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Editorial

● Alex Sinclair ● Jane Turner

It is with great pleasure that we are guest-editing this bumper issue of *Science Teacher Education*. All eight articles have been provided by presenters at the recent ASE Futures Conference held at Sheffield Hallam University. For those of you who are unaware, the ASE Futures Conference provides a voice for the research and practice from those involved with Initial Teacher Education and Continuing Professional Development (CPD) at all levels of science education. While there is a diverse range of subject foci, with teacher retention high on the agenda, it is fitting that many of the articles consider the type of support that could be available to teachers at different stages of their careers. The articles have been ordered to reflect these stages. We hope that this issue gives a flavour of the professional learning conversations that took place over the two days and, as such, contributes to your personal CPD.

The first article in this edition provides a global focus to the theme of the Conference and reports on the challenges of providing quality CPD. **Nan Davies, Emily Perry and John Holman's** keynote research article dissects what qualifies as quality CPD, the barriers to accessing it and the type of policy changes that are needed for its implementation.

Much has been written about the science capital of students, but little about those who teach them. **David Jones and Sally Spicer's** paper focuses on their pilot research study with primary teacher trainees. With many primary trainees being non-science specialists, it asks how their science capital impacts on the attitude to, confidence in and teaching of the subject.

Helen Gourlay's EdD research has involved working with pre-service physics teachers. She highlights the impact of these trainees being involved in cycles of critical reflection about key incidences in their teaching practices and the subsequent effect of discussing these with other trainees.

Richard Brock, Alex Manning, Emma Towers and Helen Damons' work looks at teacher wellbeing and available

support in the context of both trainee secondary science teachers and in-service primary and secondary teachers, and the implication of this for the retention of science teachers.

Kate Andrews, Paul Beaumont, Emma Bissett and Kath Crawford highlight their work with recently qualified Scottish secondary school science teachers. In times when teacher dropout is so high, it details the effectiveness of their follow-on programme, which seeks to develop practical skills especially in areas outside of the participants' subject specialism.

Following on from this, **Peter Fairhurst, Lucy Atkinson, Judith Bennett, Lynda Dunlop and Alistair Moore** detail a collection of open-access research evidence-informed resources for secondary science teaching. They outline findings from a small-scale study, which suggests that use of these resources led to immediate changes in practice and, as a consequence, engaged teachers in evidence-based research.

Finally, two CPD programmes are shared. **Helen Wilson and Bridget Holligan** reflect upon the challenges of scaling up a programme for primary teachers, where the attainment and attitudinal outcomes for Year 5 (age 10) pupils were measured using a Randomised Control Trial approach. They discuss the differences in outcomes between this research and their previous smaller study. **Rachel Hartley and Ian Horsewell** share the work of the Institute of Physics (IOP) Stimulating Physics Network, which has led to the development of regional physics coaching communities providing in-school support for teachers in secondary science departments.

We hope that this issue of *STE* whets your appetite and that you are now considering either attending or presenting at next year's Conference. We return to Sheffield Hallam University in July 2020. Please contact Futures Chair, Liz Lawrence at lizlawrence10@btinternet.com should you require further information.

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