

The STeP Journal
Student Teacher Perspectives

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Editorial

TEAN is delighted to publish a third issue of the Student Teacher Perspectives (STeP) journal before the end of the academic year 2014-15. This time we have representation from Scotland, Northern Ireland and England and a fascinating range of topics. Please share the url of the STeP journal with your students so that they can benefit from the rich digest of research and thoughtful engagement of these contributors:

<http://cumbria.ac.uk/stepjournal> . Once again the submissions from these student teachers show a depth of reflection and a realisation of how positive interlinking theory with practice is in the quest to reinforce teaching as a profession.

We start with a visit to Scotland. **Danielle McConville-rae from the University of Aberdeen** invites us to consider the effect of higher-order questioning on pupil understanding, as assessed using mind maps and the SOLO taxonomy. Danielle included a range of higher-order questions in her practice and used the SOLO framework as a marking rubric. Her paper is persuasive in its recommendation to others to consider with care the type and range of questioning they are using in class. Danielle speaks for all the contributors to STeP by noting how important it is to be an enquiring practitioner.

Ryan Hutchinson from the University of Aberdeen introduces us to the concept of 'structured organisers' which he used to support metacognitive development in a group of 6 to 7 year old children engaged in individual writing tasks. Ryan suggests to us that metacognitive learning is now recognised as important in schools; however how to support metacognitive development in young learners has not been widely researched. He carried out research with a small sample of children; each child completed four pieces of writing, some involving the use of organisers, aimed at providing children with a metacognitive scaffold. Findings showed that structured organisers have the potential to be an effective way of scaffolding children's metacognitive development.

Next call is Northern Ireland to a paper from **Caolán Byrne, St Mary's University College, Belfast** who takes the familiar problem of bullying and asks us to consider a new phenomenon of bullying which is becoming a major issue in schools: Cyberbullying. The choice of this theme is a reminder to us all to be mindful of the effects of bullying on children and young people. His research was undertaken both in Northern Ireland and in England, allowing some comparison. From his research he feels it is clear that there are still strategies which could be implemented and improvements which could be made by schools.

Our next paper is from **Louise Walker, University of Chester** who tackles another tricky topic involving bullying, by looking at how homophobia is tackled in primary schools. She discusses some of the problems children are facing with homophobia and homophobic bullying in schools and notes that children are not being taught about this topic in schools as they are racism or other similar issues. After looking at some of the reasons why this is not being tackled in school, Louise discusses some of the approaches to tackling homophobia and how we can improve teachers' confidence to tackle the issue. Overall she recommends a balanced variety of approaches.

Samuel Stones from Leeds Trinity University turns our attention to the facilitation of progression through a case study approach. Samuel uses research from Business Studies with the aim of seeking to verify the validity and transferability of the claims and research findings from this discipline to other contexts. He carried out research with a Year 12 group and quotes Adrian Lyons who suggested that effective teaching is that which sees the subject being linked to the real world by using case studies and examples relevant to students' experiences. The results of his research are fascinating and, despite acknowledged limitations, he found that using case study material was effective in ensuring pupils made either satisfactory or above satisfactory progress.

A fascinating paper from **Anna Sargeant from Canterbury Christ Church University** asks us a question which we all constantly need to address: How does a school promote effective differentiation for its learners? Anna investigated the pedagogy of differentiation through an ethnographic case study of one secondary school's search for effective differentiation. Her investigation resulted in a proposal for a framework of variables within which 'effective differentiation' may be negotiated. This framework would be: at the macro-level of the whole-school approach to differentiation, in terms of deciphering whether a 'didactic' or 'democratic' style would be most beneficial for the general populace and ethos of the school; while teachers would be invited to negotiate through three key variables of social inclusion, shared practice and teacher attitude.

Stacey Marsh from Cornwall School Centred Initial Teacher Training considers assessment, suggesting that the format of assessment can pose significant barriers to some candidates especially when the assessment places high demands on non-subject specific skills such as literacy. She looked to improve her practice when teaching pupils how to structure a written response to the eight mark scenario questions in the AQA GCSE PE examination and as a result to also improve pupils' achievements in this area of the paper. The results of her research showed that participants with a reading age relevant to their chronological age achieved the greatest improvements. Participants with reading age slightly lower than their chronological age still showed improvements but participants with a significantly lower reading age showed a decrease in achievement.

Laura Woollard from Leeds Trinity University presents an interesting paper for mathematicians as she discusses the use of elimination method in the teaching of simultaneous equations. She explains how she taught this topic in a sequence of six lessons to year 10 students and found that students developed an understanding of the elimination method, preferring it over the substitution and graph methods. Her

motivation for looking at this was the impending changes in the GCSE exam and her realisation that the literature regarding the benefit of teaching the elimination method is not always favourable. Laura's conclusion from her small study was that it is in fact a valuable method which should be maintained in GCSE teaching.

We stay with mathematics for a paper from **Genevieve Colston from Canterbury Christ Church University**. Genevieve was searching for 'secret ingredients' which create success in a mathematics classroom. Her research involved unstructured observations of a class of primary school children. She followed up with unstructured conversations with the children and a semi-structured interview with their teacher. The results highlighted features such as: significant opportunities for problem solving; exposure to multiple representations; the facilitation of talk; the teacher's enthusiasm for mathematics; the teacher's in depth subject knowledge and a teacher's drive to ensure children felt they could 'do *maths*'. Genevieve feels that her findings will definitely impact positively on her future practice.

Claire Hofer from Canterbury Christ Church University is our final paper on mathematics and involves the introduction of the Singapore bar model in year 1 problem solving. Claire thought a study on this was timely because it is such a new area of study. The effectiveness of the pedagogical approaches undertaken in order to make this accessible and beneficial for Year 1 pupils needed to be explored, and the implications for future practice to be analysed. She reports that she discovered that the use of the bar to model problems and number sentences allowed specific links between addition and subtraction to be made. However, pictorial representations needed to be supported with concrete experiences using manipulatives and scaffolded with questioning, in order for the children to access and benefit from the model.

Returning to Cornwall, we find **Edward Crowley from Cornwall School Centred Initial Teacher Training** explaining how important social competence is for the welfare and development of school children. Perhaps surprisingly we discover that it is sometimes low in more able children. Low social competence in more able students, he tells us, can stem from – amongst other causes – bullying or a congenital condition such as autism or Asperger's Syndrome. Edward's study looked to assess the impact of low social competence as a barrier to learning in more able students and found that factors such as confidence, teacher communication and parental involvement and support (stemming from a stable, happy home life) could all affect social competence and have impacts on other aspects of school life for students.

Our final two papers come from Nottingham Trent and explore the realm of Design and Technology (D&T).

Gordon Scales from Nottingham Trent University wonders whether pupil perception of D&T can be changed to affect engagement. His research was precipitated by the worrying fact that there has been a decline in the number of pupils choosing to study D&T at Key Stage 4. Although he admits that there could be other factors to account for this, he concentrated on investigating what pupils found more or less interesting and asking

whether improvements could be made. His research found that pupil engagement with D&T can be affected by such things as: using subject matter relevant to the pupils; increasing the use of technology; and concentrating on effective delivery of lesson content.

Rory Lewis from Nottingham Trent University ponders his own role as a D&T teacher within a practical lesson. He looked closely at what progress his pupils were making and at what he was doing to help them. He had realised that he had been unable to articulate what his role was and knew that he wanted to discover the answers for himself. With a basis of a thorough literature review, Rory evaluated all accessible relevant lesson plans completed over the past seven months. He shows a high degree of honest and effective reflection, concluding that his study has been a useful tool in gaining a deeper understanding about how his perceptions of D&T practical lessons have an impact on how he plans his lessons.

Alison Jackson, July 2015