Chapter 7 How Geography Curricula Tackle Global Issues

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Abstract

The late Doreen Massey recently urged teachers to 'take on the world' (Massey, 2014). Though we may see the everyday world as a mosaic of different places, nations or regions defined by their boundaries, a global understanding brings different perspectives: of flows and networks and interdependencies. If we take this seriously - if we do *take on the world* - then young people need ideas in order to provide new ways of seeing and thinking. Geography in this sense is a disciplinary resource that provides access to a particular form of powerful knowledge: in short, the means to be able to 'think geographically'.

This chapter opens up and presents this argument. In the first part we provide a platform in the form of analysis of geography curricula from three countries, identifying both the potentials and the challenges that teachers face. Where is 'the global', we ask, and in what ways do formal curriculum documents inspire or constrain us from 'taking on the world'? The second part seeks to develop a disciplinary view of the school subject, appealing to the sometimes beguiling notion of powerful knowledge. We end by introducing a capabilities approach to thinking about the school subject which demonstrates the responsibility that inevitably falls to well-prepared teachers to enact the curriculum.

Key Words

Capabilities, Globalization, Powerful knowledge, Thinking geographically

7.1 Introduction

This chapter is written from the perspective of two teacher educators in England at the beginning on 2017. There is a lot to unpack from this simple contextual statement. First, as teacher educators we hold on to an ideal of preparing teachers who have vision. That is, teachers of geography who are inspired by the subject and its educational potential and who wish to work with children and young people in a way that enables them also to see the point of thinking geographically about the world. Secondly, our perspective is inevitably shaped in part by the cultural and political significance of our spatial and temporal setting. The impact of the UK's 2016 referendum on EU membership (leading to 'Brexit') is still far from clear – both on the future of the UK itself, and the future of the EU. However, it does seem to be the case that a new nativism is taking hold in the UK and across Europe - and indeed many other parts of the world, symbolized most forcibly through the astonishing election of Donald Trump as President of the USA, a tycoon who has bought and sold on the global markets, but whose political instinct is to build walls, strengthen border controls and retreat behind 'America first'.

Is school geography immune or aloof to these events and the ensuing instabilities? The stuff of geography includes enduring concepts such as environment, territory, borders, nations, states, globalization ... But events remind us that such ideas are themselves always in motion. How we think about, and with, these ideas inevitably evolves and shifts. In fact, the very purpose of a vibrant discipline such as geography is to keep such ideas in motion. This is how specialist knowledge develops and hopefully improves our ability 'to make sense of the world'. But how does this relate to the school subject? What geography should we teach in school?

We try to address these questions, specifically in the context of the school subject's capacity to help young people grasp global issues. Global understanding, we argue, can be considered to be an example of what has been termed *powerful knowledge* (Young, 2008; Young & Lambert, 2014; Lambert et al., 2015). This follows the influential work of the late British geography Doreen Massey, who urged school teachers to 'take on the world' (Massey, 2014) and aspire to develop with young people a multi layered, relational 'global sense of place'. We interpret this as the capacity to imagine the globe as a place, a single entity containing myriad interlocking systems understood through the examination of environmental, economic, cultural, political, and social processes. Though we may see the everyday world as a mosaic of different places, nations or regions defined by their boundaries, a global understanding brings different perspectives: of flows and networks and interdependencies. If we take this seriously - if we do *take on the world* - then young people need ideas in order to provide new ways of seeing and thinking. Geography in this sense is a disciplinary resource that provides access to a particular form of powerful knowledge: in short, the means to 'think geographically'.

Our argument is that the laudable aim of the International Year for Global Understanding

(IYGU), to better prepare children and young people to face the full range of global challenges¹, is more likely to be achieved through a high quality and suitably ambitious geography curriculum than through one that does not, explicitly, try to teach children how to think geographically. Whether we focus on global environmental change (climate change, biodiversity loss, pollution and resource degradation including soil loss), the immense human diversity across the globe (and the need to understand different perspectives, values, perceptions and existing knowledges) or the impacts of economic and socio-cultural globalization (including accelerating technological changes) - or indeed immense uncertainties that exist about global governance (and the reluctance among many people and some of their leaders to contemplate of the sharing sovereignty when it comes to facing some of these challenges), then *taking on the world* is a potent symbol of geography's potential as a school subject.

We use this chapter to open up this argument. In order to keep us grounded, and with an international readership in mind, we will start with an attempt to identify how the global has been articulated in official curriculum documents across three countries. But we then go on to emphasize that the words on the official pages of the geography curriculum are only a starting point. We want to appeal to a sophisticated and extended view of professionalism (see Brooks, 2016) in which we understand geography teachers as specialists who can bring insights from the discipline to interpret and develop depth and texture to the words on the page. In the 'post-truth' age, where President Trump's press spokespeople talk openly about 'alternative facts', as if only opinion or instinct matters, this has never been so important.

7.2 Finding the global

In this first section, we explore the curricula of three countries: Singapore, the United States and England. These countries have been chosen to be illustrative of a diverse range of curricula, within the logistical constraints of such a task. For example, our choice was limited to English speaking countries with accessible electronic curriculum materials. Although this is not by any stretch a globally representative sample of countries, it allows us to consider curricula where geography benefits from a relatively active research community, whilst still showing some diversity: a large federal state, a small city state and a medium sized country in different geographical locations across three continents - where approaches to geography as a school vary according to political and cultural circumstances; for example, from the US context of social studies to the strong humanities tradition in England. Our purpose is to provide an empirical platform for our discussion identifying 'the global' within the context of three curricula. This will help us explore the ways in which formal curriculum documents might support or constrain teachers to develop global understanding in their classrooms.

Each curriculum can be considered at three levels. The first encompasses the fundamental aims and values of the national curriculum: what are the stated reasons for education and how might this support or constrain the development of the global dimension? The second is the

¹ See: http://www.global-understanding.info/what-is-iygu/iygu-challenges/

subject curriculum, seen predominantly but not uniquely through the discipline of geography. At this level we also consider the place of geography within the overall structure of the curriculum and how this impacts its ability to consider the global. The third level is the *enactment* of that curriculum, or what really happens. To assess this, we are dependent on what we can gather on how teachers are supported to consider 'the global' through subject associations and support materials or exemplars. The purpose of this first discussion is to explore the ways in which school geography, as defined through these three levels of curricula, inspire or constrain teachers to enable children and young people to think globally (geographically) and to develop a global sense of place.

7.2.1 Singapore

The vision of the Ministry of Education (MOE) in Singapore is captured by the slogan 'Thinking Schools, Learning Nation'. The curriculum aims to prepare a 'generation of thinking and committed citizens who are capable of contributing towards Singapore's continued growth and prosperity' (MOE, 2009). Students learn English alongside their mother tongue language to help them retain their ethnic identity, culture, heritage and values (MOE, 2009). This explicit recognition of, and value placed on, the diversity of Singapore's population is perhaps a promising sign for developing the global. There is also a focus on 21st century challenges, not least through the *Framework for 21st Century Competencies and Student Outcomes* (MOE, 2015). The MOE explicitly identifies globalisation, changing demographics and technological advancement as key driving forces of the future, specifying what it believes are the three key 'competencies' to help students thrive in a 'fast-changing world'. The first of these is Civic Literacy, Global Awareness and Cross-Cultural Skills. Here then there is explicit emphasis on 'the global':

'Our society is becoming increasingly cosmopolitan and more Singaporeans live and work abroad. Our young will therefore need a broader worldview, and the ability to work with people from diverse cultural backgrounds, with different ideas and perspectives. At the same time, they should be informed about national issues, take pride in being Singaporean and contribute actively to the community' (MOE, 2015).

It appears that at the level of aims and values, the MOE encourages an appreciation of 'the global'. However, is it through a functionalist lens that the global is being seen? In other words, to what extent is this vision simply to provide an awareness of the global as an economic opportunity? The second level of our analysis may shed light on this, the geography curriculum itself. In Singapore, geography is taught within social studies at the primary level, and individually within the humanities department at secondary level, where it is distinguished by key concepts, such as place, space, environment and scale (Curriculum Planning and Development Division, 2016). One of the secondary geography syllabus aims is to foster *global awareness* of current geographical issues and future challenges. Thus, students study relationships and interactions between and within physical and human phenomena at local, regional and *global* scales. The syllabus stresses an issues-based

approach to geography which, Chang (2011) argues, foregrounds issues of sustainability, in particular those associated with climate change.

At the level of enactment, the Geography Teachers' Association of Singapore (GTAS) plays an active role in promoting and supporting geography education in Singapore (GTAS, 2016). Brief review of their annual publication, GEObuzz, shows a range of articles relating to global issues of the 'fast-changing world', such as greenspace and sustainable urban living (Irvine et al., 2016), climate change resilience (Irvine, 2015) or livestock trading (Neo, 2014). However, the main focus is often the local, presenting climate change as a global issue but focusing on the local consequences. Whilst the global can be used to contextualise local issues, a deeper concept of the global may require more time being spent on understanding local place as part of the global system. Thus, in the context of Singapore, what is 'the global' that teachers impart to their students? Is it a functionalist 'preparation' for the global as an economic opportunity, a scalar context for a range on local, national or international issues, or an attempt to engender in students a more nuanced global sense of place, such as advocated by Doreen Massey? Our analysis does not enable us to answer this question, but has caused us to ask it. In a sense, we are asking from where does the concept of global arise and develop: what role has the discipline of geography played in shaping what is taught in school?

7.2.2 USA

Within the US context, education is primarily a State responsibility. The official mission of the US Department of Education is to 'promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access' (US Department of Education, 2016). This lays down some of the mood music in which State and local communities, plus both public and private interests can contribute to the school curriculum. For example, the National Council for Social Studies (NCSS), the setting within which geography is taught in the USA, has developed its own curriculum standards. This provides a set of principles by which content can be selected and organized to build a State-specific curriculum to prepare 'informed and active citizens' (NCSS, 2016). It suggests ten themes or organizing strands for social studies programs which include people, places and environments and *global connections* (NCSS, 2016). It remains a moot point, however, the strength of the geographical perspectives that lie behind these words, as geography as a subject often seems buried beneath the social studies (McDougall, 2015), and subservient to history.

Thus geographers, through the collaborative effort of all four professional associations for geography in the US (the American Association of Geographers [AAG], National Council for Geography Education [NCGE] the National Geographic Society [NGS] and American Geographical Society) have also attempted to spell out content standards in the form of *Geography for Life: National Geography Standards*, first published in 1994, and revised in 2012 (Geography Education Standards Project, 1994; Bednarz, 2004). *Geography for Life* (http://www.ncge.org/geography-for-life) comprises 18 standards organized into six overarching themes: the world in spatial terms; places and regions; physical systems; human

systems; environment and society; and the uses of geography. Interestingly, there is no explicit reference to 'the global' within these standards, notwithstanding references to human and physical process active on 'the Earth's surface' and the importance of 'knowing about the world'. Understanding of flows, networks and interdependencies are in evidence within these US standards, albeit with a heavy emphasis on the spatial analysis of these and a reluctance to 'take on the world' (Massey, 2014), at least in the sense that Massey intended.

Even so, the extent to which geography standards are incorporated into State-specific Social Studies curricula varies significantly. An interesting example is the Colorado Department for Education (CDE) which, through their State academic standards, suggests that Social Studies programs 'prepare students to identify, understand, and work to solve the challenges facing our diverse nation in an increasingly interdependent world'. This stops well short of the global. Geography, according to CDE, provides students with 'an understanding of spatial perspectives and technologies for spatial analysis, awareness of interdependence of world regions and resources and how places are connected on local, national and global scales' (CDE, 2009). At best this is the global simply as wider context, although more detailed grade level expectations for the standards do contain many explicit and implicit references to the global: for example, 'spatial thinkers evaluate global systems such as culture, diffusion, interdependence...'). In Colorado then, conscientious teachers are invited to explore global interdependencies with students, possibly supporting them to develop a global sense of place.

However, this is not reflected in all US State Social Studies curricula. In contrast, Georgia's Standards of Excellence (Georgia Department of Education 2016) for eighth grade (junior high school level) appear to be more parochial. Students should be able to 'locate Georgia in relation to region, nation, continent, and hemispheres; distinguish among the five geographic regions of Georgia in terms of location, climate, agriculture, and economic contribution; locate key physical features of Georgia and explain their importance; and analyze the importance of water in Georgia's historical development and economic growth' (Georgia Department of Education, 2016). Although at ninth grade students begin to learn World Geography, at the end of eighth grade their experiences of 'the global' in geography are very different from their peers in Colorado (at least where they have been well taught). As such, this demonstrates a lack of consistency at the level of values and of curriculum expectations to impart concepts of the global through the school curriculum.

How then does this translate to the third level of our analysis, to the enacted curriculum in US geography (or social studies) classrooms? Sarah Bednarz suggests that key aspects of *Geography for Life* have not been adopted evenly or even widely across the US, the reasons for which lie predominantly with the professional preparation of individual teachers; the majority of social studies teachers have not themselves studied geography in any depth (Bednarz, 2004). Support for non-specialist social studies teachers is fragmented (the NCGE is small compared to the NCSS; furthermore, unlike history geography receives no Federal US education dollars), and although some States have active Geographic Alliances (http://alliances.nationalgeographic.com/) supported by the National Geographic Society (NGS) it seems that in the absence of more systematic or nationwide support, the potential of

geography in schools will be limited for years to come. The American Association of Geographers (AAG) Education team provides a range of support for geography teachers in the US, including online support through GeoCapabilities, Geography for Life and GeoMentors projects. In particular, the Geographic Advantage, an AAG companion website for 'Understanding the Changing Planet', provides a range of online geographic investigations over four themed areas (AAG, 2013). However, how students experience this is very much dependent not only on the State in which they reside which determines the geography curriculum, but also the expertise of the teacher who may not be a subject specialist.

7.2.3 England

In England (Scotland, Wales and Northern Ireland have different arrangements within the UK) there is a national curriculum for geography. Almost all secondary schools have some specialist geography teachers, the majority of whom are graduates of geography (although an estimated 30% of geography lessons nationally are taught by non-specialists). The Department for Education (DfE) states that the national curriculum provides pupils with 'an introduction to the essential knowledge they need to be educated citizens. It introduces pupils to the best that has been thought and said, and helps engender an appreciation of human creativity and achievement' (DfE, 2014). The national curriculum for geography aims to ensure all pupils 'develop contextual knowledge of the location of *globally* significant places Understand the processes that give rise to key physical and human geographical features of the word, how these are interdependent and how they bring about spatial variation and change over time' (DfE, 2013). The explicit reference to the global is welcome, but as in previous cases it seems merely to stress a descriptive context - and the odd expression 'globally significant' is left undefined. Within the relatively sparse detail of the curriculum, at each of the three 'key stages' (from 5 years, up to the age of 14), there is specific locational and *place* knowledge defined alongside human and physical geography and geographical skills and fieldwork. For example, at key stage 1 (ages 5 to 7) students' locational knowledge should include being able 'to name and locate the world's continents and oceans', and place knowledge 'to understand geographical similarities and differences through studying the physical and human geography of a small area of the UK and of a small area in a contrasting non-European country' (DfE, 2013). By key stage 3 (ages 11 to 14) students should then have wider locational knowledge 'using maps of the world to focus on Africa, Russia, Asia (including China and India), and the Middle East', alongside place knowledge to 'understand geographical similarities, differences and links between places through the study of the human and physical geography of a region in Africa and a region in Asia' (DfE, 2013). This reference to specific world places is valuable, but as we also noted in our US case, stops well short of the global: knowledge of the world is not the same as a sense of the global. Perhaps significantly, Eleanor Rawling, lead DfE geography consultant during the development of the 2014 National Curriculum, suggests that the development process was strongly political, with moments of direct input from Ministers over topics, such as climate change and global citizenship (Rawling, 2015).

As such, the global is significant by its absence within the English National Curriculum, but at the level of enactment there is a range of support for specialist geography teachers very specifically to develop the global, particularly from the Geographical Association (GA) and Royal Geographical Society (RGS). For example, an edition of *Teaching Geography*, the GA's professional journal for geography teachers, has a focus on global learning (GA, 2015), and both the GA and the RGS are partners in the Global Learning Programme (GLP: <u>http://glp.globaldimension.org.uk/</u>). This is a national, Government-funded program which supports schools to embed 'global learning' into teaching across the curriculum (GLP, 2014). Interestingly, the funds come from the Department for International Development (DFID) rather than the DfE, implying a particular skew or focus to 'global learning', one where political purposes might supplant the education (a danger noted by Bill Marsden some years ago in his discussion of 'good causes' and education (Marsden, 1997)).

7.2.4 Summary

This brief foray into finding the global in the curricula of three countries raises a number of issues. Firstly, there is a lack of consistency about how 'the global' appears within formal curricula. In the case of Singapore, the global features strongly in the context of 21st century competences and emerges through an issues-based curriculum. In the UK context, place and location appear significant, and yet developing a global sense of place does not appear explicitly to be a curriculum aim. In the US, even though the national standards appear strong in some ways, the local interpretation of these and the weak position of geography within social studies mean that US schools students may receive a very parochial geographical education. Secondly, there is a lack of clarity on the meaning of global within official documents: it is questionable the degree to which 'global learning', 'global issues' or even 'globalization' carry meaning beyond generic everyday parlance. It was noted in all three cases that global was sometimes reduced merely to signify a descriptive, scalar context for local, national or international issues. We will develop this matter further in the next section. For it is difficult to see that in any of our chosen cases the idea of the global being in accordance with Massey's notion of a global sense of place: the demand that we are able to 'take on the world' (Massey, 2014) and grasp the planet itself as a place, to be understood as a whole in order to foster 'responsibility at a distance' (Massey, 2002, p. 293). In Massey's words,

"Going global is crucial to thinking spatially. In our teaching we are very careful to pay attention to those central concepts, place and environment. But space is equally important. If time is the dimension of sequence, of things and events following one after the other, then space is the dimension of simultaneity, of things, events, people existing at the same moment. It is this that underlies our concern with interdependence. And, therefore, it is space that poses that fundamental question: 'How are we going to live together?' The global is an essential scale for making this point." (Massey, 2014, p. 38)

It is interesting that Massey acknowledged herself that interdependence can "seem to be

simply vacuous (yes, of course we are all connected)" (op cit, p. 38). It is the *close study* of the content of those interdependencies that matters so that we come to new understandings – of the interplay between people and the physical environment for example, or the fact that all of us are utterly dependent on here as well as elsewhere. This is the potential of school geography: to achieve such a close study of global interdependencies with children and young people.

7.3 Geography's powerful knowledge

Of course, Massey is not the only academic geographer who has argued the case for geography's position to develop in students a more critical sense of place. A number of academics have shown that studying the global through a geographical lens supports us to better appreciate the sophisticated nature of interrelationships between spaces at different scales. Evenso, economic geographer Peter Dickens has reflected on the marginalisation of geographers within the globalisation debates in higher education (2004). This, he suggests, has resulted in a superficial debate in academia and beyond, in which there is an implicit assumption that the *global* determines the *local*. Dickens argues that geography offers the opportunity to develop a more 'joined-up' approach to thinking about the global, considering the agency rather than simply the powerlessness of the local, and supporting Massey's argument that,

'Places are not simply always the victims of the global; nor are they always politically defensible redoubts *against* the global. For places are also the moments through which the global is constituted, invented, co-ordinated, produced. They are "agents" *in* globalisation.' (Massey 2004: 14)

Dickens argues that it is the geographer's more sophisticated conception of scale which allows this more nuanced understanding of the global (Dickens 2004) - and how it 'works'. Saskia Sassen for example, has considered the strategic role of what she termed the Global City within the global economy, not as a product of ubiquitous global processes, but instead being places of enormous resource concentration which are mobilised to coordinate globalisation (Sassen, 1991). For anyone living in the UK for example, London is not only taken for granted as the capital city and often the source of national pride as with the 2012 Olympic Games, but also, increasingly seen as somewhere different: it is *not like* the rest of the UK. Its wealth, its power and its diversity - its role in global systems – gives London a different socio-political culture from most of the rest of the UK. Thus, the Brexit vote mentioned in our introduction may well have resulted from a suspicion not so much about 'Europe' but of 'London' and what it represents. Similarly, Trump's nativist retreat was explicitly designed to appeal to those who feel 'left behind' by globalisation.

And yet, what geography teaches is that even though a 'sense of place', providing national, regional and local identities, is of profound importance (and it has been exploited by demagogues throughout history), a retreat behind imagined borders is, in this day and age,

not a sustainable choice. From Humboldt's writings onwards (Wulf, 2015), the geographical perspective has been to keep the world whole, as a connected system. This enables a complete rejection of climate change deniers who would have us believe that it is a Chinese 'hoax', or that 'our' consumption is not any way connected to 'their' CO2 emissions. Examples of geographical scholarship developing such thought include O'Brien and Leichenko's exploration of the dual and related effects of economic globalisation and climate change as being inextricably linked (2000, 2003). It is the geographer's ability to unpick these complex relationships and interdependences between spaces of the local and the global that make it a powerful subject in school through which to develop with young people a *global* 'sense of place', or the ability to 'take on the world'.

Our guiding question in this chapter was *how do geography curricula tackle global issues*? So far, on the basis of our sketch of three different national settings and the focus provided by Massey's concept of a global sense of place, our answer could be summarized as slightly ambivalent. Whilst we acknowledge some impressive formulations and the clear identity of geography being concerned with place, space, environment and interconnectedness – which usually includes the global scale – we are also impressed with Massey's exhortation that acquiring a knowledge of the world is not in itself adequate. Her critique encourages us to think hard about the meaning and intention behind the words in official curriculum documents, including any ideological (national) priorities. It is possible to see in curriculum formulations, perhaps inevitably, the boundaried world of nations, competition and self-interest. 'Taking on the world' implies stepping beyond this: for example, understanding the costs of economic globalization to some groups/locations, as well as the benefits (to other groups/locations). In some contexts such as climate change, when we take on the world we may even begin to see the adoption of a global perspective as an essential prerequisite for human survival (Lambert, 2013).

7.4 Curriculum futures and the challenge for teachers

Put this way, the ability to think geographically (which we say includes the ability to take on the world, and adopt a global sense of place) may be thought of as a signifier of an educated person, especially in this day and age. This is the core idea that underscored the GeoCapabilities project (www.geocapabilities.org). The project, which went on to develop materials to support geography teachers, in effect tests the hypothesis that an absence of (high quality) geography in the school curriculum deprives young people of certain aspects of their intellectual capability. The notion of quality is of course paramount here. It refers to 'epistemic quality' in the classroom, and uses a 'Three Futures' heuristic (Young and Lambert, 2014) in order to distinguish between possible curriculum scenarios – those that do, and those that do not, encourage epistemic *ascent* (Winch, 2013): that is roughly, being on the pathway towards appreciating expert, systemic, specialized knowledge. Crudely, this means access to the teaching of knowledge that is not characterized simply by the accumulation of facts (the banking model of education, known as Future 1), nor by a gross overemphasis of discreet generic competences said to support lifelong learning or learning to learn (the

outcomes model, known as Future 2). Instead, GeoCapabilities advocates a Future 3 curriculum scenario based on the development with students of what is called 'powerful knowledge' (Young, 2008), summarized in Table 7.1 (see also Slater et al., 2016).

ТҮРЕ	CHARACTERISTICS
1. Knowledge that provides students with 'new ways of thinking about the world.'	Using 'big ideas' such as:
	Place • Space • Environment
	These are meta-concepts 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
	• <i>Generalise</i> E.g. models (push-pull models of migration; demographic transition
3. Knowledge that gives students some power over their own knowledge.	To do this, students need to know something about the ways knowledge has been, and continues to be developed and tested in the discipline.
	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 'nexus' 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'.

Table 7.1 A typology of geography's powerful knowledge (underpinning a Future 3Curriculum). Adapted from Maude (2016).

7.5 Conclusion

We have tried to show in this chapter that geography, as a community of scholars, does indeed create powerful knowledge – an example being how geographers conceptualise the global. Part of what gives this knowledge 'power' is the means it affords teachers to interpret and develop curriculum specifications. This is why we need specialist teachers of geography, to ensure that the curriculum, as made or enacted by teachers, has epistemic quality. The notion of powerful knowledge is therefore significant and has been explored by GeoCapabilities (the website provides materials to enable teachers to do the same). Alaric Maude (2016) has very usefully proposed a typology, summarized in Table 7.1, which again has been derived from Young's writings. What gives knowledge 'power' is, according to Young, what it enables you to do or think. It is this that provides the basis for the 'capabilities' approach to curriculum thinking as explored by the GeoCapabilities project.

It is reasonably heartening, and maybe not surprising, to find that geography curricular, as illustrated in this chapter, identify global processes and globalization as part of the contents of geography education. This is how it should be. But to be able to think critically about the global, and to develop deep and sophisticated global understandings are another matter. We are clear that to be able to *think geographically* about the global is potentially extremely important – arguably, an essential component of citizenship education for children and young people. First, teachers need to be able to do this, for they have an enormous responsibility to interpret the curriculum through a Future 3 lens (Lambert, 2016) so that it has the capacity to enhance and develop students' capabilities - their functioning, to be and to do in a rapidly changing world.

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