Undergraduate Research in the UK: One Perspective

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“We need to encourage universities and colleges to explore new models of curriculum. … There are several models that we might explore. They should all: … Incorporate research-based study for undergraduates (to cultivate awareness of research careers, to train students in research skills for employment, and to sustain the advantages of a research-teaching connection in a mass or universal system) …”
Paul Ramsden, Chief Executive of the Higher Education Academy, in his invited contribution to the Department of Innovation, Universities and Skills’ Debate on the Future of Higher Education, 2008, 10-11, emphasis added

Summary
• A final year research project or dissertation is a strong feature of UK high education – though that may not be seen by students or faculty as ‘undergraduate research’.
• The close connection between staff involvement in research and their role as a teacher - the ‘teaching-research nexus’ - has also been a significant cultural feature of the UK system. However, that connection and the importance of a final year project are under threat because of the move to ‘mass’ participation in higher education.
• In the context of various national and institutional policies there is a move to assert and rethink the ‘teaching-research nexus’. There is both growing interest in US conceptions of ‘undergraduate research’ and selected examples of institutional and national initiatives to adapt it to the UK.

The System’s Organisation of Teaching and Research
The Government provides the largest source of funding for nearly all HEIs through separate funding bodies in England, Scotland, Wales and Northern Ireland. There is only one private university. The Quality Assurance Agency (QAA) oversees quality and standards. The government provides significant funding for research through successive research assessment exercises and through bidding to Research Councils. Most of the initiatives in undergraduate research stem from the teaching side with a few for selected students who are likely to go on to doctoral programmes coming from research bodies (Jenkins & Healey 2007).

Cultural and National Policy Conceptions
The ‘teaching research nexus’ (i.e. the interconnections between faculty’s roles as a teacher and a researcher) has been a central feature of the culture of UK HE post-WW2. However, the development of a mass higher education system (4%3% plus of 18 year olds enter HE), and the pressures to concentrate high-level research in a few universities, has led to moves to decouple teaching and research. In 2003 a Government report on the future of HE called for ‘teaching only’ universities, though the pressures to concentrate high-level research in a few universities, has led to moves to decouple teaching and research. In 2003 a Government report on the future of HE called for ‘teaching only’ universities, though the language since has been more about research-intensive and teaching-intensive HEIs.

Central Role of the Dissertation
A final year research project or dissertation has been a central feature of UK HE post-WW2. The QAA supports that through national benchmark statements that degrees have to demonstrate. For example, the one for English states that degrees have to demonstrate reseach-based study for undergraduates (to cultivate awareness of research careers, to train students in research skills for employment, and to sustain the advantages of a research-teaching connection in a mass or universal system) …”

Increased Interest in US-style Undergraduate Research
These threats to in effect decouple teaching and research have led to many calls by institutions and individuals to ensure that all undergraduates learn in a research environment – with differing views as to the extent to which faculty themselves need to be involved in discipline-based research (Healey & Jenkins 2009). In 2006 the Higher Education Funding Council for England (HEFCE) provided significant funding to support students learning in a research environment. Funding was inversely proportional to an institution’s research income and institutions had considerable freedom on how to develop research-informed teaching. Some developed selective undergraduate research programmes and journals; some have attempted to mainstream undergraduate research for all or most of their students.

There have also been significant moves to develop undergraduate research programmes explicitly based on US practice – starting with Imperial Colleges’ Undergraduate Research Opportunities Programme (UROP) which was founded in 1980 explicitly based on that at Massachusetts Institute of Technology. A number of the research-intensive institutions and relatedly the Research Councils have developed undergraduate research programmes, particularly in the sciences, to support highly able research-motivated students.

In England HEFCE awarded significant 5-year funding to 74 Centres of Excellence in Learning and Teaching – 7 of these Centres focus explicitly on supporting undergraduate research and inquiry. These have developed and experimented with selective undergraduate research programmes and mainstreaming undergraduate research for all or most students. What of this will survive post this special funding, which finished in 2010, remains to be seen.

References