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| Environment template |
| Institution: Plymouth University |
| Unit of Assessment 25 - Education |
| <p>a. Overview</p> <p>Educational research is one of the key strategic investment areas for Plymouth University. The University is one of the few UK institutions to embrace educational research in its widest sense, including higher education pedagogy, education in the early years and compulsory phases, learning outside formal settings, and professional education. This research involves staff across all the University Faculties and Schools. In addition to the core staff in the School of Education, there are particular strengths in Computing and Mathematics, Health Professions, Geography, Earth and Environmental Sciences, Management, Medicine, and Dentistry. Strategic oversight of the educational research agenda is undertaken by the Pedagogical Research Institute and Observatory (PedRIO), established in 2011 to continue pedagogic research in Higher Education undertaken between 2005 and 2010 in the four Plymouth Centres for Excellence in Teaching and Learning (CETLs). Under the University's Research and Innovation Strategy its remit is to carry forward educational research as one of the principal areas in which the University is concentrating its resources. As such, PedRIO undertakes a horizon-scanning and development role for educational research across the University and provides, in addition to the core researchers in the School of Education, an interdisciplinary focus for over 100 active researchers, many of whom also undertake substantive research in their own discipline and are submitted to other UoAs. It is interconnected with the wider research infrastructure at Plymouth through top-level relations with the cognate research interests of staff working within the Institute of Health and Community (IHC) and the Institute for Sustainable Solutions Research (ISSR).</p> <p>PedRIO coordinates and provides the strategic direction for the three themed areas of research activity that characterise UoA25 at Plymouth. These are 1) HE pedagogy (conducted by PedRIO staff and colleagues embedded in all Faculties) 2) educational research in pre-compulsory, compulsory and informal settings (primarily undertaken in the School of Education), and 3) medical education (led from within the School of Medicine and Dentistry). The three themes encompass a range of sub groups that contribute to this UoA25 submission. Each area has developed forward looking research and impact agendas, and these are coordinated through PedRIO to ensure coherence in all aspects of educational research endeavour at Plymouth.</p> <p>Higher Education (HE) pedagogy: PedRIO builds on and nurtures research strands emanating from Plymouth's four former CETLs, a series of JISC-funded Technology Enhanced Learning (TEL) projects totalling over £1 million, interdisciplinary research projects involving multiple Schools and individuals across the University, research by the Educational Development (ED) team and individual and group research in the disciplines across the University. The University's 16 National Teaching Fellows are active within PedRIO and lead a number of research areas. Specialisms in PedRIO are organised into five clusters, which provide networking opportunities and energise research through bid writing support, workshops, seminars, and day conferences. These clusters are: 1) education for sustainable development (ESD), driven by the Centre for Sustainable Futures (CSF), 2) clinical and medical education, driven by the Collaboration for the Advancement of Medical Education Research and Assessment centre (CAMERA), 3) Critically Inclusive Pedagogies, 4) Digital Futures, and 5) Research into Master's level teaching. Areas in development include: Internationalisation in HE Curriculum, Quantitative Reasoning, and, Community Engagement.</p> <p>Education in pre-compulsory, compulsory and informal settings: The School of Education (SoE) undertakes educational research in pre-compulsory, compulsory and informal settings in the UK and beyond. In 2010 the School identified three main clusters of research expertise and experience: 1) Learning Outside Formal Education (LOFE), 2) Professional Theory and Practice (PTP), and 3) Voice, Inclusion and Participation (VIP), the latter incorporating Early Childhood and Social Justice studies. In addition to the research clusters, the School is host to the Royal</p> |

Statistical Society Centre for Statistical Education (RSS CSE) and the Centre for Innovation in Mathematics Teaching (CIMT). Each research cluster and centre provides a micro-environment that allows members to work together to develop a strong body of research in cutting edge fields, involving shared ideas, the provision of seminars and mentoring, research bidding, publication, and dissemination.

Clinical and medical education: CAMERA, formed by the Plymouth University Peninsula School of Medicine and Dentistry (PUPSMD) in 2012, links clinical, biomedical, social science, arts and humanities academics involved with research in medical and dental education. Its focus is on improving clinical education for patient benefit through research activity in the fields of revalidation and remediation in medical practice, the humanities in medical education, and selection to initial and specialist clinical training in the UK. CAMERA's research area cuts across disciplines, and as a key PedRIO research cluster, its work is supported and disseminated across the University and externally.

b. Research strategy

Plymouth University has the ambition to be an internationally leading organisation in the field of educational research, translating world-quality research into practice through dissemination and impact in order to transform peoples' lives through knowledge. This ambition was intrinsic to the University's Research and Innovation Strategies 2009-12 and continues in the latest 2012-15 version, PedRIO was established in 2011 as the strategic lead to develop this ambition through its focused themes. PedRIO established its own research strategy to carry forward this agenda through practices and procedures that are both sustainable and effective. It aims to respond to key external drivers in a changing HE environment, most notably the changing public funding structures for HE, primary and secondary schools and the National Health Service in the UK. PedRIO is the strategic beacon for UoA25, targeting engagement with major research funders and external stakeholders involved in professional training, including the Teaching Agency, Natural England (through the Outdoor and Experiential Learning research network), the Higher Education Academy (HEA), and the General Medical Council (GMC). The research strategy continues to build on existing strengths in educational research at Plymouth whilst developing areas with clear potential and strategic fit with national policies and trends. To this end, PedRIO's strategic objectives are to:

1. Promote research that makes a positive, sustainable contribution to quality of life through specialist contributions, particularly in the field of education for the professions;
2. Produce research that is innovative and has impact on policy and practice;
3. Create a significant body of world-leading and internationally excellent research output;
4. Enhance public engagement;
5. Build staff capacity through expanding postgraduate opportunities and early career researcher development;
6. Champion the provision of research mentoring; and,
7. Maximise research income from funding councils and professional bodies.

Oversight of this strategy is coordinated and enhanced through the work of the PedRIO Steering Group, which provides a central focus and is where synergies are created between each of the three research themes outlined above. The Steering Group's standing membership includes the leads from each of the three themed areas and flexibly co-opts additional members as new initiatives emerge. Within this structure, management of staff is undertaken through the participating Schools. The School of Education, as the core School, provides a mentoring support structure for all staff within its research clusters. A nominated senior academic mentor works alongside more junior staff to advise and support in relation to research design, collaboration, publication, and dissemination and to provide peer review aimed at ensure methodological and ethical rigour, and financial sustainability for external grant applications. The strategy's success is demonstrated through the LOFE and VIP clusters securing four Economic Social Research Council projects, and the PTP funding from the TDA (now Teaching Agency) and British Council. Similar mechanisms are applied in other Schools, where staff are associated closely with those submitted

to other UoAs.

PedRIO's strategic ambition regarding HE pedagogy is to deliver academically rigorous research that has practical relevance and application, which reflects point two of the overarching strategic priorities listed above. This is achieved through 1) the provision of a seed-corn funding framework, totalling £100k per annum, for projects internal to the University that meet this objective, and 2) a governance structure that has established academic leaders for its five specialisms (outlined in section a). Each lead is responsible for developing research opportunities in their respective area, and feeding into the PedRIO Steering Group to ensure alignment of strategic priorities. Within the overarching remit of PedRIO, CAMERA's research strategy is to bring together the activities of a multi-professional research group in medical education. This research cluster focuses on collaborative research that directly impacts on educational theory and national and international practice and policy in the medical professions. This strategy is reflected in point two and three of the PedRIO overarching research strategy and aligns with the strategy of the Plymouth University Peninsula Schools of Medicine and Dentistry (PUPSMD), bringing together expert clinicians and scientists, in collaboration with work-based practice at Plymouth Hospitals NHS Trust, to progress internationally relevant professional innovations in research and education. All grant applications in the area of education must be submitted to the Faculty Research Ethics Committee (FREC) for ethical approval. Research in medical and dental education may also be submitted through NHS ethical committees where required. The University Research Ethics Committee receives reports on all ethical decisions and ensures compliance with the University Code of Ethics and the requirements of the RCUK Concordat on Research Integrity.

The success of these governance structures in achieving the strategic objectives are monitored in order to revise and refine the strategy and to inform out future plans. In its future planning, PedRIO's ambition is to work with its three substantive research themes to ensure success in its seven strategic objectives. The principal aim over the next five year period will be to further strengthen Plymouth as an international centre of excellence of research in education, focusing on our areas of strength and developing an established series of international conferences to showcase our world-leading research.

c. People, including:

i. Staffing strategy and staff development

Recruitment and retention of appropriately qualified and experienced educational academic staff is a priority for UoA25. PedRIO draws on the experience of Plymouth academics from a wide variety of backgrounds by virtue of their research interests in education. The formation of these research clusters allows them to share their knowledge and experience irrespective of the REF UoA to which they are returned. It is also important that special attention is given to ensure the recruitment and retention of the core research staff within the School of Education and PedRIO itself. PedRIO and the School of Education work closely to achieve this aim. In addition to active external recruitment, internal staff development of personal and career goals is supported and monitored through our Performance Development Review system.

In accordance with the overarching research strategy described in section b, PedRIO coordinates with leads of the three research themes to ensure that their staffing strategies align with the UK Concordat to Support the Career Development of Researchers (for which the University received the European Union Human Resources Excellence in Research Award in 2011). For example, it has worked with the SoE to ensure that equal weight is given to elements of teaching, research and administrative duties in staff job descriptions (a key principle of the Concordat). PedRIO promotes staff and advises on the promotion of education researchers in order to pursue its strategic objectives, relating promotion decisions to both the quality of the research undertaken by members of staff and the needs of the research themes and clusters involved. For example, the promotions of Cotton in HE pedagogy, Sterling in sustainable education (establishing the Centre for Sustainable Futures), and Heffernan in the internationalisation of the HE curriculum have all ensured that world-class expertise is brought to bear on our strategic objectives.

Line management pays close attention to the support needs of staff according to gender, race and disability: female staff are particularly encouraged to aim high in their research careers, with support mechanisms being in place for childcare and potential lack of confidence (for which ring-fenced funding is available annually). These equality issues in promotion, recruitment, and research opportunities are monitored through the School and Faculty Executive Group, which reports to the PedRIO Steering Group. Equality and diversity is an area of specialism in UoA25, with Quinn being a nationally recognised expert in equality in HE. Quinn's work has informed our own procedures and she has provided guidelines for the sector on women's' mentoring in HE on behalf of the Equality Challenge Unit.

Staff development is also embedded in the SoE through a network of best-practice dissemination sessions facilitated by linkage with PedRIO and by high profile visiting professors who share learning and experiences on pedagogic matters. These including Gilroy on cultural change, philosophy, and the curriculum, Goodson on life history and narrative research, and Sikes on qualitative enquiry. PedRIO has organised complementary sessions by academics such as Borland on medicine, ethics, and the arts. Bespoke staff development in the field of medical education, involving capacity building through an informal environment of peer learning, is coordinated by CAMERA. Archer, Director of CAMERA, holds an NIHR Career Development Fellowship, while Professor Bleakley has an extensive international track record in successful grant applications in medical education and medical humanities. The PedRIO Steering Group draws on their expertise to help build capacity in bid writing skills among other academics in UoA25.

Direct support is provided by PedRIO aimed at developing teaching and research practices in the three substantive research themes by providing continuing professional development courses and financial support for academics. Central to this support strategy is provision for ECRs and PGRs. PedRIO itself provides networks and workshops for staff starting out in academia, including some run by visiting professors who share knowledge and experiences. Examples include Brown on the student experience and Race on assessment in HE. Formal staff development programmes are provided by PedRIO in collaboration with the University's Educational Development (ED) team including the Postgraduate Certificate in Academic Practice (PGCAP), established in the early 1990's, for those who are engaged in a minimum of 50 hours of teaching per annum in HE. Research management and research informed teaching are key modules in the PGCAP and these are aligned with the Vitae Development Framework. Teachers within the area of responsibility of CAMERA qualify through the parallel PgCert and PgDip in Clinical Education. PedRIO also has responsibility for Higher Education Academy (HEA) accreditation for staff at four fellowship levels through the Plymouth University Teaching Development Framework process. Applicants reflect on their research-informed practice in teaching, student support, supervision, teaching management and mentorship roles in relation to teaching and learning. Since its inception in 2013, 34 academics have received HEA accreditation, including two UoA25 REF returnees at fellowship level.

ii. Research Students

Doctoral students (PGRs) make a significant and vibrant contribution to the research culture of UoA25. Within the REF period there have been 12 PhD completions. At the end of academic year 2012-13 there were 82 registered PGRs: 12 affiliated with PedRIO, 6 with CAMERA, and 64 in the School of Education, of which 40 are studying the EdD programme aimed at work-based professional learning.

The strong culture of training and supervision for PGRs in UoA25 is based in the formal structures of the University, but these are fully embraced and facilitated by PedRIO. The regulatory framework centres on Graduate School requirements on the training of supervisors and the monitoring of student progress. All PGR students are assigned to the Social Science Doctoral Training Centre (DTC), which was established to provide broad social-science related support and training with a particular focus on interdisciplinary research themes and method in line with evolving Research Council expectations. The founding Director of the DTC was a member of the School of Education. All staff who supervise PGRs have undertaken the required supervisor training and student progress is monitored through an electronic log-book system with regular

reports on the staged review of training needs made to the DTC. PGR teaching support is provided by PedRIO, targeting its three research themes, through the General Teaching Associate programme (GTA). The GTA provides PGRs with skills development packages that prepare them to take up teaching posts in academia including guidance on how to use high quality research in curriculum design.

The PGR development strategy is based on integrating doctoral students fully within the academic community and encouraging good relationships with their supervisors and peers based on clear lines of communication and trust. Students are regarded as full members of the research community, participating in all seminars, workshops, and presentations by visiting speakers. They may attend the PedRIO annual conference that showcases academic work. The PGR Society runs an occasional paper scheme three times a year, allowing all UoA25 PGR students to submit papers for publication and receive both feedback on their research and valuable skills in professional publication. Complementing this provision, the SoE runs an annual PGR student conference, offering development opportunities for the acquisition of professional conference skills.

Teaching across the university is strongly research-and practice-informed and undergraduate students are enthusiastically encouraged to progress to PGT and PGR courses and to move on to post-doctoral and ECR positions. This is particularly evident in the ethos of the SoE, which also provides PGRs with experience in research assistant and associate lecturer posts, wherever possible, to develop their academic expertise in a vocational setting. PGRs are eligible for School funding through the International Partner Network for attendance at international workshops on career development. CAMERA, applies a very similar approach with its medical education PGRs playing an active role in the planning and implementation of its annual international medical education conference in which leading senior medical educators work closely with small groups of PhD students on problematic areas to develop their skills base. Medical education PGRs also participate in the annual research showcase held by the Medical and Dental Schools.

d. Income, infrastructure and facilities

External research grant income generated by those returned in UoA25 totals £2,771,735 for 2008-12; Through this funding, educational research activity within UoA25 has been extensively embedded at Plymouth. This funding has come from the ESRC, the British Academy, AHRC, British Council, TDA, Natural England, Big Lottery Fund and National Institute for Health Research (NIHR). In 2013, Archer and Gale received £57k from the HEA for transforming undergraduate medical education using professional simulation, Archer received £143k from the GMC to investigate the strategic impact of medical revalidation and to understand fitness to practice complaints, Bleakley received £17k from the AHRC for research on digital dialogues in connected communities, and Archer received €14k from the Medical Council for Ireland for research on professional competence in practicing doctors and Waite received circa £650k from Natural England for the Natural Connections project and £47k from the BLF for Developing social cohesion and well-being through woodland activities. Alongside this and internal investment, developmental and research infrastructure funding has been sourced during 2008-13 from HEFCE, the HEA, and TQEF, including £18 million for the four CETLs, more than £1million in JISC projects, and £850,000 for research-informed teaching activity.

The research infrastructure of UoA25 is facilitated by PedRIO, which offers physical desk space for educational researchers, and a dissemination structure for marketing research information and findings through its online website and occasional paper series. PedRIO also provides linkage with the wider research infrastructure of Research Institutes and their respective affiliate centres at Plymouth. The Research Institutes form the basis around which the University's world class research is clustered, reflecting the University's ambitions in research and innovation in its 2020 strategic plan. As such, the Institutes, focused on pedagogy, sustainability, marine, cognition, translational medicine, and health and community, are a strategic investment area, receiving high priority in the future strategic planning process at Plymouth. The operational management teams of the Institutes meet on a regular basis to share best practice, ideas and opportunities. Through this process, the PedRIO Manager disseminates information among UoA25 about opportunities for

interdisciplinary funding applications with other Institutes, research ethics advice, and the potential co-hosting of seminars/events.

Since its inception in 2011, PedRIO alone has facilitated 69 events attracting over 500 delegates, including academics from across the world. Its annual conference provides a speciality focus for showcasing pedagogic research in HE, over 90 internal and external delegates being attracted to the 2012 event. PedRIO also facilitates the VC's annual Teaching and Learning Conference, which is in its 11th year, and showcases more applied research within the education discipline. At the institutional level, educational research is well supported by the provision of working space, and Information and Library Services. The Rolle Building, for example, was constructed in 2008 specifically for education academics and includes dedicated teaching space, conference facilities, accommodation for research teams and offices encouraging discourse on relevant pedagogic research agendas.

e. Collaboration and contribution to the discipline or research base

UoA25 has made a notable contribution to the academic knowledge base in education, for example with over 100 conference papers delivered in 2012 alone. Over the REF period, staff have delivered 33 Invited International Keynote Speeches, including Sterling at Lausanne, Brussels, and Victoria [Australia], Archer at Bern and Melbourne, Bleakley at Ottawa, Toronto, Cambridge [UK], and Stockholm, Davies at Durban and Tokyo, and Haynes at Teheran, Rio de Janeiro, and Cape Town. Invited contributions to international Seminars/Workshops include Gale at the International Clinical Skills Conference, Prato, Italy, the Ottawa Conference, Malaysia, the European Society of Anaesthesia, Helsinki, and the South West Anaesthesia Visiting Educational Symposium, Portugal. Davies was invited to speak at the European Fibonacci Project in Leicester and the CensusAtSchool Project in Windhoek, Namibia, and la Velle spoke at the African Virtual University Curriculum Development Workshop in Nairobi.

Education staff sit on 15 journal Editorial Boards, including those of *Science and Education* (Rowlands), *Educational Research and Reviews Journal* (McMullan), *HETL Review*, *Journal of Geography in HE*, *Innovations in Education and Teaching International*, and *International Journal of Environmental, Cultural, Economic and Social Sustainability* (all Cotton), *International Studies in the Sociology of Education* (Boyask), *Statistical Journal of the International Association of Official Statisticians* and *Journal of Applied Statistics* (Davies), *Journal of Biological Education* (la Velle), *International Journal of Research and Development* (Georgeson), *Journal of Education for Teaching* (Passy), and *MeEdWorld*, *Journal of Interprofessional Care*, and *Advances in Health Sciences Education* (Bleakley). Graham is Editor of *Journal of Technology and Mathematics Education*. In addition, three recent invited guest editorships have been held by UoA25 staff, reflecting significant international contributions to their relevant fields: Haynes - *Studies in Philosophy and Education* special issue on 'Child as Educator', la Velle - *Journal of Education for Teaching*, special issue on 'Masterliness' in Teacher Education, and K. Gale *International Review of Qualitative Research*, on collaborative writing as methodology. UoA25 contributes towards the pedagogy knowledge base through collaboration at an internal, regional, national and international level. PedRIO has collaborated with over 30 national and international colleagues in educational research.

Inter/national Advisory Consultancies include Waite as External international commentator on Victorian Certificate of Education (Australia) in Outdoor and Environmental Education Studies, Campbell-Barr for the Day Care Trust and the All-Parliamentary Group on Family, Parenting and Childcare, Archer as Academic advisor to the clinical assessments at the National Clinical Assessment Service (NCAS), the American Board of Internal Medicine Multisource Feedback Development Board, and the board of directors of the American Board of Paediatrics. Policy Advisory Group involvements include Archer as Chair of Early Careers Working Group within the Academy of Medical Educators, member of the Academy of Medical Royal Colleges Revalidation Group, and the National review group of Revalidation for Trainees. T. Gale is Lead for development and evaluation of UK interview format and member of the Royal College of Anaesthetists Recruitment Committee, the Academy of Medical Royal Colleges Selection Pilot, the

Medical and Dental Recruitment and Selection Quality Group, Lead for Assessment Specialist Interest Group, and South West Technology Enhanced Education and Research Group, Sterling is National Senior Adviser to the Higher Education Academy on Education for Sustainable Development, Cotton is on the International Advisory board for Postgraduate Certificate in Higher Education Learning and Teaching at Victoria University of Wellington, New Zealand.
Journal Editorships (Graham: Journal of Technology and Mathematics Education);

Interdisciplinary collaboration within Plymouth University: Interdisciplinary cooperation is integral to our vision and remit. More than 100 academics across the university are engaged in educational research and many of these are scientists, social scientists, and those from humanities and the arts who also undertake substantive disciplinary research and are fully embedded in their 'home' UoA as well as within PedRIO. This ensures an effective interdisciplinary basis to our research and a fruitful synergy of methodological paradigms and audiences. Examples of collaborative research include projects focused on: risk management in research informed teaching (Heffernan, PBS; Gretszy, Teaching and Learning; and Pan, Faculty of Arts); transnational pedagogies (Cotton, Educational Development; and Sterling, CSF); and, energy literacy in HE (Cotton and Winter, ED; Sterling, CSF; and Bailey, Geography).

Regional collaboration: the research and innovation programmes in the University enable PedRIO and its substantive themes to develop partnerships at a regional level. Plymouth University, in collaboration with Cornwall College and Plymouth City Council, sponsors three Academy schools (*Marine Academy Plymouth, Mayflower Primary Academy, and UTC - University Technical College*) in which the SoE actively enable practitioner research, and support capacity building for early career academics and teacher-researchers. SoE academics also received a £48k TDA award in 2008 which enabled collaboration with the Plymouth-based media company TwoFour Learning to create on-line teacher-taster materials to attract STEM graduates into teaching (la Velle, et al.). At an Institute level, PedRIO regional projects include: researching environmental education in collaboration with Paignton Zoo; working on entrepreneurship in curricula with schools throughout Devon; and a project in collaboration with Plymouth City Museum and Arts Gallery on public arts as interdisciplinary and extra-curricular learning (Winter). Its theme focusing on Education for Sustainable Development research has also informed the creation of a series of professional development training events on sustainability by working closely with organisations such as Clarke Bond Consulting, Richard Thomas Partnership, and Plymouth City Council.

National collaboration: UoA25 has a strong culture focused on national evaluation and action research whilst supervising practitioner-research through its International Masters Programme and EdD (delivered by the SoE). This has brought about close links with policy-makers and practitioners in various professional settings at a national level. For example, development and evaluation projects in educational technology and mathematics education have seen academic staff in UoA25 work with the South West Grid for Learning and the CfBT Education Trust. In collaboration with the Silvanus Trust, funding from the Big Lottery Research Programme allowed the SoE to undertake a project on *Developing social cohesion and well-being through woodland activities* (Waite). Furthermore, the recent award of £650k+ by Natural England for the *Natural Connections* project (Waite) will run until 2016 connecting over 200 education institutions and up to 500 volunteers across England to support schools in embedding learning in outdoor environments in their planning and practice. National presentations and key notes have been given at the Society for Research in Higher Education and the British Educational Research Association. Other collaborative research projects include the *Industrial Problems for the HE curriculum* (Davies) undertaken in collaboration with Newcastle University, which focused on variety in statistics assessment and collected methods of assessment from tertiary level teachers worldwide. Cotton engages in national collaboration with a range of universities, including: Aston and Liverpool John Moores in a JISC funded project on digital literacies; Bath Spa on widening participation; Greenwich in a project on student and ethnicity attainment; Gloucestershire and Bath as a critical friend on projects involved with ESD, quality assurance and Open Educational Resources; and, the University of Oxford in researching methods for PGRs who teach (in association with Winter et al.).

International collaboration: academics in UoA25 contribute to educational research theory and practice via invited presentations and keynotes in worldwide research networks including: the European, American and Australian Educational Research Associations; the International Society for the Scholarship of Teaching and Learning; and, the International Consortium of Educational Development. Furthermore, executive positions are held in: the Association of American Medical Colleges (Education Division) (AAMC); Association for Medical Education in Europe (AMEE); Association for the Study of Medical Education (ASME); Academy of Medical Educators (AoME); and Association for Medical Humanities (AMH). Strong research links exist with institutions in Australia and Africa: for example, Cotton is working with UNISA in South Africa on communicating sustainability and la Velle with the African Virtual University on teacher education in STEM, including an invited key note at a workshop in Kenya. The SoE has collaborated in research internationally including two British Council funded projects in collaboration with the University of Santiago de Compostela in Spain and the Ministry of Education in Cyprus; research that compared and analysed teaching across Europe, in collaboration with Aarhus University in Denmark and Freiburg Pedagogic University in Germany (Kelly); and, research that focused on assessment in primary schools, in collaboration with Aalborg University, Denmark (Kelly). Representing medical education, Bleakley has worked with Alberta Medical School in Canada showcasing medical research at touring exhibitions, and Toronto and Ottawa universities in creating a medical education network in Canada.