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## Research-informed teaching: releasing the power of the student research conference

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### Abstract

*In May 2018 the School of Sport, Leisure and Nutrition ran an inaugural student research conference that was entitled 'The Power of Sport'. Students at all levels of study can benefit in a variety of ways through being actively engaged in research and enquiry. Such student activity can also support the development of research in the institution as well as the impact of research in the community. Hosting the conference intended to provide a way of developing and promoting such approaches in the curriculum and to give students a safe environment in which to test and disseminate their work. In essence, it was an activity that blurred the lines between research and student education. The two core aims of The Power of Sport were: to enhance student learning and confidence through engagement in research and research conversations; and to assist programme teams to further implement research-informed teaching in the curriculum for presentation at the conference. This short paper touches on the theoretical basis for these two aims by considering both research-informed teaching and student empowerment in the context of the conference.*

### Keywords

research-informed teaching; student conferences; student engagement; undergraduate research

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## Introduction

In May 2018 the School of Sport, Leisure and Nutrition ran an inaugural student research conference that was entitled ‘The Power of Sport’. It is well accepted that students at all levels of study can benefit in a variety of ways through being actively engaged in research and enquiry. Such student activity can also support the development of research in the institution as well as the impact of research in the community (Fung, 2017; Healey, 2005). Hosting the student research conference intended to provide a way of developing and promoting such approaches in the curriculum and to give students a safe environment in which to test and disseminate their work. It also offered a formal occasion to promote dialogue and collaboration between students; students and staff; and students, staff and the wider community. In essence, it was an activity that blurred the lines between research and student education.

An important part of the conference was that it acted as a marketing event for prospective students and an opportunity to network with external partners and employers. However, the two core aims were:

- Enhance student learning and confidence through engagement in research and research conversations; and
- Assist programme teams to further implement research-informed teaching in the curriculum for presentation at the conference.

This short paper touches on the theoretical basis for these two aims by considering both research-informed teaching and student empowerment in the context of the conference.

## The Power of Sport



The Power of Sport explored how five sport and health-related disciplines all play a role in developing the health and wellbeing of the nation. The five disciplines explored were: Sports Coaching; Physical Education; Sport Development; Sport Business; and Food, Health and Nutrition. Students were invited to present their research and ideas within these areas. The conference was run as five strands, each with external keynote speakers from industry. Below is a selection of presentations:

- *Sports Coaching* – ‘Stress and coping in tennis using Think Aloud’; ‘Coaching behaviour observations within elite youth rugby’; and ‘Pacing strategies implemented in 1500m running at the Rio Olympics 2016’.
- *Sport Development* – ‘Exploring the experiences of transgender and non-binary individuals in sport’; ‘The acculturation of elite Jamaican rugby league players in the UK’; and ‘The role of ‘Everton in the Community’ in reaching out’.
- *Sport Business* – ‘Sporting scandals and their influence towards consumer-brand association – a fan and non-sports fan

- comparison'; 'Football academies and mental wellbeing'; and 'Perceptions from key stakeholders in the sponsorship of grassroots football'.
- *Physical Education* – 'How does Muslim culture affect women's participation in PE and sport?'; 'Exploring the relationship between motor competence, executive function and self-regulation in children aged 5-7 years'; and 'Exploring how teachers motivate girls in 'outstanding' secondary school PE lessons'.
  - *Food, Nutrition and Health* – 'Socio-demographic and lifestyle correlates of takeaway food consumption in UK adults'; 'To what extent do gourmet coffee beverages contribute to a student's daily energy intake?'; and 'Do free fruit and vegetable vouchers change the nutritional value of children's diet, improve attitudes towards food insecurity and improve diet in areas of Liverpool?'

The conference opened with a plenary keynote, delivered by Kate Richardson-Walsh MBE, the captain of Great Britain's gold medal-winning team in Rio 2016, and Honorary Fellow of LJMU, who reflected on each of the five themes.

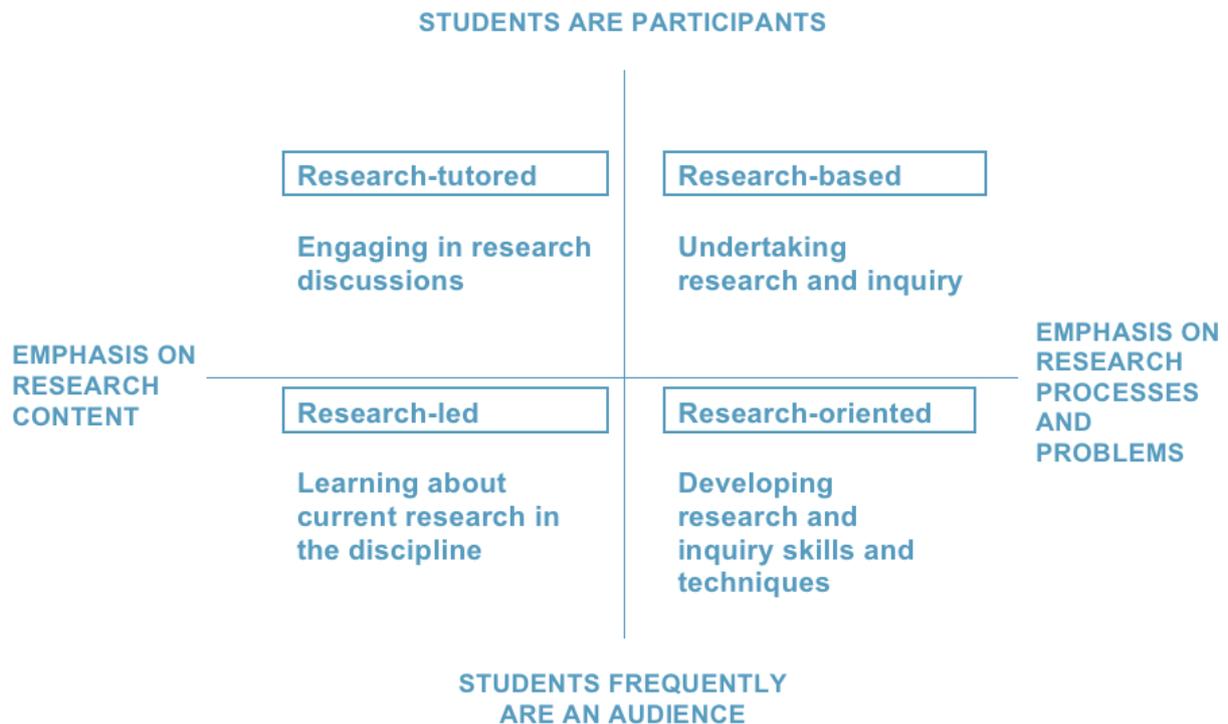
### Research-informed teaching

In an early (1890) Humboldtian perspective it was stated that, "...universities should treat learning as not yet wholly solved problems and hence always in research mode" (cited in Healey, 2009: 5). This idea underpins research-informed teaching and points towards the pedagogy within higher education as not just about the consumption, but also the production of knowledge. Therefore, opportunities to learn about and to undertake research need to be included or, even better, designed into

the core of programmes of study within universities. A critical part of this design is on the promotion and celebration of student learning through research and inquiry, and one way to achieve this is through the use of a student research conference.

There are implications for curriculum development. For instance, having a target or ambition to present research can shape teacher and student thinking in relation to programme design and engagement in research. There is evidence of particular teaching practices or activities influencing teacher thinking at the conceptual level which, in turn, can lead to changes in approaches to teaching (Eley, 2006; Sadler, 2012).

Healey (2009) has proposed a model that identifies four different ways in which research-informed teaching may feature in the curriculum and this is set on a double axis (Figure 1). One axis represents the level of student activity and the other identifies the extent to which the focus is on content or skills. Although having all these different approaches to learning about research designed into a programme in a progressive way is important, the research-based approach would appear to be most complete. This is the type of research-informed teaching whereby students actually undertake research themselves and therefore become more active learners. In addition, the focus is upon the research process and developing problem solving skills that can be transferred to different research or employment settings. By definition, a key output from this research-based approach to research-informed teaching is a research project that can be reported in terms of a question, methods and findings. Therefore, a platform to allow and encourage students to articulate or disseminate their project in public is in itself a defining aspect of the experience.



*Figure 1. The nature of undergraduate research and inquiry (Healey, 2005)*

A key challenge to programme teams in relation to the research-based research-informed teaching is its positioning on the programme; other than the traditional dissertation, when do students get the opportunity to collect, analyse and present data? As we know, the research process is not easy and we need to give students multiple opportunities to undertake research at all levels of the programme in order to develop and refine the processes and skills they need to undertake the dissertation. Therefore, in terms of the student research conference, it should not simply be directed towards final year or postgraduate students. The conference needs to promote and give opportunities, in a progressive way, for students in earlier years to present projects they have undertaken on other modules. This aligns with Healey and Jenkins' (2009) sense: a conference can embed student research and inquiry.

#### **A critical perspective of a student conference**

A compelling case for a student conference can be illuminated against ideas presented by Freire (1970a) who argues that education should involve the teacher and student working in tandem, as co-investigators. This 'liberatory' education is dialogical and problem-posing that is constituted by the student's interpretations of the world: liberatory education is 'the organised, systematised and developed 're-presentation' to individuals of the things about which they want to know more' (Freire 1970b: 93). It is a counterpoint to a traditional teacher-led perspective, foregrounded by the teacher's perspective of the world, which Freire terms 'the banking concept'. Freire argues that this 'banking' education is seen as "the property of the teacher rather than a medium evoking the critical reflection of both teachers and students" (Freire, 1970a: 80).

By affording the student the opportunity to be curious and to seek answers to questions to which they want to know more, research can promote feelings of autonomy, which is a key determinant to intrinsic motivation and persistence (Deci and Ryan, 2000). In self-determination theory, if an environment promotes competence and relatedness (social support), then an individual is more likely to maintain their satisfaction and motivations towards a task (Deci and Ryan, 2000). It is even suggested that when a student's psychological needs for autonomy, competence and relatedness are supported there is a positive association with academic engagement and better learning outcomes (Niemic and Ryan, 2009). Freire's ideas around the teacher-student co-construction allows for these three concepts of autonomy, competence and relatedness to develop throughout the research-informed teaching process.

Having ownership and choice over a research idea or project, with the guidance from a teacher, promotes autonomy: it allows the student the choice of what to investigate and to satisfy their need for curiosity within their chosen topic, with the teacher providing guidance and support in terms of methods, quality etc. This level of guidance and support also allows for the development of competence and relatedness, as it allows the student to develop their confidence within the subject area and research methods being applied.

The relationship fostered in the process can lead to greater motivation to present at a conference. We have observed feelings of relatedness at The Power of Sport: a greater sense of one's self, establishing stronger communication, reasoning and presentation skills within an identifiable and familiar learning community.

## Conclusion

It is important to acknowledge that a student conference should not be a one off isolated event at the end of the academic year. Rather, it should be considered as an opportunity for students to amplify their learning. This learning experience has been refined through a dialogic and shared process – thus strengthening an intrinsic sense of 'being' at university.

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