

Jonathan Parker
Keele University, UK

Comparing the United Kingdom and United States Undergraduate Curriculum:
Analysing Depth Versus Breadth (0144)

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This paper compares UK and US approaches to undergraduate education to analyse how the differing values of breadth and depth influence and divide these two systems. It surveys undergraduate degrees across subjects to analyse the extent to which they demonstrate coherence in their curriculum, which is the extent to which intellectual connections are created between modules to build up a systematic set of learning outcomes. Increasingly modular and interdisciplinary modes of learning in higher education raise concerns fragmentation that reduces the intellectual cohesion of a degree (Light et al. 2009; Parker 2003), while high levels of coherence are achieved at the expense of modular flexibility and student choice (Weller 2012). Curricular coherence provides a clear theoretical approach to measuring and analyzing notions of breadth and depth that distinguish UK and US undergraduate education.

The UK and US clearly lead the field in international rankings and international student enrolments and represent the two most prominent models of undergraduate education. However, these two systems have vastly differing values, aims, and structures, which the undergraduate curriculum clearly illustrates. The British system values specialization and depth in the study of a discipline. Undergraduate applicants study a particular subject for three years or more. By contrast, the United States values breadth and flexibility through liberal arts degrees. Students typically choose their degree subject, or major, after two years of broad

based 'general' education followed by two years of a major specialism. These differences are demonstrated in the coherence of the undergraduate curriculum.

The coherence of a curriculum refers to how skills are built up systematically over an entire degree to produce high quality outcomes. The most common way to create coherence is to require a core curriculum and develop pathways through the degree (Weller 2012). Final summative experiences that achieve the highest learning outcomes, such as capstone courses, senior seminars, and honours dissertations, can also create coherence. The concept of curricular coherence has also long been a major source of concern about American undergraduate education. Undergraduate majors can appear to lack structure and depth, simply consisting of courses taken from a single department with little else in common (Zemsky 1989).

In the 1990s, a set of reports by the Association of American Colleges challenged the lack of structure in the undergraduate curriculum. The AAC commissioned reports from twelve disciplinary societies to examine the undergraduate major. Each published reports of findings and recommendations (AAC 1991a; 1991b). These reports all recommended particular structures required to make a curriculum 'coherent'. First, it needed a common course to introduce students to the discipline. Second, it needed to have a research methods course early in the major. Third, it needed sequencing of courses through prerequisites to systematically develop skills and knowledge. Finally, students needed a final summative experience at the end of their degree. These principles were used to measure curricular cohesiveness across degrees. Curricula that positively correlate with student learning are generally characterized by carefully designed sequences of courses or learning activities and by required integrative learning experiences (Pascarella and Terenzini 1991).

This study focuses upon degree requirements. Conceptualising ‘coherence’ in this way clearly favours the sciences over the social sciences, humanities, and emerging interdisciplinary fields because the sciences have a more strictly sequenced set of requirements that help create the recommended levels of skills progression and depth, though they have also suffered from fractionalization of subject fields (Dill 1999).

University degree requirements were surveyed from all 160 UK universities and from a random sample of 200 US universities. Requirements were collected for English, History, Sociology, Political Science, Business, Biology, and Psychology to give a broad spread of subjects. Each set of requirements was analysed to find if they:

- 1) contained a common introductory course;
- 2) contained a compulsory research methods course;
- 3) contained a compulsory summative course at the end of the degree;
- 4) provided clear pathways through the degree through compulsory core modules and pre-requisites;
- 5) measured the percentage of the degree that consisted of compulsory modules;
- 6) measured the percentage of the degree that consisted of optional modules from a required subject pool; and
- 7) the percentage of the degree consisting of free standing elective choices.

Measuring these aspects of undergraduate degrees demonstrates clear variation across countries, but also across particular disciplines and universities within a country. The natural sciences, as expected, tend appear more coherent than most other disciplines, but professional subjects such as business could appear even more coherent than the sciences. Finally, a clear and unambiguous difference between the UK and US is indicated by the results. Almost all degrees in the UK look more coherent than the vast majority of degrees in the US across all subjects. The study

clearly demonstrates the differences in the two value systems of the two countries lead to vastly different sorts of degrees.

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