Alex Booth

‘Challenge moments’ in geography lessons: promoting critical thinking

Alex describes a strategy he has used to help students develop robust conceptual understandings.

One of my favourite year 7 lesson sequences is teaching about settlement site and situation. It aligns the core geographical concepts of place and the natural environment (Lambert, 2011), and understanding the factors that determine settlement situation is vital if students are to understand the relationship between the human and natural worlds. This article takes the settlement theme as an example to demonstrate a teaching and learning tool which I have called ‘challenge moments’, and which I have found invaluable to encourage geography students to think critically.

What do ‘challenge moments’ in geography look like?

It takes two lessons to orchestrate a ‘challenge moment’ on the theme of settlement situation. The first lesson, focussing on early settlements, introduces students to some of the factors that have determined where settlements are sited. Proximity to a supply of fresh water, for instance, is a positive factor, and its absence a negative; flat terrain is better for building and farming, whereas mountainous terrain is to be avoided.

The second lesson begins with a short ‘recap’, then all the settlement factors are displayed on the board, and students are tasked with writing down whether they are ‘positive’ or ‘negative’. When they’ve finished, a show of hands indicates their answers. This is when I introduce the ‘challenge moment’. Most students will recall from the previous lesson that proximity to fresh water and flat terrain constitute positive factors for siting a settlement; however, I inform them that this is not the case, that these are actually negative factors, and I challenge them to explain why.

When I first tried this activity I was astonished by the students’ response. Before introducing the ‘challenge moment’ into my lessons, students would identify proximity to water simply as necessary for drinking and irrigating crops; subsequently, however, my 11-year-olds were pointing to the threats posed by flooding; contaminated water causing disease; the danger of over-reliance on particular water sources during droughts. These ‘challenge moments’ made space in the lesson for checking student assumptions and stimulating critical thinking, and transformed a simple activity, based on superficial knowledge recall, into one that stretched their understanding.

How can ‘challenge moments’ promote more dynamic learning?

It can be tempting to consider teaching and learning as a linear process, and a common approach to teaching subject themes, particularly by non-specialist or inexperienced teachers, is through representationalist pedagogies (Brandom, 2007). Students are presented with stimuli such as maps, pictures or statistics, and the lesson is intended to guide students through these representations towards an overall understanding of them (Crooks, 2017). In Figure 1, the dashed outline represents the thematic ‘space’ of the

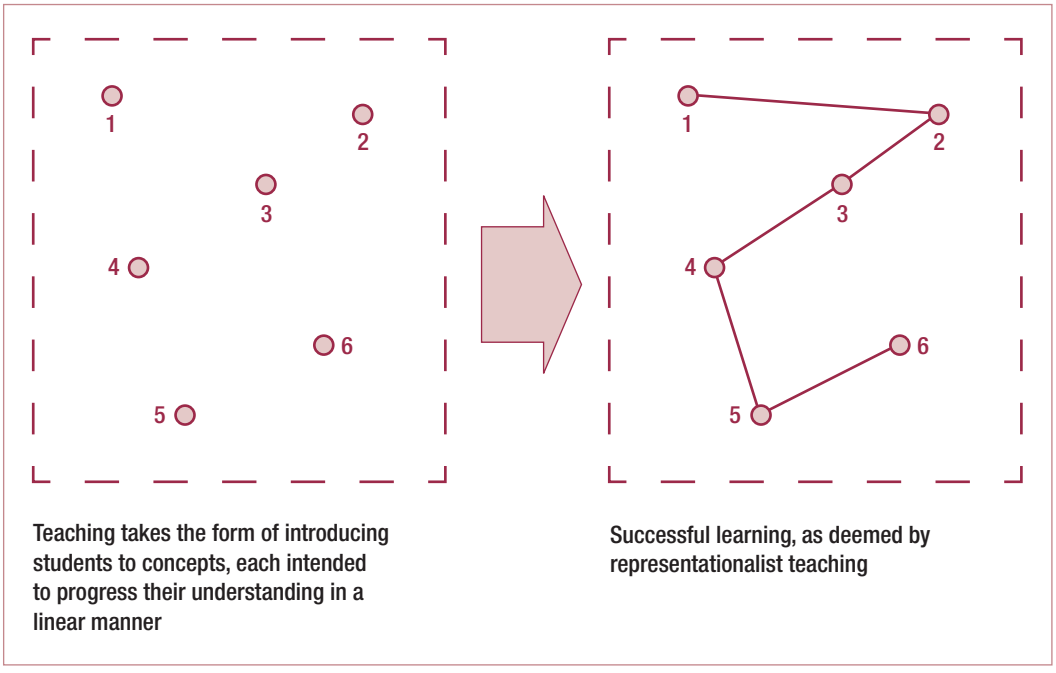

Figure 1: Teaching and learning through representationalist pedagogies.

geographical theory or theme being taught; the dots within the box denote the various stimuli intended to guide students towards a linear understanding, and students are given reasons for linking the dots in a particular order. In the settlement example, a lesson may present stimuli that suggest proximity to water is a positive site factor, and provide the reason that access to water is vital for drinking and growing crops. In this style of teaching, providing they can reproduce the pathway learnt in class, students will develop an understanding of the subject themes predetermined by the teacher and their lesson activities.

However, despite dominating much of the discourse (Derry, 2016), representationalist pedagogies have a fundamental shortcoming. The linearity of thematic understanding, measuring success purely by faithful reproduction, marginalises the potential for students to make more dynamic conceptual links. If the sole purpose in teaching is for students to learn pre-determined pathways intended to reproduce conceptual 'dots', their critical faculty is stifled; learning, rather than promoting understanding, becomes simply mechanistic. 'Challenge moments' are a counterbalance to this didactic style of teaching.

Inferentialism

I developed the notion of 'challenge moments' from reading Brandom's (1994) work on inferentialism. According to Derry (2016), inferentialism demonstrates how conceptual meaning is derived from an individual's written and verbal articulation of conceptual links. The introduction of novel learning contexts or situations means a student needs to rearticulate their established links, thus developing their understanding (Firth, 2017). This much more organic, and fluid, approach to student learning recognises the 'web of reasons' (Derry, 2016, p. 3) that constitute deeper student understanding (Figure 2). To revert to the settlement example, telling students that their assumed correct answer was wrong, and asking them to suggest why, encouraged them to challenge their pre-determined learning pathways. Their responses showed not only that the students were developing new ways to think about the ideas introduced in the previous lesson, but also that this approach generated a far more robust understanding of the topic.

'Challenge moments' to develop critical thinking

Principal among the benefits of introducing 'challenge moments' into geography lessons is their role in the development of critical thought (Brandom, 1994). Promoting critical awareness is vital to developing a more sophisticated understanding of geographical concepts (Roberts, 2015). It can help students to build alternative, more rounded perspectives, encourage them to challenge their assumptions, and integrate more empowering forms of learning in the geography classroom (Lambert, 2011). However, under the current English system, learning takes place almost exclusively within a linear framework (Firth, 2017). Consequently, wrong answers are presented purely in negative terms, to be avoided at all costs, and learning stops at the point at which students obtain the correct answer. As a result, students are unwilling to make, and test, their own learning assumptions – not necessarily through flaws in their understanding, but through a conditioned fear of getting the wrong answer (Brandom, 1994).

'Challenge moments' in geography lessons can look like failure. In fact, however, they provide the potential for liberation – a space to analyse the reasoning behind a student's thematic understanding, rather than dismissing it as right or wrong (Derry, 2016). The emphasis in learning should not be solely on the answers, but also on the thinking behind them (Firth, 2017).

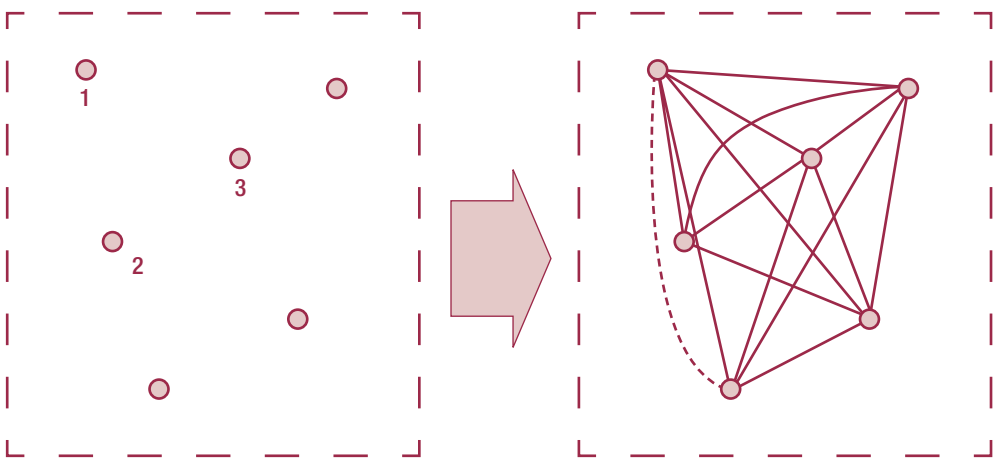

Figure 2: Teaching and learning through inferential pedagogies.

The role of the teacher should be to challenge conceptual assumptions, moving the dialogue of teaching away from binary criteria of success or failure (Derry, 2016). Finding time in the curriculum to build criticality, with the current emphasis on acquiring knowledge, can be difficult (Firth, 2017); incorporating 'challenge moments' into lessons may offer a way of giving students a more rounded geography education. | **TG**

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Review

Reviews of new geography resources.

Review

BOOK

Hyper-Socialised: How Teachers Enact the Geography Curriculum in Late Capitalism

David Mitchell | ISBN: 9781138339101

Hardback: £84.00 Paperback: £29.99 eBook: £19.49

This book is a welcome addition to the burgeoning literature into the nature of the geography curriculum, following on from a number of texts exploring similar themes over the past decade. The book is a scholarly piece, drawing from David Mitchell's extensive doctoral research and as such contains a multitude of well cited references that will be a welcome source of material for many years to come.

The book is in two main sections. The first is a more theoretical section unpicking some key ideas. The main one of these which underpins the book is that of 'curriculum making', which will be familiar to readers of *Teaching Geography*. Mitchell explores this model over historic timescales, looking at how the relationship between geographical knowledge, students, and teachers has changed over time. This is where he introduces the notion of 'late capitalism', the modern time when accountability, teaching to the test, and a relentless focus on measurable indicators has created a pressure for teachers and schools to 'perform'. This can have profound implications for geography teachers in schools.

Mitchell goes on to explore this in the second section of the book. Here he illustrates four schools, each with their own individual pressures, and each with their own take on the nature of the geography curriculum. Teachers may well recognise themselves and their departments in these descriptions. From the charismatic head of department who seems to defy whole school policy, to those teachers who feel burdened by powers from above, each school has a unique relationship between geographical knowledge, students and the choices teachers make. The students in these schools experience geography in different ways. The final part of the book relates the vignettes of the departments back to the notion of the pressures of late capitalism on teachers' work.

The publication is clearly very timely, appearing as the perceived 'knowledge turn' in education is being felt more widely in schools and when teachers seem to be under a huge amount of pressure from a variety of sources. This book helps teachers to clarify their role as curriculum makers, balancing the needs of the student experience with geography as a school subject and the choices teachers make. The book shows how significant the role of the geography teacher is in helping students to understand the complex world and will be of interest and use to geography teacher educators, geography teachers, heads of department and school leaders.

Reviewer: Richard Bustin is Head of Geography at Lancing College and is a member of the Teaching Geography Editorial Board.