Journal of University Teaching & Learning Practice

Volume 8 | Issue 2   Article 5

2011

Linking Teaching and Research Through Scholarship Projects: A Case Study

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Abstract

Many lecturers find that teaching and research compete for their time. However, teaching and research can be linked closely together, and there are many ways of linking the two. This article will consider how research can be incorporated into teaching through a case study in Linguistics at Nottingham Trent University (in the United Kingdom), where undergraduate students are invited to participate on a research project. This project aims to foster and strengthen the links between teaching and research in the undergraduate curriculum to enhance the student learning experience (both for the students involved in the project and the wider student community). Allowing students to become involved in academic research before their final year can influence teaching and learning practice by encouraging students to look beyond lectures and seminars at the work which is carried out by their own lecturers. In order for learning to be most effective, it must be seen as relevant to the real world and by inviting students onto active research projects will show them how academic research is relevant to, and involved with, the wider world outside academia. By enthusing students with the actual potential of their studies, will increase learning and allow us to link research and teaching actively for all students.

Introduction

Although many universities state that teaching is as important as research, considerations for academic promotion are often tied primarily to research (Roettger, Roettger & Walugembe 2007:124). Many lecturers find that teaching and research compete for their time (Bender & Gray 1999: 1), and it can be hard for staff to balance the two. However, they need not be in opposition – and should, in fact, be closely linked (see Brew, 2006 cited by Willison & O'Regan 2007: 395). Francis comments that academics should invest equal measures of intellectual powers in teaching and in research (Francis 2007: 69). Ways must be found to closely link research to teaching to further student learning and enthuse both staff and students.

This article will consider how research can be incorporated into teaching by actively engaging students, through a case study in Linguistics at Nottingham Trent University (in the United Kingdom), where undergraduate students are invited to participate on a research project. This project aims to foster and strengthen the links between teaching and research in the undergraduate curriculum to enhance the student learning experience, both for the students involved in the project and for the wider student community. Allowing students to become involved in academic research before their final year can influence teaching and learning practice by encouraging students to look beyond lectures and seminars at the work carried out by their own lecturers.

This article will give the context and an outline of the project, followed by the project analysis, which will set up what happened in the project and place it within its appropriate theoretical framework. It will conclude with a discussion of the project's results and the students' feedback to their research work.

Context

Nottingham Trent University (NTU) is one of the largest universities in the UK, serving more than 24,000 students. Two of the university's aims are 'to develop confident and ambitious graduates equipped to shape society; and to provide education that promotes both intellectual initiative and the highest academic standards to prepare students for life and career' (NTU, 2011). NTU aims to 'combine excellence in both teaching and research' (NTU, 2011) this article considers how these can be merged to support the University's aims.

One of the ways in which the University supports the promotion of links between research and teaching is through the Scholarship Projects for Undergraduate Researchers scheme (SPUR). This programme, which began in 2007, is one of several initiatives introduced by the Working Party for Research-Informed Teaching at Nottingham Trent University. The scheme runs on an annual cyclical basis, and involves staff from across the university bidding for bursaries to involve second-year students in research projects. Participating staff gain invaluable insight into how students experience research and how research affects the quality and nature of higher-education learning. The scheme has been designed to ensure that benefits are experienced by a wide group of students beyond the immediate participants. A feedback mechanism, including talks and posters from SPUR students, enables other students to hear about the scheme and issues relating to undergraduate research. In addition, each project is selected on the basis of its potential to cultivate links between teaching and research in the undergraduate curriculum, as well as its provision of a quality experience for the scholarship student. The wider student community then benefits from the enriched curriculum, which in some cases undergoes radical changes following the scheme.

These projects demonstrate the dedication to undergraduate research as they allow students to develop as scholars (as is also discussed in Hodge et al. 2007: 12). The SPUR scheme aims to foster and exploit the different relationships between teaching and research (research-led teaching; research-oriented teaching; research-based teaching and research-informed teaching), both for the benefit of the staff and student participants and for the wider student community. Although this project does further knowledge of these four links, in this article I will mainly focus on how it can be beneficial for students to learn when in research mode. I will also consider how this project can benefit the mentor, the individual students involved in the project and the wider student community, both at Nottingham Trent University and beyond. To begin, I will briefly describe the context and content of the project.

The Project

The project recruited two Linguistics students to work during the summer break in 2010. Linguistics at Nottingham Trent consists of a wide range of students from the Joint Honours Humanities Programme, which contains the largest number of students in the School of Arts and Humanities. The students tend to study Linguistics alongside other subjects such as English, a selection of Modern Languages, Media, Communication Studies, Philosophy, European Studies, History and International Studies to name but a few. Both of the recruited students had just completed a module in Sociolinguistics, a very popular second-year module that includes a project-work element.

The title of the project was 'A perceptual approach to accents in the East Midlands'. The East Midlands, a county in the centre of England, comprises such cities as Nottingham, Leicester and Derby. There has been no regional survey of the dialects of the East Midlands since the Survey of English Dialects in the 1950s. More recent localised studies presenting an overview of regional speech in the UK either lack up-to-date research from the East Midlands or ignore the area completely. Despite this lack of empirical evidence, anecdotally it appears that speech in the East Midlands remains extremely distinctive, and locals insist there is considerable variation between linguistic varieties in the major urban centres. Every speaker has an accent, determined by social variables such as social class and geographical location (Wells 1982). Many researchers have attempted to discover how accurate people are at recognising accents, but perception of accents has been relatively ignored in comparison with actual dialect descriptions (Sullivan 2007).

Previous research has shown that participants are quick to judge others on the basis of accent alone; such judgments can influence chances of success during education and employment. This project is concerned with discovering which features of language are used to make such judgements and how this affects the perception of particular groups of speakers. While most previous studies have presumed that people were relatively accurate at recognising accents, it involves examining accent perception and recognition reliability. We would expect where the participants come from to affect the distinctions they make; in other words, we would expect that participants from the East Midlands could distinguish between different accents from their own locality. However, will this be the case in the East Midlands, where so little is known about local accent variation? The project will allow for examination of the accent regions that participants identify; whether they attribute particular features with those accents; and how they recognise those accents. It will also allow us to gauge how accurate participants are at recognising local accents. This project will not only feed back into teaching at Nottingham Trent University (see discussion below), but will also inform the wider research community about language in the East Midlands, currently a highly under-researched topic.

Project Analysis

Bender and Gray comment that with the blurring of boundaries between teaching and research, we should talk about the 'scholarship of teaching' (Bender & Gray 1999: 2). This includes the consideration that the teaching and learning process is not a one-way road from lecturer to student, but that learning can occur in many different situations. This section will consider how using active research can aid teaching and further student learning, and how this was achieved within this project.

There are different frameworks for teaching: research-led (where students learn about research findings), research-oriented (where students learn about research processes) and research-based (where students learn as researchers) (Healey 2005: 69/70; Healey & Jenkins in Kreber 2006: 47/8; Healey & Jenkins 2009). As stated in the introduction, traditionally much teaching at university level has taken place at the research-led level; however, teaching practices have been changing to enhance student learning. Northedge has stated, "Teaching should always be student-centred, in the sense of paying attention to the learning process fostered within each student" (Northedge 2003: 170).

This project was conceived to ensure that students were active participants in the research from the outset and invited to be collaborators in every phase. In practice, this has meant that the students worked both as part of a team and independently. The students worked with people from the East Midlands – in particular, sixth-form students (17- and 18-year-olds) in local schools and sixth-form colleges – to investigate how accents around the country (but specifically the East Midlands) are perceived. Initially, the students carried out a short literature review on language in the East Midlands to prepare them for particular language features to watch out for. They were also closely involved with preparing suitable material for the participants to work with, and with choosing appropriate language samples for participants to listen to. The students were provided with relevant materials needed for this project, but were also involved with the decision-making processes where appropriate.

Students being able to work independently and as active collaborators are important factors; Hodge et al. have noted that "educators must let go of their power of authority in traditional educational practices and *empower students to see themselves as authorities and creators of knowledge as well*" (italics in original) (Hodge, Pasquesi & Hirsh 2007: 7). Paul Ramsden, Chief Executive of the Higher Education Academy (cited in Healey and Jenkins 2009: 5), further states that students should be made aware of research careers and trained in research skills, sustaining the advantages of a research-teaching connection. Not only do students need to understand research itself, but also develop their abilities to carry out research, which can further their understanding of a subject area and influence their experience of the research itself (Morton 2006: 54/5).

The students visited schools and colleges around the East Midlands. Initially, they asked the participating school students to divide a map of the UK into different accent areas and label them. The students then asked participants to write comments about particular accents, what makes them distinguishable from each other (and from their own accent) and what is most striking about particular accents. The participants were also asked in detail about local accents and what the differences are (if any) between areas within the East Midlands. The students asked participants to listen to speech samples and guess where the speakers came from. Once the participants had

carried out these tasks, the students carried out a brainstorming session to talk about opinions and ideas of language in the East Midlands. Finally, the students gave a short information session explaining the project and the importance of the results.

This process gave the students the confidence to acquire research skills and to view themselves as producers of knowledge (Healy & Jenkins 2009: 9). Students have to be guided through this process, as Elton states: "An essence of research is that it is initiated in the minds of the researchers, and in a similar way, learning in a research mode must be initiated in the minds of learners. Such learning is active and questioning in a way that traditional learning, in which learners react in the main to inputs from teachers, rarely is. The vital role of teachers, therefore, consists of a pedagogic understanding of how such questioning learning can be facilitated by them" (Elton 2005: 111). Hodge et al. (2007) comment that the student should be treated as a 'scholar', and that undergraduate research should be at the centre of the undergraduate experience. This is something through which students have to be guided, as they must progress along the learning bridge (Hodge et al. 2007:9) from expecting a straightforward teaching paradigm where students are told what they need to know, through the learning paradigm to the discovery paradigm, where they can become active researchers in their own right. This can be a very difficult and unsettling experience for students, as was evidenced in this project, where the students initially struggled to come to grips with taking responsibility for their work, rather than relying on the academic's constant supervision and guidance.

Part of the process of treating student as scholar included involving the students in all aspects of the research. In furthering themselves as academics within Linguistics, the students had to pass through different stages to acquire the essential skills of a researcher. Initially, students were introduced to the project's field methods for both data collection and analysis. As well as collecting the data, the students were involved in the inputting and analysis of the data and attempting to draw conclusions from the results. Students were also introduced to specialist discourse relevant to the field, which had been initiated within their second year at University and allowed them to produce knowledge within this particular subject area. They were then introduced to oral and written presentation conventions, as they were required to present their results in both forms.

To develop intellectually as researchers, the students needed to be able to interact with problem-based and collaborative learning (Kreber 2006: 10), acquiring transferable skills, such as working with academics, other students and communities outside the university (Falchikov 2008: 54). Roettger et al. comment that efficient learning occurs when the learner is actively engaged in the learning process and takes ownership of the process (Roettger et al. 2007:127). Learning by doing is more likely to lead to a 'deep approach' to learning (Healey 2005: 72; Healey & Jenkins in Kreber 2006: 51). Much of this work tends only to be carried out during the final year, in the form of dissertations. But Elton states, and we can see from this project, that this need not necessarily be the case: research work can be carried out during earlier years of study as long as the work is at the developmental level appropriate to the student cohort (Elton in Kreber 2006: 38). Lecturers need to support students in applying knowledge to frame meanings they may have problems producing independently (Northedge 2003: 172). In this project, such an approach allowed the students to become involved in the research process, which previous studies have shown that students can feel excluded from (Robertson & Blackler 2006: 217; Jenkins 2004: 27). The students greatly valued the opportunity to participate (Robertson & Blackler 2006: 218), as reflected in their comments. It has been stated by Brew that when students are given the opportunity to participate in research, they may achieve more than anticipated by rising to the challenges (Brew 2006: 93).

Discussion

The benefits of the project are manifold and, as mentioned above, affect the mentor, the students involved in the project and the wider student community, both at NTU and beyond. One of the main results of this project is the enhancement of the student experience through collaboration and situated learning. The work carried out by the students during this project has added valuable knowledge to current sociolinguistic questions. As mentioned above, the East Midlands has been relatively ignored in previous linguistic studies. This study will help linguists understand more about the language used in the East Midlands, and the accuracy of perceiving and recognising local accents.

The project has shown that students are aware of many accents around the UK; in particular, the Newcastle and Liverpool accent are accurately recognised. However, an interesting discovery was found in relation to 'local', East Midlands accents. Previous linguistic research has suggested that accents and dialects closer to our own location are better recognised (for example, Gould & White 1974; Montgomery 2006), but this does not seem to be the case for the East Midlands: students found it very difficult to place accents from local areas. However, this is certainly not to say that there are no differences in the area. The brainstorming exercises carried out with the school students brought up a fascinating range of local words, pronunciations and expressions used by the different speech communities. Work following on from this project will examine the distinctive features of different East Midlands varieties to examine which features speakers focus on. The students' work feeds directly into work being prepared for conference presentation and article publication for relevant journals. Involving the students in 'real' research which results in actual further knowledge in the field makes the active learning experience more effective: students are not given a research project for the sake of learning about research, but are achieving visible outcomes that count in the academic world. These results, therefore, benefit the mentor, the students involved in the project and the wider academic community.

Working with local schools and sixth-form colleges around the region put the students in direct contact with the local community and allowed the students to inform them of the research carried out at Nottingham Trent University, as well as the support available to students interested in their subject area (as the participants were in the first year of their A Levels in English Language and Literature). A further benefit to the wider student community outside NTU was that the school students became involved in active research. They and their teachers responded very positively to their involvement in research and were enthused that their opinions and viewpoints were valuable assets to the research project. This may have the effect of an increased interest in and understanding of Linguistics.

More generally, the students working on this project have learned many valuable skills related to the research area, but also to research methodology and analysis in general. They attended meetings to discuss the planning of the project and assisting with the drafting of ideas and plans. They were also introduced to specialist discourse within the field and presented with different approaches to research. These skills will be passed onto future student cohorts through talks and presentations (for example, at Nottingham Trent University's twice-yearly Event Week).

As part of the evaluation process, the students involved in the SPUR project were asked to give feedback on their experiences of the project – both positive and negative. Interestingly, their only negative comments were to do with technological problems and having to re-input data when computers struggled with the amount of information. Both students commented that their

participation in the project had been tremendously rewarding. Their feedback suggested several themes. First, the students showed great interest in the project itself and in its linguistic themes. One of the students said, "It has been a project which I have been proud to be involved in".

Second, the students were also excited to be part of a project that involved them in active research and adding valuable information to the field of study. They enjoyed working with groups of school students and analysing the data the students gave them. They found it very rewarding to watch the emergence of patterns; this has given them the interest to carry out further linguistic studies, in that they are now working on Linguistics dissertations.

Third, the inclusion of public speaking as part of the project has improved the students' confidence and inspired them in their future career choices (one is currently applying for a teacher-training post, and the other for postgraduate study). One of the students commented, "It has provided me with confidence in my own abilities (something which I have always struggled with) and also with many transferable skills"; the other commented, "Applying for the position as an undergraduate researcher prepared us for future interviews and allowed us to grasp what researching would be like outside of the scholarship programme at postgraduate level". Both students commented, "I feel like I have been a part of the project from beginning to end, preparing for the project and also looking at research we could use or expand upon after our time on the project has ended".

Finally, they commented that the project and their ability to work as part of it have given them improved confidence to tackle their final year, and that they feel that this work is valuable to other students. One final comment sums up their reactions: "In my opinion, the project was a great success and the chance to work alongside professionals in the field has been a tremendous experience and one that is very rewarding".

This project will also feed directly into taught modules, as in their second year of study linguistics students have the opportunity to take a module in Sociolinguistics, with a group project part of the assessed learning outcomes; their efforts will directly benefit from this project. It will also be of interest across disciplines: for example, students involved with human geography, identity and culture and those with a language interest will benefit from the work carried out as part of this project.

Roettger et al. (2007: 126) discuss ways to understand the processes involved in how the human brain learns most effectively; this project attempts to use these processes. They include the facts that learning occurs through social interaction; how a person feels about a learning situation determines the amount of attention they devote to it; active learning should provide opportunities to connect new experiences with past ones; and finally, "we remember what we understand, we understand only what we pay attention to; and we pay attention to what we want". Including these aspects within a research opportunity should increase learning and increase understanding of how these patterns can be adapted to involve a much larger student cohort in all teaching.

There may also be opportunities to present the research at other forums, both at NTU (such as the Annual Teaching and Learning Conference or University Open Days) and outside the University (for example, the students have already submitted an abstract to present at the British Conference of Undergraduate Research). The students have already decided to undertake dissertations in Linguistics in their final year of study, and the skills they have acquired during this project will be used directly in their independent studies. It has also been shown (Roettger et al. 2007) that the best way of learning is by teaching someone else, so allowing students to give feedback about their

project at the schools and colleges and at University will allow them to gain the most from their experience.

The work carried out on this project will benefit not only the students working on it and the larger student body, but also academics and the University itself. The work carried out during this project will feed into the faculty's research. This will directly affect the larger academic community in the field of Linguistics, as the results of this project will feed into research papers and conference presentations. Castley comments how teaching-research synergies benefit all involved, stating that this work "raises students' awareness of research-oriented ways in which they are learning (meta learning); makes them feel part of a learning community; increases motivation through active learning; increases staff motivation by achieving synergies between teaching and learning; increases research output; improves students' results profile; develops students' autonomy in learning; [and] sensitises students to their academic potential" (Castley in Kreber 2006: 26).

Concluding Comments

"Higher education is a complex journey in which learners refine their purpose, establish a vision for their lives, question long-held assumptions, and construct more complex ways of making meaning of knowledge, themselves, and their relations with others" (Baxter Magolda 2010: 1). This project has allowed individual students to further their knowledge through active learning and research, and these benefits will not remain limited to the initial students involved in this project.

Research-informed teaching is important as it changes the frame for university students. They have the opportunity to move from being an expectant, passive student to an active collaborator in authentic research. In many cases there are great divides between what academics and students do while at University, and students are often only found on the fringes of research work. Student involvement is vital to engagement (Edwards et al. 2007) and students can gain personally, professionally and intellectually from carrying out research (Brew 2006). Students have to be assisted in moving from a situation where they feel they can only learn from their lectures to learning how to think independently and find new ways of learning – for example, through active research. In this way, lecturers should not only be providing knowledge, but the context in which students can learn to explore knowledge (Baxter Magolda 1999: 48).

Allowing students to become part of 'learning communities' (see Muldoon & Macdonald 2009) permits students and academics to work together and learn from each other within a supportive group; this process provides context for good learning to take place. It also stimulates students and gives them the chance to work independently and feel that they have contributed to academic research. Learning through doing is more effective than learning through being told (Castley in Kreber 2006: 26). Furthermore, these skills not only will serve students while at University, but will also be vital transferable skills improving employability, one of the major aims of higher education in the United Kingdom (Kreber 2006: 9/10). Past research has also shown that taking part in undergraduate research can improve levels of student satisfaction and PhD completion rates (Willison & O'Regan 2007: 393). Taking part in an effective and interesting undergraduate study can inspire students to become involved with academic research and undertake postgraduate study.

For learning to be most effective, it must be seen as relevant to the real world (Roettger et al. 2007); inviting students onto active research projects will show them how academic research is relevant to, and involved with, the wider world outside academia. Enthusing students with the

actual potential of their studies will increase learning and allow the active linkage of research and teaching for all students.

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