

Research News

Karen Barden Research Division

Conferences and seminars

Royal Statistical Society (RSS)

The RSS 2016 International Conference took place at the University of Manchester in September 2016. Now in its 24th year, the RSS conference welcomes all statisticians and users of data, providing a crucial platform for the discussion and debate of statistical topics. Ellie Darlington and Jessica Bowyer, Research Division, took part in the session *Communicating Statistics: Statistical education in schools*. They presented a paper on *Statistical education at A level: an international perspective*.

British Educational Research Association (BERA)

The University of Leeds hosted the BERA Annual Conference in September 2016. This provided an opportunity to develop new research ideas, and to build new research relationships within the research education community. Several researchers from Cambridge Assessment attended the conference and the following papers were presented:

Carmen Vidal Rodeiro, Research Division: *The study of Modern Foreign Languages in England: uptake in secondary school and progression to Higher Education*.

Tim Gill, Research Division: *An analysis of the effect of taking the EPQ on performance in other level 3 qualifications*.

Lorna Stabler, Cambridge International Examinations: *Validating an Art and Design qualification: evidence for the validity of a performance-based assessment*.

Association for Educational Assessment-Europe (AEA-Europe)

The 17th AEA-Europe Annual Conference took place in Limassol, Cyprus in November 2016 with the theme *Social and political underpinnings of educational assessment: Past, present and future*. Several researchers from Cambridge Assessment attended the conference and the following papers were presented:

Tom Bramley, Research Division: *Investigating experts' perceptions of examination question demand*.

Tom Benton, Research Division: *Evidence for the reliability of coursework*.

Victoria Crisp, Martin Johnson and Filio Constantinou, Research Division: *'Question quality': The concept of quality in the context of exam questions*.

Simon Child, OCR, and Stuart Shaw, Cambridge International Examinations: *Utilising technology in the assessment of collaboration: a critique of PISA's collaborative problem solving tasks*.

Simon Child and Martina Kvalja, OCR: *What makes a good seeding script? Perceptions from Principal Examiners of a UK awarding body*.

Martin Johnson, Filio Constantinou, and Victoria Crisp, Research Division: *How do question writers compose examination questions? Question writing as a socio-cognitive process*.

Tim Oates, Assessment Research and Development, and Sylvia Green, Research Division: *Shifting emphases: qualifications, accountability and school improvement*.

Nadir Zanini, Research Division: *Do tiered examinations affect candidates' achievement? Some empirical evidence on Modern Foreign Languages*.

The following poster was also presented:

Sarah Hughes, Stuart Shaw, Lorna Stabler, and Magda Werno, Cambridge International Examinations: *Does the mode of standardisation matter? The effect on reliability of marking and marker perceptions*.

Further details about the AEA-Europe conference presentations can be found on our website: www.cambridgeassessment.org.uk/events/aea-annual-conference-2016/

Further information on all conference papers can be found on our website: www.cambridgeassessment.org.uk/our-research/all-published-resources/conference-papers/

The Cambridge Approach to Textbooks

Tim Oates, CBE, Group Director of Assessment Research and Development, launched *The Cambridge Approach to Textbooks* in April 2016¹. This set of criteria is in direct response to Tim's identification of "England's need to restore the primacy of 'real' textbooks worldwide" and follows on from *The Cambridge Approach to Assessment* published in 2009².

Tim presented *The Cambridge Approach to Textbooks* live from Westminster, London and was joined by leading experts in the field to help detail how the role of textbooks and allied learning resources has developed in the UK and internationally.

The seminar also heard from Professor David Lambert, University College London, and Lord Knight, Chief Education Adviser, TES Global. Other speakers contributing to the event included Fei Chen Lee, Times Publishing Singapore; Debbie Morgan, National Centre for Excellence in the Teaching of Mathematics; Lis Tribe, Hodder Education Group; Bron Duly, RM Books; and Jane Mann, Director of Education Reform, Cambridge University Press.

The presentations were accompanied by discussion and debate with the attending senior education experts, and online via a live-streamed video. Further details of the event, video highlights, and a range of related materials can be found on our website: www.cambridgeassessment.org.uk/news/launch-of-the-cambridge-approach-to-textbooks/

1. Oates, T. (2016). *The Cambridge Approach. Principles for designing high-quality textbooks and resource materials*. Cambridge, UK: Cambridge Assessment. Available online at: <http://www.cambridgeassessment.org.uk/Images/299335-the-cambridge-approach-to-textbooks.pdf>

2. Oates, T. (2009). *The Cambridge Approach. Principles for designing, administering and evaluating assessment*. Cambridge, UK: Cambridge Assessment. Available online at: <http://www.cambridgeassessment.org.uk/Images/109848-cambridge-approach.pdf>

Aspects of Writing

A Cambridge Assessment research seminar took place in London in November 2016 to launch the report of the 2014 phase of *Variations in Aspects of Writing in 16+ English Examinations*. The report, written by Gill Elliott, Sylvia Green, Filio Constantinou, Sylvia Vitello, Lucy Chambers, Nicky Rushton, Jo Ireland, Jessica Bowyer and David Beauchamp, has triggered great debate across the educational research and English teaching communities, and the media.

The report is the latest phase of a unique study, which has been carried out every 10 years since the 1980s, and explores changes in a range of aspects of students' writing in the context of formal English exams between 1980 and 2014. The aspects of writing under scrutiny include spelling, punctuation, sentence structure and the use of paragraphs. Access to a rich corpus of writing from recent decades has afforded Cambridge Assessment researchers an invaluable opportunity to conduct this cross-sectional study which provides insights that will interest researchers, teachers and the educational community.

Professor Debra Myhill, Professor of Education and Pro-Vice-Chancellor, University of Exeter, set the scene and provided the context for the study. Professor of English and Linguistics Director at Aston University, Professor Urszula Clark, explored *Teaching grammar: where do we go from here?*

Presentations on various aspects of the research were made by researchers from the Research Division: Sylvia Green set out the background to the study; Gill Elliott talked through the method of the 2014 phase of the study and put into context the findings set out in the report; Filio Constantinou looked at the impact the ever increasing use of social media may or may not have had on students' writing; and Nicky Rushton addressed the change in common misspellings by students between 1980 and 2014.

The full report was published as *Research Matters* Special Issue 4 and is available from our website: www.cambridgeassessment.org.uk/Images/340982-research-matters-special-issue-4-aspects-of-writing-1980-2014.pdf If you would like to receive a printed copy, please email your contact details to researchprogrammes@cambridgeassessment.org.uk

Further details of the seminar, video highlights, audience views and a range of additional resources can be found on our website: www.cambridgeassessment.org.uk/aspects-of-writing/

Publications

The following articles have been published since *Research Matters*, Issue 22:

Bowyer, J. and Darlington, E. (2017). Mathematical struggles and ensuring success: post-compulsory mathematics as preparation for undergraduate bioscience. *Journal of Biological Education*. Advance online publication available at: <http://www.tandfonline.com/doi/full/10.1080/00219266.2017.1285803>

Bowyer, J. and Darlington, E. (2017). Should I take Further Mathematics? Physics undergraduates' experiences of post-compulsory Mathematics. *Physics Education*, 52(1). Advance online publication available at: <http://iopscience.iop.org/article/10.1088/1361-6552/52/1/015007>

Bramley, T. and Crisp, V. (2017). Spoilt for choice? Issues around the use and comparability of optional exam questions. *Assessment in Education: Principles, Policy & Practice*. Advance online publication available at: <http://www.tandfonline.com/doi/full/10.1080/0969594X.2017.1287662>

Crisp, V. (2017). The judgement processes involved in the moderation of teacher-assessed projects. *Oxford Review of Education*, 43(1), 19–37. Available online at: <http://www.tandfonline.com/doi/full/10.1080/03054985.2016.1232245>

Darlington, E. and Bowyer, J. (2016). Engineering undergraduates' views of A-level Mathematics and Further Mathematics as preparation for their degree. *Teaching Mathematics and its Applications*. Advance online publication available at: <https://doi.org/10.1093/teamat/hrw020>

Darlington, E. and Bowyer, J. (2016). Students' views of, and motivations for, studying A-level Further Mathematics. *MSOR Connections*, 15(1), 4–13. Available online at: <https://journals.gre.ac.uk/index.php/msor/issue/view/issue/47/37>

Darlington, E. and Bowyer, J. (2016). How well does A-level Mathematics prepare students for the mathematical demand of chemistry degrees? *Chemistry Education Research and Practice*. Available online at: <http://pubs.rsc.org/en/content/articlelanding/2016/RP/C6RP00170J#divAbstract>

Gill, T. (2017). Preparing students for university study: a statistical comparison of different post-16 qualifications. *Research Papers in Education*. Advance online publication available at: <http://dx.doi.org/10.1080/02671522.2017.1302498>

Johnson, M. (2016). The challenges of researching digital technology use: examples from an assessment context. *International Journal of e-Assessment*, 1(2), 1–10.

Johnson, M. and Oates, T. (2016). Making sense of a learning space: How freestyle scooter-riders learn in a skate park. *Informal Learning Review*, 14(0), 17–21. Available online at: <http://www.informallearning.com/the-informal-learning-review.html>

Shaw, S. and Werno, A. (2016). Preparing for college success: exploring the impact of the High School Cambridge Acceleration Program on US university students. *College and University: Educating the Modern Higher Education Administration Professional*, 91(4), 2–21.

Wilson, F., Child, S., and Suto, I. (2016). Assessing the transition between school and university: Differences in assessment between A level and university in English. *Arts and Humanities in Higher Education*, 41(1), 1–21. Available online at: <http://journals.sagepub.com/doi/pdf/10.1177/1474022216628302>

Further information on all journal papers and book chapters can be found on our website: www.cambridgeassessment.org.uk/our-research/all-published-resources/journal-papers-and-book-chapters/

Reports of research carried out by the Research Division for Cambridge Assessment and our exam boards, or externally funded research carried out for third parties, including the regulators in the UK and many ministries overseas, are also available from our website: www.cambridgeassessment.org.uk/our-research/all-published-resources/research-reports/