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If you would like to comment on any of the articles in this issue, please contact Sylvia Green *Director of Research*.
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Research Matters : 18

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Foreword

This edition of *Research Matters* engages with issues of choices and routes. Just how much diversity in qualifications is needed to maximise student engagement and to respond to societal and economic needs? Is too much choice dysfunctional? Writing in *The Harvard Crimson* in 1953, J. Anthony Lukas traced the near 100-years of oscillating expansion and rationalisation of the number of courses at the Ivy League university. Expansion occurred as the institution responded to students' and academics' interests. Rationalisation occurred when the number of courses swelled into unsustainable, sprawling incoherence. This mirrors precisely the oscillation in qualifications in England. Growth of innovative and well-evidenced qualifications was a feature of the 1990s in England, giving us Nuffield Science, SMP Maths and other important new qualifications. The final years of the Qualifications and Assessment Authority saw a dogged pursuit of root and branch rationalisation of qualifications – demonstrably pushed too far in the ill-fated Diploma development. The historical oscillation at both Harvard and in England shows that we have not yet been able to settle on a level of diversity which is appropriate to genuine needs. I consider a measure of innovation and choice in qualifications to be essential to a healthy education systems. But too much diversity gives rise to technical difficulties in comparability, bewildering choice for parents and pupils, poor signalling in the systems, and the tendency to 'closed doors' rather than 'tradable credit'. In a system which operates as a very imperfect market, with both power and information asymmetries, we cannot rely on market forces to weed out low quality, low value qualifications efficiently. Poorly-theorised rationalisation is equally dangerous to the interests of students, society and the economy. We should therefore turn towards evidence – of comparable standards, of need, of student engagement, and of progression and return. Research on these matters is fundamental to a healthy system, and not simply a 'nice to have'.

Tim Oates *Group Director, Assessment Research and Development*

Editorial

Most of the articles in this issue relate to the issue of choice. Teachers and students must decide which qualifications to choose, when to take the assessment, and sometimes which topics to study. Such choice may have both intended and unintended consequences. Child, Darlington and Gill explore the choices of units and topics made by teachers and students in A level History, examining which topics are most commonly taught and why. They discuss the implications of these choices for the breadth and depth of historical knowledge gained by A level History students. The complexity resulting from the availability of multiple routes through a qualification creates a challenge for awarding bodies, because they must ensure the comparability of qualifications. Benton investigates a method for calculating the reliability of complex qualifications, finding that reliability remains high for A level Maths, despite a number of different options.

Two articles in this issue explore the perceived problems associated with choice relating to the timing of assessment. Gill and Suto investigate why students choose to re-sit modules at A level, and the likely impact that the reduction in opportunities for re-sitting will have on students' choices. At GCSE, some schools choose to enter students early for examinations, to "get them out of the way" and allow more time for further study in other subjects. Gill examines the impact of this decision on students' overall GCSE grades, and finds that the impact of early entry is limited, though the picture is somewhat complex.

In her article on progression from a vocational qualification, OCR Nationals, to further study or employment, Vidal Rodeiro shows that students who take OCR Nationals may progress to higher education, further study at school, or work based training, demonstrating that high quality vocational qualifications enable students to choose from a range of different progression paths. The debate surrounding the relative difficulty of A level subjects has been controversial for some time. The perception that it is more difficult to achieve high grades in some subjects may discourage students from choosing these subjects. Bramley explores several methods for examining this issue, focusing on a novel technique 'multidimensional scaling'. He concludes that while this technique has certain advantages, the results are difficult to interpret. Also focussing on comparability, Yim provides a discussion of a sophisticated method which could be used by awarding bodies to ensure comparability of qualifications across time. Looking to the future, Dhawan and Zanini's article on the use of big data opens up new possibilities for investigating how students and teachers may make decisions, leading to additional ways of understanding how and why they make the choices that they do.

Frances Wilson *Research Officer, Research Division; Guest Editor*