

## **Editorial introduction by Professor Helen Walkington: Student research – from local to global**

**By Professor Helen Walkington, Oxford Brookes University**

In 2006 I had the idea for a student journal, dedicated to publishing geography articles from undergraduates so their research could be read by a wide audience, an online journal with the potential for global reach. When it was set up [GEOverse](#) was one of just ten undergraduate journals in the UK (Walkington, 2008). It was only then that I discovered GEOview, an Australian equivalent set up at the same time. Since then, student journals have proliferated, and ways to broaden student engagement with journals (Walkington, Edward-Jones and Gresty, 2014) as well as other forms of research dissemination (Walkington, 2013) have been offered. Routes has joined this group and offers a unique blend of school and university student articles, broadening the potential readership for geographical research even further. But can student research really have global reach, as I hoped 15 years ago?

It was while I was mentoring a dissertation student who was doing research on carbon-footprinting onion production that the potential impact of student research first hit me. At a farm in East Anglia, the student calculated the carbon footprint of onion production. Comparing this to the production of onions in partner farms in Spain and New Zealand, the carbon footprint included everything aspect of production and transport until they reached the supermarket shelves in the UK. The results were somewhat startling.

“Measured in grams of carbon dioxide per kilo of onions, her results revealed that the onions from New Zealand had the lowest carbon footprint despite being the furthest travelled (by ship). The fertile soils and good climatic conditions for drying the onions naturally there meant few additional inputs were needed. In contrast, the Spanish onions required water for irrigation and the cost of road transport to the UK was significant in carbon terms, giving them the highest carbon footprint. In the UK, in second position, low travel costs were offset by our climate, meaning lots of energy spent on drying the onions for storage, as well as significant agricultural production costs such as fertiliser.” (Walkington, 2018:1).

The findings led the supermarket chain to consider carbon labelling and after a year spent carbon footprinting carrots, the student researcher has since gone on to develop a successful career in carbon offsetting. There has been a growing interest amongst geographers in trying to understand supply chains for products so that consumers have access to the information they need in order to make responsible choices and really ‘think globally’. If we declare a climate emergency, we need research of this sort to understand how our behaviours impact our planet. This issue of Routes contains a wide range of articles on mass extinctions, storm beach deposits, and sustainability in schools. It also covers development, citizenship and our ‘duty to the world,’ really capturing the passion which a new generation of researchers hold for our planet, its peoples and our connections from the local to the global. These topics matter now more than ever, and we must have

conversations to share our ideas and the latest thinking and research with each other. In an era of fake news and false truths we have to base our decisions on critically evaluated evidence which we share openly.

The experience of being a research mentor has made me realise the potential for student research to really make a difference, and I have spent time making sure it can be shared through journals and other formats such as conferences.

In this editorial I have described myself as a research mentor (rather than a teacher or supervisor). It is a deliberate choice of term. Students take control of their research, I'm there as a guide. Evidence now suggests that effective student research mentors adopt ten key practices whether working with undergraduates at university (Shanahan, et al., 2015), or students in schools (Walkington and Rushton, 2019). They:

- *Plan in advance, so they could respond to different student needs and abilities throughout the research process;*
- *Set clear, scaffolded expectations;*
- *Teach the technical skills, methods, and techniques of conducting research in the discipline;*
- *Balance rigorous expectations with emotional support;*
- *Build a sense of community;*
- *Make time for one-to-one mentoring;*
- *Gradually increase a student's sense of ownership of research;*
- *Support students' professional development through networking or explaining the norms of the discipline;*
- *Create scholarly opportunities for students and the chance to learn mentoring skills;*
- *Encourage and guide students to share their findings through writing or presentations.*

But I believe that a journal can also fulfil some of the effective mentoring roles too which I have highlighted: setting high expectations for quality articles; providing rigorous but supportive reviewer feedback; creating a community across the boundary between school and university and between students, teachers, parents, lecturers and the wider public; and providing a vehicle for students to publish their written work.

So, please join me in wishing a happy first birthday to Routes! Here's to many more years of supporting students to publish their geography research, with the potential for impact whether local or global.

## References

Shanahan, J., Ackley-Holbrook, E., Hall, E., Stewart, K., and Walkington, H. 2015. Salient Practices of Undergraduate Research Mentors: A Review of the Literature. *Mentoring and Tutoring* 23 (5), 359-376.

Walkington, H. 2008. Geoverse: piloting a National e-journal of undergraduate research in Geography. *PLANET* 20, 41-46.

Walkington, H., 2012. Developing dialogic learning space: the case of online undergraduate research journals. *Journal of Geography in Higher Education* 36 (4), 547-562.

Walkington, H. 2014. Quality enhancement of undergraduate research – further strategies to increase student engagement in research dissemination *Brookes E-journal of Learning and Teaching*, 6 (1) [online] <http://bejlt.brookes.ac.uk/paper/quality-enhancement-of-undergraduate-research-further->

Walkington, H. (2018) 'Undergraduate research goes global – what are the implications for student publishing?', *The Plymouth Student Scientist*, 11(1), p. 1-4.

Walkington, H., Edwards-Jones, A., Gresty, K. 2013. Strategies for Widening Students' Engagement with Undergraduate Research Journals. *Council on Undergraduate Research Quarterly* 34 (1), 24-30.

Walkington, H. and Rushton, E. 2019. 'Ten Salient Practices for mentoring student research in schools: new opportunities for teacher professional development' *Higher Education Studies* 9 (4),133-147.