

<p><b>Institution: The University of Edinburgh</b></p> <p><b>Unit of Assessment: 25 Education</b></p> <p><b>a. Overview</b></p> <p>One of eleven Schools in the College of Humanities and Social Sciences, the Moray House School of Education conducts research that makes a difference to learners from all stages of the life course and to practitioners, policy-makers and the public. We work within a Scottish context that is distinctive in its policy aspirations for strong links between excellent research and teacher education and professional development: responding to the needs of the education professions in Scotland and further afield and improving outcomes for all learners are therefore central to our mission. The Scottish Government's ambitions for a research-informed teaching profession have created opportunities for the School of Education to build on a relationship that has developed over many years of providing evidence to inform education policy in areas such as inequalities, behaviour in schools, inclusive education and higher education.</p> <p>Government-led reorganisation of teacher education and the consequent reduction of student numbers in recent years created the impetus to identify the new opportunities afforded by these changes. Our goal of developing our research such that we could submit to two Units of Assessment in REF2014 has been achieved through a successful restructuring and a revitalised research strategy that has been tailored to the different demands of Education (UoA25) and the Institute of Sport, Physical Education and Health Sciences (UoA26). This submission therefore covers the research of 43 members of the School of Education, a reduction on the number in the joint submission by Education and Sport returned to RAE2008, and includes members of the School of Social and Political Sciences (Paterson – education policy) and the Institute for Academic Development (Christie and McCune – teaching and learning in higher education).</p> <p><b>b. Research strategy</b></p> <p>Our vision is to build on the existing high level of recognition of our research and, guided by our research strategy, to continue to take a leading role in research activities that respond to and anticipate the challenges of education in the 21<sup>st</sup> century. The strategy is built on three main priorities: 1) to nurture existing strengths and growth areas; 2) to produce demonstrable impact, public engagement and knowledge exchange; and 3) to enhance our research capacity by investing in the most promising early career researchers.</p> <p><b>Priority 1: Nurture existing strengths and growth areas</b></p> <p>The School of Education has forged a strong identity for rigorous and independent policy-related research for funders such as the Scottish Government and the Economic and Social Research Council. Protecting and developing our reputation as a centre of excellence in <b>advanced quantitative methods</b> through the work of long-established researchers such as Croxford, Howieson, Paterson and Raffe is central to this strategy. Iannelli has built on these strengths in her leadership of the education and social stratification strand of the ESRC Applied Quantitative Methods Network (AQMeN), recently funded for a second phase of four years (2013-2016, £651k to the School from a total of £3.2m).</p> <p>We have also continued to develop our reputation for research on <b>educational policy in the context of constitutional change</b>. This has been demonstrated by Riddell's analysis of the impact of the devolution settlement and the independence referendum on higher education in Scotland as part of her prestigious award (2012-2013, £382k including an extension) as one of seven ESRC Senior Scotland Fellows. Other examples include Raffe and Croxford's Nuffield-funded study (2011-2013, £127k) of entry to higher education in the four home countries of the UK over the first decade since devolution and Paterson's study of young Scots' attitudes to independence.</p> <p>In parallel with maintaining our reputation in these areas we have prioritised the development of emerging areas of research, such as <b>digital education</b>, that are now at different stages of maturity. Achieving the dual goals of strengthening both established and emergent areas has been underpinned by three objectives: making strategic appointments, diversifying our sources of funding, and realigning our research themes.</p>
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### 1.1 Strategic appointments

Since January 2008 we have appointed three new chairs, 16 lecturers, five tenure-track Chancellor's Fellows, five Bicentennial Fellows and a Career Development Fellow in addition to contract research staff. These appointments have enabled us to develop the areas outlined above that have underpinned our longstanding reputation. In particular, we have taken steps to recruit early career academics internationally to ensure a future generation of researchers with quantitative expertise (Boeren, Kadar-Satat, Klein, Pantić).

As part of our strategy of nurturing fields that have the potential to be centres of excellence in the near future we have made new appointments to accelerate the development of growth areas such as child development and wellbeing (Fry, Gallacher, Konstantoni, McGeown, Taylor) and digital education (Manches, Plowman, Ross), as well as enabling us to extend existing strengths in inclusive education into new areas such as teacher education and pedagogy (Pantić, Florian).

### 1.2 Diversifying sources of funding

As part of our strategy of strengthening existing areas of research excellence while nurturing growth areas we have diversified our sources of research income beyond the Scottish Government, the EU and ESRC that had hitherto been primary sources of funding. Successes include the British Academy (Emejulu), AHRC (Bayne), the Welsh Government (McCluskey), the charitable foundations, such as Nuffield, Esmée Fairbairn and Gordon Cook (Fletcher-Watson, Raffe, Florian, Brown), Higher Education Academy (Kreber) and others such as the NSPCC (Stafford), Campaign for Learning (Manches), Unison (Howieson) and the BBC (Plowman).

### 1.3 Realigning the research themes

Three research themes (*Education, social justice and inclusion*, *Child development and wellbeing*, and *Learning, teaching and pedagogy*) provide the backbone of the strategy. They enable staff and research students to maximise synergies by sharing skills, knowledge and expertise and are designed to create a framework for the longstanding research centres, the newly flourishing areas such as digital education, and emerging initiatives such as *Children and Childhoods*. The strong identities of the themes provide a coherent way of presenting our research externally as well as a structure for fostering collaboration and managing research activities.

#### *Education, social justice and inclusion*

This theme focuses on the social context of education and education policy, particularly on inequalities in education relating to gender, race, disability and social class. It includes the established research centres: the *Centre for Educational Sociology* (Croxford, Howieson, Raffe) with its strong links to the ESRC-funded Applied Quantitative Methods Network (Iannelli, Klein, Paterson), the *Centre for Research in Education, Inclusion and Diversity* (Brown, Florian, Macleod, McCluskey, Riddell, Weedon) and the *Centre for Education for Racial Equality in Scotland* (Emejulu, Konstantoni).

#### *Child development and wellbeing*

The *Child Protection Research Centre* (Fry, Stafford, Taylor) conducts international and interdisciplinary research to address entrenched problems in child protection. Prevalence studies, systematic reviews, and comparisons of international child protection systems provide an understanding of the mechanisms underlying effective response and prevention with the aim of preventing child abuse and neglect through education and dialogue. Its successful track record led to Stafford securing funding from the NSPCC of £1.1 million to assure its continuation until 2016.

This theme also includes the interdisciplinary *Child Development* group (Cebula, Fletcher-Watson, McGeown, Wishart) which links developmental psychology and education and uses advanced statistical techniques to support experimental work that informs those working in clinical, educational and home-based settings. The *Children and Childhoods* group (Gallacher, Konstantoni, Plowman) is also interdisciplinary, with strong connections to researchers in the School of Social and Political Science, particularly through the MSc in Childhood Studies and

the Centre for Research on Families and Relationships.

### *Learning, teaching and pedagogy*

This theme focuses on teaching and learning in a wide range of formal and informal contexts and across age ranges, including research groups in *Higher Education* (Anderson, Boeren, Chiang, Entwistle, Kreber, McArthur, McCune), *Applied Linguistics* (Cutting, Henneby, Irvine), *Digital Education* (Bayne, Manches, Plowman, Ross), *Classroom Learning* (Brown, Florian, Griffiths, Hamilton, Macleod, Pantić, Sangster) and *Community Education* (Crowther, Emejulu).

These three themes deliver all aspects of our strategy by aligning research and teaching, capacity building and public engagement. Within *Learning, teaching and pedagogy* for instance, Bayne and Ross (with Knox, holder of an ESRC studentship) led development of one of the UK's first MOOCs (massive open online course), a strongly research-informed course on digital learning that recruited 42,000 students and for which five students from the MSc in Digital Education were online teaching assistants. Applying learning analytics to the unique datasets generated by the MOOC forms the basis of research on online pedagogies and raises fundamental questions about the nature of learning and assessment. Further plans to forge closer connections between research groups and taught postgraduate programmes will be realised by forthcoming (2014) Masters programmes in Child Protection, Social Justice and Community Practice, and Higher Education. These new programmes contribute to our strategy of creating a stronger alignment between research and teaching and are intended to result in expansion of doctoral research in these areas.

### **Priority 2: Demonstrate impact, public engagement and knowledge mobilisation**

As an outward facing School of Education and a leading provider of initial teacher education and continuing professional development in Scotland our commitment to impact, public engagement and knowledge mobilisation is longstanding. Our strategy is not only to build on our research excellence to make major contributions to the discipline base but also to set agendas and to respond to and shape the needs of a range of stakeholders. In pursuit of this goal, and supported by a marketing officer, we make our expertise and our research outputs accessible by using a wide range of events, jargon-free briefings, social media and press releases. Nineteen members of staff have created one-minute 'research in a nutshell' videos for the University website.

Our outstanding strengths in quantitative research have enabled us to draw on comparative or longitudinal studies and large-scale surveys to address important educational topics that make a difference to practice and policy at all levels. Examples include behaviour in schools (funded by national and local government), educational inequalities (Scottish Funding Council and Scottish Government) and qualifications frameworks (International Labour Organisation). Another approach to public and policy engagement is provided by the Beltane Parliament Engagement Fellowships, awarded to Ross to promote awareness of issues relating to online learning for an inclusive and innovative Scotland and to Fletcher-Watson to promote engagement with families who have children with autism. Fellowships provide office space at the Parliament and are expected to produce high profile engagement events. Konstantoni was awarded funding by the Scottish Universities Insight Institute for a series of knowledge exchange events on children's rights and social justice in conjunction with the Scottish Human Rights Commission and Scotland's Commissioner for Children and Young People.

The School of Education also hosts three knowledge exchange centres funded by the Scottish Government: the *Scottish Sensory Centre* (for the education of children and young people who are visually impaired, deaf and deafblind), *CALL Scotland* (providing expertise in communicative and assistive technology) and the *Scottish Traveller Education Project* (which promotes innovative and flexible approaches to education for Travelling people). They complement the work of the research centres and provide excellent pathways to engagement and impact as they are funded to provide resources, information and advice to schools, local authorities and parents.

### **Priority 3: Enhance our research capacity**

The third strand of the strategy is to enhance research capacity through a vigorous programme of development and support. The research themes are central to this: they provide an intellectual coherence for research activities through seminars and reading groups, they provide mentoring by

**Environment template (REF5)**

encouraging interaction between doctoral students, early career researchers and established members of staff, and they stimulate opportunities for co-writing of research proposals and articles for publication.

While staff at all stages of their careers benefit from our initiatives to support research, we have aimed to develop a new generation of educational researchers through recruitment of our own high-achieving former doctoral students (Kader-Satat, Konstantoni, Ross) and by making strategic appointments (see section B, 1.1) to extend our quantitative expertise. Our investment in early career researchers is demonstrated by five Chancellor's Fellows (section C), a prestigious scheme launched by the University of Edinburgh in 2012 which provides five-year tenure-track fellowships that were advertised internationally to recruit the research leaders of the future.

Supported by professorial staff, all applications for research funding are subject to peer review, a process that was implemented before it became a RCUK requirement. Additional strategies to develop capacity include promoting interdisciplinary links with other subject areas across the University, developing international networks (section E) and ensuring that two senior researchers (Croxford, Griffiths) coordinate mentoring support.

Our strategy to develop capacity through an increase in numbers of research students has focused on measures to expand the pool of potential supervisors by adopting an apprenticeship model, the development of more effective pathways from Masters to doctoral study by streamlining progression routes to both EdD and PhD, and work to enhance all aspects of our students' experience, such as improved study areas and administrative support (section D).

**Future research strategy**

The overarching aim of the School's future research strategy is to continue our progress in world-class research and knowledge mobilisation by consolidating areas of strength and fostering new growth areas. Our confidence is based on the strong foundation we have achieved to date: the increasing numbers of high quality research students that we attract (demonstrated by 18 prestigious research studentships in the REF period) and four internally funded PhD studentships, three linked to the Applied Quantitative Methods Network programme and one on cross-border flows of students, that will ensure a continued flow of expertise in quantitative and comparative research. We expect the five Chancellor's Fellows to accelerate the development of world-leading research in areas that align with the School's strategy, continuing the early signs of success in obtaining major funding. This will be consolidated by a further 50 Chancellor's Fellows posts to be made available across the University in 2014 as part of its mission to be the UK leader in supporting the development of early career staff. We will invest strategically in new posts: succession planning for the *Centre for Educational Sociology*, for instance, will be achieved through a new professorial appointment, enabling its reputation for world-leading research in educational sociology, education policy and quantitative research methods to continue to thrive.

We will continue to create the right conditions to encourage ambition in experienced researchers as well as to deliver finely attuned mentoring for early- and mid- career researchers by allocating study leave and pump priming funds strategically. While acknowledging the need to respond to future demand management by funders we will guard against overly cautious approaches by encouraging adventure and potentially transformative research through cross-university collaborations.

**c. People****Staffing strategy and staff development**

Our strategy of enhancing research capacity has been facilitated by retirements and voluntary redundancy leading to a change in the profile of academic staff since RAE 2008, particularly affecting *professorial staff* (eg Ozga's departure to Oxford). Our strategy of recruiting exceptional researchers has enhanced our research capacity: Taylor was appointed as the NSPCC Chair in Child Protection; Plowman, Chair in Education and Technology, has strengthened our team in the field of childhood studies and digital learning; and Florian, internationally recognised for her expertise in the pedagogy of inclusive education, has been appointed to the historic Bell Chair in Education. The emeritus professors (Munn, Tett) continue to contribute to research mentoring and doctoral supervision in conjunction with the Professorial Research Fellows (Entwistle, Wishart) who

also play an important role in supporting research in the areas of higher education and child development.

In particular, we have prioritised investment in *early career* appointments. The post-doctoral Chancellor's Fellows (Boeren, Fletcher-Watson, Manches, Pantić and, from November 2013, Sabeti) represent a major investment by the University in academics in the early stages of their careers who have exhibited clear potential to become international leaders in their disciplines. They receive dedicated research mentoring and training, both within the School and with the support of the Institute of Academic Development and its 30 FTE staff, and have already begun to demonstrate the potential to become the next generation of research leaders. Pantić and Boeren were selected for a College-wide research leaders scheme and have undertaken to cascade training to other early career researchers. Funding successes for Chancellor's Fellows include Fletcher-Watson's Nuffield New Career Development Fellowship (2010-June 2013, £169k) on social attention in children with autism spectrum disorders and Manches' ESRC Future Research Leader award (Jan 2013-2015, £204k) to study the ways in which children develop mathematical thinking. Achievements by other early career researchers include Fry's Marie Curie Integration Grant (2012-2015, £67k) to study newly qualified teachers' understandings of bullying.

To address the challenge of recruiting new research-active lecturing staff who also have recent experience of teaching in schools (a requirement of the General Teaching Council for Scotland) we have introduced a five-year *Bicentennial Fellowship* scheme. This is an innovative solution that ensures a continued source of research-active entry-level lecturing staff and promotes further development of research-led initial teacher education. Five Bicentennial Fellows, mentored by Florian, combine study for a doctorate with teaching on the initial teacher education programme. A further six staff are studying for an EdD or PhD and 13 have graduated with doctorates since 2008.

In line with the University's award winning work in implementing the principles of the Research Concordat, we recognise our duty towards *contract research staff*, who are treated as full members of the School with the same access to facilities, travel funds and other forms of support as open-ended academic staff. The School attends to building the careers of contract research staff by, for instance, funding 25% of the time of three Senior Research Fellows (Croxford, Howieson and Weedon) who have key roles in the research centres and supporting Fry's move from contract research to a lectureship, so ensuring continuity of employment and research programmes.

Processes that assist in delivery of the research strategy support individuals to set objectives and identify future opportunities that will enable them to realise their full potential. Annual development reviews evaluate research achievements and are used to identify requirements for support, such as 'buy out' or study leave, and inform the allocation of workload. Staff are eligible to apply to the School's study leave programme for one semester in respect of each three years of service, supplemented by shorter periods awarded for the purpose of writing up research (15 staff in the last two years). The impact of study leave, in terms of supporting research careers over the long term, is monitored with attention to issues of equal opportunities and in consultation with the College Associate Dean for Research Careers. We also provide tailored support through the research groups for colleagues whose strengths are in impact, knowledge exchange and professional engagement but who aim to achieve the highest level of international excellence in research.

Individual staff development funds are used to support self-identified needs, while the School Research and Knowledge Exchange Office administers a budget (£20k pa) for low cost initiatives such as pilot studies and conference travel grants. A range of informal opportunities exists within the School: academics are encouraged to join the formally constituted research centres as associates, providing apprenticeship opportunities to develop research skills alongside more experienced researchers and to become involved in knowledge exchange activities. The early career researcher network obtained School funds to conduct a needs analysis and an awayday, with regular meetings providing opportunities for peer review and sharing experiences. Within the wider University, Edinburgh Research and Innovation and the Institute for Academic Development, with contributions from the School, run seminars and learning lunches on topics relating to specific funding calls or generic areas, such as media training and leadership programmes. With support from the Equality Challenge Unit, the School will work towards a gender equality charter mark

which builds upon the existing Athena SWAN framework.

**Research students**

The sustained effort to increase students on our increasingly lively and high quality doctoral research programme has resulted in an expansion from 39.7 FTE in 2001 to 67.7 FTE in 2013. The total number of doctoral degrees awarded each year are as follows (fractions indicating joint supervision across Schools), disaggregated into PhD and EdD:

2008/9		2009/10		2010/11		2011/12		2012/13	
PhD	EdD	PhD	EdD	PhD	EdD	PhD	EdD	PhD	EdD
10.4	3	4.2	6	12.7	6	14.6	2	13.7	3
13.4		10.2		18.7		16.6		16.7	

During the assessment period there were 76.6 doctorates awarded and 48 studentships, including 10.5 funded by the ESRC, five Principal’s Career Development Scholarships since inception of the scheme in 2010, one Commonwealth Scholarship and two from the Chinese Government. In the first three years of the Doctoral Training Centre, the School has been awarded five of the 12 ESRC studentships available to the four universities in the Education pathway. It has also been awarded two ESRC/Scottish Government studentships to investigate the performance of Scottish pupils in TIMSS (Trends in International Mathematics and Science Study) and the educational and social experiences of Gypsy travellers in Scotland.

Part-time research students are typically mid-career or senior professionals working as head teachers or in government agencies, local authorities and advisory roles. This diversity of career stage, professional experience and nationality brings wide-ranging contributions to the intellectual life of the School and reinforces our links with policy and practice. A dynamic group of students has initiated a network to promote the understanding and application of quantitative methods and others have organised the *Interweaving* conference, designed to showcase research by students, early career researchers and other staff, which secured Michael Russell MSP, Cabinet Secretary for Education and Lifelong Learning, as a keynote speaker in 2013.

Postgraduate research training is provided by our **Graduate School in Education**. The Masters in Educational Research has ESRC recognition and some elements of training are closely linked to the Applied Quantitative Methods Network. The annual poster competition and doctoral conference builds research capacity, inducts students into presentation and defence of their work and prepares them to present papers at conferences. Students have very positively evaluated the pre-session course of online induction, the PhD workshop programme, monthly research seminars at which students present their work to staff and peers, and a dedicated virtual learning environment. Financial support for conference travel is available for students to develop networks and present papers, with recent destinations including Minneapolis, San Diego, Istanbul, Hong Kong, Strasbourg, St Petersburg and Copenhagen.

Students are also members of the **Scottish Graduate School of Social Science**, located in the College and home to the largest ESRC Doctoral Training Centre (DTC) in the UK, with a dedicated pathway in Education to which the School and three other Scottish universities (Glasgow, Stirling, Strathclyde) contribute. Iannelli and Paterson made a substantial contribution to developing the quantitative component of training, one of the DTC’s distinctive strengths. The Institute for Academic Development organises courses on transferable skills such as job interviews, delivering presentations, and career management, working closely with Edinburgh Research and Innovation to ensure the future employability of research students. Graduates of the full-time PhD programme are particularly successful in achieving employment in academic posts, with more than two thirds of students graduating between 2007 and 2011 now working in such posts. New supervisors undergo mandatory systematic training provided by the College of Humanities and Social Sciences and within the School and are inducted as co-supervisor alongside an experienced colleague. Professional development opportunities ensure that

**Environment template (REF5)**

supervisors can share experiences and are familiar with the responsibilities and procedures for supervisors and research students outlined in the University's Code of Practice.

A **Career Development Fellowship** scheme (current holder Kadar-Satat) provides six months' entry level employment competitively awarded to research students who have successfully completed and show potential as exceptional early career researchers. This provides an opportunity to prepare for an academic career by getting started on publications and writing grant proposals with strong continuing support from their supervisors and other sources of expertise in the School.

**d. Income, infrastructure and facilities****Income**

In the period 2008/09 to 2012/13, the School was awarded 89 research awards with a combined value of nearly £8.5 million, the top three funding sources being government (£3.4m), RCUK (£1.6m) and the voluntary sector (£1.3m).

Despite the reduction in spending by the Scottish Government, we have been successful in obtaining core income from that source for knowledge exchange centres (the *Scottish Sensory Centre*, the *CALL Centre* and the *Scottish Traveller Education Project*) with a combined value, including research-related income, in excess of £3.38m (2008/09 to 2012/13). The NSPCC also renewed its commitment until 2016 to the *Child Protection Research Centre* for £1.1m following on from £544k for the period 2009 to 2011. With dedicated support from European Funding Advisors we have developed international networks and received 13 European Commission grants during the assessment period.

**Infrastructure and facilities**

Continued investment has been made in the School's facilities and estates since 2008 with the formation of three PhD suites and improvements to student social spaces and open access computer labs. All first-year students are offered a workstation and access to printing and copying and most final-year students, and those with teaching duties as part of their studentship award, have their own individual office space. Research centres in the School have designated space so that they are able to operate as research hubs that maximise interaction between colleagues and all have dedicated administrative support. Space is also made available for specific research needs, such as the availability of a quiet room for interviews with families of children with autistic spectrum disorders.

The School's audio-visual and videoconferencing facilities are available to support research activities and have recently been upgraded. Much of the Education library collection is held on the School campus, although the exceptional and newly refurbished main library is readily accessible as is the National Library of Scotland, one of six legal deposit libraries in the UK. The University's computing provision is amongst the most advanced in Europe, providing first class facilities for collaboration, high performance computing and design services for websites.

**Support for research**

All research activity is co-ordinated through the Research and Knowledge Exchange Committee, which monitors research performance and reviews research centres every three years, requiring annual progress reports in the interim. The Research and Knowledge Exchange Office has four staff who promote funding opportunities, support grant applications at all stages, provide access to a dossier of successful proposals and oversee the coordination of research seminars and conferences and the dissemination strategy. They work closely with Edinburgh Research and Innovation (ERI) and the College Research Office, which includes a knowledge exchange team. Specialists within ERI handle European projects, consultancies and commercialisation of knowledge, intellectual property and other legal affairs. An online research database, PURE, allows every member of academic staff to capture their own research profile, outputs, awards, projects, activities and impacts in a single system.

The School has a long-established research ethics policy and a sub-committee to oversee the ethical dimensions of research design and the subsequent progress of projects. The committee has been a source of advice on codes and practices for other Schools. The University has an

Equality and Diversity strategy in place and, as befits a School that has the promotion of social justice as a core value, we embed equality and diversity in our practices and see them as guiding principles in our pursuit of academic excellence for both staff and students.

#### e. Collaboration and contribution to the discipline or research base

A principal contribution to the discipline and research base has been the Applied Quantitative Methods Network. By fulfilling a vital part of ESRC's mission to develop capacity in **advanced quantitative methods** across the social sciences it provides a service to the broader academic community as well as providing a platform for in-house skills training, demonstrating the School of Education's strengths in an area that is generally perceived to be in decline in educational research elsewhere in the UK. Our strengths in this area have been acknowledged by Iannelli's leadership on the Q-Step Programme (funded by the Nuffield Foundation and ESRC from October 2013) to promote quantitative social science training for undergraduates in the School of Education and beyond, one of just five Q-Step centres serving education departments in the UK. She will also contribute to the ESRC-funded Administrative Data Research Centre (Big Data Network) based at the University of Edinburgh from 2013, one of four in the UK, thus ensuring expertise and resources relating to quantitative methods for students and staff.

The *Centre for Educational Sociology* and the *Centre for Research in Education, Inclusion and Diversity* are renowned for their well-established scholars (Croxford, Howieson, Paterson, Raffe, Riddell, Weedon) working in broadly sociological traditions in the areas of **learners' pathways and transitions** (CES) and **inclusion and diversity in education, training and employment** (CREID). They have achieved success in drawing on both quantitative and qualitative methods on topics such as inequalities, often within a comparative international context, to understand how education systems interact with their socio-economic contexts and to inform policy analysis and development. Devolution has enabled study of the processes and consequences of policy divergence within the UK and to engage with high-level discussions on **governance, democracy and educational policy** and Scotland's constitutional future. As examples, Riddell's ESRC Senior Scotland Fellowship enabled policymakers and citizens to explore the implications of constitutional change for higher education while Raffe and Croxford's Nuffield-funded research analysed UCAS data for entry to higher education across the four countries of the UK, exploring the impact of devolution and policy diversion. The *Centre for Education for Racial Equality in Scotland* enhances understanding of **equality, wellbeing and social justice**, as is consistent with our role in developing professionals for educational leadership and management and for teaching in schools, higher education and the community.

In her role as a member of the steering group of the ESRC and EPSRC research programme on technology-enhanced learning (funded for £12 million from 2007 to 2012), Plowman helped to shape this research area by co-writing the programme specification and co-commissioning two phases of research. Her work with Manches has created the opportunity to extend the interests of the flourishing **digital education** research group to encompass learning with digital media from children's earliest years and in informal and formal settings.

Reflecting the complexities of educational thinking and practices, our research is inherently **multidisciplinary**. We push at disciplinary boundaries, opening up the potential for collaborative work (eg Bayne on post-humanist perspectives, Emejulu on intersectionality, Kreber on authenticity, Manches on cognition and embodiment, Pantić on agency) and we draw on and contribute to a range of disciplines in the social sciences (anthropology, economics, psychology, sociology), arts and humanities (linguistics, philosophy, religious studies), work in nursing, public health and social work, and beyond (informatics, medicine).

The standing of the School of Education and its **major contributions to the discipline** are indicated by the conferment of the award of Academician of Social Science on five of the School's professors (Griffiths, Florian, Plowman, Raffe, Riddell), Fellowships of the Royal Society of Edinburgh (Paterson, Wishart), Paterson's Fellowship of the British Academy, and Plowman's roles as Vice Chair of the ESRC's grants assessment panel for Education, Linguistics and Psychology and membership of the EPSRC's Strategic Advisory Network. Other indicators of wider influence include peer review for the research councils of Canada, Ireland and Norway (Plowman) and Estonia, Iceland and Switzerland (Raffe) and membership of the ESRC's peer review college

**Environment template (REF5)**

(Crowther, Manches). Florian is convenor of the British Educational Research Association group on research methodology in education.

**Editorial roles** include editorships: Crowther, *Studies in the Education of Adults*; Paterson, *Scottish Affairs*; guest editorships: Florian, *J of Teacher Education*; and membership of editorial boards: Crowther, *European J for Research on Adult Education and Learning*; Emejulu, *Community Development J*; Florian, *Teacher Education and Special Education*, *European J of Special Needs Education*, *Cambridge J of Education*; Howieson, *British J of Guidance and Counselling*; Kreber, *International J of Teaching and Learning in Higher Education*; McCluskey, *International J on School Disaffection*; McGeown, *J of Educational & Developmental Psychology*; *J of Research in Reading*, Plowman, *J of Computer Assisted Learning*; Raffe, *J of Education & Work*, *J of Youth Studies*, *Research Papers in Education*; Riddell, *Disability and Society*; Sangster, *The Curriculum Journal*; Taylor, *Child and Family Social Work*.

**Collaboration within the University**

As the social sciences and humanities are foundation disciplines for educational research the School of Education has strong links with Schools in the College of Humanities and Social Sciences. Such collaboration has contributed to the success of initiatives including the extension of the Applied Quantitative Methods Network (AQMeN2, led from the School of Law with significant input from Education) and the *Child Protection Research Centre* (which works with staff in health, social work, law and social policy), both of which have secured a recent increase in funding. The *Centre for Educational Sociology* has worked with colleagues in Politics on a European FP6 project on knowledge and policy, with Psychology on an ESRC project, evaluated as outstanding, on the history of Scottish educational research, and conducted research for the University on the impact of its widening participation agenda. As Associate Dean (Digital Technologies) in the College, Bayne provides support for the use of computational methods for research with large data sets, building digital collections and archives, developing digital publishing and creating rich visualisations of research data across the disciplines.

This reach also extends to other areas of the university: new appointments (Fletcher-Watson, Manches, Plowman) participate in Laer Lab, an informal grouping of postgraduates through to professors which meets monthly and connects Informatics, Design Informatics and Education, and Fletcher-Watson works with the School of Biomedical Sciences on early atypicalities in at-risk infant populations. The Edinburgh Children and Adolescent Psychology (ECAP) network is led by Clinical Psychology and includes researchers (Cebula, Fletcher-Watson, McGeowan, Wishart) on children's mental health, social cognition, language and learning, and atypical development.

**Collaboration with government, third sector and civil society**

The formally constituted research centres have been established from the outset to respond to user needs: the *Centre for Research in Education, Inclusion and Diversity* and the *Centre for Educational Sociology* have made an exceptional contribution to policy and public engagement (see impact case studies on qualifications, social inequalities, behaviour in schools and additional support needs), with a starting point in Scotland but located in a wider international framework.

The *Centre for Research in Education, Inclusion and Diversity* has enjoyed effective collaboration in multiple sectors, including Florian's consultancy for UNICEF, UNESCO and OECD and her policy brief on the role of teacher education in supporting students with disabilities presented at two congressional hearings and at the White House. The *Centre for Educational Sociology* has worked with UK governments, for Careers Scotland and UNISON on web-based provision of careers guidance and projects led by international bodies including the International Labour Office, the European Centre for the Development of Vocational Training, the German Federal Institute for Vocational Training and the National Qualifications Authority of Ireland (see impact case studies). The *Child Protection Research Centre* is a unique collaboration between a university and the NSPCC and conducts influential research on child deaths, child abuse in sport settings and child protection systems in different parts of the UK and overseas: Fry is a member of the World Health Organisation committee on preventing youth violence and Taylor is a member of the Royal College of Nursing research steering group.

Individuals beyond the Centre structure have also forged collaborative relationships: Bayne has

## Environment template (REF5)

investigated user-generated content for the Imperial War Museum and has an AHRC cultural engagement project in partnership with the National Galleries of Scotland; Bayne and Ross lead the learning strand of Artists' Rooms, a partnership with the Tate and National Galleries of Scotland. A combination of funding from ESRC, the Scottish Government and Bòrd na Gàidhlig funded a module of questions on attitudes to the Gaelic language in the 2012 Scottish Social Attitudes Survey (Paterson). We also value the relationships that we forge with organisations which offer opportunities for knowledge exchange activities: for instance, Stafford is a trustee of the Children's Parliament.

### **National and international research networks and collaborations**

International research and collaboration has been a developing area, indicated by our growing income from international sources (more than £810k to 2011/12), including projects on the educational experiences of Polish immigrants, responding to bullying in Schools, Riddell and Weedon's Framework 6 LLL2010 project on lifelong learning in 13 European countries, their Framework 7 project on religious education in multicultural societies, and a Leverhulme International Network on special education and policy change, which includes partners in the USA, Australia, Sweden and the Netherlands. Riddell and Florian are members of the Network of Experts on Social Aspects of Education and Training and Boeren has a Framework 7 Data Without Boundaries award that enables her to work with Statistics Netherlands on their lifelong learning data. In addition to the EU Framework programmes mentioned above, the *Centre for Educational Sociology* participates in the European Research Network on Transitions in Youth, of which Raffe was the founding chair, and in the Norwegian- and Australian-led International Research Network on Youth Education and Training.

### **Seminar series, keynotes and conferences**

Highlights include several ESRC-funded seminar series: on teacher education for the changing demographics of schooling (led by Florian and Pantić), restorative practices (McCluskey, led by University of Cambridge), literacy in the digital university (Bayne, led by the Open University) and learning to code (Bayne, led by University of Stirling). Other noteworthy seminars include ESRC follow-on funding events on dispute resolution (Riddell), Stafford's seminars on child protection provision in the different countries of the UK and Griffiths' role in the Women in Philosophy network seminar series. Indicative invited keynotes include Griffiths at the European Conference on Educational Research in 2013, Crowther: Linköping; Florian: Teachers College, Columbia, Santiago, Shanghai, Hong Kong; Kreber: Mainz, Stuttgart, Virginia, Helsinki, Lund; Raffe: Dublin, Nijmegen, Brussels, Berlin, Turin; Riddell: LSE, Brisbane, Billund, Bangkok; Ross: Las Vegas; Taylor: Lebanon. The School played host to a range of leading speakers including Ronald Barnett, Fazal Rizvi and Richard Pring and visiting scholars included Prof Martin Mills (University of Queensland) and Prof Emer Smyth (Economic and Social Research Institute, Dublin). In 2013 alone the School hosted major international conferences on racism in education and higher education, the latter in conjunction with the Society for Research into Higher Education.

In conclusion, the Moray House School of Education is proud of its research at the forefront of educational thought and practice. We are committed to enabling all staff to contribute to a culture that is participatory, reflective, and based on a clearly articulated research strategy, supported by colleagues and investment at School, College and University levels. The vitality of our research environment is demonstrated by our determination to develop world-class research in the field of education, our strides in developing research capacity, our support for diverse intellectual endeavours, and our discernible influence in education policy and practice.