

GEOGRAPHICAL KNOWLEDGE AND PROFESSIONAL DEVELOPMENT¹

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Abstract

In this study about geographical knowledge at schools, the author argues that viewing teachers' knowledge as bounded and objective limits our understanding of how teachers use their subject expertise. It is necessary to understand both academic and school geography as dynamic knowledge constructs, what means that we have to re-evaluate how we understand teachers' subject knowledge and subject expertise. Alternative ways of viewing teachers' knowledge are focussed and the author argues that these reflect a conceptualisation of knowledge that can be helpful for teachers preparing students for a post-modern world. The theories outlined in this study, and particularly that of psychologising subject matter, can support geography teachers in developing this kind of subject expertise that encompasses their formal and informal geographical knowledge in their practice and professional development.

Keywords: Geographical knowledge. Teacher's knowledge. Pedagogical content knowledge. Psychologising subject matter

Resumo

Conhecimento geográfico e desenvolvimento profissional

Nesse artigo sobre o conhecimento geográfico nas escolas, a autora argumenta que considerar que o conhecimento do professor é enquadrado e objetivo limita nossa compreensão de como os professores usam sua *expertise* disciplinar. É necessário compreender a geografia acadêmica e a escolar como constructos epistêmicos dinâmicos, o que significa que precisamos reavaliar como nós compreendemos o conhecimento do professor sobre a matéria a ser ensinada e sobre a “*expertise*” disciplinar. Formas alternativas de considerar o conhecimento do professor são focalizadas e a autora argumenta que isso reflete uma conceitualização do conhecimento que pode auxiliar os professores a preparar os estudantes para um mundo pós-moderno. As teorias abordadas nesse estudo, e particularmente aquela sobre a “matéria disciplinar psicologizada” podem dar suporte aos professores de geografia para desenvolver o tipo de *expertise* disciplinar que envolve e articula o seu conhecimento geográfico formal e informal na sua prática docente e no seu desenvolvimento profissional.

Palavras-chave: Conhecimento geográfico. Conhecimento do professor. Conhecimento pedagógico do conteúdo. Matéria disciplinar psicologizada

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Introduction

Literature in education often refers to teachers' knowledge, or teachers' subject knowledge without further elaboration or explanation. In fact, teachers' knowledge is not an unproblematic term and can be used in education to mean a variety of things. A cursory glance at the literature will reveal a range of terms used sometimes interchangeably: subject expertise, subject knowledge, subject content, the subject, the subject discipline. When these terms are used without explanation they can belie assumptions about teachers' knowledge which sees it as reified, independent of the knower, timeless, objective, and universal (see Kelly 2009). Kincheloe and Steinberg summarise this as a positivist approach and argue:

To the positivist educator there is only one *correct* way to teach and one *correct* body of subject matter (Kincheloe and Steinberg, 1998: 4)

There are, of course, alternative approaches to understanding knowledge which believe it to be socially constructed, context dependant and imbued with notions of power and authority, as is reflected in much work in curriculum and teaching (see for example Kelly, 2009). But ideas around teachers' knowledge are still dominated by traditional notions of knowledge and this influences how we understand how teachers use their subject knowledge.

In this chapter I explore why viewing teachers' knowledge as bounded and objective limits our understanding of how teachers use their subject expertise. I argue that understanding both academic and school geography as dynamic knowledge constructs means that we have to re-evaluate how we understand teachers' subject knowledge and subject expertise. I explore alternative ways of viewing teachers' knowledge and argue that these reflect a conceptualisation of knowledge that can be helpful for teachers preparing students for a post-modern world.

1 Describing Teachers' Subject Knowledge

One of the most popular ways of understanding teachers' knowledge has been developed by Lee Shulman who argued that teachers have seven discrete knowledge bases, one of which he called pedagogical content knowledge (PCK), the particular domain of teachers. This concept became a popular way of understanding and conceptualising the role and influence of subject knowledge in teachers' practice. In this section, I explore this idea's popularity and how it conceptualises teachers' knowledge.

Shulman's aim was to draw attention to what he called 'the missing paradigm' in the study of teachers' knowledge: that of understanding teachers' subject knowledge. He identified seven knowledge bases for teaching: content knowledge, general pedagogical knowledge, pedagogical content knowledge, curricular knowledge, knowledge of learners, knowledge of educational contexts, knowledge of the philosophical and historical aims of education. PCK was given special attention as a key knowledge base for teachers.

Shulman defined pedagogical content knowledge as: "subject matter for teaching" (Shulman 1986, p 9, emphasis in original). The term was used as separate from content knowledge in that it describes "the most useful forms of [content] representation ..., the most powerful analogies, illustrations, examples, explanations, and demonstrations - in a word, the ways of representing and formulating the subject that makes it comprehensible for others" (Shulman, 1986, p 9) making it the specific domain of the subject specialist teacher. In Shulman's later paper (Shulman 1987) his elaboration of the knowledge bases for teaching elevated PCK to an equal status with the other knowledge bases (Gess-Newsome, 1999). He also described it as:

that special amalgam of content and pedagogy that is uniquely the providence of teachers, their own special form of professional understanding ... Pedagogical content knowledge ... identifies the distinctive bodies of knowledge for teaching. It represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, and adapted to diverse interests and abilities of learners, and presented for instruction. Pedagogical content knowledge is the category most likely to distinguish the understanding of the content specialist from that of the pedagogues. (Shulman, 1987, p 8)

PCK has been very popular, both with teacher education courses and educational researchers. Nelson (1992) described it as promoting a cottage industry of research into PCK, much of which was subject specific research which sought to identify what teachers needed to teach their subject effectively (Wineburg & Wilson, 1988; McDiarmid *et al.*, 1989; Grossman *et al.*, 1989; Ormrod & Cole, 1996). It was adopted largely uncritically by many teacher education programmes (McEwan & Bull, 1991).

Part of PCK's appeal was that it "felt right" to many researchers. For example, Rosie Turner-Bisset describes how she first encountered PCK, which then went on to feature as an important part of her research:

[Shulman's] conceptualisation of it [PCK] as an amalgam between content and pedagogy resonated with me immediately. I recalled the PE lesson and realised what I had been missing in terms of knowledge. (Turner-Bisset, 2001: 12)

PCK therefore seems to describe something which teachers are familiar with. Its popularity can be seen in how many initial teacher education courses are structured to combine pedagogy and content knowledge. For example, most Geography PGCE³ courses do not teach geographical content or pedagogical processes separately: but unite them, emphasising how content and pedagogy work together.

By identifying PCK as a separate and unique knowledge construct to describe teachers' subject knowledge, Shulman was not only responding to criticisms of the work of educationalists at the time, but was also demonstrating that there was something unique that teachers did with academic knowledge that was different to other subject specialists.

Gess-Newsome (1999) notes, however, that the recognition of this phenomena as a separate knowledge has brought conceptual difficulties. She reports how research has been unable to agree on how PCK is developed, or how it relates to its constituent parts of content knowledge and pedagogical knowledge (ibid). Consequently, the lack of clarity over how PCK is developed makes the concept difficult to understand (Sockett, 1987; Meredith, 1995; Segall, 2004). Grossman's work highlights the difficulty of defining PCK as it is unclear how it can be differentiated from other types of knowledge. This difficulty is grounded in how it represents teachers' knowledge. By defining the phenomena of how teachers use their subject knowledge as a separate knowledge construct, Shulman was ascribing it with the attributes of knowledge rather than as a process. Carlsen (1999) argues that PCK is grounded in a structuralist view of knowledge. As such, there is an implicit assumption in PCK that content is static (Banks, Leach & Moon, 1999). Others have noted that it does not enable a constructivist conception of learning (Meredith, 1995; Geddis, 1993), or accommodate how teachers' responses may vary due to differing contexts (Carlsen, 1991).

These observations limit the usefulness of PCK to understand teachers' subject knowledge. For example, teachers change their understanding of knowledge through teaching. Grossman's (1990) and Hillock's (1999) work shows how English teachers' values about the subject affect what they perceive as English 'content' or knowledge. Their definition of 'English' affects how they construct sequences of lessons and individual lessons. Turvey (2005) also shows how the act of teaching can change teachers' subject knowledge as they encounter different perspectives on text through working on it with children. Carlsen's (1991) work with science

3 PGCE – Post-Graduate Certificate of Education: the post-graduate teacher training certificate for England and Wales.

teachers shows that their perception of the subject also varies depending on context and the people involved. Teachers actively construct and develop their subject knowledge through the process of teaching, suggesting that their subject knowledge is dynamically developed and under constant review.

The conceptual problems with PCK are partly due to the inadequacies of the word “knowledge” to describe this aspect of teachers’ work. Fenstermacher (1994) describes “knowledge” as a word that gives power and authority. He questions if the type of “knowledge” to which PCK refers is clearly defined as a form of knowledge (Fenstermacher, 1994). In fact, Fenstermacher notes the epistemic difficulties with defining knowledges, particularly the knowledge held by others, and differentiating them from beliefs. Indeed, Parajes (1992) notes the complexity of researching teachers’ beliefs and knowledge, and being able to make firm statements about the influence of either. As such, defining PCK as a knowledge becomes problematic. Carlsen (1999) argues that we need a more general term that reflects the dynamic nature of subject knowledge, teachers’ personal relationship with it and with pedagogy.

The conceptual difficulties associated with PCK can therefore be attributed in part to the problems associated with defining it as a knowledge. Regarding what teachers know in this way prevents teachers and teacher educators from recognising the dynamic way that knowledge is developed both in disciplinary communities and in individuals. In the next section, I look specifically at geographical knowledge suggesting that it is more useful to consider geography teachers’ subject knowledge as subject expertise.

2 Academic geography and school geography

Academic geography, as a discipline, is a human creation, defined and maintained by people (Johnston, 1991). Goodson notes that this social construction is a dynamic process:

Subjects are not monolithic entities but shifting amalgamations of subgroups and traditions that through contestation and compromise influence the direction of change. (Goodson, 1987: p 64)

Johnston (1991) argues that such rivalry of ideas and influences can come from both inside and outside the discipline. Therefore, how ‘geography’ has been understood changes over time and reflects what society considers valuable knowledge (Johnston, 1991; Unwin, 1992; Livingstone, 1993). These changes have

affected how geography was studied and what content was considered valuable. This reflects different geographical knowledges (or epistemologies) as well as different methodologies.

This is not to suggest that there is always agreement about what constitutes geographical knowledge at any given time or place. Academics will hold different views about what geography is at any given time, and what its contribution is to our social, political, cultural and academic understanding. Consequently, whilst definitions of geography are subject to change, there is some agreement about key concepts which are geographical. For example, Jackson (2006) has argued that there is some consensus that the concepts of space, place and scale are agreed to be geographical. His elaboration of what it means to “think geographically” is especially useful as it places emphasis on relational thinking and key geographical concepts. However, acknowledging the contested nature of academic geography, makes defining school geography - or “what” geography should be taught to young people - even more complex.

How does this changing definition of academic geography affect the school subject? Lambert (2009a) has argued that the perceived gap between academic and school geography is in fact widening. This is perhaps unsurprising as academic geographers play less of a role in constructing school geography, whilst government policy and public examination boards play an increasing role in defining the school curriculum. Walford (2001), analysing school geography from 1850-2000, observes that the school subject has been influenced by broad changes and developments in pedagogy such as progressive notions of teaching and learning. Graves (2001), focusing on school geography textbooks from the same period, makes similar observations stating: “[Geography school] textbooks tend to follow society, rather than lead it” (Graves, 2001, p 157). Rawling (2001) also highlights how ideological perspectives of key players have had a significant impact on education policy and how it defines school subjects (particularly geography). Such trends and foci affect how school geography can be defined independently of developments in the academic discipline.

3 The relationship between the discipline and the school subject

The relationship between the academic and school subject is then characterised as a relationship between two shifting, dynamic entities. It is not surprising therefore, that geography graduates consider school geography to be different from their undergraduate studies (Lambert, 2002). Undergraduate geography courses

rarely cover all areas of geographical content covered in the school curriculum, so geography teachers do not necessarily have a detailed knowledge of all the topics required to teach geography at A' level (Bale & McPartland, 1986). Opportunities to reflect on subject knowledge development post qualification are limited (Prentice, 1997).

Research in geography education has tried to identify the link between undergraduate specialism and practice. For example, Barratt-Hacking's (1996) research looked at 16 teachers in their PGCE year and concluded that geography teachers' geographical "persuasions" are often suspended when they teach geography. Jewitt's (1998) work contradicts these findings. Her work on one geography department suggests that the individual's practice is underpinned by values, mainly developed through their academic geography experience, which affects how they perceive school and academic geography. One of the reasons for this lack of clarity may be due to the narrow way that geography is defined in these studies (ie, through undergraduate specialisation). A broader conceptualisation of subject expertise that goes beyond undergraduate knowledge or experience could illuminate the relationship between how teachers understand geography and how they teach it.

Teachers' subject knowledge is not fixed upon graduation. Brooks and Morgan (2006) argue that the experience of living in the world makes geographers out of all of us. Such a notion suggests that geographical knowledge is created and re-created on a daily basis through learners (inside or outside a formal learning context) thinking geographically. This learning can be influenced by a variety of media, including portrayals of geographical or global phenomena of distance places, and through independent travel. This is especially the case for geography teachers who have received an academic training in the discipline. Rynne and Lambert (1997) argue that geography graduates have the intellectual capacity to develop new understandings through their ability to think geographically. These ideas are developed further in Martin's (2006) work which demonstrates the complexity of defining teachers' understandings of geography. Her concept of ethnogeographies emphasises how teachers' engagement with geographical phenomena beyond formal education is an important component of their geographical understanding and pedagogical toolkit:

Ethnogeography reflects the view that all learners are geographers because they all live in the world. They all negotiate and interact with a variety of landscapes (human and natural) on a daily basis. What they don't perhaps recognise is that this knowledge is useful geographical knowledge and a point from which deeper conceptual understanding is developed. (Martin, 2007 p 183)

Therefore, experienced teachers may have highly developed geographical imaginations, which can influence their understanding of the subject, and consequently their teaching. Therefore to talk about teachers' geographical knowledge or subject knowledge may be inaccurate and it may be more useful to consider teachers as having a range of geographical knowledges. The knowledge base (or bases) that teachers can draw upon when deciding what to teach and what is valuable geographical knowledge will be broad. Teachers are informed by their own geographical understanding, their geographical imaginations and their formal knowledge of the academic subject. This combination goes beyond an understanding of teachers' geographical knowledge to that of teachers' subject expertise.

4 Subject expertise and its influence on practice

Understanding teachers' knowledge as subject expertise enables a more constructivist approach to knowledge creation and development. PCK is not able to reflect changes in subject knowledge development but, a more flexible approach to teacher's subject knowledge, such as viewing it as subject expertise, acknowledges that knowledge can be created in classrooms, and credits teachers with geographical knowledge that is developed beyond formal academic contexts.

Exploring what this looks like in a classroom setting, Lambert (2009b) has advocated an approach that he describes as "living geography" which enables a constructivist and critical approach to geographical knowledge and geography education. He argues that this encompasses three different geographical knowledges: academic geography, school geography and popular geography (ibid).

Living geography is created when teachers use the subject discipline ... and their knowledge of children and young people ... to make sense of the world.
Living geography

- embraces 'young people's geographies' – that is young people's experiences and encounters with the world and takes seriously what they make of these things
- certainly recognizes the past, including the deep past (how else would we understand mountains for example), but is also current and futures oriented, encouraging young people to envision and project into the future
- often 'local' but always set in wider (global) contexts, requiring practice and steadily deepening awareness of interlocking scales
- investigates processes that bring change to environments – these can be grouped as environmental (or 'physical'), social, economic and political.
- encourages a critical, conceptual understanding of a range of key ideas such as 'sustainable development'. This foregrounds the nature of geography as a synthesis across the physical and human worlds. (ibid)

Lambert's explanation of living geography describes an approach that seeks to combine geographical concepts alongside local knowledges whilst advocating constructivist pedagogies such as geographical enquiry (see Roberts, 2003). Lambert's definition also incorporates learners' geographical experiences which can be developed as part of their geographical education. Such a vision of geography and teaching geography is underpinned by a view of knowledge that acknowledges that it is plural, constructed, can be critical and can be developed through a teaching/learning interaction.

Innovative and plural approaches to geography education that take into account pupils' views and locally derived knowledge have not received universal approval. Concerns have been raised about the quality of the geographical content in some similar initiatives. For instance, Marsden (1997) has argued that some approaches to teaching geography (for example, the issues-based approach) place too much emphasis on the social or educational considerations at the expense of due consideration of the content. He warns of the geography being taken out of geography education. Lambert criticises the thinking skills movement in geography for its light consideration of geographical content (see chapter 7 in this volume). Standish (2009) takes this argument even further. He suggests that recent developments in school geography have been hijacked by a liberal agenda that has effectively removed the essence of what geography is. Both of these arguments are useful warnings to geography educators about the geographical integrity of what is being taught (Lambert, 2008).

Such concerns are echoed by Young (2008) who notes how trends in education, such as the emphasis on targets, access and participation, have resulted in a lack of attention to knowledge. These trends have diverted our attention away from questions about what is worthwhile knowledge and what knowledge should be taught. Young recognises the importance of knowledge in society. He argues that:

a 'curriculum of the future' needs to treat knowledge as a distinct and non-reducible element in the changing resources that people need access to in order to make sense of the world. (ibid: 90)

This emphasis on the importance of knowledge is echoed by Gardner (2007) in his consideration of "minds of the future", where he argues that "disciplinary thinking" will be important as it distinguishes between those that have factual knowledge without disciplinary sophistication. For Gardiner, the disciplines are ways of understanding the world, and understanding and interpreting "facts" about the world. In this sense the disciplines help us to differentiate between knowledge and information. (Gardner also notes the importance of "being disciplined" as

part of disciplinary thinking.) Therefore, it is important not to underestimate the significance of disciplinary knowledge and its inclusion in the school curriculum. The challenge remains to understand how such views of academic disciplines are reflected and how they influence the school subject.

Goodson (1987) has noted that the case of geography is unique as the subject started being taught in classrooms before graduating to university status. In the school subject of science, it has been suggested that the academic and school subjects are not the same subject discipline (Kind & Taber, 2005). In fact, as Stengel's (1997) work demonstrates, the relationship between the school subject and its academic parent is not always straightforward. Stengel suggests that academic and school subjects are linked in one of the following ways:

- 1) that academic disciplines and school subjects are essentially continuous
- 2) that academic disciplines and school subjects are essentially discontinuous
- 3) that academic disciplines and school subjects are different but related in one of three ways:
 - a. academic discipline precedes school subject
 - b. school subject precedes academic discipline, or
 - c. the relationship between the two is dialectic.

Her analysis shows that the relationship between academic and school subject is not necessarily linear. Recognising this complexity indicates that subject specialist teachers need to have a critical understanding of both the academic discipline and the school subject. In practical terms, this means understanding the disciplinary origins of the content of school curricular and school texts. Such an understanding can help teachers to make the decisions necessary to ensure that what they are teaching is both geographically accurate, up-to-date and suitable for their students. It is this dynamic that PCK sought to describe. However, as McEwan and Bull (1991) highlight this is more of a dynamic process conducting "in-action", than a knowledge. This distinction is significant as it requires a shift in how we think about knowledge in classrooms. The shift is away from a technical delivery model of instruction, to a more dynamic process where the teacher guides her students to a greater and deeper understanding through her own expert knowledge of the subject. This is a different model of subject expertise which recognises the various ways in which teachers use their subject expertise. Its roots were explored by John Dewey, and returning to his analysis is useful here.

5 Psychologising Subject Matter

Dewey had a nuanced understanding of the nature of teachers' subject expertise. He distinguished between academic subjects and how we learn them because he suggested they were developed differently. Dewey argued that subjects or disciplines were the result of academics debating and clarifying arguments over time. Consequently academic subjects are organised and presented 'logically'. They are the finished product of all the work that has gone on before, presented in the most logical way. In contrast, Dewey argued that children learn from experience, which he described as 'psychologically'. Dewey represents this with a specific example from geography:

We must discover what there is lying within the child's present sphere of experience [or within the scope of experiences which he can easily get] which deserves to be called geographical. It is not the question of how to teach the child geography, but first of all the question *what* geography is for the child. ((Dewey, 1972 [1897]), 169)

Dewey deliberately placed the child's experience first, and the subject discipline as a way of helping that child to make sense of that experience. Dewey suggested that teachers could do that by "psychologising subject matter" to enable children to make sense of their experience (Dewey 1972 [1897]). However, understanding what this psychologising means has proved to be challenging. For example, Shulman has argued that it is this process of psychologising that pedagogical content knowledge seeks to describe. McEwan and Bull (1991) have been critical of his interpretation of Dewey highlighting how Dewey's description of "psychologising" is of a process that a teacher does with their subject knowledge, alongside their knowledge of students, rather than as a separate knowledge base.

Research into teachers' psychologising subject matter often uses metaphors to illustrate the pivotal role of subject knowledge. For example, Smith and Girod (2003) use an analogy of a map to illustrate the process. In their description, the teacher's subject knowledge is the base of the map. Upon that base map, teachers can orientate both the intended final destination (ie, what is to be learnt), and the locations of where their students currently reside (ie, the students' prior and current knowledge and experience). Connecting the final destination and the students' current location is the process through which teachers can help to connect their students with the lesson content.

Other descriptions of excellent teachers' practice have described this process as a bridge, such as Wineburg and Wilson (1988), in their examination of the use of subject knowledge in history teachers:

“Though diverse, all of these representations shared one feature: Each attempted to build a bridge between the sophisticated understanding of the teacher and the developing understanding of the student” (Wineburg & Wilson, 1988, page 332).

Both metaphors are useful to visualise how teachers can use their subject expertise, but only go some way in illuminating the relationship between teachers’ subject knowledge and how they teach. They successfully illuminate that psychologising requires teachers to begin with their knowledge of students. Smith and Girod (2003) emphasise this in their work, noting how the blind acceptance of “bought” or “legislated” curriculum is not acceptable as the curriculum authors are not able to design curricula for individual children and their needs. Smith and Girod argue that it is teachers’ responsibility to adapt and design curricula for their individual students. Only in this incidence can they psychologise the subject matter.

Deng (2007) has explored what teachers need to know about their subject in order to psychologise it in this way. He argues that teachers need a broad conception of a subject discipline which should encompass five dimensions: the content, the psychological aspects, the pedagogical aspects, the epistemological aspects and the socio-cultural dimensions. To psychologise the curriculum, teachers have to move beyond the “content” of the curriculum or examination specification, and also consider its epistemological assumptions, what the children’s experience of the subject would be, any misconceptions they may have of it and also public perceptions that may be relevant. These five dimensions make up a broad definition of subject expertise that can enable teachers to move beyond “delivering” the curriculum.

In my own research (Brooks, 2007; 2010) into geography teachers’ subject expertise I observed six “expert” geography teachers who used three strategies in their lessons to connect learners with the lesson content:

- tuning into the students’ personal geographies
- making connections with students’ previous geographical knowledge or experiences
- using the teachers own geographical experiences as an example or story.

In the lessons I observed, these strategies were used flexibly and appropriately depending on the student, the lesson topic and the particular difficulties students were experiencing. The use of these strategies showed teachers making nuanced decisions about their teaching that reflect the kind of subject expertise described by Deng; one that takes into account where the knowledge comes from and how students understand it. Each of these strategies requires the teacher to apply their

subject expertise in a unique and context-dependant way. This decision making process has been described by Rice as synoptic capacity (although in a higher education context):

the ability to draw strands of a field together in a way that provides both coherence and meaning, to place what is known in context and opens the way for connections to be made between the knower and the known. (Rice, 1992: 125)

This way of understanding teachers' subject expertise is useful for many subjects, but particularly for geography as a discipline that can draw upon the teacher's and students' own lived experiences. A geography teacher using their synoptic capacity will be able to draw upon the learners' geography experience and will use the disciplinary tools (or concepts) to help students develop a deeper understanding of the world around them and the connections they have with the world that may not be immediately visible to them. This is not an aspiration notion, but a description of a teacher using and engaging with her subject expertise.

Final Words

In this chapter I have argued for a broad conception of geography teachers' subject expertise, that encompasses their formal and informal geographical knowledge. Such a broad definition enables us to understand that for a teacher, knowing the subject is not enough. Teachers need to understand the concepts that underpin knowledge in their field, alongside engaging with what their students know about the subject, their experience of it, and how they can make sense of their experience. This is especially true for geography as students live and experience the world, and the school subject can help them to understand that experience. But teaching geography is more than helping young people to understand the commonplace. "Living geography", as described by David Lambert (2009a), reminds us that to do this, teachers have to draw upon geographical concepts and theories about the world. These concepts and theories are developed and refined in the academic discipline. Teachers are the gatekeepers to that discipline, and as such can use the academic discipline as a geographical resource to help students understand more than their local experience. Modelling how teachers use their subject expertise is not easy, and as this chapter has shown many educationalists have attempted to do so. But as Rynne and Lambert (1997) argue, teachers as graduates of geography have the intellectual capacity to support students to think geographically. The theories outlined in this chapter, and particularly that of

psychologising subject matter, can support geography teachers in developing this kind of subject expertise in their practice.

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