Institution: University of York



Unit of Assessment: UoA 25 - Education

a. Overview

We aim to undertake research that is responsive to current educational concerns, is rigorous and methodologically robust, adds to knowledge in education, and has a substantial impact on policy and practice. Our research focuses on established strengths (science, languages, systematic reviews, trials methods, social justice) and specific new areas (psychology, higher education). Maintaining strong links between research and teaching guides our decisions about recruitment, investment in infrastructure, and the allocation of resources to stimulate and support research.

Research Structure Education research at the University of York (UoY) is concentrated within the Department of Education (DoE) and the Institute for Effective Education (IEE). Within the DoE, there are four research Centres, each led by a Centre Leader (in bold below):

- The **Centre for Innovation and Research in Science Education** (CIRSE) has an international reputation for research on science teaching and learning that supports innovative researchinformed curriculum development, and a growing standing in research evaluations (Airey, Bennett, Braund, Dunlop, Lubben, **Millar**).
- The **Centre for Language Learning Research** (CLLR) undertakes fundamental applied and theoretical research on language learning and teaching (Bassetti, Handley, Hardman, Kuzborska, Marsden, **Roberts**, Szczepek-Reed, Taylor, Trenkic).
- The **Centre for Research on Education and Social Justice** (CRESJ) formed in 2008 and focuses on equity, diversity and inclusion in relation to teaching, learning, participation and achievement (**Davies**, Elliott, Hampden-Thompson, Olive, Sundaram, Wakeling).
- The **Psychology in Education Research Centre** (PERC) was launched in 2012 and conducts applied psychological research relevant to education and educational settings (Asbury, Bowyer-Crane, **Klassen**, Kyriacou, Nash).

The IEE (Bywater, **Chambers** [Director], Hardman, Hanley, Rudd, Sheard, Slavin, Tracey) was established in 2007 with a benefaction from the Bowland Charitable Trust. Its main areas of expertise are in developing and evaluating programmes and practices using experimental and quasi-experimental designs, disseminating research-proven programmes and practices to the field, and providing leadership for evidence-based reform in education. The IEE and DoE have a shared research strategy and conduct joint research projects.

From 2013, the **Cambridge Primary Review Trust** (the successor to the Cambridge Primary Review), led by Alexander, has been based in the DoE.

b. Research strategy

Evaluation of RAE 2008 Strategy

As outlined in our RAE 2008 submission, our strategy was to: (1) establish the IEE as a major centre for policy- and practice-related research; (2) work collaboratively with the newly established National Science Learning Centre (NSLC); (3) increase research capacity in language education; and (4) review the focus of the Centre for Research on Equity and Impact in Education over the life-course (CEIE).

Taking each of these in turn:

- 1. Since its inception in 2008, the IEE has established itself as an inter-disciplinary research centre producing high quality research and promoting the use of evidence in education policy and practice. It now has a core research staff of eight, including three professors, supported by both a partnership and a dissemination manager.
- 2. CIRSE and NSLC staff collaborated to organise a first-ever UK science education research conference in June 2011, and a second in July 2012, both attended by over 60 researchers. Bennett is PI for the research evaluation of the National STEM centre, and was previously PI for an evaluation of the impact of CPD courses provided by the NSLC. CIRSE staff contribute regularly to CPD courses and events at the NSLC and at regional SLCs. Bennett and Slavin



are collaborating with the NSLC through the CPD programme for primary science coordinators. This programme was commissioned by the Wellcome Trust; the NSLC provide the CPD training whilst the DoE and IEE are conducting an evaluation.

- 3. The number of language education staff has risen from 2.5 FTE in 2007 to 8.6 FTE in 2013. The appointment of Roberts in 2011, from the Max Planck Institute for Psycholinguistics in Nijmegen, The Netherlands, to lead CLLR has significantly increased its capacity and international profile.
- 4. A review of the CEIE led to its reconstitution as CRESJ in 2008, permitting a focus on a more extensive range of social justice issues through a diversity of approaches. The appointment of two research staff to CRESJ with backgrounds in quantitative methods, particularly secondary analysis of large-scale data, has ensured continuing expertise across a range of methodological approaches.

The substantial growth of the DoE and IEE during the review period is in line with the university's policy of expanding small departments to a sustainable size. As part of its planned strategic expansion, the DoE strengthened expertise in the core disciplines that underpin the field of education, particularly psychology. The establishment of PERC in 2012 represented a £400K initial investment of additional income generated by the DoE, permitting the appointment of three new staff, including Klassen from the University of Alberta to lead PERC. There are overlapping areas of interest between staff in PERC and CLLR in particular, which enhance the DoE's ability to engage in collaborative, cross-disciplinary work.

Other evidence of achievement of strategic aims include:

- 1. the establishment of the White Rose Doctoral Training College including ESRC studentships for education, and investment in PhD studentships by the DoE and the IEE;
- 2. the establishment, in 2012, of the Education in Conflict and Emergencies research programme, which is a joint research and advanced learning endeavour of the IEE and the Post-war Reconstruction and Development Unit (PRDU) at the UoY;
- 3. the relocation of the Cambridge Primary Review Trust (CPRT) to the DoE.

Main Objectives and Activities in Research for Next 5 Years

- 1. After a four-year period of rapid expansion, further growth in staff numbers will continue in response to opportunities and demands, our staffing plan remaining to be based on long-term sustainability.
- 2. We will increase research income by maintaining excellent relationships with our current external research funders and by expanding our funding base specifically to include more international funding agencies. Our expanding international research-funding base will assist in protecting us from a national fluctuating funding environment.
- 3. We intend to grow the number of postgraduate research students through a more targeted approach to attracting home and EU students, by increasing by one per year the number of DoE funded studentships. The IEE will increase research student numbers over the next five years, through seeking external funding for studentships and by providing internally funded places.
- 4. We will expand our expertise in the area of higher education and secondary data analysis (quantitative) within our research centres, through expanding networks and collaborations.
- 5. We will collaborate with, and build upon the work of, the Cambridge Primary Review Trust in areas of existing strength within the DoE and IEE (such as classroom interaction and dialogue, science education, quality and effectiveness in learning).
- 6. The IEE will expand and evaluate its knowledge brokerage services for schools.
- 7. PERC has generated a need for research equipment and laboratory space for both research and teaching. Laboratory space has been added in 2013, and we plan to augment these facilities and equipment during the next five years.
- One emerging initiative of strategic importance is the interdisciplinary study of second language learning and teaching. The key aim is to address gaps in second language (L2) research through in-depth, systematic study of L2 learning from a multidisciplinary perspective.



c. People

Staffing strategy and staff development

When new appointments are made, the DoE and the IEE look to recruit individuals to augment current research groups, research teams, and research priorities. Both aspire to offer all newly appointed academic staff open contracts, and have been successful in this. The DoE has grown substantially during the review period, from 15 to 26 members of research staff (24.2 FTE) and the IEE has increased its research staff from 6 to 8 (6.8 FTE). During this period, there has been a shift in the percentage of females from 40% at the beginning of 2008 to 63% in 2013. Appointments have been made across the DoE and IEE at Chair (3 appointments), Reader (2 appointments), Senior Lecturer (2 appointments), and Lecturer level (14 appointments). There have also been 10 internal promotions.

We have clearly stated expectations for all staff, covering research income generation, publication in high quality outputs, research collaboration, academic service, dissemination and impact. To help Early Career Researchers (ECRs) achieve these expectations, senior colleagues actively seek to involve them in ongoing and new projects, by contributing to publications and to research grant proposals, and by facilitating networking with potential collaborators. The research activity of staff is monitored on a regular basis, through research reports and annual research plans that are reviewed by centre leaders and by the Director of Research (DoR), and through annual performance reviews.

During the review period, we have implemented the Concordat to support the career development of researchers and, where appropriate, research students. Implementation of DoE and IEE Concordat action plans, which are reviewed annually, allows for monitoring our alignment to the seven principles. Career development is supported at department/centre and university levels through five integrated mechanisms. These are: (1) mentoring; (2) support for research leave; (3) workload management; (4) monitoring; and (5) research training. All new members of staff are formally allocated a senior colleague as mentor, including support for developing research activity. Research induction for new staff in the DoE is carried out by the DoR, their assigned mentor, a research administrator, and the Chair of the Ethics Committee (CEC). The DoE and IEE have a combined ethics committee to review proposals, which includes a lay member and a research student. New and current researchers are briefed by the CEC about research ethics and there is clear guidance concerning data protection and storage.

All DoE researchers are eligible to apply for one-term research leave (there have been six successful applications from 2008 to 2013) and one-year research leave through the University's Anniversary Lectureship scheme. A well-established workload allocation model (WAM) is a helpful tool that ensures those on academic contracts achieve a balance between research, teaching, and administrative duties. The WAM guarantees that for researchers in the DoE on academic contracts, 40 percent of their time is made available for research. For staff whose research income covers more than 40 percent, the Head of Department (HoD) reallocates teaching and administrative duties accordingly. For those on research-only contracts, the HoD or Director of the IEE carefully monitors their workload.

The DoE and IEE engage in joint bespoke research Away Days three times a year, focussing on developing grant proposals, developing collaborative and interdisciplinary research, disseminating research findings effectively, and planning research for impact. ECRs are normally required to participate in the Postgraduate Certificate in Academic Practice programme to support their current work and facilitate career progression. All staff can access a dedicated University research training programme that is organised around four themes: (1) Engagement, influence and impact (2) Knowledge and intellectual skills (3) Research governance and organisation and (4) Personal effectiveness. The courses offered are extensive in range and frequency (over 1000 courses offered in the period from 2011-2013). Three staff members have also recently participated in the University's new 9-month programme for Research Leaders, which prepares staff to lead and manage a research team, secure new research grants, liaise with stakeholders, publish, respond to institutional issues and agendas, and maintain and develop their own research expertise. All research staff receive an annual allowance for training or other professional development purposes. Researchers are made aware of training opportunities through a Weekly Research



Bulletin that is distributed to all education researchers, and encouraged by research centre leaders, mentors, and Director of Research to participate as appropriate.

Research students

Research students at master's and doctoral levels make a significant contribution to the research environment through membership of one of the research centres and through working on staff research projects and joint papers.

- *Number and diversity* We have steadily increased our postgraduate research student numbers (from 30 in 2008 to 87 in 2013). Factors enabling this growth are the expansion of research staff in language education and co-supervision of students with the IEE. The creation of PERC will stimulate further growth over the next five years. Our students come from Africa, Asia, the Middle East, Europe, and North and Southern America, contributing to the university's internationalisation agenda. Our students are supported by studentships from the ESRC, the White Rose Doctoral Training Centre (DTC) and the White Rose Network, and students' home countries (e.g., Indonesia, Mexico, Saudi Arabia, Turkey), and by DoE and IEE studentships that are offered annually.
- **Research training provision** Research students in the DoE and IEE take a Research Methods in Education module, attend the monthly Educational Research Group meetings, and present their research to staff and research students at least once a year. We also run a series of monthly Advanced Research Methods and Skills workshops. These attract research students and staff from York and other regional universities. We run a series of staff and research student seminars, each held three times a term and attended by both staff and students. Research students are also invited to attend the seminar series organised by each research centre, and any special one-off seminars and lectures on research topics. A monthly student-led research troubleshooting workshop allows students and staff to discuss research issues raised by students in an informal setting. All research students also have access to a personal allowance for attending other training opportunities across the country. Our students regularly attend courses offered by the university's Research Development Team. These cover research and transferable skills, such as research grant writing, software use, and team-work. Students who want formal recognition of their training can join the York Award, which is an employability certificate of the university. In order to prepare for the workplace, all students take the online Employability Tutorial, and develop a Professional Development Plan, as a requirement for their confirmation of registration. Those aiming to become academics can enrol on the Preparing Future Academics programme (started in 2007), which includes teaching under the supervision of department staff, and whose graduates are eligible for membership in the Higher Education Academy. In total, 16 of our research students have participated in this programme during the period. In addition, we implemented in 2011 a Postgraduates Who Teach (PGWT) programme in which research students have a paid opportunity to develop their skills as future academics by teaching on undergraduate programmes.
- Links with White Rose Doctoral Training Centre (DTC) The DTC (wrdtc.ac.uk/) was established in 2010 and is a consortium of the Universities of York, Leeds and Sheffield. As well as providing ESRC-funded studentships to research students in Education, it benefits all our research students through a range of educational and research training programmes, and networking and conference opportunities. All research students are actively encouraged to engage with the DTC. Bassetti has 20 percent (0.2 FTE) of her time allocated to DTC activities and leadership. Membership of the DTC has allowed us to: (1) network with over 1,000 other PhD students (2) access two advanced research methods training networks (3) access the Education Pathway, which has programmes of training activities within York and the wider White Rose Consortium and (4) access the online DTC Training Catalogue. Membership has improved our research student provision and has greatly enhanced the overall environment and training opportunities. The DTC provides all students (not only those with ESRC sponsorship) with a first-year induction day, a yearly spring conference on research methods (including student presentations and a student poster competition), and



training in quantitative and qualitative research methods. Collaboration across the three universities is made possible by an Education Pathway. Each DoE has a nominated Education Pathway Lead and an Education student representative. The three Pathway Leads meet twice a year to discuss how to share research training and resources across the three departments.

d. Income, infrastructure and facilities

Research funding

Funded education research at York during the review period has totalled over £7.1 million and has been supported by **Research Councils** (British Academy, Economic and Social Research Council), **UK charities** (Astra Zeneca Science Teaching Trust, Bowland Trust, CFBT, Education Endowment Foundation, Esmée Fairbairn Foundation, Gatsby Foundation, Leverhulme, Nuffield Foundation, Salters' Institute, Society for Educational Studies, United Church Schools Trust, Wellcome Trust), **UK central government** (Department for Education, Department for International Development), **UK industry** (Learning Clip, Promethean Ltd), and from **other UK** (National Science Learning Centre), and **overseas organisations** (National Science Foundation, Social Sciences and Humanities Research Council of Canada; UNICEF). We are the 4th ranked in the UK in terms of research funding per capita for the three years from 2009-2012 (most recent data). The diversity of our funders has helped us to maintain good levels of research funding despite the recent changes to the environment.

Externally funded research has led to high quality research outputs and consequent impact. For example, Bowland Trust funding has facilitated the systematic review work by Slavin. Notable outputs include syntheses of research into effective reading and mathematics programmes, published in highly rated journals (such as *Review of Educational Research*, ranked 1st in 2012 Journal Citation Reports). ESRC and British Academy funding for the IRIS project (Instruments for Research into Second Language Learning) will allow researchers of foreign/second language learning and teaching access to an online database of data collection instruments (see www.iris-database.org). Consequent impact will be on both academic and non-academic groups.

Strategies for income generation and support

We have employed a number of strategies to maintain and grow our research income, including maintaining strong relationships with long-term funders and building relationships with potential new funders. We have strengthened our expertise in evaluations and secondary data analysis to match the funding priorities of the Education Endowment Foundation and the ESRC, respectively. In addition, we have focused on developing the research profiles of Early Career Researchers in order to generate research income in the medium to long term. Both the DoE and IEE monitor their funding profiles regularly to assess the breadth and depth of their funders. The weekly DoE and IEE Research Bulletins highlight funding possibilities. The IEE holds a weekly bid decision meeting and liaises with the DoE on potential joint funding opportunities. Collating and dissemination of funding opportunities is co-ordinated by a research administrator in the DoE and by the full-time dissemination manager in the IEE. The Interdepartmental Social Science Research Facilitator (Opmeer) who supports submissions of large grant applications and fosters national, international and interdisciplinary networks assists the DoE and IEE with funding applications. Further to this, we work closely with the University's European Research and Development Team in which we are allocated our own contact (Moore). Between the DoE and IEE there are 2.5 FTE research administrators who support research.

Financial support of research is an important aspect of our strategy. At the DoE level, we support research income generation through an internal pump-priming programme, the money allocated for which has increased during the review period. The programme is aimed at supporting ECRs and during the review period we have supported 17 Early Career Researchers with pump-priming funds totalling over £16K. Pump-priming funds are also available from the University. Additional funds for research support and impact are available through the research centre budgets, Higher Education Innovation Fund (HEIF), and the internship programme. For example, Klassen, with colleagues from PERC and our Initial Teacher Training (ITT) programme, received £20K from HEIF in late 2012 to develop evidence-based tools to improve the validity of initial teacher training candidate selection. The Education Media Centre (EMC), fostered by the IEE, was set up using HEIF funds.

Environment template (REF5)



This resulted in £260K being raised for the centre with £120K of this funding coming from the Esmée Fairbairn Foundation. HEIF funds were allocated to the IEE to create Evidence4Impact, a website to enable educators to find research-proven education interventions. Researchers are encouraged to take advantage of the collaborative funding opportunities provided by the Worldwide University Network (WUN) (research development and mobility funds), European Commission (FP7), British Council, and British Academy. In the past year Bassetti, Olive, and Sundaram have used WUN funds to visit and build research collaborations in the USA, Canada, and New Zealand, respectively. Furthermore, we have hosted WUN funded researchers.

Infrastructure and facilities

The IEE is located close to the DoE in the Berrick Saul Building built with funding from the Bowland Charitable Trust. The available facilities and infrastructure support and encourage interdisciplinary research. For example, the Humanities Research Centre is housed in the purpose-built Berrick Saul building alongside the IEE, which allows education staff and students to utilize the excellent facilities for small conferences, research training days, and symposia. In addition, education staff have access to the Alcuin Research Resource Centre (ARRC), with bespoke rooms for interviews, audio-visual recording and editing facilities, sound-proofed telephone interviewing rooms, high quality research seminar and conference rooms, and software support services. In 2012, the facilities were used extensively for a British Academy funded project that investigated the very first phases of foreign language acquisition under controlled input conditions in the classroom. A new Research Centre for Social Sciences (RCSS) opened on the York campus in early 2013. A dedicated building (c. £1.8m) provides all social science departments and institutes, including DoE and IEE, with additional research training facilities to complement those within departments and the ARRC. The new facility houses the principal offices of the White Rose DTC, and will facilitate and expand research in the social sciences at UoY and grow an interdisciplinary research environment. The new building accommodates about 80 PhD students, a new training suite, and has begun to host research groups, research meetings, workshops and conferences. It offers allocated working spaces for research students, as well as space for exchanging ideas. Education research students are normally allocated a single-use or shared desk in the IEE (Berrick Saul building), CIRSE (Alcuin College) or the new RCSS.

During the review period there has been a £20m investment in the University Library buildings, which has increased the number of study spaces available to 1400 including dedicated spaces for research students. The Library is now open 24/7 on 362 days a year. The improved study space and accessibility has been popular among our research students as it gives them greater flexibility in terms of study space and time. Both the DoE and IEE have a dedicated librarian to support research.

e. Collaboration or contribution to the discipline or research base

Much of our work involves collaboration with other education professionals from a wide range of disciplinary backgrounds (including science, mathematics, language and linguistics, psychology, sociology). During the review period, we have continued to seek and to take opportunities to build disciplinary and interdisciplinary collaborations across departments at UoY, and nationally and internationally. During the review period, 52% of research bids have been with collaborators external to UoY (34% of these have been successful), and 21% of research bids have been with collaborators within the UoY but external to the IEE or DoE (20% successful). Furthermore, of our outputs during the review period, over 60% had external co-authors.

Collaborations

Interdisciplinary research collaborations Within the University, researchers in education have worked collaboratively across the social science disciplines and departments (health sciences, politics, social policy and social work). Beyond the social sciences, we have strong research collaborations with linguistics and psychology. These linguistics and psychology collaborations have been strengthened by the expansion of CLLR and the launching of PERC. Collaborative research is formally facilitated through the Social Science Research Facilitator (Opmeer) and the Academic Co-ordinator for the Social Sciences (Webster).

One recent example of interdisciplinary research collaboration is the Education in Conflict and Emergencies joint programme of research (<u>www.york.ac.uk/iee/eice</u>) with the Post-war

Environment template (REF5)



Reconstruction and Development Unit at UoY. Since 2009, this programme, primarily funded by UNICEF, has sought to develop an advanced understanding of the complex relationships between education and violent conflict and humanitarian emergencies. Central to this joint research, led by Hardman (IEE) and Barakat (Politics), is the study of roles that education can play in responding to violence, conflict recovery and transformation, and building lasting peace. For example, a research team, which also included Sundaram (Education), examined the ways in which the provision of education plays in peace building and post-crisis recovery in Kenya, Nepal, and Southern Sudan.

National and international collaborations Education researchers at York have continued to collaborate with colleagues in UK institutions as well as across the world. The Creating Citizenship Communities research project, funded by Esmée Fairbairn Foundation, is a collaboration between members of CRESJ and researchers at the National Foundation for Educational Research. Alexander, through his leadership of the Cambridge Primary Review (2006-2010) and now the CPRT (2013-onwards), collaborated with approximately 100 academics undertaking collaborative research and research reviews in 20 universities. The recruitment of several new members of staff from institutions outside the UK has facilitated significantly the growth in our international collaborations. For example, we are developing international collaborations with two institutions in the Netherlands (Max Planck Institute for Psycholinguistics and the Donders Institute for Brain, Cognition and Behaviour), facilitated by Roberts.

We actively encourage and financially support conference attendance at national, European and worldwide conferences and the hosting of conferences at UoY. DoE funding allows staff to attend at least one national or international conference per year. Another mechanism for stimulating collaborations is through the hosting of visiting researchers. We have hosted a number of prominent researchers in of citizenship education, including Sears (University of New Brunswick, Canada), Reid (University of South Australia, Australia), Ogawa and Taniguchi (Tohoku University, Japan), and Mizuyama (Kyoto University of Education, Japan). Eight book chapters/journal articles have resulted from these visits as well as numerous joint conference presentations and journal editing work.

A number of our researchers are members of international research networks. Wakeling is a founder member of the EducEight Group (www.educ8group.org/), which includes researchers from eight European countries who share research interests in educational pathways and which hosts a conference every year, bringing together Early Career Researchers from across Europe and beyond. Davies is a founder member of citizED (an international network of citizenship education academics), CiCe (a European Commission funded thematic network of citizenship education academics and professionals of about 100 higher education institutions from 30 countries) and CiCea (an independent association of citizenship education academics). Davies is also part of the Networking Young Citizens WUN network, which is an interdisciplinary group focusing on social media and civic engagement (www.wun.ac.uk/research/nyc/). Connected with this group have been a series of seminars held in London, York, and Seattle (USA).

There is an important national collaboration between researchers in CIRSE and major UK textbook publishers (Oxford University Press, Pearson) to promote the uptake and use of national curriculum science projects that encourage research evidence-informed practice (Millar). Sales figures for the GCSE programme have topped 600,000 during the review period.

Seminar series, contributions to journal editorships and preparation, conferences During the review period, we have organised a number of high-level seminar and lecture series. For example, in 2013, the DoE celebrated its 50th anniversary with invited conferences and a series of public lectures. Notable speakers in 2011-2013 included Dr Maggie Aderin-Pocock, Charlie Taylor, and Baroness Estelle Morris.

All researchers act as journal reviewers and some contribute to the editorships of journals. Davies is editor of Citizenship Teaching and Learning. Lubben is editor of the African Journal of Research in Mathematics (AJRM), Science and Technology Education. Roberts is the co-editor of the International Review of Applied Linguistics in Language Teaching and the managing editor of the EUROSLA Yearbook. Klassen is an associate editor of both the Journal of Educational Psychology (JEP) and the British Journal of Educational Psychology (BJEP). The field benefits from Klassen

Environment template (REF5)



serving as an associate editor on both journals as they reflect differing perspectives (i.e., US and European). Bassetti is the co-editor of Writing Systems Research. In addition, staff members hold positions on many journal editorial boards. The editorial work of Lubben is particularly notable as the journal's remit includes a professional development aspect whereby he provides developmental feedback to African ECRs based on reviewers' feedback. In this capacity building work, Lubben also runs three writers' clinics per year in South Africa (expanded to Mozambique and Zimbabwe in 2013) for groups of ECRs based on draft manuscripts for academic journals across the education spectrum.

During the review period, the DoE and IEE have organized several research conferences and seasonal schools. The IEE's annual conference brings together researchers, policy makers and education decision makers to discuss how to get evidence into practice. One outcome of the IEE's 'Getting Evidence-based Practices to Work' conference was the recruitment of schools in North Yorkshire to participate in evaluations of reading interventions funded by the Education Endowment Foundation. As part of the Creating Citizenship Communities research project, Hampden-Thompson and Davies co-organised with CiCE and citizED the 'Creating Communities: local, national and global' conference in 2012. The conference attracted 200 delegates from 40 countries. This conference was unique in bringing together, for the first time, two major international citizenship networks. As part of the EducEight network, Wakeling co-organised four conferences during the period in the UK and Europe. Davies organised and chaired the conference 'Crick+10: citizenship education ten years after the Crick Report' at London Metropolitan University and co-organised international conferences on citizenship education at Cambridge (2008), Hong Kong Institute of Education (2009), St. Andrews, Scotland (2010), and Emory University, USA (2011). In terms of research training, staff organised and hosted the European Science Education Research Association (ESERA) PhD summer school (2008), a spring school for ERCs on Comparative and International Education (funded by ESRC International Networking and Training Opportunities grant), three winter schools (2011, Pretoria; 2012, Pietermaritzburg; 2013, Cape Town) for South African research students in Mathematics, Science and Technology Education (Lubben), and a summer institute for Innovations in Motivation Research hosted by PERC (York, 2013).

Contribution to professional organisations or learned societies, and developmental disciplinary initiatives

Millar was the President of Association for Science Education (ASE) in 2012 and a member of the PISA Science Expert Group since 2010. He is also a member (since 2007) of the Scientific Advisory Board of the Leibniz Institute for Science and Mathematics Education (IPN), University of Kiel, Germany. Alexander was president of the British Association for International and Comparative Education (2008-09). During the period, Alexander received a Fellowship of the British Academy (2011), was made an Honorary Fellow of the College of Teachers (2009), and received honorary doctorates from two universities in 2010. Marsden was an invited member of the expert Modern Foreign Language (MFL) panel of the Teaching Agency for the DfE review of primary curriculum and introduction of MFL. Staff are currently members of the ESRC Peer Review College. Roberts and Trenkic are on the executive committee of the European Second Language Association (EuroSLA). Davies accepted an invitation from the British Council and the Migration Policy Group to become 'the UK correspondent on education, the new strand in the Migrant Integration Policy Index'. He was also invited to participate in a Council of Europe's Pestalozzi programme meeting to advise on education for democratic citizenship (Oslo, Norway November 2008). Klassen serves as the education representative on the American Psychological Association's Committee on International Relations. Bennett contributed to the Royal Society's State of the Nation report 2008 on Science and Mathematics Education 14-19 and their Vision Project (2013). Slavin became a fellow of the American Education Research Association (AERA) in 2010 and a Member of the National Academy of Education, 2009.