



NUI MAYNOOTH
CENTRE FOR TEACHING
AND LEARNING

TEACHING FELLOWSHIPS 2011 – 2012

PROJECT REPORTS AND OUTCOMES



Reflexive Large-Group Evaluation for Anthropology

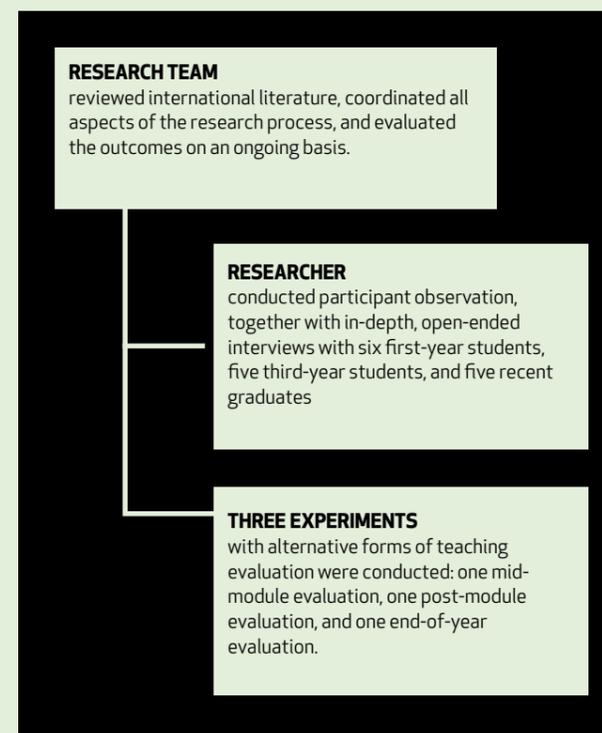
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Traditionally, anthropology has been configured as a craft, passed down from teacher to students. Yet at NUI Maynooth, anthropology is delivered to very large and diverse classes. What are the implications of this for the learning the principles of anthropology? This project sought answers to this question by bringing together staff in the Department of Anthropology as a team that also included a graduate student researcher. We set out with the ambition of using the tools of anthropology itself to investigate the teaching and learning of anthropological principles. But we were also concerned to understand the ways in which students understood 'evaluations', the extant systems of module evaluation of the Department, and possible ways to introduce improved methods of two-way evaluation.

We built up a collection of resources, designed appropriate research protocols and widely advertised the project among students and colleagues. A qualified anthropologist-ethnographer was hired to conduct participant observation of pedagogical processes and contexts, including lectures, tutorials, seminars, and other more informal settings. The researcher conducted in-depth open-ended interviews with six first-year students, five third-year students, and five recent graduates. Three experiments with alternative forms of teaching evaluation were conducted: one mid-module evaluation, one post-module evaluation, and one end-of-year evaluation. The research team analysed transcripts, evaluation results and fieldnotes, generating areas for further analysis and investigation. There were, therefore, a number of imbricated strands to the research as illustrated in the table below.



RESEARCH STRANDS

The project was hugely successful in generating data useful for ongoing reflection on the undergraduate learning experience, the curriculum, evaluation methods and understandings of how students learn at subject level.

CONTEXT

As elsewhere in the world, Irish universities are responding to the challenges presented by increasing student numbers, declining staff numbers, new education technologies, and increasing demands for staff accountability. In anthropology at NUIM, these structural changes in third level education are perhaps most acutely felt in the first year of instruction, where large lectures predominate. We wished to attend to these dynamics by researching and taking steps towards developing a reflexive assessment of anthropological learning at subject-level.

There are 250 first-year students of anthropology and over 500 students throughout the Department's programmes. We understood that a system that increases students' opportunities to communicate with staff and to have their voices heard, combined with a system that allows them to track their learning progress at subject level, will have an invaluable effect on student success in learning.

Moreover, no international anthropology departments that we are aware of have considered the question of how students learn the subject in large groups. How students experience reflexive education – the absorption of epistemology, the appreciation of the subtleties of theoretical and ethnographic decisions, framing and articulations – is an important scholarly question with a variety of important implications for the discipline. We understood the benefits to our department and to the university as a whole, but we also appreciated the internationally applicable scholarly challenge in this project.

REVIEW OF RELATED LITERATURE

In our efforts to consider the most appropriate ways to elicit students' voices, while also evaluating module teaching and students' performances, we quickly came to the understanding that one-size-fits-all institution/sector-wide approaches to evaluations are not optimal for eliciting feedback of good quality from students and often serve to disenfranchise all those involved. Moreover, the timing and intent of such an approach tends, according to international scholarly literature (see Hamermesh and Parker 2005; Titus 2008; Lodewijks 2011), to suit sectoral management aims rather than sound pedagogical practice supported by evidence. Indeed, there is a growing body of scholarship that argues that top-down and uniform approaches to evaluations may lead to the fetishization of feedback as a proxy for 'quality' in ways that are often entirely divorced from the actual quality of teaching and learning. We analysed this critical social-scientific literature in order to understand practices being used in international institutions recognized for the sophistication of their approaches, as well as to understand highly disparaged practices.

We studied 'Peer Evaluation of Effectiveness in Teaching' as it obtains in the University of Alaska Fairbanks; Stanford University's 'Mid-Quarter' and 'Small-group Evaluations' and the University of Bielefeld's 'Bielefeld.GERM'. We were struck forcibly by a plain issue – though an often overlooked issue – that the design of actual feedback forms or

systems has taken on a technocratic solidity in thinking about teaching and learning; by contrast, the best international practices that we observed seem to pay as much if not more attention to the timing of evaluations, the style of participatory implementations, clarity of purpose and the density and quality of the information elicited.

Following this literature review, and a review of international practices, we embarked on an open-ended research process together with testing evaluation methods and experimenting with them.

KEY OUTCOMES

– OPEN ENDED, QUALITATIVE FORMS OF FEEDBACK BETWEEN STUDENTS AND STAFF ARE HIGHLY VALUED AND MORE MEANINGFUL THAN RATING SCALES.

In the modules in the first semester of First Year, students were provided with details of our project and they were asked via Moodle to provide course evaluation by filling in a short feedback survey on SurveyMonkey. This proved to be relatively successful. However, we also passed out a hardcopy, standard institutional module evaluation form which elicited fewer responses and a quality of information that could only be described as derisory. Our qualitative research with interview participants revealed that open-ended forms of feedback between students and staff are highly valued and more meaningful than rating scales. We also experimented with an evaluation of subject-level learning at the end of the first academic year – again the quality of information and student satisfaction with the evaluation methods were greater where qualitative approaches were taken.

– STUDENTS IN THE FIRST YEAR RESPOND POSITIVELY TO EARLY, "LOW STAKES" FORMS OF ASSESSMENT. It is now widely accepted that students in their first weeks in university need to feel engaged and that large class sizes may adversely affect their experiences. Some scholars have even noted a shallowing of course objectives and reduced expectations of in-depth thinking in large classes. However, important progress has been made, especially in the uses of low-stakes feedback to show the progress of students' learning. This project allowed us the opportunity to reflect on early assessments. Our first experiment in evaluation was conducted coterminous with an evaluation of student learning mid way through the first module of the first semester (AN111). The evaluation of student learning was relatively low stakes (15% of module marks) and in the form of a MCQ quiz. Several questions posed in the quiz were posed again in the module evaluation. Feedback was clear: students appreciated this exercise – though they advocated even lower stakes – and better understood the process of two-way evaluation, i.e. that one's evaluation of a module is directly related to one's participation and performance. Therefore, one of the key outcomes will be a move to low-stakes assessments and two-way evaluations for anthropology students in their first weeks in university.

DEPARTMENT OF BIOLOGY

“Hands-on” molecular biology: engaging students with the Central Dogma

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The project involved the development of three new dry practical workshops for 2nd year science students taking the module Introduction to Molecular Biology (BI202) as part of 2nd year Biology. Two workshops dealt with the molecular structures of DNA and proteins while the third addressed the molecular processes of transcription and translation. The main idea of these new workshops was to engage students by providing a ‘hands-on’ learning experience. Using commercially available DNA and protein modelling kits (purchased with fellowship funds), the students were required to build their own DNA and protein molecules and then to use these to answer a series of questions relating to the most important molecular and biological features of these macromolecules.

CONTEXT

I have taught molecular biology to 2nd year students since 2005. During this time I have accrued an extensive amount of student feedback about the module, both relating to course content and on how the module was taught. It became apparent to me that overall students generally consider the molecular side of biology, as opposed to the organismal side, as being a conceptually difficult subject. A good grounding in appreciation of the structures and biological roles of DNA and protein molecules is fundamental to biology, and particularly important for students taking a variety of advanced 3rd and 4th year biology modules. Through taking the Postgraduate Diploma in Higher Education (PGDHE) at NUIM, I already had a good grounding in understanding how students learn and what may benefit in terms of enhancing their learning experience and engagement with a subject area. Students clearly retain and obtain a better grasp of knowledge through ‘doing’- hence I decided to build upon previous innovations I had instigated through the PGDHE course for my second years and establish a ‘hands-on’ approach, mainly with the aim of enhancing student engagement with a perceived difficult biology topic.

KEY OUTCOMES

Following completion of the BI202 workshops students were requested to fill in a feedback form which asked a variety of questions ranging from how the usage of the molecular models enhanced their general enjoyment of the class, to how the models helped in aiding the student to understand the concepts they were trying to learn. The BI202 workshop classes consisted of two groups, each consisting of approximately 100 students. This size of practical class adds an extra level of complexity for engaging the students with the topic. Of the 200 completed feedback forms I received, there was an overwhelmingly positive response for the usage of the molecular models both in terms of making the class more ‘fun’ to do and aiding in student learning- hence engagement was clearly significantly increased. To put ‘overwhelming’ in context, 199/200 agreed or strongly agreed with questions relating to enjoyment of the class and enhanced learning.

Therefore, one of the key outcomes from this project is that clearly a “hands-on” approach to learning about DNA and protein structure has an extremely positive effect on both student engagement and understanding of the topic. The “hands-on” approach would be favourable to adopt in other areas of biology or other subjects.

A key output from this project has been a much improved answering of exam questions relating to these topics (if honest, something I was sceptical would happen). In the final year exam I witnessed an obvious improvement in the answering of two specific questions relating to DNA and protein structure. This improvement was further evident when compared to other questions on the exam where the “hands-on” approach was not applied.

- EXISTING EVALUATIONS MOSTLY FOCUS ON FORM RATHER THAN CONTENT, EXTERNALS RATHER THAN INTERNALS, LIMITING THEIR USEFULNESS.
We critically examined international best practices in the area of evaluations. Our research also showed a tremendous level of approval for extant classroom experiences. The risk with standard, institutional approaches is that they focus on the form of lectures (e.g. the use of slides) and external factors (factors that may range from timetabling to the physical environment) rather than engaging in-depth with the actual classroom experiences.
- STUDENTS SEE THEIR LEARNING AS CUMULATIVE: INDIVIDUAL MODULES MAY BE MORE MEANINGFULLY APPRAISED YEARS AFTER THEY HAVE BEEN COMPLETED, RATHER THAN IMMEDIATELY FOLLOWING THEIR CONCLUSION.
Our research showed clearly that students see their learning as cumulative – texts that they found difficult and may have grumbled about in a first year module prove inspiring years later; questions that they felt were unanswered sometimes resurfaced and were resolved; in short, the student experience is not available in the round in any one module and therefore should not be evaluated within such an artificial frame.
- DIFFERENT DISCIPLINES ARE PROBABLY BETTER OFF GENERATING THEIR OWN FORMS OF STAFF-STUDENT COMMUNICATION AND MUTUAL EVALUATION.
Although module evaluations are widely believed to enable comparisons (across individuals, departments, faculties), the number and type of questions that can be meaningfully asked across all disciplines university-wide is extremely limited – subject-level teaching and learning is simply too diverse. Our experience suggests that using aggregate quantitative feedback data to make comparisons across university departments masks more than it reveals. Such feedback methods also render students passive in the process; we found that the richest feedback was obtained through dynamic collaborative engagement with our students – that is, part of the feedback was our students telling us what was for them the most meaningful method of providing feedback.

IMPACT OF THE PROJECT

This project will impact on-going developments at NUI Maynooth and elsewhere as the University seeks to implement forms of teaching evaluation, and as the University continues to refine and expand its mission in relation to educating undergraduate students. A central finding of the research is that learning is not generic, it is subject-specific. If this is the case, it makes sense for Departments to take greater responsibility for their own modes of teaching evaluation and curriculum development. Where the primary purpose of evaluation, and student-teacher feedback, is improved pedagogy, communication between staff and students is tightly linked to the particular norms and forms through which disciplines are taught and learned. NUIM can lead in avoiding the detrimental ‘thinning’ of staff-student communication that is widely reported to pertain

in contexts where teaching evaluation is only implemented in the form of standardized, quantitative (and rudimentary) evaluations. Because our project will produce an academic publication, the project impact is not limited to NUIM, but will hopefully contribute to discussions elsewhere about reform of universities.

POTENTIAL FUTURE DEVELOPMENTS

ONGOING REFORM OF CURRICULUM.
Our experience will have direct applications in the ongoing reform of curriculum in our department. On the basis of our research results, we have already begun to implement pedagogical means of making connections across modules in the first year, and will work to develop means for doing the same in second and third years.

BA YEAR ‘EXIT’ FEEDBACK.

Paying heed to the message from our students, we are developing a BA year, content-focused ‘exit’ feedback survey to obtain students’ assessment of their learning through the course as a whole. This will give us constant, layered feedback that will increase our understanding of how students learn anthropology cumulatively, and how we need to adjust the pedagogy from year to year in the programme.

DEVELOPMENT OF MID-MODULE AND POST-MODULE FEEDBACK METHODS.

After presenting the full results of our research to our departmental colleagues, we will begin to work collaboratively to develop methods by which all staff can collect meaningful, open-ended feedback in both formative mid-module evaluations and summative post-module evaluation. This will assure that staff are getting feedback that actually helps them improve the teaching of anthropology at NUIM.

PUBLICATION OF FINDINGS.

The members of the project team will collaborate in writing an article outlining our research and our findings, which will be submitted to the journal *Teaching Anthropology*, a peer-reviewed, open-access journal of the Royal Anthropological Institute dedicated to the teaching of Anthropology.

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