

<p>Institution: The University of Edinburgh</p> <p>Unit of Assessment: 25 Education</p> <p>a. Context</p> <p>The School of Education has a longstanding commitment to making major contributions to public and professional life. This dates back nearly 200 years to the time when predecessor institutions first became involved in teacher training through to 2013 when it became a major commentator and source of information on MOOCs (massive open online courses). Our mission is to serve a wide range of stakeholders by developing innovative ways of thinking about education, requiring both excellent underpinning research and a considered and dynamic approach to developing impact. Our research portfolio examines the implications of both local and global changes for teaching and learning, identifies ways of supporting learners from the early years through to senior professionals, and investigates education in both digital and material worlds. This scope means that the reach of our research extends across the civic, cultural and educational aspects of learners' lives, ensuring its significance for policy-makers, practitioners and the public by impacting on attitudes, knowledge and understanding.</p> <p>The newly emerging area of digital education, in particular our work on the MOOC, has been central to our recent highly visible impact. While it is too early to establish measurable change, it has created a test bed for experimenting with both new and more orthodox approaches to generating impact. Bayne and Ross led one of the UK's first MOOCs in spring 2013, a strongly research-informed course on digital education that recruited 42,000 students. The unique dataset it generated formed the basis of research that raises fundamental questions about the nature of learning and assessment and the place of online provision within higher education policy. It also informed the debate about widening participation in higher education, generating phenomenal international public interest and media coverage including numerous blogs, the New York Times, the BBC and all the UK broadsheets. Bayne, Ross and others have given 25 invited talks including to Google and universities in the USA, Ireland, Germany and Norway, Ross has been awarded a Beltane Parliamentary Fellowship on online and distance learning for a more inclusive Scotland, and public engagement events included the Cabaret of Dangerous Ideas session on the 'Disembodied University' in the 2013 Edinburgh Festival Fringe. Consultancy contracts with the World Bank and the Higher Education Academy have followed. In another area of digital education, Plowman and Manches have also undertaken consultancy for the children's media industry, based on a portfolio of ESRC-funded research, that has involved working for companies in the UK and the USA on designing educational applications of leading edge technologies for young children.</p> <p>The School's formally constituted research centres have been established from the outset to create impact by responding to user needs. We have made the most of our location in Scotland's capital by forging links with government agencies and decision-makers and exploiting opportunities to shape the policy-making process in Scotland as well as to draw on the distinctive Scottish experience to contribute to UK-wide and international debates on educational policy. Our research on additional support needs (see impact case study 4), web-based career guidance and student funding in Scotland has prompted parliamentary questions on these topics.</p> <p>The three research centres described below act as hubs for knowledge mobilisation and impact activities: they have been well placed to develop an accessible and professional interface with research users and provide a context in which long-term relationships flourish. They produce regular research briefings and working papers which are available to download from their websites (more than 70 for CES and more than 30 for CREID) and frequent dissemination events involving speakers and audiences from government agencies and third sector organisations, amplifying and extending the reach of research findings so that they are communicated to a wide audience.</p> <p>The work of the <i>Centre for Educational Sociology</i> on access, participation and equality, curriculum and qualification reforms, and school to work transitions has been commissioned by the Scottish Government, the Scottish Qualifications Authority, Scottish Funding Council and the curriculum agency, Education Scotland. The implications of this work are far-reaching and have generated international attention: the Centre has strong links with the international policy community, such as the Education and Training Foundation, International Labour Organisation and the European</p>

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Centre for the Development of Vocational Training (CEDEFOP).

The *Centre for Research in Education, Inclusion and Diversity* (CREID) has undertaken research exploring issues of inclusion and diversity in relation to children, young people and adults in education and related areas including health, social welfare, training and employment. Research has been funded by the Scottish and Welsh Governments, Universities Scotland (widening access), the EU (youth justice) and Nuffield (deaf students). Indicative events include best practice in equality and human rights supported by the Scottish Funding Council and three think tanks (ESRC follow-on funding) on improving communication between practitioners and children with additional support needs and their parents.

By studying implementation and developing recommendations our research also makes a difference to **practice**, from early years settings to schools and tertiary education, and for practitioners in social work and healthcare settings. This, in turn, has an impact on service users such as parents, students and pupils. In its work with local authority staff and organisations in the field of additional support needs, CREID's impact crosses policy and practice, with partners including voluntary organisations such as Care Co-ordination Network UK and the National Deaf Children's Society. Its associated knowledge exchange centres also act as partners: CALL Scotland, with its focus on communicative and assistive technology, has developed the use of digital books and online examinations for the Scottish Qualifications Authority, and the Scottish Traveller Education Programme conducts work supported by the ESRC and the Scottish Government on travellers' access to a range of public services in Scotland.

The NSPCC funds the work of the *Child Protection Research Centre* (CPRC) to inform its priorities in campaigning, education and intervention, with a particular focus on UK cross-border learning. CPRC works with practitioners in education, social work and health as well as voluntary organisations concerned with ensuring children's safety, such as Children First, to generate an integrated understanding of child protection in the UK and internationally. For instance, Fry conducted research for UNICEF that examined the prevalence and consequences of child maltreatment in East Asia and the Pacific region that has led to a costing study and policy dialogue about developing child protection systems.

We have also **engaged the public** on important educational issues, with nineteen members of staff having created one-minute 'research in a nutshell' videos for the University website. Riddell's ESRC Senior Scotland Fellowship explores the implications of independence for higher education and the proposal to give 16- and 17-year-olds a vote in the referendum, already a matter of public debate and with clear repercussions for the electoral system elsewhere in the UK. Paterson's ESRC-funded survey of young Scots' national identity, political interests and attitudes towards independence was featured on BBC television. Plowman has informed public debate on young children and digital media through a series of ESRC-funded projects that led to an interview on the BBC Radio 4 programme *Bringing Up Britain* and a set of guidelines for parents on the BBC *Grown-Ups* website. Fletcher-Watson developed an app (with 50,000 downloads to July 2013) that teaches basic social and communication skills as part of a Nuffield-funded project aimed at parents of children with autistic spectrum disorders.

Crucially, our research also informs our teaching and has made a lasting impact on the **teaching profession** through initial teacher education, the Scottish Qualification for Headship, the EdD and, through a portfolio of professional development courses, on senior managers and educational leaders in Scotland and beyond. Through the auspices of the Scottish Educational Research Association Hamilton initiated research bulletins that summarised educational research for teachers, educational psychologists and policymakers, Florian has a longstanding relationship with Open Society Foundations to support inclusive education in Eastern Europe and the countries of the former Soviet Union and Plowman's article in an American magazine for early years practitioners on seven myths about young children and technology was downloaded more than 6000 times between January and July 2013.

b. Approach to impact

Our approach to impact starts from the basis that it is rarely achieved through one-off events or simple dissemination of findings and that multi-way exchanges, involving sustained dialogue to identify research needs through every stage of the research process, are more effective. Our

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approach supports staff to identify and achieve the type of impact most appropriate to their research through four elements: i) offering *institutional support* to foster the relationships between researchers and users which are key to such exchanges; ii) providing *advice and training* to support academics in acquiring the skills necessary for achieving impact; iii) providing *financial support* to facilitate impact activities; and iv) making the most of opportunities for *user engagement*.

Institutional support

Since 1969 the University of Edinburgh has established a strong infrastructure to support research impact and knowledge exchange through Edinburgh Research and Innovation (ERI). Now with more than 80 staff, ERI supports the commercialisation and impact of research through consultancy, licensing and company formation, helping the School to generate over £2.4 million in the period 2008/09 to 2012/13. ERI also acts as an intelligence gathering service, scanning for opportunities and brokering links between academics and public, commercial and third sector organisations. Close links with the School are maintained with a weekly surgery held by a member of ERI staff. The School's research and knowledge exchange office supplements this support by providing seed-corn funding for commercialisation or impact for non-academic users, the production of materials, and the hosting and publicising of events for non-academic audiences (eg, in 2013, a Nuffield-funded seminar on participation in higher education attended by representatives from the Scottish Funding Council and the Scottish Government with more than 50 attendees and an ESRC-funded seminar on educational attainment and inequality at which the Chief Executive of Education Scotland was a speaker, with more than 100 attendees).

Advice and Training

ERI organises an extensive programme of staff training sessions, encouraging creativity in maximising the impact of research, arranging 'learning lunches' on media strategy and providing opportunities to hear from key policy-makers on what they want from academic research, such as a seminar led by one of the 'users' on the ESRC's grant assessment panel. Within the School of Education, impact and knowledge mobilisation are integral to staff annual reviews and discussed as part of the process of identifying training needs. We advise staff on accessing resources and maximising impact from their research and encourage proactive use of the College's press office, such as Stafford's widespread coverage for her work on child protection issues in sport.

Financial support

Through its knowledge exchange office, the College of Humanities and Social Sciences makes available funds (£80k per year) to promote knowledge exchange and impact activities, with staff able to apply for up to £5k to develop partnerships with external organisations and stakeholders or test innovative methods for reaching new audiences, such as Bayne's grant to conduct a range of activities on digital innovation in the cultural heritage sector. The College's Exchange Fellowship Scheme, whereby people beyond the university are partnered with an academic, led to Pippa Coutts (Scottish Union of Supported Employment) working with Riddell to investigate employers' attitudes to the provision of flexible employment practices for workers with diverse support needs.

User engagement

We have prioritised diversifying our approach to user engagement, with an increasing number of staff now blogging or using Twitter (eg @SueReviews, @sbayne, @CREID_Edin). In 2013 alone, the BBC produced a short video for its First Time Online website in which Plowman discussed which online games are suitable for two- and three-year-olds, Riddell developed a video and teaching materials on young people's views on the future of higher education, and Manches featured on 'I'm a Scientist, Get Me Out of Here!', an online zone funded by the Wellcome Trust in which school students have direct contact with researchers. Staff also engage users via high level committees: Plowman is a member of the National Toy Council, which encourages dialogue between industry and the public in matters concerned with children's play and welfare; Raffe is a member of the Qualifications Committee of the Scottish Qualifications Authority and the Goodison Group, which brings together government, employers and educationists to influence debate and practice on the changing nature of learning. We also keep informed by inviting key speakers such as Tom Hamilton (General Teaching Council for Scotland) and Graham Donaldson (author of the national review of teacher education) to address us or attend our events.

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c. Strategy and plans

We have five strategic objectives for maximising impact: i) increase awareness of the impact agenda, ii) provide professional development opportunities and ensure take-up, iii) create the conditions to generate impact, iv) increase the visibility of our work, and v) manage and demonstrate impact.

The first of these points to an important prerequisite. While our research centres have long histories of public and policy engagement (the Centre for Educational Sociology has recently celebrated its 40th anniversary, for instance) and early career researchers often have an understanding of the importance of impact inculcated by their training, we aim to develop *awareness* of the relationship between research and impact for all staff. *Professional development opportunities*, such as those provided by the School, the College of Humanities and Social Sciences or ERI, therefore address the differences between knowledge exchange and impact and promote the view that pathways to impact need to be considered from the earliest stages of designing research rather than towards the end of a project.

Training in approaches to maximising impact and *increasing the visibility of our research* through the media, events and the School website is thus an important element in achieving the objective of *creating the right conditions* to generate impact. *Managing and demonstrating* impact requires us to review the range of our impact activity and to develop mechanisms for capturing and tracking examples and evaluating the effectiveness of our strategy: staff are encouraged to keep an impact portfolio, to exploit the expertise of the media office and to log examples of requests for advice and consultancy or contact by journalists.

As research and its impact are so closely coupled, most of these activities are equally relevant for our research priorities given that they include developing and strengthening local, national and international networks with policymakers and practitioners. Impact on policy or practice is not a primary goal for all of the research undertaken in the School as the degree of partnership with users and the stage in the research process when it is most appropriate depend on its aims; the development of research methods or ethnographic research, for instance, may take longer to create influence or may take a different form. However, a key element of our strategy is to raise awareness that research benefits from thinking about impact from its inception and that most funders want assurance that others know about and can benefit from our research.

d. Relationship to case studies

The case studies have been selected as relatively discrete areas of research that have been established long enough to build up clear impact histories and to demonstrate that our commitment to involvement with the wider community long pre-dates the emphasis on impact within the REF. The case studies draw on the skills in public and policy engagement, infrastructure and expertise of the Centre for Educational Sociology (*qualification-led reforms* and *socio-economic inequalities*) and the Centre for Research in Education, Inclusion and Diversity (*improving behaviour in schools* and *special and additional support needs*), both of which have been supported by Scottish Government core funding, and the higher education research group (*enhancing learning, teaching and assessment at university*) which draws on research funded by the ESRC and Higher Education Academy. These case studies illustrate many of the features of our approach to impact: the benefits of longstanding relationships with key user communities and decision-makers, the diversity of communities and organisations reached, and the institutional support that has enabled academic staff to draw on training and advice to maximise impact by influencing, informing or changing policies, practices and perspectives.

The case studies on *qualification-led reforms*, *socio-economic inequalities* and *special and additional support needs* primarily illustrate impact on policy; *improving behaviour in schools* illustrates impact on school practice and policy; and the case study on *enhancing learning, teaching and assessment at university* primarily illustrates impact on university teachers and student learners in the UK and internationally. They exemplify the School's strengths in conducting research which is theoretically rigorous and has a clear and direct impact on practice and policy formation in Scotland, the UK and internationally.