

Science capital

The most powerful characteristic of the idea of science capital for me is that it just *makes sense*. Although much of the research that underpins it at the moment has been focused on the secondary age phase, it is arguable that the real growth of science capital needs to happen within the primary school years. If we have not captured a child's interest in science by age 11, the research suggests that we won't, that we have lost them.

I have wondered long and hard about why I followed the sciences (I studied biology, chemistry and physics in the sixth form and took an undergraduate course in biology before teaching secondary science for a number of years). I fell into the category of someone who gained little science capital from home: neither of my parents had a strong interest in science and it certainly was not on the agenda. Something must have happened in school to pique my interest. My only memory of being taught science was in my final year of primary school by a Mr Brown; around the same time, I remember stumbling across the Royal Institution Christmas Lectures on television and distinctly remember learning about natural selection. So, by age 11 something had 'got me into' science.

Putting this issue together has been delightful. Initially I was fearful that I would receive many articles that were to all intents and purposes the same – minor variations on a theme. However, it has been wonderful to learn how many primary teachers are already making sense of the concept of science capital and finding interesting and varied ways of enhancing the science capital of their learners. I am hopeful that there is some inspiration for all teachers within these articles. I particularly welcome Professor Louise Archer as the author of the first article, which very much sets the scene for what science capital is and what the science capital teaching approach looks like and is based upon. It is simple, effective (it seems) and, with some thought and consideration, it can be used to enhance the already good practice of primary teachers.

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From my point of view there are some interesting discussions to be had around it. There is a danger that, with the focus often on children from low socio-economic status backgrounds, low science capital is deemed synonymous with low socio-economic status. The lack of confidence in subject knowledge that primary teachers often talk about is a different issue but not entirely unrelated; just because a secondary teacher has 'more' secure subject knowledge is not to say that they have more science capital. Perhaps some of what is now fashionably referred to as 'developing science capital' was going on before the term was applied – is it just formalising something that good teachers have always done? I have been aggressively challenged on *Twitter* for supporting the idea of science capital: how is it different from 'capital' in any other subject area? I am not sure that any of this matters too much. Anything that addresses the lack of engagement with science in schools and supports learners in their journey with science through school – and beyond – in a positive way, is a good thing in my book.

As a teacher educator, I wonder about the best time to introduce this concept to trainees. I have many primary undergraduates who arrive with very little science capital and almost a fear of the subject, never mind teaching it! At what point in their degree should I try to enhance their science capital? Without that happening they are far less likely to be able to support their pupils in developing their science capital when in the classroom.

Science capital – like all good science concepts! – offers answers to many questions and explanations that make sense. It also raises questions and, as with all education-related approaches, not everything works for all. But I encourage you all as primary teachers to try to reflect upon what is in your 'science capital holdall' and how you can develop this further and actively engage children in developing theirs.