

Antioxidant Status of Culturally Diverse Foods and Beverages: A Student Partnership Project for Nourishing Innovation

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Keywords: Student partnership, authentic collaboration, student empowerment, flourishing academic community

Abstract

This work focuses on student partnership and the importance of authentic collaboration with students in undergraduate research projects. The project specifically investigates the work where research active staff partnered alongside bachelor's degree project students to measure antioxidant status of understudied foods/beverages from culturally diverse backgrounds. Extensive studies have been undertaken on antioxidant/pro-oxidant status of foods/beverages from typical "Western" diets. However, many foods/beverages from culturally diverse backgrounds have not been studied to the same extent. Hence, communities with diverse cultural heritages may be consuming different patterns of bioactive compounds which have not been classified for their oxidant/antioxidant potential. These bioactive compounds influence the antioxidant status of people within communities and therefore the risk of health conditions associated with oxidative stress. A study of the antioxidant and pro-oxidant status of foods and beverages from culturally diverse backgrounds is not only one of equity but could also have a huge benefit for the health and wellbeing of diverse communities. Through student partnership, the students were able to choose the design of the project and what foods and beverages they personally wanted to study. Quite often the foods studied were foods connected to the students' own personal cultural heritage. Giving students a level of choice and ownership over their research project greatly increased student satisfaction in the module which was indicated through student interviews and written feedback. The project enabled and empowered students to engage far more deeply with academic research. It also enhanced their employability skills through developing high-level knowledge and behaviors. It created a sense of belonging and community

amongst the staff and students, vital for retention and success, and students were far more motivated. The project also transformed understanding of academic community from the perspective of staff. As proposed by the Advanced HE, student partnership challenges traditional relationships in higher education and it is essential for academic communities to flourish and have long-term accomplishment (Healey & Healey, 2019).

Reflective Commentary

I delivered the presentation alongside one of my students, who not only co-presented but also supported the session by answering questions. It was their contribution to this that really impacted me and gave me a deeper insight into how they viewed the project from their perspective, giving me an even greater understanding of the work. What was evident to me was the maturity of the students that had contributed, and it demonstrated how they had all grown as individuals. Seeing them flourishing as independent researchers was humbling and, alongside the wisdom and insight demonstrated by my student who co-presented, this challenged me to keep going and apply the principles of the project to all my future research-based work. I was surprised how confidently my student answered questions from the audience and it gave me a new perspective that we need to genuinely believe in and trust our students. If we give students the opportunity and show them trust, in almost all cases they will seize the opportunity and achieve (Lansing, et al., 2023). One key theme that emerged during the question and answer session was the need to move away from traditional hierarchical attitudes in academic research. There was strong support for the idea that student partnership is essential for the long-term flourishing of academic communities (Healey & Healey, 2019). I was pleasantly surprised by how many colleagues not only voiced their agreement but also expressed it non-verbally through nods and other gestures. This clearly signalled a genuine appetite for change.

References

Healey, M. and Healey, R.L. (2019) *Student engagement through partnership: A guide and update to the Advance HE framework (04)*. *Advance HE*, 12, pp.1–15.

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Biographical note

Dr Katherine Fisher is currently a Senior Lecturer in Physical Chemistry within the School of Human Sciences, teaching across Level 3, undergraduate, postgraduate, and PhD supervision. Katherine has research interests as a scientist in electron

paramagnetic resonance (EPR) as well as undertaking more holistic research in making higher education more equitable. In addition to her teaching responsibilities, she is actively engaged and passionate about getting undergraduates involved in impactful research. Katherine has also taught at the Ludwig Maximilian University in Munich, Germany and she was previously a non-stipendiary lecturer at St Anne's College, University of Oxford, teaching Organic Chemistry.

Acknowledgements

Dr Katherine Fisher would like to say thank you to the London Metropolitan University Rescaling Fund which helped to fund the research for this project.

AI declaration

AI was used (Copilot) to improve the language (spelling, punctuation and grammar). The authors take full responsibility for the final content of the publication.