

UTLC Innovation Fund Proposal (for distribution)

Promoting Research Led Teaching and Staff Research Output Using Problem-Based Learning in Advanced Undergraduate Social Science Seminars

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Summary Description of Innovation Fund Proposal

This proposed pilot project will explore the potential benefits for students and staff of running advanced undergraduate modules where staff research projects—in preliminary stages—serve as the catalyst for problem-based learning (PBL) in a small seminar environment. A seminar module with limited enrolment will be run in the term prior to my approved study leave. The module will be at UG Stage III and any student who has taken a politics module in Stage II will be eligible to enrol—subject to a cap of 20. Its problem scenario will be ‘how to analyse the political content of visual representations of key concepts in international relations?’ This problem scenario directly relates to a new direction in my research on the visual representations of failed states in popular culture. The seminar will then intensively explore the conceptual and methodological elements of the problem scenario, identify and develop case-studies/data sets, and then analyse them as appropriate. Students will work in small groups to complete weekly tasks that will then culminate in the production of a group research project. These projects will then be presented to members of the Geography, Politics, and Sociology ‘Visualities’ research cluster (headed by Dr. Elaine Campbell) and other interested members of staff in an informal forum. The pilot project will operate from Fall 2011 to Summer 2012. Forms of assessment for the pilot will take place as it progresses with a comprehensive analysis planned upon completion.

Research Questions and Rationale

There are four research questions that motivate this proposed pilot project:

1. Is PBL a way of improving the active components of degree programmes to promote critical thinking and employability in a social science discipline?
2. Will students perceive PBL in a seminar—and exposure to the research process—as improving the student learning experience, deepening subject area knowledge, and honing graduate skills?
3. Is the establishment of problem-based research-led modules an effective way of increasing research momentum for staff who will be embarking upon study leave for the following term?
4. Will PBL help to mitigate student perceptions that staff research is undertaken at the expense of teaching excellence by exposing them to the research process at its earliest stages?

The rationale for this pilot draws upon structural changes to HE and the desire to seize the opportunities that these potentially provide for innovation. In this evolving environment, it is clear that the priority given to teaching excellence must be paramount. At the same time, there is every indication that funding from research activity will be increasingly concentrated into outlets that consistently generate world-class research outputs. This has the potential to create time allocation issues and tensions amongst students and staff who may perceive research activity and teaching as a zero sum game. Traditionally, study leave has been one of the means used by this university to successfully balance teaching and research missions. However,

accelerating momentum going into research leave in order to generate world-class outputs can be difficult for staff due to teaching/admin loads, teaching commitments for modules outside of core research areas, rising SSRs, and/or a decision to embark upon an exciting new research direction. These issues are likely to be exacerbated in the post-Browne era as we are asked to do more with less. This pilot wishes to see if an explicitly PBL driven seminar based on a specific staff research interest might be an appropriate means of improving the student learning experience and enhancing the benefits of the research-led teaching experience for staff in the social sciences.

PBL is a form of pedagogy where a planned problem scenario is presented to students. Students then work together and with their instructor to develop potential solutions to the problem. The problem initially need not be particularly well-defined (further refinement of the problem scenario is a part of the process) and there does not need to be a pre-determined optimal solution. The goal is to get students to apply knowledge and skills concretely through *thinking and doing*. With its ability to combine theoretical understanding and applied knowledge, PBL has been used in the natural sciences, engineering, and medicine as a means of promoting the development of conceptual and practical skills in students. In addition to the normal contribution that teaching can make to the research process—e.g., developing readings lists and preparing/delivering teaching materials—the fluidity and dynamism of PBL offers the potential to cast research problems in a new light, reveal new avenues for inquiry, trial methods, and to conduct small scale pilot studies that feed into the research design of larger projects.

Pilot Aims and Objectives

This proposed pilot project has five distinct implementation aims:

1. to place an emphasis on the processes of research—in addition to the products of research-- as central elements of research led teaching in the social sciences
2. to incorporate PBL into research led teaching in a social science discipline
3. to increase staff research output productivity and quality by using PBL as a method to accelerate research momentum prior to taking study leave
4. to improve student awareness of the significance of research to the university mission and of the broader social impact of research
5. to reinforce the position of research as complimentary to, and supportive of, the student learning experience

Therefore, the specific objectives of this proposed pilot project are:

1. to provide a learning environment where staff and students engage in PBL together
2. to increase the conceptual, methodological, empirical awareness, and rigor of students in a specific area of staff research interest and emerging sub-field of politics
3. to improve the practical skills of students by applying them to a specific problem
4. to selectively involve advanced undergraduates in the preliminary stages of staff research
5. to provide the opportunity for members of staff who have been granted study leave to establish and/or augment a conceptual/methodological/empirical foundation in order to facilitate the production of world-class research outputs

The pilot will undergo several forms of complimentary evaluation. To analyse the effects on teaching and learning, student feedback and a staff self-reflection exercise will be undertaken at the end of the first term. In addition to the core indices of student satisfaction, the student

feedback questionnaire--encompassing both quantitative and qualitative components--will be interested in measuring the following:

- Student expectations for this module: did the module not meet, meet, or exceed these expectations and for what reason(s)?
- Student perceptions of the structure of this module (i.e., PBL) in comparison to more traditional lecture/seminar modules;
- Student opinions on the delivery style of this module (i.e., small intensive seminars) in comparison to more traditional lecture/seminar modules;
- Student perceptions of increases—if any—to their conceptual, methodological, empirical awareness in the field of politics in comparison to more traditional lecture/seminar modules in the subject area;
- Student reflections on the development and application of practical research skills in this module as compared to more traditional lecture/seminar modules;
- If the module changes student perceptions of the role of research in teaching?
- If the module changes student perceptions of the role of research in the university?

Some of these questions will require that students initially be surveyed during the first module meeting to establish a baseline regarding their expectations for the module. Initial results will be shared at the QUILT dissemination event. At the end of research leave, another staff-assessment and a post-hoc analysis will be undertaken to evaluate the costs and benefits of the pilot for both students and staff. Results will be written up and disseminated.

Significance

The significance of this pilot runs across two inter-related axes: the student learning experience and the mission of the university. With regards to the student learning experience the significance is three-fold. First, it is predicted that students will directly benefit from the development and application of practical skills required by PBL; moreover it will provide them with tangible examples of problem-solving skills to relate to potential employers. Second, it is predicted that students will directly benefit from the deepening of their conceptual, methodological, and empirical knowledge that is catalysed by the intensity of PBL; these are also potentially transferable to other modules and employment. Third, it is predicted that students will directly benefit from forging a closer learning relationship with a full-time member of staff which can lead to building up a stronger sense of community; the difficulty of getting to know students as individuals is an issue for a subject area that has the worst SSR out of its direct competitors in the Russell Group.

The significance of this pilot for the mission of the university is four-fold. First, by focusing on the research-process in addition to research outputs, this pilot has the potential to provide a new means by which research-led teaching can be implemented at Newcastle University. Second, introducing PBL seminars into the social sciences offers the potential to improve student employability and the learning experience by providing the opportunity to engage in the practical application of conceptual knowledge. Third, this pilot provides immediate and longer-term benefits to staff by directly incorporating nascent and/or ongoing research directly into the teaching process. Fourth, this pilot has the potential to further reinforce the relationship between research led teaching and research excellence by cultivating even stronger linkages between teaching and the production of world-class outputs.