

INTRODUCING LANGUAGE TEACHER COGNITION

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The Origins of Teacher Cognition Research

Teacher cognition research is concerned with understanding what teachers think, know and believe. Its primary concern, therefore, lies with the unobservable dimension of teaching - teachers' mental lives. As a tradition of research in education, the study of teacher cognition stretches back over 30 years (see Borg, 2006 Chapter 1, for a historical overview). In the 1960s, research on teaching focused on the search for effective teaching behaviours - i.e. behaviours that would result in greater learning (typically measured through achievement tests). This was called a process-product model of research and the goal was to identify these effective behaviours in the belief that they could then be applied universally by teachers. In the 1970s, though, this view of teaching started to be questioned. Developments in cognitive psychology highlighted complex relationships between what people do and what they know and believe; educational researchers thus became more aware of the fact that in teaching too, teachers' mental lives played a role in their instructional choices. In other words, teachers were not robots who simply implemented, in an unthinking manner, curricula designed by others; rather, teachers exerted agency in the classroom - they made decisions, both before and while teaching, and these decisions thus became a new focus for educational researchers. The questions being addressed now were not simply 'what do teachers do?' but also 'what do they think?', 'what decisions do they make?' and 'why?'. The notion of universally applicable teaching behaviours was viewed increasingly critically as the uniqueness of different educational contexts - and particularly the uniqueness of teachers and learners as human beings - was acknowledged.

A key point in the emergence of teacher cognition research came in 1975 when an influential panel of academics, convened as part of a national education conference in the USA, deliberated on the value of this field of inquiry and concluded in their report that:

it is obvious that what teachers do is directed in no small measure by what they think....To the extent that observed or intended teaching behaviour is "thoughtless", it makes no use of the human teacher's most unique attributes. In so doing, it becomes mechanical and might well be done by a machine. If, however, teaching is done and, in all likelihood, will continue to be done by human teachers, the question of relationships between thought and action becomes crucial. (National Institute of Education, 1975: 1)

This report argued that, in order to understand teachers, researchers needed to study the psychological processes through which teachers make sense of their work. This emphasis on cognitive processes was a major departure from the views of teaching and teachers dominant at the time; teaching was no longer being viewed solely in terms of behaviours but rather as thoughtful behaviour; and teachers were not being viewed as mechanical implementers of external prescriptions, but as active, thinking decision-makers.

As a result of this report, significant research funding for the study of teacher cognition became available to researchers in the USA. The result was a rapid growth throughout the 1980s and 1990s of research examining various aspects of the psychological dimension of teaching. Early studies focused on teacher judgement and decision-making (e.g. Clark & Yinger, 1977; Peterson & Clark, 1978; Shavelson *et al.*, 1977) and remained more closely aligned to educational psychology than teaching and teacher education; in the 1980s, a wider range of concepts and accompanying terminology - most notably *beliefs* and *knowledge* - emerged to support investigations into teacher cognition. *Teacher knowledge* subsequently became (and perhaps has remained) the dominant concept in mainstream educational research on teacher cognition. Several types of knowledge were suggested in the literature, with *pedagogical content knowledge* (Shulman, 1987) and *practical knowledge* (Elbaz, 1981) being among the most notable and enduring. I will not analyze these various concepts here (for a discussion see Borg, 2006, Chapter 1); the point to make is that in the 1980s the study of teachers' mental lives became established as a key area of research in the study of teaching. The value of understanding not only what teachers do but also how they think was widely recognized and this was reflected in the volume of research undertaken into these issues. There was also increasing interest in teacher cognition in the context of pre-service and in-service teacher education and the study of teachers' beliefs and knowledge contributed in a significant way to developing understandings of the process of teacher learning (Kennedy, 1991).

This large volume of teacher cognition research generated several literature reviews of the field in the 1990s (e.g. Ball & McDiarmid, 1990; Calderhead, 1996; Carter & Doyle, 1996; Carter, 1990; Grossman, 1995; Richardson, 1996) and more recently (Munby *et al.*, 2001; Verloop *et al.*, 2001). Most of these were not discipline specific (i.e. they reviewed literature from different curricular areas) though in some subjects such as mathematics and science there was sufficient work available to justify specific reviews (see, for example, Thompson, 1992 in mathematics); there was also an early review of work in the field of language education (Fang, 1996), though its focus was on L1 learning rather than second or foreign language settings.

Collectively, this body of mainstream research on teacher cognition has allowed more sophisticated understandings of the relationships between teachers' cognitions and practices to emerge and before moving on to discuss research specifically in the field of language education I will

summarize (based on Phipps & Borg, 2007) what is generally accepted today about the nature of teacher cognition and its relationship to what teachers do:

- teachers' cognitions can be powerfully influenced by their own experiences as learners;
- these cognitions influence what and how teachers learn during teacher education;
- they act as a filter through which teachers interpret new information and experience;
- they may outweigh the effects of teacher education in influencing what teachers do in the classroom;
- they can be deep-rooted and resistant to change;
- they can exert a persistent long-term influence on teachers' instructional practices;
- they are, at the same time, not always reflected in what teachers do in the classroom.
- they interact bi-directionally with experience (i.e. beliefs influence practices but practices can also lead to changes in beliefs).

Language Teacher Cognition

Interest in the study of teacher cognition also eventually impacted on the field of second and foreign language education (I will use *L2* here to refer to both these areas). However, it was not until the mid-1990s that the study of L2 teacher cognition was established as an important area of activity – that is, some 10 years after it had emerged in education more generally. Freeman & Richards (1996) can be seen as a key early publication which highlighted the value of understanding language teaching by examining the mental side of teachers' work; the same year also saw the publication of Woods (1996), a book length study of teacher cognition; while this text was not as influential as that previously mentioned, by having 'teacher cognition' in its title it did bring this term to the wider attention of L2 researchers.

From the mid-1990s onwards there was a rapid and steady increase in the volume of research examining various aspects of what L2 teachers know, believe and think and of the relationships of these constructs to what teachers do. Borg (2003) reviewed 64 such studies while Borg (2006) examined close to 200 (though studies of L1 education contexts were also included in the latter review); at least 30 more had appeared by late 2008 (I maintain an up-to-date bibliography on language teacher cognition at <http://www.education.leeds.ac.uk/people/staff.php?staff=29>).

There is no doubt then that the study of language teacher cognition is now an established field of inquiry.

This research has confirmed in L2 education contexts many of the findings from mainstream education summarized above; in addition, though, it has provided insight into the specific challenges faced by L2 teachers; for example, perhaps the most researched area has been L2 grammar teaching (see Borg, 2006 Chapter 4 for a review) and this work has developed our understandings of the way teachers teach grammar and of the thinking behind their practices (e.g. in explaining grammar and correcting learners' grammatical errors). Recent work by Andrews (2007) has been particularly important in examining the kinds of knowledge teachers draw on in teaching grammar. Reading (e.g. Collie Graden, 1996) and writing (e.g. Tsui, 1996) have also been the focus of some studies, though the volume in each case has been relatively small; studies of teacher cognition in relation to L2 reading instruction have been particularly scarce. Other aspects of L2 teaching have received even less attention from a teacher cognition perspective and thus very little is known about teachers' beliefs and knowledge in relation to the teaching of L2 vocabulary, listening and speaking. These are all areas which merit research attention.

In terms of the L2 education contexts studied, much of the work available has been conducted with teachers (often native speakers of English) working with adult learners, typically in university or private school settings where classes are small. In contrast, there has been much less work in primary and secondary state school contexts where non-native speakers of English work with larger classes of learners. The area of young learners has been particularly under-studied from a teacher cognition point of view.

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