

Outline

Now there is a pressing need to demonstrate why the teaching of elite researchers, at elite universities, should justify financial premium. For most university departments the role of research and its relationship to teaching is a fundamental assumption (Jones & Kinchin, 2009), but there is scant evidence that researchers' teaching leads to different, or richer student learning outcomes than when teaching is carried-out by non-researching staff (Kinchin & Hay, 2007; Blackmore, 2009). Nevertheless it is the separate labels of "teaching" *versus* "research" are partly to blame for making the distinctiveness of researcher-led teaching intractable (see MacFarlane, 2010, for example). But simply by shifting our notion of higher education towards the more inclusive dimensions of research (or research-like) *practice*, the potential benefits of being taught by researchers starts to become more conspicuous. First, because researchers are participants in the shaping of the academic subject their practice is embodied and carries practice value inseparably from them as individuals. Second, and as consequence of this, practicing researchers can "speak" and "show" the traces of the often hidden process by which formal academic subjects gain their shape and value: a process that is rarely available from within the finished and authorised texts that students and non-researcher teachers must both otherwise approach *ex-situ*.

This paper will explore these issues, seeking to show how the concept of researcher-led teaching has the potential to revitalise our view of higher education. I will draw on three detailed case studies from Applied Chemistry, History and Neuroscience – examples of partnership research that involve students and researcher/teachers as study subjects but also as parties to the analysis. What constitutes the data of these studies are participants' academic texts – drawings and photographs, speech, writing, concept-maps and others, but always these are of the primary academic subject: the Physicochemical properties drugs, History of the British empire, or "the neuron" and its function, for example. These are then augmented by the second order commentary (of students and researcher-teachers) in order to make visible the ways these texts carry out the practice

work of subject-constitution. In all three cases the data show the general (but not exclusive) tendency for students to reproduce the static formal image while the researchers' texts are much more imaginative, working as projections outwards from the practice field towards unknowns.

I explore the researchers' capacity for projection in terms of their craft-work and the essentially personal relations they have developed towards other "speakers" of their subjects. I examine how the researchers' images of subject are constituent of a sense and feel for what the *future* academic subject might be made to be and how this imagining is part of their own potential "signature" in academic practice. I also show, however, how this "signature" can be made available to students, giving rise to the students' *own* by virtue of the *difference* between individual researchers', rather than because of anything agreed between them (as a "target" understanding).

In this context I explore the function of the literary (sometimes called social) imagination (*cf.* Bakhtin, 1981; 1986), using dialogic theory (*ibid*; Wegerif, 2007; 2008) as well as the speech of students. In particular I show how students that learn to "read" the work of one researcher by imagining how another researcher might speak the subject differently, start to constitute a signature just in doing this – finding perspectives, approaches, methods etc. that were not theirs to start while by so doing, the academic subject starts to arise of its own volition (see Hay, 2010). The analysis is developed in order to explore how the quality of all university teaching may be enhanced by more deliberate focus on the function of imagination and I particularly emphasize the importance of researchers' making their *informal* (imaginative/projective) texts available to students. I conclude that the imaginative function is a hidden virtue in formal education but also this focus on imagination makes the quality of relationships the *a-priori* of effective higher education (see Hobson, 2002; Wegerif, 2007; 2010; Alexander, 2008).

This paper also includes specific treatment of issues of method and methodology for "academic practice studies". My approaches often coincide with "academic literacy" and "new literacy studies" (e.g. Lea & Street, 2009; Blommaert et al, 2007), but for university science studies it is all too easy to shift our data towards just the social science "measure" of the "social speaker", leaving out the Science that is also party to our practice subject. Thus in this paper, I also start to develop the notion of "trained judgement": a practice value emerges from within analysis of Science visual culture (e.g. Daston & Gallison, 2007). Trained judgement (or "researcher judgement" - in the context of this paper) starts to be a very interesting way of exploring both the methods and potential outcomes of researcher-led teaching. But I suggest that it only by involving researcher judgement (and

thus *researchers*) in inquiry into higher education that we really start to make our subject visible: available to students and academic policy makers. In doing this, my concept of researcher-led teaching also gains the substance of its intended meaning.

References

- Alexander, R.J. (2008). *Towards Dialogic Teaching: Rethinking Classroom Talk* (4th edition). York: Dialogos.
- Bakhtin, M. (1981). *The Dialogic Imagination: Four Essays by M. Bakhtin*. In: M. Holquist (Ed.), trans., C. Emerson & M. Holquist. Austin, Texas: University of Texas Press.
- Bakhtin, M. (1986). *Speech Genres and Other Late Essays*. In: C. Emerson & M. Holquist (Eds.), trans., V.W. McGee. & C. Emerson. Austin, Texas: University of Texas Press.
- Blackmore, P. (2009). Conceptions of development in higher education. *Studies in Higher Education*, 34 (6), 663-676.
- Blommaert, J., Street, B., Turner, J & Scott, M. (2007) Academic literacies – what have we achieved and where to from here. *Journal of Applied Linguistics*, 4 (1), 137-148.
- Daston, L. & Galison, P. (2007). *Objectivity*. New York: Zone.
- Hay, D.B. (2010). The function of imagination in learning: theory and case study data from third year undergraduate neuroscience. *Psychology*, 2010, 17 (3), 259-288.
- Hobson, P.R. (2002). *The Cradle of Thought: Exploring the Origins of Thinking*. London: Macmillan.
- Jones, S. C. & Kinchin, I. M. (2009). Integration or coordination? A consideration of two curriculum models in the context of a Masters of Pharmacy (MPharm) module. In: S. Lygo-Baker (Ed.), *The Proceedings of the Excellence in Teaching Conference*, Kings College London, pp. 5-12.
- Kinchin, I.M. & Hay, D.B. (2007). The myth of the research-led teacher. *Teachers and Teaching: theory and Practice*, 33 (1), 43-61.
- MacFarlane, B. (2010). Prizes, pedagogic research and teaching professors: unbundling the rise of the para-academic. *Teaching in Higher Education*, 16 (1), 127-130.
- Wegerif, R. (2007). *Dialogic, Education and Technology: Expanding the Space of Learning*. New York: Springer.
- Wegerif, R. (2008). Dialogic or dialectic? The significance of ontological assumptions in research on educational dialogue. *British Educational Research Journal*, 34 (3), 347-361.
- Wegerif, R. (2010). *Mind Expanding: Teaching for Thinking and Creativity in Primary Education*. Maidenhead: Open University Press/McGraw-Hill.