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Research News

Karen Barden Research Division

Conferences and seminars

European Conference on Educational Research (ECER)

The ECER conference took place in Budapest, Hungary in September, under the theme of *Education and Transition – Contributions from Educational Research*. Nadir Zanini, Research Division, presented a paper on *The importance of teaching styles and curriculum in Mathematics: Evidence from TIMSS 2011*. The paper was co-authored with Tom Benton, Research Division.

Simon Child, OCR, presented a paper co-authored with Research Division colleagues Prerna Carroll and Ellie Darlington on *The role of assessment in facilitating student transition to 'active' citizenship*.

Royal Statistical Society (RSS)

The RSS 2015 Annual Conference took place in Exeter in September. Now in its 23rd year, the RSS conference has gained prestige for its focus on current statistical issues, how it fosters the exchange of ideas and information, and the quality of its speakers. Tom Benton, Research Division, presented a paper on *How statistics determine examination results in England*.

British Educational Research Association (BERA)

Held in September at Queen's University, Belfast, Northern Ireland, the BERA Annual Conference was an opportunity to develop new research ideas, and to build new research relationships within the research education community. Based on work undertaken by the Research Division, Cambridge Assessment colleagues presented the following papers:

Carmen Vidal Rodeiro, Research Division: *An investigation into the numbers and characteristics of candidates with incomplete entries at AS/A level*.

Simon Child, OCR, Ellie Darlington and Tim Gill, Research Division: *An investigation of the motivations underpinning student and teacher topic choice in History qualifications*.

Jessica Bowyer (née Munro), Research Division: *The assessment of creativity and innovation in Design and Technology*.

Martin Johnson, Research Division: *Reading between the lines: exploring the characteristics of feedback that support examiners' professional knowledge building*.

Tim Gill, Carmen Vidal Rodeiro and Nadir Zanini, Research Division: *Students choices in Higher Education*.

Jackie Greatorex, Lucy Chambers, Filio Constantinou and Jo Ireland, Research Division: *Piloting a method for comparing examination question paper demands*.

Jackie Greatorex, Tom Sutch, Jessica Bowyer, Karen Dunn, Research Division, and Magda Werno, Cambridge International Examinations: *Investigating a new method for standardising essay marking using levels-based mark schemes*.

Victoria Crisp, Research Division: *Validity and comparability of assessment: how do these concepts relate?*

Magda Werno, Cambridge International Examinations, Frances Wilson, OCR, and Prerna Carroll, Research Division: *Translation in the reformed ancient languages GCSEs*.

Gender differences – the impact of secondary schooling – boys or girls, who's winning?

A Cambridge Assessment conference on 'Gender differences' took place in London in October. The conference brought together more than 600 experts from within the education and assessment community both at the conference and online, with over 30 countries represented.

The audience heard from speakers from around the world who unpacked the complex range of issues that surround gender differences in secondary education and how they might be tackled to attempt to remove, or at least start to reduce, the gap between girls and boys.

Presentations included the following papers:

Tim Oates, Assessment, Research & Development: *An analysis of the gender divide – from primary school to workforce*.

Tom Benton, Research Division: *Attitudes to learning – questioning the PISA data*.

Tom Bramley, Carmen Vidal Rodeiro and Sylvia Vitello, Research Division: *Gender differences at GCSE*.

Agnieszka Walczak and Ardeshir Geranpayeh, Cambridge English Language Assessment: *The Gender Gap in English Language Proficiency? Insights from a Test of Academic English*.

Further details of the conference, videos of the proceedings and additional resources can be found on our website at:

<http://www.cambridgeassessment.org.uk/events/gender-differences-conference-2015/>

International Association for Educational Assessment (IAEA)

The 41st IAEA Conference was held in Kansas, USA in October and gathered educational leaders from around the world to share innovative ideas of educational assessment techniques aimed at improving quality in education. The conference theme was *The Three Most Important Considerations in Testing: Validity, Validity, Validity*. Stuart Shaw, Cambridge International Examinations, presented papers on *What Makes for a Sound Validity Argument? Exploring Criteria for Evaluation – the Strength of Validation Evidence; Critiquing Kane’s argument-based approach to validation*; and *Language Rich: Insights from Multilingual Schools* based on work co-authored with his colleagues Helen Imam and Sarah Hughes.

Stuart also presented a plenary session on *Testing as a Positive Force: Changing the Reality and the Perception*. Neil Wade, OCR, presented a paper on *Validity Issues in the Reform of Practical Science Assessment: An English Case Study*.

Association for Educational Assessment – Europe (AEA-Europe)

The 16th AEA-Europe Annual Conference took place in Glasgow, Scotland in November under the theme of Assessment and Social Justice. Several colleagues from Cambridge Assessment attended the conference and the following papers were presented:

Carmen Vidal Rodeiro and Nadir Zanini, Research Division: *The A* grade at A level in England: an evaluation of its use as a selection tool for HE courses*.

Ellie Darlington, Research Division: *The value of Mathematics: optimising opportunity in higher education and beyond*.

Jackie Greatorex, Lucy Chambers, Filio Constantinou and Jo Ireland, Research Division: *Piloting a method for comparing examination question paper demands*.

Tim Oates, Assessment, Research & Development: *To catch moving standards; how small do the holes in the regulatory net need to be?*

Tom Bramley, Research Division, and Chris Wheadon, No More Marking Limited: *The reliability of adaptive comparative judgment*.

Tom Bramley, Research Division, and Frances Wilson, OCR: *Maintaining standards by expert judgment of question difficulty*.

Sarah McElwee, Cambridge English Language Assessment: *Widening participation and positive impact in the design and administration of university admissions tests: A case study of the BioMedical Admissions Test*.

Sarah Hughes and Stuart Shaw, Cambridge International Examinations: *Why do so few candidates score 4 out of 8 on this question? The issue of fairness and under-used marks in levels-based mark schemes*.

Stuart Shaw, Cambridge International Examinations, and Martin Johnson, Research Division: *Insights into teacher-developed Pre-U assessment: opportunities and challenges*.

Stuart Shaw, Cambridge International Examinations: *What makes for a sound validity argument? Exploring criteria for evaluating the strength of validation evidence*.

The following posters were also presented:

Sarah Hughes and Stuart Shaw, Cambridge International Examinations: *The issue of fairness and under-used marks in History examination questions*.

Stuart Shaw, Helen Imam and Sarah Hughes, Cambridge International Examinations: *Language Rich: Insights from Multilingual Schools*.

Stuart and Sarah also led a pre-conference workshop on *Issues around how best to provide evidence for assessment validity: the challenge of validation*, and a discussion group on *Fairness in Educational Assessment*.

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

Publications

The following articles have been published since *Research Matters*, Issue 20:

Darlington, E. (2015). The Mathematics Needs of Higher Education. *Sigma Network Newsletter*, 9, (December). Available online at: http://www.sigma-network.ac.uk/wp-content/uploads/2015/12/sigmanewsletter9_Dec15.html#MathsHE

Greatorex, J., Rushton, N., Mehta, S. and Grayson, R. (2015). Do experts' views of specification demands correspond with established educational taxonomies? *Online Educational Research Journal*. Advance online publication available at: <http://www.oerj.org/View?action=viewPaper&paper=210>

Vidal Rodeiro, C.L. and Zanini, N. (2015). The role of the A* grade at A level as a predictor of university performance in the United Kingdom. *Oxford Review of Education*, (41)5, 647–670. Available online at: <http://www.tandfonline.com/doi/full/10.1080/03054985.2015.1090967#abstract>

Shaw, S., Imam, H. and Hughes, S. (2015). *Language Rich: Insights from Multilingual Schools*. Cambridge: Cambridge University Press.

Vergolini, L. and Zanini, N. (2015). Away, but not too far from home. The effects of financial aid on university enrolment decisions. *Economics of Education Review*, 49, 91–109. Available online at: [doi:10.1016/j.econedurev.2015.08.003](https://doi.org/10.1016/j.econedurev.2015.08.003)

Wilson, F., Child, S., Mehta, S., Evans, S. (2015). Purpose and structure of science qualifications for 16-year olds in England: teachers' and employers' perspectives. *School Science Review*, (97)358, 99–106. Available online at: <http://www.ase.org.uk/journals/school-science-review/2015/09/358/>

Further information on all journal papers and book chapters can be found on our website: <http://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 United Kingdom and many ministries overseas, are also available from our website: <http://www.cambridgeassessment.org.uk/our-research/all-published-resources/research-reports/>

Data Bytes

A new Data & Analytics team has been created within the Research Division, consisting of three Data Scientists. The team is responsible for providing data services and consultancy to the Cambridge Assessment Group. They also produce a regular series of graphics highlighting the latest research findings and trends in education and assessment, known as 'Data Bytes'. These can be found on our website at: <http://www.cambridgeassessment.org.uk/our-research/data-bytes/>