

How well prepared are new undergraduates for university study? An investigation of lecturers' perceptions and experiences

Background

In the 1950s, 60s and 70s, university lecturers and other staff with responsibilities for undergraduates worked closely with examination boards to ensure that GCE Advanced levels (A levels) offered a suitable preparation for higher level study in England (Kingdon, 1991; Raban, 2008). Although the number of students taking A levels for this purpose has risen markedly since then, the influence of Higher Education (HE) on the design and content of A levels has waned. In its 2010 White Paper *'The Importance of Teaching - the Schools White Paper'*, the Coalition Government noted the importance of A levels in meeting the needs of higher education institutions, as they are a crucial means of selecting students for degree courses. In April 2012, the Secretary of State for Education wrote to the Office of Qualifications and Examinations Regulation (Ofqual) emphasising the need for universities to play a greater role in the development of A levels. Consequently, a public consultation on A level reform is currently underway (Ofqual, 2012), which is intended to lead over the next two years to a re-focusing of A levels towards better HE preparation.

These proposals for educational reform engender a need to improve understanding of the gaps that currently exist between sixth-form and HE, and the study reported in this paper forms part of a wider 'mixed methods' programme of research exploring transitional issues. The study's main aim was to gauge the views of lecturers from a range of universities on the preparedness of new undergraduates for degree level study. Four main research questions were addressed:

1. In which areas do university lecturers think new undergraduates are most prepared?
2. In which areas do university lecturers think new undergraduates are least prepared?
3. What are the transitional challenges for new undergraduates?
4. How could A levels be improved?

Answers to these questions were intended to provide evidence to guide curriculum developers whose responsibility it is to ensure that A levels provide students with the skills and subject knowledge they need for HE.

Methods

Using an iterative piloting process, an on-line questionnaire was developed to collect data to address the four research questions. The questionnaire comprised thirteen questions, took approximately ten minutes to complete, was suitable for university lecturers of all subjects, and did not refer to A levels from any particular examination board. It began with some general information about the study, and ended with a 'consent' button to click if participants consented to their data being used for research purposes.

Data collection targeted four groups of lecturers (and other university staff with undergraduate teaching responsibilities):

1. Lecturers in biology

2. Lecturers in English
3. Lecturers in mathematics
4. Lecturers in a wide mixture of other disciplines.

Five major groupings of universities (1994 Group, Million+, Russell Group, University Alliance, and non-affiliated/other) were targeted as evenly as possible. Over 3000 potential participants were identified from departmental websites. Working within a five-week data collection window, personalised e-mail letters were used to invite them to complete the questionnaire.

Results

In total, 633 questionnaire responses were received (a response rate of c. 20%). The numbers of responses in each of the four subject groups were broadly even. In all four groups, however, more Russell Group lecturers responded than did lecturers at universities in the other groupings; in total, Russell Group lecturers comprised 40% of all participating lecturers.

A quantitative data analysis generated some striking findings. Over half of the lecturers thought that new undergraduates are underprepared for degree level study in their subjects. ICT, teamwork, intellectual curiosity, and presentation skills were those most likely to be considered strengths of typical new undergraduates. However, most lecturers regarded academic writing, self-directed study, independent inquiry and research, and critical thinking skills as weaknesses. Depth of subject knowledge was also a concern for many individuals. Most lecturers thought that self-directed study poses transitional challenges for new undergraduates.

The lecturers indicated that there are universities of all types which provide additional support classes in study and academic skills. Moreover, almost three quarters of lecturers reported adapting their teaching approaches to teach underprepared first year undergraduates, often to include content at a basic, more fundamental level. Additionally, biology lecturers taught more numeracy and mathematical skills than they had done previously. The teaching of higher level study skills, essay writing, and academic writing was common among English lecturers.

In all four subject groups, almost 90% of lecturers considered too much 'teaching to the test' at A level to be a major factor contributing to under-preparedness. Many changes to A level suggested by lecturers related to pedagogy and student learning. They included reducing the extent of teaching to the test and 'spoon-feeding' in classrooms by making examination questions less predictable and reducing re-sit opportunities.

Discussion

This study paints a picture of concern within HE over the effectiveness of A levels in preparing students adequately for degree level study. There were multiple broad consensuses among lecturers participating in the study, both across subjects and across university types. For example, the views and experiences of Russell Group lecturers were broadly similar to those of lecturers at other universities. Moreover, several key findings concur with those of other recent research in which alternative methods were adopted (Mehta *et al.* 2012; Score, 2012; The Nuffield Foundation, 2012). The corroboration and triangulation of findings offers reassurance about the

design of the study and the robustness of the data collected, adding weight to the conclusions that can be drawn.

When reflecting upon transitional challenges, some initial questions to consider are those of whether all such challenges are negative, whether all such challenges stem from A level education, and whether any such challenges might even be desirable. It is also worth asking how a balanced ecosystem of schools, HE, and examination boards can best be reasserted. Key questions surround the division of responsibility among stakeholders: (i) for ensuring that students develop particular knowledge and skills, and (ii) in the process of curricular reform.

References

Kingdon, M. (1991). *The Reform of Advanced Level*. London: Hodder & Stoughton.

Mehta, S., Suto, I., & Brown, S. (2012). *How effective are curricula for 16 to 19 year olds as preparation for university? A qualitative investigation of lecturers' views*. A Cambridge Assessment Report.

Nuffield Foundation (2012). *Mathematics in A level assessments: A report on the mathematical content of A level assessments in Business Studies, Computing, Economics, Geography, Psychology and Sociology*. London: Author.

Ofqual (2012) A level reform consultation. Available on line at <http://www.ofqual.gov.uk/files/2012-06-18-a-level-reform-consultation.pdf>

Raban, S. (2008). *Examining the world. A history of the University of Cambridge Local Examinations Syndicate*. Cambridge: Cambridge University Press.

Score (2012). *Mathematics within A level science 2010 examinations*. Available on line at: <http://www.score-education.org/policy/qualifications-and-assessment/mathematics-inscience>