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JOWETT, Lee and HATHAWAY, Catherine

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Lee Jowett and Catherine Hathaway

Sheffield Hallam University (SHU) trains teachers through both undergraduate and PGCE routes. Working in collaboration, Catherine and Lee developed and delivered a suite of climate change and sustainability education (CCSE) sessions for trainees across the range of primary and early years initial teacher training (ITT) courses.

The aims of the sessions were to:

- Develop trainees' own understanding of CCSE;
- Share examples of good practice from schools;
- Engage in hands-on activities to explore different
- ways in which CCSE could be taught;
- Develop trainees' confidence in making cross-curricular links in planning, so that they could feel confident in applying theory to practice;
- Explore the concept of eco-anxiety and develop trainees' understanding of strategies for support and how to plan to mitigate eco-anxiety within taught sessions.

Structure of the BA (hons) Primary and Early Years Education with QTS:

During the first year (level 4), trainees develop an understanding of citizenship education within seminars (e.g., through the SDGs). During the second year (level 5), trainees develop CCSE subject knowledge through an interactive lecture.

They further develop understanding of how local schools are approaching this, considering how they may plan and teach CCSE through hands-on and planning activities. This is delivered as part of an eco-anxiety seminar. Additionally, trainees explore Research Informed Climate Education (RICE) and how it can be applied across educational settings.

Case example

Climate change and sustainability are mentioned only briefly in the current national curriculum and not explicitly mentioned in the ITE framework.

However, there are lots of positive examples showing that education settings are undertaking a wide range of activities (Sustainable Schools network, 2024). Many practitioners talked about the need for CPD from ITT onwards and for local networks providing opportunities to share best practice. SHU has led a Sustainable Schools network since September 2023, which includes trainee teachers, in-service teachers,

researchers, and organisations. Alongside the case studies, a framework has been initiated which uses the Primary Science Teaching Approach (Primary Science Capital, 2022) as a starting point to RICE. This framework identifies activities which enable teachers and children to develop their own thinking and approaches to climate change and sustainability in a local context (for example flooding) or considering where children access knowledge around climate change. It also focuses on greenwashing, misinformation, and creating agency, so where climate anxiety exists, it is acknowledged and strategies put in place. This framework has enabled trainee teachers to develop their own thinking and pedagogies based on research-informed teaching.

Evidence of impact showed most strongly through trainee responses to the sessions. There were high levels of engagement in practical work and discussions. Trainees' self-reporting of confidence levels in understanding climate change and knowing how to plan for lessons about environmental issues was high. One of the most surprising parts of this work was tutors' responses to delivering the content – often coming back from seminars and describing how emotive the session was for themselves. There was a tangible realisation amongst staff and students that the profession of teaching allows an impact "beyond ourselves", and that this opportunity, and responsibility, should be harnessed.

There are plans in place to continue to evaluate, learn from experiences, and develop the iterations of this aspect of the curriculum for trainees. The lessons learnt so far are:

- Implementing sustainability and environmental education can start small. Plans at SHU started with a link between us, and sessions were delivered within "science time". The next phase involved including the wider Primary & Early Years ITT team so that threads could be linked across curriculum areas, allowing trainees to explore a more realistic CCSE approach;
- Starting with the trainees' own subject knowledge gave trainees a solid foundation for discussing how to implement it within the classroom. It is something that will continue within SHU's practice. Carbon literacy training for staff across the institution (since late 2023) will provide opportunities to embed carbon literacy training within level 4.

Overwhelmingly, the responses from trainees show that this is an important and desired area of learning. As trainees' own understanding of the current climate crisis developed, the ability to build their practice to address this within their placements and throughout their careers, impacting on children's science capital and engagement with this important topic, can be transformational.

References

Primary Science Capital (2022). The Primary Science Capital Teaching Approach: Teacher handbook. Primary Science Capital Project. tinyurl.com/2ut6thp8

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Lee Jowett is a Climate Change and Sustainability Research Fellow at SHU.

Catherine Hathaway is Science Lead for Primary and Early Years ITT at SHU.