson, 2007; Coate, Barnett & Williams, 2001). Indeed, many academics and students themselves report that there should be a research-teaching ‘nexus’ (Henkel, 2004), and resisting such an integration has been argued to result in a “deterioration of university education” (McLean & Barker, 2004, p417).

However, debates surrounding research-teaching relationships are complex (Schapper & Mayson, 2010) and linking them in an effective manner requires much work and careful thought (Jenkins, Healey & Zetter, 2007).

***Establishing common ground between teaching and research***

One way of resolving the ‘conceptual isolation’ between teaching and other arenas of academic activity is through developing the scholarship of teaching (Weston & McAlpine, 2001). Scholarly teaching involves “engagement with research into teaching and learning, critical reflection of practice, and communication and dissemination about the practice of one’s subject,” (Healey, 2000, p173). The enrichment of the student experience is the core agenda; and through this endeavour bridges are built between staff and students; students are the main ‘subject matter’ and there is mutual value to both staff and students from the knowledge that is produced through scholarly activity (Kreber, 2007).

Teaching and research are ‘mutually enriching’ (Robertson, 2007, p551) by their joint goal of discovering and creating knowledge; making sense of and debating ideas and asking probing questions. Therefore, in their quest for knowledge, researchers and students engage in analogous activities involving a collaborative venture through a process of inquiry (Brew, 1999). They share a focus on *learning* where “an individual - teacher, researcher, student, learner - comes to know” (Brew & Boud, 1995, p268). If learning is a component bringing teaching and research together, then an important aspect of strengthening the research-teaching nexus would be to provide students with the opportunity to engage in research-like activities (Brew, 1999).

It seems therefore that the root of nurturing more effective research-teaching relationships is focussing on learning and scholarship in a manner that benefits students and staff alike. In order to achieve this, both staff and students should be regarded as ‘learners’ engaging in a process of knowledge construction; the student experience should be central; and the curriculum should provide chances for students to participate in research activities. It is these three contentions which formed the basis for the development of URB@N.

***Strengthening research-teaching relationships***

The need to establish strong teaching-research links is especially pertinent in the undergraduate curriculum. Healey (2005) plotted the various ways in which teaching and research can be integrated on two axes based on:

1. the extent to which students are an audience to research knowledge *or* active participants in research
2. the extent to which the emphasis of the curriculum is on transmitting research content *or* understanding research processes and working through research problems (Healey, 2005, amended by Healey & Jenkins, 2009 p7).

The result of this categorisation is four distinct forms of student ‘involvement’ in research (adapted from Healey & Jenkins, 2009, p6):

1. Research-led: students learning about current research in the discipline by tutors imparting the latest research findings in a particular field during taught classes
2. Research-oriented: developing research skills and techniques through research methods classes and activities
3. Research-based: undertaking research and inquiry by carrying out empirical research work or engaging in problem-based activities
4. Research-tutored: engaging in research discussions such as academic debates with tutors and/or critiquing theories and papers

Whilst all four of these modes are beneficial for students and should be represented in the curriculum, Healey and Jenkins (2009) argue that institutions focus too much on 1 and 2, and neglect 3 and 4. Whilst the undergraduate dissertation is a common manifestation of 3, there is growing interest in exploring alternative models of student research through creative honours and capstone projects (e.g. see National Teaching Fellowship Scheme Project, 2010).

One approach is to involve students in collaborative work with their lecturers so they gain firsthand experience of ‘live’ research (Garde-Hansen & Calvert, 2007). For example, undergraduate bursary schemes where students undertake supervised research are becoming commonplace internationally. In the UK, the Nuffield Foundation and Wellcome Trust offer funding for student research in science-based disciplines, and several institutions run bursary schemes (e.g. URSS at the University of Warwick, UK; UROP at Stanford and Massachusetts Institute of Technology, US - Neary & Winn, 2009). Such schemes integrate disciplinary research and teaching by adopting a version of Healey and Jenkins’ (2009) ‘research-based’ curriculum where students are actively engaged in empirical work. A key feature of such schemes however is their primary focus on disciplinary research.

In Griffiths’ (2004) proposition about the multiple ways in which teaching-research links can be manifested, he raises the ‘research-informed’ approach whereby the curriculum is designed and reviewed on the basis of research into teaching and learning. This draws on pedagogical rather than discipline-based research (Elsen et al, 2009) - running parallel with earlier discussions about the scholarship of teaching. Pedagogic research is traditionally positioned as a teacher activity – with student participants providing ‘data’ to their lecturers about the teaching and learning environment. However, McKinney (2006) argues there is a need to form new relationships with students as co-researchers rather than passive participants, providing more ownership over knowledge, thus improving learning.

Including students more actively in research on teaching and learning is receiving increased interest internationally. For example, Dunne and Zanstra (2011) reported on a project at the University of Exeter where students conducted pedagogic research enabling them to make an active contribution to their institution as ‘change agents’. Similarly, the University of Western Australia operate an internship scheme where students are funded to undertake research into teaching and learning (Partridge & Sandover, 2010). Such examples provide a re-conceptualised notion of the ‘student voice’ where students become active drivers of change and co-creators of knowledge about pedagogic matters that have direct impact on their learning (Bovill et al, 2011).

Within this context, we present URB@N as one approach to integrating research and teaching, with students engaged in pedagogic research as active collaborators with staff. Students have the opportunity to contribute to knowledge construction, impacting directly on their university experience. We postulate that URB@N offers students a range of benefits arising from strengthening research-teaching links, and promotes and supports the scholarship of teaching.

***Undergraduate Research Bursaries at Northampton (URB@N)***

The University of Northampton (UoN) is a new university set in the east midlands region of England. With approximately 14,000 current students, it is a middle-sized institution compared to others in the UK. Three of its six academic Schools serve a predominantly vocational clientele, many of whose teaching staff are appointed for their professional expertise. Student experience is at the heart of its core business, and with a strong widening participation agenda and active community links, the university caters for diverse student groups through a key mission to provide a transformational learning opportunity for all.

URB@N was initiated in 2009 by a group of pedagogic researchers at Northampton to involve selected students in pedagogic research, providing a bursary for them to work as paid researchers alongside members of staff (project supervisors). The scheme initially invites academic staff to propose a pedagogic project idea which they are keen to supervise. The projects relate to the student experience and/or learning and teaching matters and should potentially inform academic practice at an individual, departmental or institutional level. Proposers outline the role the bursary student would have; what support would be offered to the student; and what the intended outcomes would be (both for the project and the student researcher). The proposals are reviewed independently, with consideration of cross-institutional representation.

Selected projects are advertised to undergraduates at all stages of their degrees. Applicants describe why they want to research their chosen project; their contribution in terms of current skills and previous experience; and potential benefits in personal and career development. Applications are reviewed by coordinators and potential supervisors, and then successful students meet with their supervisors to identify roles and responsibilities and agree timescales and outcomes. Subsequently, progress is monitored in regular meetings, with guidance offered where needed.

The URB@N role is intended to equate to approximately 50 hours meaningful research activity. On successful completion of the project, students receive a £500 bursary, recognising their contribution. Students present academic posters reporting research findings at the annual learning and teaching conference in the Summer. In 2009, 3 projects were run with 4 URB@N students as a small-scale pilot; in 2010 this increased to 8 projects with 9 URB@N students and in 2011 to 13 projects with 16 URB@N students.

**Methodology to explore impact**

Situating our study within a ‘research-based’ learning model of undergraduate engagement in research and inquiry (Healey and Jenkins, 2009), we have explored the impact of URB@N on undergraduate students’ experience of conducting pedagogic research; of acquiring the skills of a nascent researcher; and of working with an academic research leader. We designed a longitudinal mixed method study involving three action learning cycles, each evaluated iteratively annually. The action research cycles were participatory, in that we were exploring practical problems with students and colleagues in order to increase knowledge, share skills and experiences and challenge current mind sets (Carr & Kemmis, 1986).

Initially, a range of qualitative data was gathered during and at the end of the 2009 pilot year. Students were asked to write a guided but flexible reflective account of their experience of URB@N when they had completed their projects. Reflective feedback elicited by the researchers from project leaders generated practical perspectives on the impact of the scheme. Supervisors also received informal oral feedback from students about their experience, and shared experiences with each other in collaborative meetings.

For the second iterative cycle of URB@N (2010), we built in modifications and enhancements to the scheme which arose from analysis of the pilot year evaluations. Oral and written feedback was again collected from project leaders and students.

In the third cycle (2011), we accessed qualitative data from a greater range of staff and students. We also issued e-surveys to academic project leaders and URB@N students to elicit responses to a range of closed and open questions, investigating impact in terms of quality of the student experience, employability skills and progression, as well as institutional learning.

Data across the three cycles was analysed in two stages. Each researcher independently identified broad themes, and the researchers then collaborated to compare findings and establish shared categories of impact in a more inductive way. The data presented here reflects the themes identified relating specifically to student impact.

**Findings: evidence of impact for students**

Following analysis of three years of data on the impact of URB@N, we report a credible expansion of scholarly activity by staff and undergraduates. Every student feedback questionnaire we received reported that URB@N was a positive experience. One example, illustrating a perception shared by many others, noted:

*“Overall, I think this was a great opportunity and am proud that my university offers this type of experience and that I was given this unique opportunity.”*

 Across the data, four distinct and key impacts on the student experience were identified:

1. ***Research insight and skills***

URB@N students reported new insights into understanding how research is undertaken. They reported enjoying the crucially important negotiation and collaboration in a research team, thus learning, at a deep level, that research had its own social system. They also appreciated being given responsibility to work autonomously, resulting in a tangible impact on preparedness for advanced study:

*“I have had the wonderful experience to look at university life from a different side, and I have really enjoyed that. I have seen the amount of work it takes to do a piece of research and I feel much more confident in my skills to do this. I know this project has assisted me immensely and prepared me for my dissertation in Year 3 ...”* (Student)

As an example of experiential learning, URB@N provided students with an empowered insight into the challenges of conducting pedagogic research. Such active participation not only enabled students to understand more about the process and complexity of research, but also gave them valuable ‘hands-on’ experience – fostering the development of a range of generic and specialised research skills. Across the range of projects, undergraduates reported gaining confidence and competence in a wide range of methodological approaches. For example, a number ran focus groups with their peers:

*“It was my first experience of running a focus group. (Supervisor) prepared us exceptionally well for this with readings and questions regarding things we should bear in mind about both the purpose of what we were doing and our role within it...the readings we did...and the subsequent questions helped to clarify aspects of the interview process such as the importance of building a rapport with the respondent.”* (Student)

Others conducted face-to-face, one-on-one interviews with peers:

*“I feel that I have learnt a lot of how research is conducted and how people will react to the sorts of things you ask them. I have learnt to be quite specific with my questions and ask around the area in order to get the most information from my participant.”* (Student)

Others were supported to carry out library searches, negotiate access to research informants and analyse data:

*“In terms of skills, the project has taught me: 1) how to manage a big project (i.e. time-management and staying on target); 2) how to conduct good interviews and focus groups; 3) it has sharpened my team skills; and 4) my abilities...have been improved as well, particularly in term of analysing and interpreting qualitative data.”* (Student)

As well as experiencing the ‘nuts and bolts’ of data collection and analysis, every URB@N student encountered research issues including developing ethics agreements, and led on dissemination, including designing academic posters and presenting findings in workshops:

*“I have found that the...work needed for actual research compared to that of research methods in class is much higher and therefore gave me extra knowledge about what it was like to ‘do it for real’.”* (Student)

URB@N students reported these skills were additions to or extensions of those they gained from their degrees. Impact on their academic progress was explicit:

*“I have learnt so much from even this small amount of time working on the URB@N project. After having previously been taught many of the skills involved in research during my actual degree study this allowed me to put that classroom learnt information in to practice, reinforcing what I have been taught and teaching me new and different ways to approach situations that are often not thought about in class.”* (Student)

It was clear from a range of comments that URB@N students regarded the scheme as ‘adding value’ to their undergraduate experience, providing opportunities to develop and hone skills which were described and alluded to, but not practised in their degrees. We argue this dimension, of engaging students in research through a model of co-enquiry, rather than through supervised independent study as in a dissertation, prompted new and authentic learning about research.

1. ***Commitment to enhancing the student experience***

In terms of facilitating undergraduates’ proactive participation in their own institution (student voice being a key criteria in many Learning and Teaching funding calls), students reported enjoying being supported to develop a research-informed voice. One URB@N student who undertook research into the experience of learners who are parents commented:

*“I think this information is vital for the university. Student parents are within the university and they need to have a voice. This research....show(s) that they are here and begin(s) to open people’s eyes to them. I have already been pushing this information across the university and I have generated a huge amount of interest.”* (Student)

This was one amongst a number of examples of students who saw evidence that their URB@N projects had contributed to improving learning for future cohorts (in this case founding a ‘Students as Parents’ group in the Student Union). This met a strong desire on their part – demonstrated by their sustained commitment to remain involved in the research even after the official scheme had concluded. For example, several students continued to work with their supervisors on dissemination activities including presenting at national conferences and contributing to the writing of academic articles.

Many supervisors were struck by how enthusiastic the students were to explore a particular research topic and find answers to the questions posed – even if this meant moving into different disciplinary territories. For example, while some pedagogic projects were located within a shared disciplinary interest (for example a History lecturer supervised a History undergraduate to research the link between preparatory reading and seminar engagement in BA History), URB@N matched students to projects through pedagogic interests rather than necessary discipline overlap. As a result, some students worked with staff outside their subject area, and researched with peers studying on other courses (for example, a marketing student worked on a funded project on inclusive approaches to assessment with one of the authors, gaining critical access to hard-to reach ‘at risk of failing’ students through a shared BME background). The impact was reported as positive, with ideas and approaches shared and taken for granted assumptions questioned.

This suggests the effectiveness of a model of co-curricular inquiry for undergraduates: through engagement in pedagogic scholarship that enhances the experiences of peers, in comparison to models which integrate research directly into the curriculum.

1. ***Reconceptualised relationships with academic staff***

The close one-on-one collaborative relationship with a supervisor, framed around a discourse of conducting and analysing pedagogic research, contributed to the development of a more collegial partnership between undergraduates and academic staff:

*“They were always happy to listen to my suggestions and take everything I said on board. I was worried because I had much less academic knowledge than them...but they were amazing. I really felt like part of a team.”* (Student)

Students reported a crucial impact of URB@N was a breaking down of pre-existing hierarchical relationships based on perceived ‘power’:

*“I...didn’t think I would be as involved as I was. We were given our research area and then asked to design, conduct and write up the entire project if we wanted to. Being given the freedom to work...was vital to the success of the project.”* (Student)

This suggests an effective approach, encouraging both collegiality and learner independence, with undergraduates supported but challenged to undertake an authentic pedagogic research task. Crucially, because the research was not conducted as part of their assessed work, students found a ‘free space’ in which to negotiate a new learning relationship with an academic, to the benefit of both. This suggests URB@N addresses McKinney’s (2006) claim about the need for students to be involved as co-researchers in scholarship work, and is effective because students are engaged in a mutual investigation of a pedagogic question, rather than researching the ‘expert’s’ discipline.

1. ***Career development***

At a time of student anxiety about graduate unemployment in the UK, the impact of URB@N on undergraduates’ CVs and their employability profile was significant. As one supervisor commented:

 *“The students gained so much from the scheme – as well as the...skills they developed they also increased their enthusiasm for research (and dare I say it statistics!) I think for (named student) who will enter her third year this year the experience was invaluable for her dissertation. Additionally in such a competitive climate this will look good on their CVs.”* (Supervisor)

Students utilised URB@N supervisors as referees for employment and postgraduate study, recognising the authentic engagement in research they had experienced.

*“This scheme has been great for my longer term career plans in distinct ways: being able to say to potential employers and university departments...that I have been able to work with academics within the area in which I will focus my career on a research project allows them to see that not only have I then had the experience of conducting research on that level but I have the experience of working with staff...gaining valuable knowledge on what research...as a whole involves...the project has helped me with my longer term goals by reinforcing the idea that psychology is certainly the area I wish to go into...”* (Student)

URB@N was perceived as offering a credible experience of authentic pedagogic research, one in which collaboration with an academic offered an innovative and powerful demonstration of undergraduate commitment to research. The enhanced self-belief in their academic abilities which students gained through URB@N aspired some to progress on to postgraduate study. Their self-concept as proto-academics was enlivened, with examples from across our three year cohort of applications for postgraduate courses from students who had not previously perceived themselves to be part either of a research culture, or a community of practice of pedagogic researchers.

**Conclusion**

The impact data illustrates URB@N has been a powerful learning experience for the students who participated in it. The scheme provides a model for reconceptualised relationships with students - narrowing the teacher-student divide and moving towards a collegiate model of ‘co-learning’ with encouraging results. We were struck by how thoughtfully students were able to reflect on their own learning and recognise the value obtained from their ‘hands on’ experience of conducting pedagogic research in partnership with staff. Students articulated both tangible and intangible benefits from their learning and participation in the scheme and demonstrated awareness of how this contributed to their personal and career development on a larger scale. Alongside this, they showed strong allegiance to improving the student experience by wanting to share their findings and contribute to enhancing the learning and teaching environment for current and future learners.

In the UK, universities are driven to embed a range of indicators of the student learning experience and academic staff are encouraged to develop their scholarship, improve their supervisory skills and build effective working relationships with students. Such drivers reflect prioritised accountability measures such as the Research Excellence Framework (REF) and National Student Survey (NSS), as well as imminent changes in HE funding structures. At a time of such volatility in UK HE, when all universities are seeking efficient ways to enhance the undergraduate experience, we argue URB@N is an innovation that, from its deliberately small beginnings, has offered a value-for-money contribution to the enhancement agenda, raising student aspirations in terms of progression and employability, and offering a new model of academic relationships through collaborative pedagogic research.

In exploring the potential of this scheme for institutional transferability, we argue that it presents one way of re-energizing scholarly interest in pedagogic matters and has the potential to facilitate cultural change in institutions in which scholarly research is encouraged. While URB@N has the potential to impact the sector in a number of ways, we suggest that the impact on undergraduate students is powerful:

* By giving undergraduates the confidence to contribute to, and thus enliven, academic debates around research.
* To remodel the research-teaching nexus, providing a new conceptualisation of the relationship between teaching and research.
* To enable undergraduate students to become co-constructors of knowledge, as active participants in research, as authors rather than just passive consumers (McKinney, 2006).

**References**

Blackmore, P. & Cousin, G. (2003). Linking teaching and research through research-based learning. *Educational Developments, 4(4),* 24-27.

Bovill, C., Cook-Sather, A. & Felten, P. (2011). Students as co-creators of teaching approaches, course design, and curricula: implications for academic developers. *International Journal for Academic Development, 16(2),* 133-145.

Brew, A. & Boud, D. (1995). Teaching and research: Establishing the vital link with learning. *Higher Education, 29,* 261-273.

Brew, A. (1999). Research and teaching: changing relationships in a changing context. *Studies in Higher Education, 24(3),* 291-301.

Buckley, C.A. (2011). Student and staff perceptions of the research-teaching nexus. *Innovations in Education and Teaching International, 48(3),* 313-322.

Carr, W & Kemmis, S (1986). *Being critical: Education, knowledge and action research*. London: The Falmer Press

Coate, K., Barnett, R. & Williams, G. (2001). Relationships between teaching and research in higher education in England. *Higher Education Quarterly, 55(2),* 158-174.

Dunne, E. & Zandstra, R. (2011). *Students as Change Agents: New ways of engaging with learning and teaching in Higher Education*. Bristol: A joint University of Exeter/ESCalate/Higher Education Academy Publication. Available from: <http://escalate.ac.uk/8064>

Elsen, M., Visser-Wijnveen, G.J., van der Rijst, R.M. (2009). How to strengthen the connection between research and teaching in undergraduate university education. *Higher Education Quarterly, 63(1),* 64-85.

Garde-Hansen, J. & Calvert, B. (2007). Developing a research culture in the undergraduate curriculum. *Active Learning in Higher Education, 8(2),* 105-116.

Griffiths, R. (2004). Knowledge production and the research-teaching nexus: the case of the built environment disciplines. *Studies in Higher Education, 29(6),* 709-726.

Healey, M. (2000). Developing the scholarship of teaching in higher education: a discipline-based approach. *Higher Education Research & Development, 19(2),* 169-189.

Healey, M. (2005). Linking research and teaching: exploring disciplinary spaces and the role of inquiry-based learning. In R. Barnett (Ed.). *Reshaping the University: New Relationships between Research, Scholarship and Teaching* (pp 67-78). McGraw Hill/Open University Press.

Healey, M. & Jenkins, A. (2006). Strengthening the teaching-research linkage in undergraduate courses and programs. *New Directions for Teaching and Learning, 107,* 45-55.

Healey, M. & Jenkins, A. (2009). *Developing undergraduate research and inquiry.* The Higher Education Academy.

Henkel, M. (2004). Teaching and Research: the Idea of a Nexus. *Higher Education Management and Policy, 16(2),* 19-30.

Jenkins, A. (2004). *A guide to the research evidence on teaching-research relations.* Higher Education Academy.

Jenkins, A., Healey, M. & Zetter, R. (2007). *Linking teaching and research in disciplines and departments.* Higher Education Academy.

Kreber, C. (2007). What’s it really about? The scholarship of teaching and learning as authentic practice. *International Journal of the Scholarship of Teaching and Learning, 1(1),* 1-4.

McKinney, K. (2006). Attitudinal and structural factors contributing to challenges in the work of the scholarship of teaching and learning. *New Directions for Institutional Research, 129,* 37-50.

McLean, M. & Barker, H. (2004). Students making progress and the ‘research-teaching nexus’ debate. *Teaching in Higher Education, 9(4),* 407-419.

National Teaching Fellowship Scheme Projects (2010). *Rethinking Final Year Projects and Dissertations: Creative Honours and Capstone Projects.* University of Gloucestershire. Retrieved from: <http://www.heacademy.ac.uk/projects/detail/ntfs/ntfsproject_Gloucestershire10>

Neary, M. & Winn, J. (2009). Student as producer: reinventing the Undergraduate curriculum. In M Neary, H. Stevenson & L. Bell (Eds.) (2009). *The Future of Higher Education: Policy, Pedagogy and the Student Experience* (pp 192-210). London: Continuum

Partridge, L & Sandover, S. (2010). Beyond ‘listening’ to the student voice: the

Undergraduate researcher’s contribution to the enhancement of teaching and learning. *Journal of University Teaching & Learning Practice, 7(2).* Available from: <http://ro.uow.edu.au/jutlp/vol7/iss2/4/>

Robertson, J. & Blackler, G. (2006). Students’ experiences of learning in a research environment. *Higher Education Research & Development, 25(3),* 215-229.

Robertson, J. (2007). Beyond the ‘research/teaching nexus’: exploring the complexity of academic experience. *Studies in Higher Education, 32(5),* 541-556.

Schapper, J. & Mayson, S.E. (2010). Research-led teaching: moving from a fractured engagement to a marriage of convenience. *Higher Education Research & Development, 29(6),* 641-651.

Weston, C.B. & McAlpine, L. (2001). Making explicit the development toward the scholarship of teaching. *New Directions for Teaching and Learning, 86,* 89-97.

Zamorski, B. (2002). What do students think about research? *Exchange, 3,* 21-22.