Rediscovering the Teaching of Geography with the Focus on Quality

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Abstract

This paper arises from the Keynote we co-delivered at the 2017 AGTA Conference in Melbourne. In the paper, we outline the main theoretical resources that underpin the GeoCapabilities project (www.geocapabilities.org). This project has sought to engage teachers and teacher educators in geography with the principles of *curriculum leadership* in order to realise and release the power of geography as a component of the school curriculum. Critics of the project have argued that it over-claims on geography, and offers little more than preaching to the converted – a means of justifying geography to those already convinced of its value in education. However, in the paper we also advance the case that the capabilities approach may well have potential in helping non-specialist teachers grasp ways of interpreting standards and curriculum guidelines, as it requires that they first contextualise the educational needs of children today, and then reflect on the purposes and value of geographical thought and practice. After exploring these issues, geography teachers will, in theory, be better able to consider what it is they should teach, and then to think carefully about pedagogic techniques that are fully fit for purpose.

Introduction

Geography is a well-established school subject which is present in most education jurisdictions around the world. In England, the subject is supported by a particularly strong subject association, the Geographical Association, but it has nevertheless faced recurring questions about its purpose and even its place in the school curriculum. In Australia, the introduction of integrated solutions to questions that arise from time to time about the value of "traditional" subjects such as geography in a progressive curriculum (for example, studies in society and environment in Queensland and elsewhere) has undermined the subject in schools for a generation or more. In the United States, it was the complacency of geography and geographers at the beginning of the twentieth century (McDougall, 2015) that led to the marginalisation of geography that persists to this day: aside from a handful of states that require geography in middle or high school, geography is "buried" within the social studies. Although the subject benefits from an impressive set of national standards, it can be barely visible in some states and is, frankly, frequently understood by teachers to be little more than the background stage – the map – on which history is enacted.

In this paper, we do not have the space fully to unpack this state of affairs. We assume readers are aware of geography's vulnerability as a school subject. There is certainly no room for complacency, even in circumstances that seem to support a resurgence of "knowledge-led" curricula such as is the case in Australia and England. No subject has an automatic "right" to scarce curriculum space even if, to its practitioners and enthusiasts, its value is self-evident. There is a constant need, therefore, to renew the arguments for geography in education. The challenge of course is that neither of these ideas (geography and education) is a stable and given entity. There are plenty of ways of thinking about geography which are in fact difficult to defend: for example, neither of us would support school geography as a body of pre-determined facts – a list of "things we all need to know" (Hirsch, 1987, 2007) that somehow we need to transmit for students to absorb. Yet it is remarkable how enduring is this image of school geography in the popular imagination, and with some politicians and policymakers. We therefore have to be very clear about the grounds on which we are able and willing to promote geography as a worthwhile school subject.

Equally importantly, we need to be very clear about what we mean by education. It is the feature of this day and age that the purpose of education, especially as it is articulated in school systems, is deeply contested. Or rather, it should be. Schools in England are now so narrowly focused on preparing children for the world of work in the fiercely competitive, neoliberal "system-less system" of free schools and academies it is uncertain how to articulate education in a broader sense other than examination preparation

and "life skills". In such circumstances, it is the very identity of teaching as a profession that is compromised. Are teachers required to take on professional responsibilities demanding ethical judgements about what to teach (Biesta, 2017), or are teachers now seen only as highly skilful technocrats implementing management policy directives?

Such uncertainties are shared internationally as economic globalisation and the logic of the market inflict unrealistic and distorting pressures on education systems across the world to perform. In his work over recent years, Gert Biesta has concluded that one of the core issues to arise here is the *learnification* of education (Biesta, 2009), whereby the learning of transversal competences becomes the "outcome" of going to school, supplanting questions of what should be taught: learning becomes the end, rather than the means to an end. His work has resulted in his book *The rediscovery of teaching* in which he revisits his analysis and arguments (Biesta, 2017). It is a book that has suggested our title as it reinforces the foundational principle in our paper: that, with appropriate "curriculum leadership", geography can form an essential component of a progressive, knowledge-led curriculum. Like Biesta, we argue that teachers can (must?) reassert their professional ownership rights over the curriculum, in order to realise the educational significance of teaching geography well.

We make this argument with reference to the GeoCapabilities project (www.geocapabilities.org) which explicitly tries to reconnect the teaching of geography with questions of purpose in education. To do this, the project (which ran from 2012 to 2017 with two phases of funding[1]) set about thinking very carefully about the nature of geographical knowledge in school, and the kind of curriculum that would support geography of the highest epistemic quality. In *Knowledge and the future school* Michael Young and colleagues (Young, Lambert, Roberts, & Roberts, 2014) began to develop the notion of "Future 3" curriculum thinking, based upon a social realist proposition of *powerful knowledge* (Young 2008). Future 3 is one of three alternative *curriculum scenarios* offered as an heuristic to help distinguish possible curriculum futures – that is, the kind of curriculum we want. GeoCapabilities took up the "three futures" heuristic because it helps point up some fundamental distinctions in curriculum thinking. Thus, Future 3 denotes a curriculum of engagement with powerful knowledge. This is distinguished from an outcomes or competence-led curriculum which, as we have seen, appears to stress learning as an end in itself rather than a means to an end (this is known as Future 2). However crucially, Future 3 is also distinguished from a traditional, fact-based curriculum of transmission (known as Future 1) – often assumed to be the only possibility when knowledge is said to lead the curriculum. Future 3 encourages productive, rigorous and critical thought as developed in specialist *disciplinary communities* such as geography. Thus, in a slight finessing of Young's original term, GeoCapabilities described Future 3 as being based on "powerful disciplinary knowledge" (Lambert, Solem, & Tani, 2015).

Powerful knowledge and Future 3 Curriculum Thinking

Powerful Disciplinary Knowledge (PDK) is quite a difficult idea. It needs to be understood in terms of its lineage, in direct contrast to the previous formulation associated with Michael Young, when he wrote of the "knowledge of the powerful" over forty years ago (Young, 1971). The curriculum, he argued then, was predicated on the interests of those in power: the curriculum in effect exerted *power over* those socially, economically or culturally excluded. This has been an enormously influential but incomplete idea, for the contents of this "academic" curriculum determined by the powerful elite is (Young now argues) also powerful knowledge: that is, knowledge that gives people the *power to* think (and gain access to the professions, etc.). A crucial distinction, therefore, between these terms (knowledge of the powerful and powerful knowledge) is between the elite curriculum that addresses some children through a lens of "deficit" (and is therefore often perceived by them to be alienating and even irrelevant), and a curriculum whose purpose is to engage all children with insights derived from the arts and literature, the humanities, the sciences, and mathematics. Abstract, theoretical, specialised knowledge associated with the disciplines is, owing to its potential "power", something that all children and young people have a right to, no matter their circumstances or aspirations. It almost certainly needs to be *taught*. That is, it is risky to assume it can be somehow picked up along the way – for us, the fundamental argument against a curriculum based on competences or problem-based learning. Access to PDK is what Basil Bernstein called a "pedagogic right" (Bernstein, 2000), for PDK is an essential component of "enhancement" (or as we argue *capability*) – "the means of critical understanding and to new possibilities" (Bernstein, 2000, 30).

1 GeoCapabilities 1: Researching and improving geography teacher preparation through transatlantic collaborations. NSF Award BCS-1155255.
GeoCapabilities 2: Teachers as curriculum leaders. A European Comenius Multilateral Project. 539079-LLP-1-2013-1-UK-COMENIUS-CMP/2013-3433.

However, what *is* PDK in the arts and literature, the humanities, the sciences and in mathematics? Michael Young, as a former chemistry teacher, has relatively little difficulty in expressing powerful knowledge as objective, reliable, abstract and independent of the context in which it is made. For instance, it is now known that there are 94 elements naturally occurring on earth (although it is apparently accepted that six more once occurred but are no longer found: 95–100 on the Periodic Table) and a further 18 can be synthesised in the laboratory. This is a nice illustration, for it at once shows that although the "fact" (of 94 elements) is of enormous significance, it is not *on its own* particularly powerful. What is potentially powerful is understanding its systematicity, the part the Periodic Table plays as a building block in how to think truthfully about the material world. It also nicely illustrates how even objective facts are not beyond contention. Disciplinary knowledge can always be contested; it is dynamic, not a static, eternal given. Finally, what this little example also shows is that even in the world of "objective science", powerful knowledge cannot easily be identified or summarised in the form of a Hirschian list of content or concepts that need to be taught. To be sure, the school curriculum probably requires a series of subject standards or specifications, but publishing a list of laws, principles and concepts that need to be taught achieves little more than simply that: a list of words on the page which *in itself* guarantees nothing in terms of the curriculum as encountered by the students.

Thus, in thinking about how geography can be considered to be powerful knowledge, we may look at standards and specifications, but in truth this is probably not the place to start. Nor is a blank piece of paper on which we might assemble a list of key concepts or some such. For all we end up with is a list, that may guarantee little in terms of educational purpose and possibly result in an inert, Future 1 type curriculum experience for students (which many might find alienating and difficult to see the point of). There is an inherent difficulty in *not* specifying powerful knowledge in geography, as has been discussed briefly by Slater, Graves, and Lambert (2016). However, how do we do this?

Asking in *what way* geographical knowledge may be powerful is a good way of standing back from the technical imperative of delivering the given content. It focuses the teacher on *why* she is teaching geography in the first place. It is, crucially, a question about geography's educational purpose. It is the approach adopted and developed by the GeoCapabilities project. Thus, rather than search for a list of content that might purport to be definitive (such as the National Curriculum in England, or *Geography for Life* national standards in the United States), the GeoCapabilities project strongly endorses the approach adopted by Alaric Maude (2016) who analyses the *characteristics* that makes (geographical) knowledge powerful in the first place. From this beginning, he then explores the kind of *power* this knowledge gives to those who possess it. The result is a five-part typology of powerful knowledge (see Figure 1). This is presented not as some kind of curriculum audit or device for directly helping with the planning of geography lessons. The typology is proposed instead as a professional thinking tool: that is, thinking about the epistemic quality of what we are to teach before getting to the more technical, pedagogic questions about how we are to teach.

Perhaps the most significant – and challenging – element of Maude's typology is Type 3. As he writes, the typology identifies "five types of geographical knowledge that constitute intellectually powerful ways of thinking, analysing, explaining and finding out" (Maude 2016, 75). Although some are very familiar in school geography – arguably, Type 4 for example – Type 3 is probably not well done in school geography lessons. It is, however, crucial, for an essential element of powerful knowledge is an understanding of its dynamic nature: in geography, not only do the "facts" of the world continue to change before our very eyes, but the way we make sense of those facts evolves too. Students need to grasp some of this. In Young's words,

> Knowledge in the sense we are using the word (here) allows those with access to it to question it and the authority on which it is based and gain a sense of the freedom and excitement that it can offer. (Young et al., 2014, 20)

Alaric Maude goes on to write that the five knowledge types can,

> be applied to thinking about the aims of geographical education. However, except perhaps for Type 5 the typology does not lead to a list of content that must be taught, but only to ways of thinking that should be developed through whatever content is selected (Maude, 2016, 75).

In this sense, we think the typology may have enormous potential in helping teachers stand back and organise their teaching with a clear sense of purpose and "disciplinarity" (Firth 2013; 2017), which provides a secure basis on which to interpret national standards and official curriculum documents. The typology may help teachers focus on what Brian Hudson calls the "epistemic quality" of teaching – the serious

Figure 1: A typology of geography's powerful knowledge

Type	Characteristics
1. Knowledge that provides students with "new ways of thinking about the world".	Using *big ideas* such as: • place • space • environment • interconnection. These are metaconcepts that are distinguished from substantive concepts, like *city* or *climate*.
2. Knowledge that provides students with powerful ways of analysing, explaining and understanding.	Using ideas to: • *analyse* – e.g. place, spatial distribution • *explain* – e.g. hierarchy, agglomeration • *generalise* – e.g. models such as push-pull models of migration, and law*s*.
3. Knowledge that gives students some power over their own knowledge.	To do this, students need to know something about the ways knowledge is developed and tested in geography. This is about having an answer to the question: *how do you know*? This is an underdeveloped area of geographical education, but is a crucial aspect of "epistemic quality" (Hudson, 2016).
4. Knowledge that enables young people to follow and participate in debates on significant local, national and global issues.	School geography has a good record in teaching this knowledge, partly because it combines the natural and social sciences and the humanities. It also examines significant issues such as food, water and energy security; climate change; development.
5. Knowledge of the world.	This takes students beyond their own experience – the world's diversity of environments, cultures, societies and economies. In a sense, this knowledge is closest to how geography is perceived in the popular imagination. It contributes strongly to a student's "general knowledge".

Source: adapted from Maude, 2016.

This typology is based on an analysis of Michael Young's writings on powerful knowledge. This is not some kind of technical lesson planning tool. An individual lesson may show aspects of this typology, but over a whole course in geography we should expect to find a balance across all five types.

professional concern that underpins what north European educationists term specialist *subject didactics* (Hudson 2016). From the rather different Anglo-American tradition (which places a negative connotation on didactics), the GeoCapabilities project calls this professional concern "curriculum making" – the responsibility that falls to teachers to interpret and enact the curriculum.

The Capabilities Approach

The GeoCapabilities project has been a significant context in which several of the ideas presented in the previous sections have been developed[2]. In 2009, David Lambert first offered the hypothesis that the capabilities approach, derived from Amartya Sen and Martha Nussbaum's groundbreaking work in welfare economics and the humanities (Nussbaum and Sen 1993),

2 The four training modules contain examples and illustration of the ideas presented in this paper. The emphasis is on professional training and readers are encouraged to explore some of the techniques, such as writing "powerful knowledge vignettes" [module 1] or using curriculum artefacts [module 2], with colleagues.

could provide a way to frame curriculum thinking in geography (Lambert, 2009; 2010). One of the attractions of Sen's conception is that he steadfastly refused to specify individual "capabilities" – as if they were like discrete competences. Although Nussbaum took a different view, and listed a number of human capabilities, it is Sen's approach that appealed to us. It enabled us to articulate education in terms of its role in realising human potential – enhancing the freedom of people "to be" and "to do". Human beings are *more* free, we continued, when they are able (empowered) to think in specialised ways – including when they can *think geographically*; that is, to analyse, explain, etc. with geography (see Maude above). In short, the capabilities approach provides a progressive way to link the contents of geography with the notion of educational aims and purposes. The project goes as far as to claim that, without high quality geography as a component of young people's general education, their potential to think about themselves in the world, and about the changing relationship human beings have with the environment (especially today, in what Friedman (2016) calls the *age of acceleration*), is impaired. This can be considered to be a form of capabilities deprivation – quite a claim, and of course it depends very heavily on the quality of what is taught and learned in geography lessons.

Returning to the three futures scenarios, what distinguishes F3 from F1 and F2 in geography is the *quality* of the geography in the enacted curriculum. As we have argued, it is therefore useful to think how geographical knowledge can be considered to be "powerful" and is able to take children beyond their everyday experience and encounters. For example,

- literally – investigating distant places, distributions and patterns;
- conceptually – using new ways of seeing (e.g. a global sense of place, glaciation, uneven development);
- perceptually – appreciating different perspectives (e.g. how "others" see "us").

These points present a slightly different take on the power of geography – and there are other versions such as Lambert, Solem, & Tani, 2015, or the Geographical Association, 2012 – but all can be merged fairly straightforwardly into Maude's typology. However, whichever version one might take, the point is that by extending horizons and access to knowledge about people and the planet enhances the **capabilities** of young people – enabling more powerful thought as a right and an expectation of the educational encounter.

Curriculum Leadership

In a short article commissioned by *SecEd*, a free professional news sheet, Michael Young and David Lambert wrote that

> . . . powerful knowledge bears little relationship to the Gradgrind return to a "curriculum of the dead" that critics tend to assume such a subject-based curriculum implies. "Powerful knowledge" is precious. It is not made up of accumulated lists of "facts". In the form of subjects, powerful knowledge is continually evolving as new and tested concepts and explanations are introduced" (Young and Lambert, 2014).

However, they both realised at the time that powerful knowledge, the key idea that underpins the notion of a Future 3 curriculum, was troublesome and challenging:

> . . . the biggest challenge of all is to the education community as a whole. [Our] book asks teachers and school leaders to reclaim their professionalism and express it in terms of the knowledge-led school – and thus occupy the void that has in effect allowed political meddling and indeed various forms of non-professional enterprise to exert too much influence" (Young and Lambert, 2014).

The GeoCapabilities project encourages knowledge-led professionalism through articulating teachers as curriculum leaders. What this means is that teachers take responsibility for enacting the curriculum – they become *curriculum makers*. This is to say that a key component of teachers' professionalism is their identity as specialist knowledge workers, working to develop powerful disciplinary knowledge in what they teach. As we noted earlier in this paper, this is unlikely to happen by simply delivering the syllabus or specification: in this way, the project advocates a curriculum of engagement. Adopting a capabilities approach affords the possibility of working with specialist knowledge in a way that embraces broad educational goals, and in this way the capabilities approach helps teachers to operationalise Future 3 curriculum thinking. In this sense, curriculum making lies at the heart of teachers' professional identity.

Implications for Non-Specialist Teachers: Reflections from the United States Context

A new project, directly inspired by GeoCapabilities, is now underway in the United States to develop innovative solutions to an enduring challenge in providing high quality geography instruction in schools. This problem

is the pronounced shortage of teachers with geography backgrounds (it is a problem felt to a greater or lesser degree in many jurisdictions, including Australia). The project, named Powerful Geography (www.powerfulgeography.org), aspires to provide the empirical research basis to facilitate the transfer of powerful geographical knowledge in the form of voluntary national standards into state-level curricula and teacher education programs. In the US, this will require finding more effective ways of engaging non-specialist teachers and helping them first grasp, and then represent, powerful geographical knowledge so that it is understandable by students.

Students across the US often lack access to geography education in schools. In some states, this is a result of the subject's complete absence in the curriculum. Even in states where geography is a required middle or high school course, it is usually taught by non-specialist teachers. Approximately 1,500,000 teachers may be responsible for teaching geography, either as part of social studies in grades K-6, as a stand-alone or combined course in grades 7-8, or as a stand-alone or combined course in grades 9-12 (Grosvenor Center for Geographic Education, 2015). Allowing for variations in certification requirements across states and by grade level, most teachers will only take one or two geography courses during their teacher education program. Typically, these courses are introductory-level, either aimed at a general education audience or intended as a first course in a major. Because of this inadequate preparation, teachers have long found it difficult to teach the subject in a way that is consistent with the intentions of national and state curriculum standards (Anderson & Leinhardt, 2002; Chiodo, 1993; Diem, 1982; Reinfried, 2006; Segall, 2002; Bednarz, 2003; Schell, Roth, & Mohan, 2013; Segall & Helfenbein, 2008).

The broader impacts of US federal research in geography, especially as they relate to knowledge transfer, education, and workforce preparation, will remain severely curtailed until schools gain greater capacity in the form of teachers who are more fluent in the discipline's conceptual vocabulary and processes. Over several decades, there have been multiple attempts to upgrade school curricula based on advancements in disciplinary thought, from the spatial scientific approach of the National Science Foundation-funded High School Geography Project in the 1960s (Helburn, 1965) to contemporary national standards including *Geography for life: National geography standards* (Heffron & Downs, 2012), the *Next generation science standards* (NGSS Lead States, 2013), the *Common core state standards for mathematics* (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), and *The college, career, and civic life (C3) framework for inquiry in social studies state standards* (National Council for the Social Studies, 2013). All of these documents in their different ways are impressive, and yet in most state jurisdictions the curriculum they envision will never be enacted as intended until non-specialist teachers gain the disciplinary knowledge necessary for their interpretation. Our contention is that the idea of powerful knowledge, possibly supported by tools such a Maude's typology, may provide a highly productive means to induct non-specialist teachers into the educational potential of geography.

The difficulty of implementing geography standards in schools is underscored by twenty years of contemporaneous data from the National Assessment of Educational Progress in Geography that confirms persistent low levels of student performance and aptitude in the subject, with aggregate test scores for Hispanic students barely scoring above Basic (partial mastery), and African American students as a whole never reaching the Basic level (Government Accountability Office, 2015). In the terms we set out earlier in this paper, this is nothing less than capabilities deprivation on a mass scale and a direct consequence of curriculum thinking mired in F1 and F2 practices.

There are of course many other factors contributing to the United States' present challenges in providing K-12 geography instruction: pressure to teach other subjects, uneven quality of textbooks and other instructional materials, poor public perceptions of the subject, and a lack of support from the federal government and other important stakeholders (GAO, 2015). The Powerful Geography project is not designed to address all of these issues simultaneously. It does focus, however, on providing the research basis for reforming geography teacher education and standards development that will create the foundation necessary for future systemic change.

Conclusions

The GeoCapabilities website (www.geocapabilities.org) is not the place to go for ready-made lesson plans and classroom-ready teaching materials. It is a site designed to support the development of curriculum leadership in geography, a principle that we contend is a legitimate aspiration for all who teach the subject. The four training modules can be adopted and/or adapted by individuals or groups of teachers who wish to deepen and extend their capacities as curriculum leaders. It explicitly asks teachers to resist the strong pressure that exists to roll up their sleeves and immediately get stuck into the technical

challenges of practical teaching. Vital though practical competence is, the GeoCapabilities approach is concerned with the ethical question of what is taught, and with what purpose. Visitors to the site will see that the project advocates a sequence of thought that begins with a serious consideration of *who are the children we teach*. Following this, the project exhorts us to ask, so *why teach them geography?* Only after exploring this question can we consider *what it is we should teach them*.

Readers may argue that it is not for us, as teachers, to address this question of what to teach, because usually it has been decided already – in the official documents, the textbook or examination specification. We have tried to show in this article that taking the curriculum as given, and the teacher's role as a reduced, technical process aiming for efficient delivery, probably guarantees a Future 1 scenario, or worse, a Future 2 scenario based largely on generic competence. High quality teaching depends on teachers engaging with and interpreting what the standards or curriculum specification sets out for us. Our teaching is driven by bigger, more ambitious goals than simply imparting what we think students need to know for the test. We then, of course, need to think carefully about pedagogic techniques that are fully fit for the purposes we identify.

The premise of the GeoCapabilities approach is that students are more likely to encounter powerful knowledge in geography classrooms when teaching practices – from the selection of learning materials to choices about assessment – are guided by an understanding of geography's contribution to human capability. The partners on the GeoCapabilities project came to agree that professional questioning that begins with Who and Why reduces the risk that frequently arises when the focus is too quick to practical implementation. The risk is that we rarely get *beyond* the How. Children get geography lessons, often with adventurous and active pedagogies, but sometimes with questionable epistemic quality.

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