"Bridging the gap: Staff-student partnership through an undergraduate researcher scheme"

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Introduction

Internationally, university staff and students are engaged in working collaboratively on research projects to deliver change. Jarvis *et al* (2013) outline staff-student partnerships in several University of Hertfordshire (UK) mini research projects that have the potential not only to enhance teaching and learning and raise the profile of research, but also to improve employability and allow students to develop a deeper understanding of their own learning. In addition, Sandover *et al* (2012) consider two university case studies, in Western Australia and the UK, where student researchers are active agents of change in learning and teaching and enrichment of the student experience.

The Students as Researchers Scheme (SRS) at York St John University (YSJU) is an institution-wide initiative first introduced in 2006. Each year, it provides new opportunities for staff and student collaboration, on research projects which are both subject-specific and cross-disciplinary. So far, over 150 students have benefited from the scheme, which, in the context of a growing research culture at YSJU, provides opportunities for innovative staffstudent partnerships to deliver change, in terms both of the student experience and of pedagogic practices. This mutually-beneficial partnership enables students to experience research first-hand, as co-creators rather than consumers of knowledge, and has the potential to develop such strong graduate attributes as improved communication, teamwork and initiative. Student evaluations of the scheme reveal that some projects enable students to achieve greater clarity about their aspirations and/or gain experience in their preferred area of work. The SRS also empowers academic staff to lead innovative research projects with the potential to influence pedagogic practices on an institutional scale. Qualitative data collected from surveys over the 2013-14 academic year will be used to support this project report, as well as the view that the SRS has a positive impact on student learning and engagement and that collaboration with academics can influence change in pedagogic practices, in line with strategies for learning, teaching and research. In addition, this report outlines plans to expand the SRS over the academic year 2014-15.

Historical Context

The SRS was funded in 2006 through a HEFCE Teaching Quality Enhancement grant to enhance Research-Informed Teaching (RIT) and Enquiry-Based Learning (EBL). Bursaries of up to £1,000 for 130 hours of work were awarded to student research assistants to work alongside a member of staff on a research project. This enabled students to experience research with an academic first-hand and had the potential to inspire undergraduates to consider postgraduate study.

When the SRS was first introduced, eleven students were appointed to as many projects and this number has increased on average to twenty to thirty students per year working on between fifteen and twenty projects across the University. The scheme is coordinated by the Academic Development Directorate (ADD) and, in the 2013-14 academic year, was at its

largest to date, with forty-five student researchers appointed to twenty-two projects across the Faculties of Arts, Education and Theology, Health and Life Sciences and the Business School, as well as the central Student Services department. This project report focuses on the SRS over the academic year 2013-14 and on how this staff-student partnership identifies and delivers change.

To have students as co-creators of knowledge rather than consumers can provide space for a deeper understanding of research processes and empower questioning minds. For example, Healey and Jenkins (2009) use six case studies to outline examples of undergraduate students working as partners with academics, engaged in active research and inquiry as opposed to more passive roles. John and Creighton (2011) describe how UK students are benefiting from undergraduate research opportunity programmes (UROP.s) by becoming creators of knowledge rather than just consumers and how significant benefits are made available to students in terms of acquisition of research skills, confidence and understanding of the research process.

Organisation and implementation

Dunne and Zandstra (2011:17), cited in Sandover *et al* (2012), devised a model which outlines the four main areas in the development of educational change where students can be integrated:

- 1. Students as Evaluators
- 2. Students as Participants in Decision Making
- 3. Students as Partners
- 4. Students as Agents of Change

SRS at YSJU may be accurately designated an example of 'Students as Partners'. It could also be argued that certain aspects of the SRS cross over into other areas of Dunne and Zandstra's (2011) model; for example, students' end-of-project reflections may place them in the 'Students as Evaluators' category.

The SRS is managed by the Academic Development Coordinator and involves close liaison with staff project supervisors and student researchers. There is annual funding for between twenty and thirty research projects, with between sixty-five and 130 student hours allocated to each project. Recruitment to the scheme takes place twice a year at the beginning of each semester. Each request for a student researcher is reviewed individually to assess the variety of student tasks, project timeline and output opportunities. Advertising of opportunities is via email, website, posters, social media and word of mouth. Student applications to the scheme must be endorsed by their Head of Programme and students who meet the selection criteria are invited to an interview with the Academic Development Coordinator and the relevant staff project supervisor. For many undergraduate students, this will be their first experience of an interview which assesses their presentation and communication skills, as well as their enthusiasm for research. Students can apply for projects outside their programme of study. Those students who are appointed are employed on casual support staff contracts and must submit timesheets for hours worked. They are also required to attend an induction, meet regularly with their project team and present the research outcomes at an annual undergraduate research conference.

Set-up and management of the SRS requires a central contact in the Directorate, who is committed to offer support, advice and guidance for staff and students and whose work on the scheme involves continuous processing of timesheets, maintaining momentum and sustaining a sense of community amongst appointed students by keeping in contact with them. Activity for the person in this role tends to increase prior to and during recruitment, with advertising of project opportunities, interviewing of applicants and setting-up of contracts; there is again further activity, towards the end of the projects, for the evaluation process.

Project specifications

Many of the projects funded by the SRS have the potential to expand and make a significant contribution to the student experience and pedagogic change. This will be discussed in more detail later, with reference to student views and further discussion of two recent projects on enhancing feedback processes, an institutional priority across all programmes.

Examples of 2013-14 SRS Projects:

- Learning, Teaching and Assessment in the Multilingual Classroom (Business School)
- Music and Employability after University (Faculty of Arts)
- Languages Students' Perceptions of Audio/Video Feedback and Its Impact on Their Learning (Business School)
- Action Research Study of Peer Mentoring of First Year Counselling Students (Faculty of Health and Life Sciences)
- Environmental Sustainability Developing Resources for Primary Schools (Faculty of Education and Theology)
- The Grand Tour in the Twenty-First Century: Considering the Impact of Field Trips on Student Learning (Faculty of Arts)
- What is Reading For? The Link Between Emergent Readers' Skill Levels and Attitudes to Reading (Business School).

Discussion and Evaluation

SRS projects have annual funding and, after the end of the financial year (July), students are required to submit a reflection. End-of-project reflections outline any challenges encountered, how the student overcame these and how the scheme may have changed them or affected their aspirations. The information is gathered by the Academic Development Coordinator to identify recurring themes.

Key themes within the following sections are highlighted with supporting evidence:

- Student Learning
- Student Engagement
- Networking
- Personal and Professional Aspirations
- Pedagogic Change

Student Learning

In these projects, students assist staff with various forms of data collection, recording and analysis. This includes quantitative data entry and coding (sometimes with specialist software such as SPSS) and analysis of qualitative data from interviews, surveys, focus groups and literature. Project reflections indicate that students have overwhelmingly benefited from the scheme. The main student learning benefits mentioned include the development of transferable skills, such as better communication and a deeper understanding of research processes:

"Taking part in this project really changed the way I approach my projects. I learned the importance of effective communication in order to gain clarification and understand the requirements and avoiding misunderstandings before and during a work project. Furthermore, it is also very useful for my own dissertation work. As I am currently conducting interviews for my own research, I can apply the skills that I gained from working as a student researcher into my current and future projects."

"Being a Student Researcher has changed the way I view the research done by others, not only do I now understand more about the process, but also the work that goes into it."

This corroborates findings presented by Sandover *et al* (2012), viz., that students acquired transferable skills and gained in confidence as a result of taking part in undergraduate research.

Student Engagement

On appointment to the SRS, students are expected to engage with their project team to discuss aims and project progress. They must meet with the ADD at an induction session, which provides an opportunity to find out more about the scheme, meet fellow student researchers and hear about the annual Undergraduate Research Conference (URC), at which, on project completion, they are expected to present. Many of the students commented that a positive aspect of being part of the SRS was that it enabled them to develop their level of engagement and teamwork skills:

"Being a student researcher has assisted me even further in being able to organise my time in order to prioritise and complete tasks, It has helped me learn how to communicate effectively and work collaboratively with another researcher to reach a mutual goal."

"I have enjoyed being part of a small research team and meeting another like-minded student researcher as well as working with members of staff. I valued the flexible, accommodating, and collaborative nature of the dynamics of our team..."

Several of the students also commented that, as a result of working on the project, they had become more actively involved in the wider student community:

"Being a student researcher has enabled me to experience a more active role within the university. Working with teaching staff, as well as researching teaching methods, learning styles and the development of helping skills, has offered invaluable insights..."

Networking

The URC is a student-led conference which brings together a variety of students interested in research, including those recruited under this scheme and others keen to showcase dissertations. It also attracts those who have not yet actively participated in research but are keen to find out more. Within a friendly, supportive atmosphere, student researchers can present project outcomes via a case study presentation, workshop, poster, performance or exhibit. This conference also provides a networking space for students to share experiences, inspire others with their research and hear a keynote presentation from an experienced researcher. Students due to attend the conference appear keen to present and grateful for support from fellow students and ADD:

"... the opportunities to present are daunting but support from peers and the academic development directorate have been extremely helpful."

The SRS also provides opportunities for students to attend external conferences relevant to their project. Over the last academic year, seven out of forty-five student researchers attended external conferences. Feedback from students who attended external conferences has been positive:

"Being a student researcher has metaphorically opened a number of doors for me, I have been provided with an insight into the world of lecturing and academia at the highest level and given the opportunity to present work at a national conference."

In April 2014, one former student researcher attended the British Conference of Undergraduate Research (BCUR), at which 350 students presented their research by means of posters and oral presentations:

"Everyone there is at the conference because they want to learn more about research, and what other young academics are doing. Talking about your own research and asking others about their research may have you talking and discussing it for ages over dinner."

Another student researcher attended the UK Association for Buddhist Studies (UKABS) conference in July 2014:

"Academic conferences are a fantastic opportunity to immerse oneself in the rich and fresh research coming from a particular area of study ... an exciting aspect of conference attendance is the chance not only to meet scholars at the height of their careers but also the chance to meet fellow students who are still sounding out ideas..."

The SRS also provides opportunities for students to build external relationships. One project enabled two student researchers to work with a local social enterprise to explore new ways in which sustainability can be taught to primary school children. One commented:

"I have conversed with many members of staff and pupils to gauge their feelings surrounding sustainability... As a consequence of these conversations and meetings,

I have created and sourced many resources that are appropriate for children within years 4 and 5 to fit with the needs of the school as they start on their journey with the new national curriculum for 2014."

Personal and Professional Aspirations

There is also evidence in project reflections that the SRS can have impact upon students' approach to their aspirations. Several students commented that the scheme enabled work experience in their preferred area of work:

"On a personal level, the key outcome has been that of gaining valuable work experience in the field I aspire to work in."

"Getting the opportunity to be able to go into a primary school as a student researcher has definitely assured me that working with children is a definite in my future."

"... the skills I have gained as a Student Researcher are very easily transferrable to my ideal job. I feel that being a Student Researcher has given me a chance to experience this kind of career which I hadn't been offered before."

"The study was in education, I hope to be a primary school teacher once I have gained the necessary qualifications so this was ultimately a great opportunity for myself. The opportunity also helped boost my personal self-esteem and confidence, as it meant going into strange environments, meeting lots of new people of which I never would've done on my ownIt certainly motivated me and re-ignited my passion for university, learning and my career generally."

Several students also commented that the SRS has enhanced their employability:

"My time as a student researcher has been a fulfilling and worthwhile experience as part of my degree studies.... This experience has also given me an invaluable experience of interviews and having to compose a CV, without which I would be in a far worse position to apply for jobs in an ever more difficult to succeed world of work. I would like to say as a final point that I feel I am more employable following this experience."

Pedagogic Change

Although the focus of this project report has been on the ways the SRS can deliver change in the student experience, many of the projects have the potential for direct impact upon pedagogic practice. For example, two of the projects funded through the SRS in 2013-14 are directly linked to the YSJU Principles of Feedback devised to achieve some aims of the Assessment Strategy:

- Project One: Languages students' perceptions of audio/video feedback and its impact on their learning
- Project Two: Development of a Feed Forward Tool for Assessment Feedback

The two projects recruited student researchers to assist in gathering views from students on various forms of feedback, with the expectation that this could inform decision-making on feedback to have impact beyond the discipline in which the projects took place.

Project One required a student researcher to conduct literature reviews, interviews and a survey of language students' views on audio, video and written feedback. The results of the project will be shared with subject staff and are likely to influence the type of feedback given to students in future academic years. The student researcher and staff supervisor also presented their research at the Innovative Language Teaching Conference at the University of Leeds in May 2014.

Project Two required two student researchers to conduct literature searches on feed-forward tools to research how students can develop evaluative expertise, autonomy for their learning and judgement about their own work and the work of others. The scoping of a feed-forward tool in this research project aimed to assist students to gather and synthesise feedback in order to direct their future learning and development plans.

A third project, 'Music and Employability after University' assesses the role of technology, namely the Mahara e-portfolio, in the employability of Music students. This, as one student researcher commented, could have the potential to inform decisions about the role of e-portfolios for all University students:

"It appears that because the portfolio allowed the students to reflect on their previous work and track their development it made them realise how much they had grown as a person."

Summary and Future Development

The YSJU SRS is a successful staff-student partnership underpinned by the University's objective to develop its research culture and deliver an excellent student experience. The University is committed to the scheme, as it is seen to be a visible and innovative way to demonstrate a commitment to encouraging undergraduate research. Funding for SRS is therefore allocated to the Directorate from a central University budget at the start of the financial year. We are ever mindful of the need for such schemes to be sustainable and acknowledge that, for some institutions, undergraduate researcher schemes may operate on different models (e.g. voluntary student research projects or opportunities linked more closely to students' academic record). By means of the establishment of a new network with other institutions, to share ideas about SRS and practice across the sector, we hope that we shall be able to facilitate a better understanding of what works.

Attrition is low: in 2013-14, owing to unforeseen personal mitigating circumstances in each case, only two of forty-five students did not claim any hours on their projects; in 2012-13, three out of thirty students did not complete. Generally, the students recruited are very engaged throughout and evaluation has suggested that the experience is highly valued, for such reasons as a close working relationship with an academic member of staff and the chance to do 'real world' research whilst being paid at the same time to do so. Students have indicated in recent project reflections that the scheme helps develop transferable skills such as communication, teamwork and better understanding of research processes. Anecdotally, there is the suggestion that student involvement in the scheme has influenced

personal and professional aspirations in the longer-term, beyond graduation. Further research into the influence of the SRS on those students who engage with it would provide valuable data about longer-term impact.

Future development of the SRS over the 2014-15 academic year includes the creation of an online blog for student researchers, overseen and facilitated by ADD. Students and staff supervisors will be granted guest editing rights to post entries on project updates. The aim of the blog is to enhance further the sense of a student researcher community, maintain momentum and record project progression. The use of reflective logs in student researcher schemes can assist students to record their own learning and their developing employability skills (Jarvis et al, 2013).

New technologies, in the form of Open Badges, will also be scoped for integration, in order to reward student researchers with a virtual badge on fulfilment of certain requirements: induction attendance, submission of blog posts, project reflections and conference presentations. It is anticipated that students will be motivated to collect these virtual badges, which can be displayed on Mahara e-portfolios and shown to academics and potential employers to demonstrate achievements.

Over 2014-15, ADD has planned a meeting with several other UK HE institutions with student researcher schemes, to network and share best practice. A further development will be to explore how undergraduates can work alongside postgraduates on research, and scope ways to encourage more staff-student conference presentations.

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