

Subject knowledge for teaching and continuing professional development

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Abstract

This short discussion article outlines a range of theoretical issues underpinning the formation of subject knowledge for teaching. It suggests a number of practical needs that secondary school teachers of English may be seeking to address in the way of subject knowledge development and how this may relate to the provision made within the United Kingdom (UK) Higher Education sector. It is hoped in so doing that it also identifies issues that may be of relevance in other subject areas and in other national contexts.

Keywords: Higher education; subject knowledge for teaching; English; Continuing Professional Development

Teachers and subject knowledge

In setting out to consider what constitutes effective subject knowledge for teaching and how this can be developed over time through Continuing Professional Development (CPD), it is essential to interrogate assumptions relating to what English teachers study, as well as why and how. Perspectives on this may vary significantly between teachers in higher education and in schools. The purposes and nature of secondary school English are significantly different from the purposes and nature of English study in Higher Education (HE). As such, teachers often have to modify their university knowledge considerably to meet the requirements of the classroom and school curricula. The relationship between academic study and the demands of secondary teaching is not straightforward.

Realigning subject knowledge can be a difficult process to manage. Teachers may emerge from their degrees with detailed knowledge of the works of George Gissing, George Meredith, Mary Wollstonecraft or Vita Sackville-West. None of these authors, however, appears on National Curriculum (NC) lists of required authors for study. Knowledge of these authors, in other words, provides the teacher with nothing directly usable in purely content terms for classroom practice. In terms of 'contextual' or 'skills' knowledge, however, the study of these authors may well provide teachers with a range of relevant skills that is highly relevant. The same is true of

many of the authors and issues teachers will have studied during their HE. Even such unquestionably usable figures as Shakespeare – the only obligatory author for study in the NC, who must be studied at Key Stage 3 (ages 11-14) and Key Stage 4 (ages 14-16) – present difficulties. What constitutes an effective working knowledge of Shakespeare at university is substantially different from practical classroom knowledge for use with pupils at Key stage 3 or GCSE. Teachers need to challenge their university-acquired knowledge of Shakespeare, to enter into a reconstructive dialogue with it, and to understand how these linked but distinct knowledges interrelate. When engaging with HE for CPD, many teachers will continually be engaged in such a dialogue with the academic content of their courses.

The kinds of transformative work teachers do with their subject content knowledge is described by this teacher:

The transformation from graduate in English to teacher of English primarily concerns the ability to devise appropriate teaching strategies to modify my knowledge and understanding into accessible and motivating experience [for pupils].

This observation exposes the underlying relationship between scholarship and pedagogy. These two components must interact within effective teaching, which is based on what Knights (2005) calls 'the mutually constitutive relations of pedagogic and scholarly practice'.

Subject knowledge and teaching

To establish how teachers perceive their relation to their subject and how this relates to their views of CPD, it is important to explore subject knowledge and its relation to teaching in more detail. Grossman *et al.* (1989) note:

Given the central role subject matter plays in teaching, we must re-examine our assumption that the subject matter knowledge required for teaching can be acquired solely through courses taken in the appropriate university department.

In managing the relationship between their learning in the HE context and the application of this learning in school, teachers have to reconsider their position as subject experts. Their relationship with their subject is multifaceted and requires evaluation on a variety of different levels.

Early in their training and in their development as classroom professionals, teachers' perceptions of what constitutes subject knowledge tend to be heavily content-biased (Green, 2006), measuring knowledge against lists of authors from the National Curriculum, GCSE or post-16 syllabuses. As Turvey (2005) observes:

Literature – what constitutes its 'objects of study' and the processes of engagement in classrooms – is ... for many (but not all) PGCE students central to how they define themselves as English teachers.

Over time, however, teachers' perceptions change as they recognise that effective subject knowledge for teaching depends on more than content alone. The desire, for example, to make texts available to all pupils, to ensure accessibility and entitlement reflect a developing understanding that pedagogy and methods of delivery are essential components of effective teacherly subject knowledge (Eyres, 2000). As they begin to engage with a range of school frameworks and contexts and their significant impact on practice teachers become aware of the role of curricular and institutional contexts in defining the varied forms English may take, what Chevillard (1985, 185) terms 'la transposition didactique'.

As they develop their engagement with issues such as these, teachers will encounter what distinguishes university study and knowledge from its school counterparts. Through this process they may identify personal difficulties or opportunities for development. As academic constructs of subject are brought into contact with the demands of school curricula and effective

pedagogic approaches, teachers have to reconstruct their conceptualisation of subject. A particular area of focus for teachers is how to break down the study of subject, perceiving where barriers to understanding may lie.

Such issues are repeatedly identified by teachers, who often see this as an area of need (Green, 2006). To what extent, therefore, do teachers undertake CPD simply to increase their content knowledge, and to what extent do they require it to address other aspects of the multifaceted subject knowledge they need in order to be effective teachers? (See Green, 2008).

Within such initial observations lies a putative recognition that any academic discipline functions around an essentially dichotomous, dialogic structure. As Dewey (1903) remarks:

Every study or subject thus has two aspects: one for the scientist as a scientist; the other for the teacher as a teacher. These two aspects are in no sense opposed or conflicting. But neither are they immediately identical.

The interface between these integrally connected but distinct knowledges is the business of teaching and learning. Teachers and learners are frequently in obverse relationships with the subject they share: their knowledges and experiences of the subject are connected but functionally differentiated. It is through effective pedagogic practice that the science (content) and the teaching (pedagogy) come face to face to enable new learning for both teachers and students. Thus effective teachers are not solely experts in subject content, but are also metacognitively and reflexively engaged with their subject, interrogating how its cognitive and pedagogic processes interact.

Constructing useable school models of subject

In constructing practical school manifestations of subject, Banks *et al.*'s (1999) ideas are particularly interesting. They propose a tripartite division of interrelated subject knowledges. The first, **subject knowledge** is a declared body of knowledge of subject content. Teachers develop this knowledge from a range of sources, including attitudes and input at home, school, college and university. Personal reading and study are also integral. Teachers' engagement with these different aspects of subject knowledge will vary, but this is usually the area in which they are most confident and what they most readily associate with the concept of subject knowledge. Early in their careers, such knowledge is often seen by teachers as the key indicator of their preparedness to teach, and it is, of course, an area of subject knowledge that teachers need continually to develop. As teachers develop, however, and as they evaluate the practical uses to which they put their subject knowledge, the role of such knowledge is re-evaluated (Green, 2006). Prior knowledge of an area of learning or even a specific text requires careful, often substantial, modification if it is to work in the context of the classroom.

Secondly, they identify **school knowledge**. This is a very different but linked body of knowledge, relating to curricular issues (Shulman, 1986), such as the breadth of study required under the curriculum and the interpretation of this under teaching frameworks. It also encompasses the role of a variety of modes of assessment and their impact upon the forms English takes. Beyond this, it relates to the historico-political development of English as a subject, its academic roots and the forces that shape these. Teachers also have to engage with school and departmental issues, policies and procedures that will impinge directly upon the version of the subject they are preparing to teach. Teachers are faced with the reality that English as delivered in school and university is differently constructed around a set of boundaries (Evans, 1993), encoding varying socio-political, cultural, philosophical and ideological principles (Eaglestone, 2000). These principles, the messages they convey and the ensuing choices they require of teachers have a profound impact on developing subject constructs and upon the role of CPD.

The next area they address is **pedagogic knowledge**. This is the body of skills and approaches teachers learn for effective delivery of their subject. Strategies for gaining and sustaining the interest of students and for encouraging the disaffected are examples of this dimension of subject knowledge, which also includes differentiation to assist less able learners and to extend gifted students. However, pedagogic knowledge encompasses more than this. Engagement with pedagogy further broadens notions of subject knowledge and subject construct. It challenges the means by which information is to be conveyed and processed, how learning is facilitated, and how this relates to other dimensions of subject knowledge. These are complex and demanding tasks, incorporating what Daly (2004) terms comprehension of 'learner readiness' and creative empathy by teachers to engage with students' needs.

These distinct components of teacherly subject knowledge, along with teachers' personal subject constructs, interrelate to create CPD needs. The development of content knowledge comprises only part of the overall picture.

Building teacher knowledge

This is not a simple process as Grossman *et al.* (1989) observe:

Teacher education begins long before students enter formal programs for teacher preparation.

Working school knowledge of subject is constructed through a range of formative experiences, both positive and negative. In many cases these experiences underpin the very reasons why they enter teaching.

The fluid nature of subject knowledge and constructions of subject are significant here. Calderhead & Miller (1985) explore the relationship between teachers' content knowledge and class-specific knowledge – e.g. knowledge of the individuals within the class (Turvey, 2005) – and the dynamics these establish. In combining these dimensions of knowledge, teachers create 'action-relevant' knowledge. Feiman-Nemser & Buchman's (1985) concept of 'pedagogical thinking', through which teachers locate their subject knowledge within the individual needs of students and *their* developing constructs of English (Turvey, 2005), is also relevant here. Teachers' subject models also need to interact with their pupils' diverse subject constructs in increasingly complex ways as students develop in maturity and ability as subject practitioners. Teachers' CPD should encourage engagement with such questions.

Grossman *et al.* (1989) identify four categories within what they term 'subject matter knowledge'. Firstly they identify **content knowledge**, the 'stuff' of the discipline, itself not an unproblematic concept. Teachers often need CPD to extend their content knowledge for teaching. Many teachers, for instance, require input in specific curriculum areas (Burley, 2005; Gregory, 2003) to assist their development and to boost their self-confidence. Here HE can provide considerable input, especially through judiciously developed short courses or day events. As teachers mature, their perceptions of subject knowledge change, reflecting a growing perception of school and pedagogic requirements and the importance of these in the development of teacherly knowledge.

Secondly, **substantive knowledge**. Subjects exist in multiple substantive forms. Teachers need to engage with the various substantive manifestations of subject on a metacognitive level. Differing versions of subject encode differing implied relationships between teachers and learners (Knights, 2005) as well as between readers and texts. This is a difficult area of subject knowledge for teachers to engage with, as it is frequently a tacit feature of subject constructs. It is important, however, that teachers address this issue, as teachers' roles in substantive formations of subject are frequently synthetic. Substantive modes of subject and fruitful dialogues between them can effectively be approached through HE. Teachers need to be alert to

the substantive foundations on which the school curriculum is built and how this connects (or fails to connect) with their academic studies.

Thirdly they identify **syntactic knowledge**, to the tools and forms of inquiry subjects take. This is a fundamental aspect of subject knowledge with which teachers are often less familiar and confident. It deals with canons of knowledge, construction of evidence and the ways in which new knowledge is brought into the discipline. This dimension of subject knowledge underpins teachers' professional development and the teaching of such issues to their students. This is subject not as content, but rather as process. HE is well placed to develop teachers in this dimension of subject knowledge.

Fourthly, and similar to Banks *et al.*'s concept of the personal subject construct, they emphasise teachers' **beliefs about subject matter**. This takes into account teachers' values and assumptions about their subject. In English, for example, some would prioritise (and see as sacrosanct) the role of literature, whilst others hold a wider and more utilitarian view of text. Political, philosophical, theoretical and religious views, as well as personal experiences at school, at university and elsewhere, play an important role in shaping the nature of the subject the teacher wishes to deliver. Here again postgraduate study can offer a great deal, allowing often pressurised and curriculum-bound teachers the opportunity to explore English at their own level.

Conclusion

The development of effective teacher knowledge and CPD is a complex and iterative process. According to Grossman *et al.* (1989, 32), it is:

by drawing on a number of different types of knowledge and skill teachers translate their knowledge of subject matter into instructional representations.

The process of subject knowledge development whether in the practical context of the classroom or through CPD is a process of recognition that subject knowledge, in the school context, is much more than the books they have read, or other areas in which they have expertise. As Feiman-Nemser and Buchman (1985, 29) observe:

In learning to teach, neither firsthand experience nor university instruction can be left to work themselves out by themselves.

Within the processes outlined above, postgraduate study has a very significant role to play. It is important to recognise, however, that engagement with such study on the traditional terms of HE (the taught Master's programme) may well be inaccessible to many teachers for a range of reasons, and HE may need to consider a range of ways in which it seeks to package work within the field of teachers' CPD.

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