

---

## Geoverse: piloting a National e-journal of undergraduate research in Geography

Dr. Helen Walkington, Oxford Brookes University

### Abstract

This article argues that there is a gap in the research cycle / research process as experienced by undergraduate geography students. In response to this, a national undergraduate research e-Journal of geography called Geoverse has been established and has been piloted initially across four universities. This article outlines the justification for the journal and briefly describes how it functions across diverse institutions. Early research findings are reported from two student groups. The motivations of postgraduate student reviewers (the Editorial Advisory Board) for involvement in the project include the desire to gain experience of the publication process and to feel part of the wider geography academic community. For the students who have written journal articles, the benefits which they reported included a sense of achievement, enhanced writing skills, the 'coming together' of knowledge and development of critical skills. Key decisions in the process of creating the journal are discussed and the way in which it has the potential to stimulate curriculum innovation is reported.

### Introduction

This article traces the development of an electronic journal (e-journal) for undergraduate researchers in Geography. It was established in an attempt to address the gap in the research cycle which can form part of the student experience in degree programmes which culminate in a dissertation or research project in the final year of study. The research cycle as experienced by academic researchers is complete because when data has been analysed and results shared through publication a process of peer review provides feedback to the researcher who is able to make modifications to the work before it goes into print and the comments received, and the findings themselves, may spark further research questions. The student experience of research at undergraduate level is significantly different. Once the dissertation or final project is submitted it may be read only by a marker and supervisor and the summative feedback may be of limited value for the student about to graduate. The findings are often forgotten and rarely developed further.

The opportunity to broaden the audience for their research through publication and to complete the research cycle is attractive for undergraduates. Writing for publication is also an important transferable skill which can enhance employability. Students are required to adopt a more concise style and to distil significant findings for a broader audience. When students receive feedback from an audience outside their own institution, it gives a sense of 'real world' publication experience.

The development of a research journal begs the question 'What counts as undergraduate research?' The publishing gap in the research cycle is most noticeable in relation to the dissertation, but clearly undergraduate research can be much more broadly defined to include experiences such as developing research questions, reviewing literature, writing an argument, developing a project design, analysing and interpreting data and reporting findings. It is likely that all undergraduate geography courses offer these experiences in some form or other, but perhaps separated into discrete learning outcomes in different modules across a programme. These diverse experiences are usually brought together at the end of the final year as a project or dissertation, what the Boyer Commission (1998) refers to as a 'cap-stone' experience.

### Linking Teaching and Research – The undergraduate experience

Linking teaching and research is most commonly interpreted as linking published research, particularly a lecturer's own research, to the curriculum. Healey (2003) reviewed the limited number of studies of student perceptions of the relevance of research to their learning. While students reported advantages in staff being involved in research (for example, prestige for their degree course), as well as disadvantages in terms of a lack of staff availability, they continued to see themselves as passive recipients of research, rather than actors. In some departments students have been encouraged to become more actively engaged by interviewing academics about their research (Jenkins, 2003). However, this approach still maintains a power balance where student learners are perceived as recipients of knowledge and the outcomes of research.

*Research and scholarship are inseparably intertwined, and both help academics to reach higher levels of understanding in their fields than they would if the role is merely to relay knowledge gained by others*

(Pepper, 1997:16)

If this quote holds true for academics then it surely also holds true for students. Therefore, a more radical approach to the 'linking teaching and research' scenario is to link student research to the teaching/ learning process. McGuinness & Simm (2003) demonstrated that student research conferences have the capacity to increase the range of learning experiences for students and improve student employability prospects. Healey (2003) also noted that those students with a desire to be involved personally in research saw clear employability benefits.

Developing undergraduate research and publication as part of the curriculum does have resource implications. Charlesworth and Foster (1996) reported on the impact of an undergraduate journal at Coventry University linked specifically to two hydrology modules. Although the assessment started as papers based on primary research it became necessary to change the requirements to submission of review articles, to overcome the resource constraints posed by large classes. However, regardless of the type of papers called for, they reported that the idea of publication continued to motivate students.

*The most significant benefit is the improvement in motivation. The stimulus is provided by the competition to produce a paper which may be published in the journal.*

(Charlesworth and Foster,1996: 52)

## Geoverse

Geoverse is the pilot for a national e-journal of undergraduate research in Geography.

Currently the journal is based upon a collaboration between Oxford Brookes University, The University of Reading, The University of Gloucestershire and Queen Mary, University of London. Geoverse publishes student-led original research based on theoretically considered and empirically based investigations undertaken at undergraduate level. The scope and aims for the journal can be found in Figure 1.

The aim is to motivate and reward students for producing innovative and best undergraduate research practice, and then give them support through the review process before disseminating their work through publication. Geoverse welcomes articles based on undergraduate research, which can be submitted from single or multiple authors. Author guidelines are provided on the journal website: <http://geoverse.brookes.ac.uk/>

Undergraduates submit articles, which are reviewed by a team of postgraduate students, as well as

### Geoverse – Aims and Scope

Geoverse publishes the very best of original undergraduate research and scholarship in physical and human geography, with particular emphasis placed on:

- Publication of geographical research undertaken by individuals and groups during, or as part of, undergraduate degrees;
- All aspects of geographical thought, investigation and critical reflection, with a balance of human, environmental and physical geography;
- The publication of research findings undertaken using a wide range of research approaches, design and methodologies;
- Ensuring rigorous standards of refereeing, and exposing students to the process of academic publication.

#### ***The aims of Geoverse are:***

- to allow students to develop research writing skills in a supportive but rigorous environment of review. The latter exposes students to the process of academic publication.
- to allow high quality undergraduate research to be accessed in the public domain.

Figure 1: The aims and scope of Geoverse

being monitored by an editorial panel, where constructive feedback is given.

Successful undergraduates can benefit by using this published article as evidence within their portfolio, so enhancing their employability prospects, as well as providing a stepping stone into a career in research. This geography e-journal was designed to provide a project template in order to increase and promote undergraduate research nationally.

Geoverse's Editorial Board comprises two members of staff from each of the partner institutions; this ensures that each institution has an academic member to cover the breadth of geographical research approaches. In addition, the postgraduate students who review the papers form an Editorial Advisory Board. The 16 students have expertise in a very wide range of subjects within geography coming from diverse backgrounds and following research careers in a variety of directions.

In the four institutions undergraduate geography students were already engaged with research projects within modules or as dissertations but few saw their work read by others besides supervisors and module leaders. This project has aimed to develop a critical skill which is currently being missed in dissertation work, of succinctly presenting research work for an external audience. Students may also find that in a competitive job market they have the edge if they can take a copy to show prospective employers as part of their portfolio.

### **Establishing the journal**

Enhancement of the student learning experience comes from the constructive feedback which undergraduates receive from the editorial team. This helps them to improve work prior to publication. Even with this framework there are many different types of journal which could have arisen from a desire to close the research cycle for students. From the outset there were important decisions to take which had to involve negotiation between team members, in particular with regard to the focus of the journal, the standard to set, the degree of student involvement, the format to adopt and the procedures and logistics to ensure its smooth running across disparate institutions.

#### *Journal focus*

This pilot project was funded by the GEES subject Centre and one of the first decisions to be taken was whether to include all GEES disciplines in the remit of the journal. It was decided that in order to provide a balanced geographical journal, welcoming

social science and physical geography perspectives, the remit of the journal was already broad. It is hoped that this experience of developing a geography journal will offer ideas for geology and environmental science colleagues to develop complementary linked national journals.

#### *Academic level*

An acceptable academic standard for publication of undergraduate research was difficult to define. Despite a desire to make the journal as welcoming and inclusive as possible, it became apparent that clear criteria must be set in order to judge an acceptable standard and that once articles were published these would set the benchmark. The aim was, therefore, to strive for articles which represented the best from the four departments. I had also set up a departmental journal for Oxford Brookes geographers which showcases the variety of work at all levels carried out by undergraduates. Table 1 summarises the differences in pedagogic approach between the journals.

#### *Student and staff involvement*

The decision to involve postgraduate students as a review panel (The Editorial Advisory Board) created academic credibility and a supportive environment of review for the postgraduates who could work collaboratively through a wiki, with the support of the academic editor assigned to the specific paper if required. Wiki's are websites that allow users to share documents and redraft comments, so they provide the ideal tool to allow collaborative writing and in this case collaborative reviews. In this way the journal enhanced the student learning experience of a broader range of students. It was later decided to broaden the number of editors to two from each institution to cover a wider remit of geographical research areas.

#### *Format*

While there were obvious advantages to producing a journal as a printed product, the benefits of an electronic format were seen to outweigh these. Whilst striving to mimic other academic journals, the team was also aware of the potential that an electronic format could have in terms of allowing alternative content such as video files and sound, in addition to text. But it was felt that in the first instance a standard academic journal format would have a greater motivating influence.

#### *Process*

At the outset of the project, a wiki was seen as the panacea to working in geographically distant

Journal	Geoverse	Geoversity
<b>Student body</b>	National, piloted at 4 universities initially: Oxford Brookes University, Gloucestershire University, University of Reading, Queen Mary (University of London).	Oxford Brookes University undergraduate geography students
<b>Aim</b>	A professional publication to showcase undergraduate research of the highest standard.	Showcase the range of research work carried out in the department. Use for Open Days and course marketing.
<b>Process</b>	Rigorous standards of refereeing across 4 institutions 8 academic staff editors 16 postgraduate reviewers	Refereeing 1 Undergraduate student editor 4 postgraduate reviewers
<b>Range</b>	Wide range of articles based on student dissertations. Student directed research.	Articles based on a limited range of topics, heavily related to taught modules e.g. U21180, dissertation and independent studies. Supervisors acknowledged.
<b>Purpose</b>	To establish a national journal for undergraduate research in Geography	As a pedagogical tool to benefit Brooke's geography students
<b>Values</b>	Highly selective but supportive	Inclusive and supportive

Table 1: The differing approaches adopted by the two journals.

locations, to managing the workflow of the journal and to recording our thoughts and reflections as the project progressed. However, the process of customizing the wiki so that some areas are confidential spaces for reviewing and others for recording discussions was time consuming. The potential of a wiki as a collaborative writing tool was particularly useful when the project was first established as the editorial board could keep editing author guidelines and agree on meetings and training course schedules. It was also useful as a repository for documents for the reviewers and as an aide memoire for meeting minutes. The postgraduate training day ended by using the project wiki to complete a collaborative evaluation of the training, as a means of active learning! For the actual process of doing a collaborative review, the wiki was perhaps less useful. To some extent the standard issuing of copies of the article to separate reviewers would have made the review process double blind, whereas by being able to see a shared space with the article on it meant that reviewers would pick up on each others' comments. However, it was felt that this would provide a more supportive environment for first-time reviewers.

## Results

Early results from this research project focus firstly on the postgraduate students who make up the Editorial Advisory Board and their motivations for joining the project, then secondly the impact which the writing of articles has had on the undergraduate students in one module at Oxford Brookes is reported.

### *Postgraduate motivations for involvement as reviewers.*

In response to a pre-training course questionnaire (see Figure 2 for representative quotes) student comments were dominated by the desire to gain experience of the publication process and the

*"Gain experience in reviewing the work of others... working with a publication"*

*"Engage with the wider geography network"*

*"An interest in the linkages between research and teaching to support and improve student learning."*

*"To improve my own writing ... CV enhancement ... Working as part of a team."*

*"I think it sounds a fantastic opportunity and novel idea and therefore I would love to be part of it!"*

*"It is something I would have really appreciated as an undergraduate. A great opportunity."*

*"Interest in the subject and contemporary issues."*

Figure 2: Postgraduate reviewers' motivations for being involved in the Editorial Advisory Board.

feeling that participants would feel part of the wider geography network, especially outside their own institution. Many noted that they would acquire skills as a result of collaborative reviewing as well as contributing to the learning of undergraduates. At the time wikis were not something that many of the students had experienced, so this provided a further skill that the students reported they would develop.

### *Evaluating the undergraduate writing experience*

The existence of Geoverse has meant that module assignments can be aligned to generate potential articles. For example, at Oxford Brookes the module U21180 'Geography, Research and Practice' has small-group tutorials to support students to write articles, in accordance with its author guidelines, based upon primary research carried out during the Year 2 residential field course. The following are evaluative comments from the students who had written an article in this module in 2007.

The most frequent student response was a sense of achievement. For example:

*'Writing up the work from the field trip gave the field trip and this paper a purpose. Being able to see the whole 'journey' from start to finish was extremely worthwhile.'*

*'I feel that I've accomplished something! It was difficult but I'm proud of it! Being able to use this field work for the basis of the article was rewarding.'*

*'It was good to see that you can achieve something to a high standard as a published journal. It gave me a real sense of achieving a good research project.'*

Another frequently mentioned theme was the understanding developed. Students experienced a sense of their knowledge coming together:

*'It was good to get all the hard work that I did in the field and see it coming together as something academic.'*

*'It was also good to really begin to understand what I had researched last term.'*

Students clearly enjoyed the freedom of the creative process, being able to think outside the box and report genuinely new findings:

*'I enjoyed the freedom of opinions and sources used, it was very interesting following up a previous field study and expanding on it.'*

The final theme was that of ownership, being able to use one's own unique data:

*'[I enjoyed] the challenge of writing an article that comes from my own experiences.'*

*'The chance to write about something that had never been written about before.'*

### **Conclusion**

The Boyer Commission (1998) outlined the need to make an explicit link between student learning and undergraduate research for America's research universities. In the UK most universities are now putting student-centred approaches and social learning at the forefront of their thinking about the student experience and their academic offering. Undergraduate research opportunities are likely to become an increasingly important part of the student learning experience and suggestions have been made as to how these can be embedded within the curriculum (Huggins, Jenkins and Scurry, 2007). Geoverse has been developed as a national journal for undergraduate research in Geography, but it provides a model which could be applied to the other GEES disciplines. Its key aim is to increase student support, motivation and to reward innovative and best undergraduate research practice through publication and wider dissemination. This project addresses the current gap in the research cycle by publishing undergraduate research so that it is available for future students to read, perhaps providing a stimulus or model for their own research, and provides a published record and recognition for the students involved. In addition, the journal has already begun to stimulate curriculum innovation in the participating institutions through the creation of a broader range of undergraduate research experiences.

### **Acknowledgements**

The author would like to thank the undergraduate authors who have submitted their work so far, the postgraduate students on the Editorial Advisory Board and the project team composed of editors and web and wiki developers. This research stems from a GEES funded small scale research project.

---

## References

**Boyer Commission** (1998) *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*. Stony Brook, New York: Carnegie Foundation for the Advancement of Teaching.

**Charlesworth, S. M. and Foster, I. D. L.** (1996) 'Water and Environmental Systems': achieving student-centred learning objectives with an undergraduate journal. *Journal of Geography in Higher Education* 20: 1: 45-54.

**Gilbert, S. F.** (2004), 'Should students be encouraged to publish their research in student-run publications? A case against undergraduate-only journal publications', *Cell Biology Education*, 3: 1: 22-23.

**Healey, M.** (2003) *The Research-Teaching Nexus in GEES*. *Planet, Special Edition 5*: 5-10.

**Huggins R, Jenkins A and Scurry D** (2007) *Undergraduate research in selected US universities*, <http://www2.warwick.ac.uk/fac/soc/sociology/research/cetl/ugresearch/>

**Jenkins, A., Breen, R., Lindsay, R. and Brew, A.** (2002). *Re-shaping Higher Education: Linking teaching and research*. London: Kogan Page/SEDA.

**Jenkins, A.** (2003) *Designing a curriculum that values a research-based approach to student learning in GEES*. *Planet, Special Edition 5*: 2-5.

**McGuinness, M. & Simm, D.** (2003) *Linking Teaching and Research through Departmental Research Conferences for Student Project Work Planet, Special Edition 5*: 21-24.

**Pepper, D. M.** (1997) *Editorial II. JGHE: twenty-one this year* *Journal of Geography in Higher Education*, 21, 1: 15-16.

Helen Walkington  
Department of Anthropology and Geography,  
Oxford Brookes University.  
hwalkington@brookes.ac.uk