# Effective use of Research in Learning and Teaching

## Discussion

There are a number of key contributions to the discussion of the ‘proper’ relationship between teaching and research, which are well worth reading.  Some of the key points are summarised here, and you are encouraged to explore the titles listed  in the bibliography at the end of this document.

Jenkins and Healey  (2005) say that

“Our focus is on supporting the relationships between student learning and staff discipline-based research in institutional policies and practices: what has variously been called the ‘teaching-research nexus’, ‘research-led’, ‘research-based’, ‘inquiry-based’ or ‘research-informed’ teaching.”

They propose that discipline-based research should have an explicit relationship with the curriculum experienced by students in those disciplines.  The varied terminology used to label that relationship can be summarised as follows, (with a warning that the number of competing definitions probably implies that the distinctions between them are not always that clear cut):

The teaching-research nexus is described by Healey in the Figure below



Healey, in Barnett, 2005.

### Research-Based Teaching

### The term ‘research-based’ is often applied to universities whose mission emphasises research rather than teaching.  One reading of the phrase ‘research-based teaching’ then might be teaching that is some sort of by-product of research, rather than in equal partnership with it.  Research-based universities ‘lead the way’ in producing knowledge through research, and their teaching is deemed to ultimately draw on that base.  On the other hand, it can be used to mean teaching that its fully grounded in research, as in ‘I teach what I have learned from my research, or the research of others: my teaching is therefore current, fresh, and acquaints my students with the cutting edge of our subject.’

### Again, Jenkins and Healey (2005) say that

‘Teaching can be research-based in that sense that the curriculum is largely designed around inquiry-based activities, rather than on the acquisition of subject content; the experiences of staff in processes of inquiry are highly integrated into the student learning activities; the division of roles between teacher and student is minimised; the scope for two-way interactions between research and teaching is deliberately exploited.’

This minimisation of the division of role between teacher and student is reflected in the notion of ‘students as partners’ which Healey has expounded at length more recently (Healey et al, 2014).

### Research-Led Teaching

This term is perhaps more usually the one understood to hold the first sense of ‘research-based’ above.  Wendy Piatt, Director of the ‘research-intensive’ Russell Group Universities, says that:
“Income generated by the new fees regime will help the UK maintain a world-class student experience, by supporting the higher costs of excellent research-led teaching” (Piatt, 2011).

In other words, in her view the high cost of research somehow carries over into the teaching of the knowledge generated by that research, (although it is not clear why).

Later in the same publication, Purcell and Chipperfield (2011) say that:
“Research-led teaching enriched by a range of real-life experiences delivers an enterprise-led pedagogic approach”.  Unfortunately they don’t say how, although they go to some lengths to explain the importance of developing an enterprise culture in universities.  The point is that a phrase such as “research-led teaching” trips off the tongue, without it necessarily being clear just what it means or how it should be achieved.

### Research-Focused Teaching

Heywood (2007) describes Research-focused teaching as a “synthesis of research and teaching for the purposes of developing insight into the [subject matter]”.

In addition, you may find other related constructions such as:

* inquiry-based teaching
* research-linked teaching
* research-oriented teaching
* research-informed teaching

Ireland’s National Academy for the Integration of Research, Teaching and Learning (NAIRTL)

 sets out the following definitions:

***Research-led teaching and learning:*** The curriculum is informed by the research interests of academic staff. Teaching emphasises the understanding of research findings. Research findings are used to inform the curriculum.

***Research-oriented teaching and learning:*** The curriculum emphasises the processes by which knowledge is produced in the field as much as on learning the content of a subject. Teaching focuses on enquiry skills and on acquiring a ‘research ethos’.

***Research-based teaching and learning:*** The curriculum contains many activities in which students actually conduct research e.g. enquiry based projects. These activities are based on authentic processes of enquiry and are connected to the research of the institute.
 **Research-informed teaching and learning:** The curriculum is informed by a systematic enquiry into the teaching and learning process itself. The 'scholarship of teaching' approach relates to teachers who are actively involved in evidence-based efforts to establish the effects and effectiveness of student learning, teaching and academic practice.

So, the distinctions between these arguably arbitrary categories of research-teaching relationship are disputed and not always helpful. Golding (2013) provides an interesting discussion of one conception of how the teacher can manage this relationship successfully, using the idea of ‘expedition-educator’.

Noting the significant connections and ideas above, it is important to add that the extent to which research and teaching are complementary activities is contested.  Marsh and Hattie (2002) have explored this question in depth.  They found that the strength of the relationship is frequently a matter of personal identification for each individual.  In other words being a better researcher does not automatically make you a better teacher! That, of course, does not diminish the importance of providing an education that is well-grounded in research – whether it’s your own, or someone else’s.

## Bibliography

## Barnett, R (Ed.) (2005) Reshaping the university: new relationships between research, scholarship and teaching, Maidenhead: McGraw-Hill/Open University Press

## Boyer, E L (1990) Scholarship reconsidered: priorities for the professoriate. Princeton University NJ: Carnegie Foundation for the Advancement of Teaching

## Healey, M (2005) Linking research and teaching exploring disciplinary spaces and the role of inquiry-based learning, in Barnett, R (ed) Reshaping the university: new relationships between research, scholarship and teaching. pp.30-42. Maidenhead: McGraw-Hill/Open University Press

Healey, M., Flint, A., and Harrington, K. 2014. <https://www.heacademy.ac.uk/engagement-through-partnership-students-partners-learning-and-teaching-higher-education>. Higher Education Academy. York.

Heywood, D.S. 2007, Problematizing science subject matter knowledge as a legitimate enterprise in primary teacher education. Cambridge Journal of Education. 37: 4, 519-542

Golding, C. 2013. [The Teacher as Guide: A conception of the inquiry teacher](http://dx.doi.org/10.1080/00131857.2012.715387). Educational Philosophy and Theory, 45:1, 91-110

Jenkins, A and Healey, M (2005) Institutional strategies to link teaching and research. York: The Higher Education Academy

Marsh, H.W. & Hattie, J. 2002. [The Relation between Research Productivity and Teaching Effectiveness: Complementary, Antagonistic, or Independent Constructs?](http://www.jstor.org/stable/1558435) The Journal of Higher Education. 73: 5, 603-641

Piatt, W. 2011. The challenges facing the UK’s world-class universities and the importance of diversity. In L. Coiffait, Ed. Blue Skies: New thinking about the future of higher education. Pearson Centre for Policy and Learning.

Purcell, W. and Chipperfield, C. 2011. How higher education can drive an enterprise revolution. In L. Coiffait, Ed. Blue Skies: New thinking about the future of higher education. Pearson Centre for Policy and Learning.

Trowler, P. and Wareham T. 2008. Tribes, Territories, Research and Teaching: Enhancing the Teaching-Research Nexus. HEA.

### Additional resources

Explore Mick Healey’s huge bibliography on the topic: Healey, M. (2016) Linking Research and Teaching: A selected bibliography. Available at: [www.mickhealey.co.uk/resources](http://www.mickhealey.co.uk/resources)