

<p>Institution: Durham University</p>
<p>Unit of Assessment: 25 Education</p>
<p>a. Overview</p> <p>Research in the Education Unit of Assessment involves staff in the School of Education (SoE); the Centre for Evaluation and Monitoring (CEM); and the School of Medicine, Pharmacy and Health (SoMPH) through the Centre for Medical Education Research (CMER). Key research collaborations draw in staff from the Wolfson Research Institute for Health and Wellbeing (WRI) and from disciplines such as Geography, Psychology and Computer Science. Education research at Durham is interdisciplinary and international with a commitment to maintaining breadth with excellence across our areas of expertise. Research is developed around four broad groups: Assessment, Evaluation and Effectiveness; Curriculum and Pedagogy; Methods and Critical Approaches in Education; and Individuals and Contexts. Strategic direction is provided by the Director of Research (DoR), who is member of the SoE's Management Committee, and is supported by a Research Committee (RC) which includes membership from CEM and CMER. CMER's research is managed through the SoMPH, with close links to the SoE, including joint seminars and training, facilitated by their location in a building shared with Education. The Director of Postgraduate Research (PGR) and the PGR Committee in the SoE are responsible for ensuring the quality of supervision and participation of doctoral students in departmental research culture. Education is part of the Faculty of Social Sciences and Health, with a Deputy Head for each of PGR and Research, who provide strategic research co-ordination via Faculty committees.</p>
<p>b. Research Strategy</p> <p>Building on RAE 2008, our research strategy enabled us to achieve our aims to undertake research that (1) generates impact on policy and practice, and (2) shapes and develops educational research and research capacity in the UK and internationally. We succeeded in meeting our stated objectives to: 'Enhance ...large-scale intervention work': staff at Durham have led a significant number of large scale trials and we have 18 current intervention evaluations for the Education Endowment Foundation (EEF), mainly Randomised Controlled Trials (RCTs); 'Develop an area of enquiry in ICT': our ICT strand developed into a multi-disciplinary research group in Technology Enhanced Learning (TEL), collaborating with staff in Computer Science and Psychology; 'Intercultural ... well positioned [for] internationalisation agenda': a new line of intercultural enquiry in <i>researching multilingually</i> has been funded by the Arts and Humanities Research Council (AHRC). Our aspirations for 'a Multidisciplinary Research Centre for Primary Education and Health' supported the location of the Centre for Medical Education Research, established in 2012, on the Durham site, and closer collaboration with the SoE. A number of collaborative projects have been undertaken and the appointment of Gorard as joint Professor of Education and Wellbeing, will increase collaboration with CMER and the WRI, and will facilitate further growth. 'Secure an increase in research council income': two-thirds of submitted staff have RCUK income as Durham PIs across 19 projects since 2008, trebling the overall proportion of Research Council income. We also succeeded in increasing and diversifying our funded research activity. This includes RCUK projects, but also UK Charities, UK Government and European sources, leading to a 20% overall increase in annual income. 'Innovative, interdisciplinary work': in addition to the interdisciplinary work above, and as anticipated, Cooper's work on set theoretic methods has led to the creation of an international group leading developments in this area. Bagley's innovative use of performance in telling the counter-stories of educational experiences of otherwise undocumented Americans of Mexican origin in the USA has extended conceptions of data through performance.</p> <p>The success of School's strategy is also evidenced by an increase in both the quality and quantity of outputs (over 450 journal articles, 48 books, 17 edited books and over 90 research reports between 2008 and 2013).</p> <p>Staffing priorities have been central to our research strategy. Following the retirement of 10 staff submitted in 2008, we have recruited 12 active researchers with an existing or developing international profile who could sustain the vitality of the research culture and enhance and extend our existing groups. Key appointments include expertise in Assessment, Evaluation and Effectiveness with Beckman, J, Bolden, Gorard and Torgerson. This has supported integration with the monitoring and evaluation work of CEM; the creation of a WRI special interest group (SIG) on RCTs; strengthened Durham's extensive work on evidence and evaluation, particularly with the EEF; and connected research on working memory with assessment of problem-solving. In terms of</p>

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Curriculum and Pedagogy the appointment of Joyce-Gibbons, Land, Smith, J Ward, and Illing in CMER strengthen our work in Technology Enhanced Learning, the Centre for Academic Practice (CAP) and CMER's work on Health Care Education. In **Methods and Critical Approaches**, Glaesser's and Wall's appointments increase our focus on addressing the methodological challenges in contemporary educational research through Qualitative Comparative Analysis (QCA) and visual methods. For **Individuals and Contexts**, the appointment of Beckman, N, Holmes and Savvides maintains our strengths in psychological and sociological perspectives on learners and the contexts in which learning takes place, such as through process-oriented approaches to personality in adult learning, maintaining a focus on Intercultural Awareness and extending this into the emerging theme of Researching Multilingually. Our future strategy builds upon the strengths of our staff as a foundation, using, for example, research leave and support from the research fund to enable further high quality research (see below).

Research achievements: the underpinning strategy and staffing policy have led to significant achievements in each of our research groups. In **Assessment, Evaluation and Effectiveness** the *Physical Activity and Wellbeing in Schools* project (£621,022) led by Tymms with Elliott and Bolden (2012-14) is a multi-disciplinary randomised trial in conjunction with Geography and colleagues in Health outside of CMER. The *Fife Peer Tutoring* project (£359,100) was a collaborative Knowledge Transfer Partnership (KTP) across a Scottish local authority led by Tymms. The increase in large-scale trials for the EEF, mentioned above, is a key achievement in this area. CEM's collaborative performance monitoring systems have expanded, with the concept of 'distributed research' being a central component. Durham acts as the hub, interacting with schools with the aim of encouraging a research culture in which teachers and senior management integrate their professional knowledge with quantitative data to support the learning. Through this distributed research network of schools, CEM has created an unparalleled dataset of pupil attainment going back over 20 years, with additional data from over a million pupils now added each year. This supports international collaborations and enables unique longitudinal analysis. The large datasets generated are used for further fundamental research and are accessible to all staff. Other achievements in this area include examining the construct and cross-cultural validity of the Teaching Excellence Rating Scale (Elliott), the development of computerised assessment (Merrell, Elliott), work on international assessments in science (Kind, P), and McLachlan's advisory work on assessment with the General Medical Council and the UK's Foundation Programme Office.

In the area of **Curriculum and Pedagogy** the use of Rasch analysis provided more robust analysis for *Assessing Students' Concept of a Substance* (Johnson and Tymms – ESRC £43,266) and has had a direct impact upon the teaching of science in schools. *SynergyNet: Supporting Collaborative Learning in an Immersive Environment*, was one of 8 TEL projects in the final phase of the Teaching and Learning Research Programme (TLRP) led by Burd, Higgins and Elliott (2008-12: £1,242,235 ESRC/EPSC). Researchers investigated the potential of digital technology through the pedagogical design of classroom space and teacher orchestration of learning in the first ever networked multi-touch classroom. Research in mathematics on representations (Barmby and Bolden – Nuffield: £40,808) and on reasoning (Simpson) has influenced academic understanding of mathematics teaching in schools and in HE. Simpson's research on advanced mathematical thinking, examining problems in the transition to abstract mathematical thought, has been widely cited in the UK and USA. Kokotsaki undertook innovative work on improving the primary-secondary transition in music (Nuffield Foundation: £23,800). Illing and McLachlan have developed understanding of the role of conscientiousness in medical training as well as the experiences of UK, EU and Non-EU medical graduates making the transition to the UK workplace. Significant work has also been undertaken in the area of teaching for creativity across phases and subject disciplines (Newton, L Newton, D, Beverton, Kokotsaki, Bolden). This work on creative thinking has now been embedded in a broader teleological model incorporating research on emotions and learning.

In **Methods and Critical Approaches**, Glaesser and Cooper's pioneering methodological research has extended approaches to exploring possible causality in large, complex datasets, with world-leading work on large-n QCA. This has been recognised with significant ESRC funding, through Glaesser's ESRC fellowship (2009-2011) *Exploring and evaluating the use of configurational methods in large n contexts* (£218,511) and her follow-up ESRC research grant *Qualitative Comparative Analysis: Addressing Methodological Challenges* (2013-15: £351,526). Roberts applied this methodology to the substantive and procedural understanding of ITT students

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in science, using QCA to validate the patterns of students' conceptions. *INCENSE - Influencing Policy and Practice by Stimulating Public Debate about Census Data* is a collaboration between the SMART (Science, Maths and Related Technologies) Centre and the Office for National Statistics, funded by ESRC (2012-14: £153,864), using data visualisation to support quantitative reasoning. The thematic area of **Individuals and Contexts** has also been supported in Hillyard and Bagley's ESRC project *Rural schooling and the micro-politics of community* (2009-11: £76,041). Holmes' AHRC project *Researching Multilingually* (2011-12: £22,679) created a research network through which to develop understanding of the complexities and opportunities when researching in this field, which has led to a further AHRC grant of £1,968,749 with Holmes as co-investigator. Flynn's *Uncovering the determinants of the discovery, utilisation and transmission of information through social learning and innovation in young children* extends understanding of young children's social learning (2012-15: ESRC £204,159).

Future strategic priorities

The core aim of our research strategy is to produce world-leading research and scholarship which expands the frontiers of educational knowledge and informs policy, practice and the further development of the discipline. This entails a substantive commitment to:

(i) publishing innovative and distinctive research of the highest quality: For example, we will develop our distinctive work on large-scale interventions in education via the establishment of a pioneering *Trials Unit for the Social Sciences*. Based in the SoE, the Unit will support innovation by developing theoretical and methodological perspectives; designing more rigorous trials methods; and improving the relationship between research evidence and intervention effects, linked to the EEF's projects, our evaluations and the EEF's evidence Toolkit.

(ii) developing research partnerships, within and beyond education: For example, we will extend our support for the creation and sustaining of partnerships by reviewing our workload model to identify ways to increase staff support. We will also use research leave strategically as a mechanism to develop partnerships and impact.

(iii) sustaining the increase in our external income by harnessing diverse and sustainable research funding streams: We will maintain the growth in Research Council income and increase EEF and EU projects in particular, as well as targeting other international funding, in order to maintain a vibrant portfolio across a range of sources. CEM will appoint a Research Contract Manager to support growth in evaluation research, as well as expanding its international monitoring with the growth in the adoption of baseline and primary school assessment. A new initiative for an international baseline assessment (iPIS) will be developed, which will parallel international projects such as the Programme for International Student Assessment (PISA) by studying children at the start of school.

(iv) maintaining a vital research environment that supports established, leading researchers while nurturing new generations of scholars and research leaders. For example, we aim to increase our PGR numbers by targeting recruitment of our undergraduate, PGCE and Masters students, together with further AHRC and ESRC funded students via our Doctoral Training Centres. We will also identify potential supervisors and provide feedback and support earlier in the application process in order to strengthen links between PGRs and our research groups.

(v) further embedding impact in all aspects of our research culture (see REF3a); this is a key aim of our integrated approach to research and impact.

These objectives will be monitored as follows: (1) output quality by the RC working through assigned mentors, staff appraisal and research planning; (2) partnerships and wider engagement by the RC and Management Committee; (3) research income quarterly against annual targets by the DoR, and reviewed by the Faculty; (4) PGR numbers and submission rates by Management Committee and the Faculty, and topic alignment by PGR and Research Committees; and (5) impact by the SoE and Faculty Research Committees.

Research ethics and integrity: This is supported by peer review of external applications and through research mentoring of staff (see section c). All research undertaken requires ethical review, with a two-stage process identifying projects that require more detailed scrutiny and full approval from the SoE Ethics Committee, which has external representation from another department and a representative from outside the University. This scrutiny is supported by Faculty and University ethical policies and procedures to ensure both compliance and engagement.

c. People

Staffing has been, and continues to be, the key to ensuring we maintain a vibrant and sustainable

research environment.

i. Recruitment, promotion, equality and diversity

Recruitment: All potential candidates for academic posts must have demonstrated research success and future potential. Appointment panel members receive recruitment and selection training. We have an established career pathway for our doctoral students, research fellows and research associates, with four recent moves to lectureships in the SoE. Three of our five Early Career Researcher (ECR) appointments were research associates or doctoral students at Durham. Large grant activity has enabled the appointment of 17 research associates over the REF period, each making an important contribution to research culture.

Probation: Less experienced staff have a protected reduction in their teaching workload (30% in the first year, then 20% and 10% in their next two years) to ensure they achieve their research potential. New staff are also supported with training and mentoring (details in part ii).

Promotion: The University has an annual promotion round to coincide with the completion of the Annual Staff Review (ASR) appraisal process, which is aligned with University promotion criteria; the Director of Research contributes to each case for support. In the REF period, four staff have been promoted to senior posts and four staff have also been appointed to lectureships from research or teaching posts in the School of Education.

Equality and Diversity: The school recognises the vital role that diversity and equality play in sustaining our research environment and supporting the generation of innovative lines of inquiry. We have a departmental Equality and Diversity Champion who is pro-actively engaged with these issues, including reviewing changes to research and ethics policies. Of the last 12 appointments, nine were women and one third non-UK passport holders. The University's Diversity and Equality Policy requires all departments to meet the standards of the Athena Swan Charter. The University is part of the Stonewall Diversity Champion programme and holds the Two Ticks Positive about Disabled People award. Our Management Committee has a gender balance of typically equal proportions of male and female staff and it expects all staff to complete diversity and disability awareness training. Three female senior lecturers have been promoted to readerships during the REF period.

ii. Support and Development: Research activity in the SoE is supported by a School Research Office (SRO), which has two part-time staff (1.6 FTE) and is part of the Research and Finance Division, headed by a senior administrator. The increase in research funding has financed the strategic appointment of a new post in the SRO from April 2013, to sustain the growth in external funding applications and provide additional support for project management post-award. The SRO works in conjunction with the University Research Office and supports the research seminar programme and planning and support for visiting scholars, fellows and professors. The Director of Research and RC monitor research projects, outputs and impact activity, with the support of the SRO.

University policies ensure the SoE exceeds the expectations of the national Concordat to Support the Career Development of Researchers. The University was one of 15 awarded the European Commission HR Excellence in Research Award. Decisions made by the School's RC are ratified by its Board of Studies to ensure that decision-making is clear and transparent and that all staff are involved. Annual away-days support our strategic, operational and capacity-building aims. A key element of our strategy has been to ensure that staff have the appropriate skills, opportunities and environment to conduct their research. The essential elements of this are:

Making space and time for research: Our policy is to provide academics with the time to conduct research to ensure they can generate high quality outputs. Our workload model guarantees protected research time (1.25 days/week in 2010-13), with additional time for funded research and for PGR supervision. Under university policies, academic staff are eligible for one term's leave in seven. In the REF period 20 staff in Education have had a total of 26 terms of leave. This is monitored by the School's RC to support more ambitious, interdisciplinary and collaborative grant applications, so as to develop outputs of higher quality, and to enhance impact.

Reviewing performance and planning for the future: Staff development is a prominent part of our strategy. Since 2008 staff have been required to develop a Personal Research Plan (PRP) which promotes strategic thinking and reflection about research excellence within a five-year time-frame. Staff plan funding applications, projects and collaborations, as well as publications and impact activity. Each individual's support and development needs are then brought to the attention of the Head of School (HoS). Generic research-related training needs and opportunities are

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reviewed by the HoS and collectively fed back to the University Staff Training and Development office.

Offering relevant and timely training: The University offers a broad range of research skills training for staff and PGR, with courses offered by the HR Training Team, University Research Office, Computing and Information Services (CIS) and the Centre for Academic and Researcher Development (CARD) who won the 2009 Times Higher Education ‘*Outstanding Support for Early Career Researchers Award*’. We have an excellent level of engagement with such training, with over 30 of our research staff undertaking research-related training since 2008. ECRs and all new staff are expected to complete a PG Cert. in Academic Practice (PGCAP), led by our Centre for Academic Practice. This includes a module on applications for funding and on leading research projects. Three our staff have completed the Research Office’s Leading Research programme, attending modules on contracts, IP and employment law, managing budgets and research leadership. We have increased our focus on mid-career academics to enhance the rigour, originality and significance of their published outputs. All supervisors undertake University training and the School supplements this with periodic internal training.

Mentoring aligned to personal needs and department goals: In this REF period we have expanded the opportunities for the professional development of newly appointed staff. An experienced academic facilitates the research development of all new and ECR colleagues. Each new academic is assigned a trained research mentor who, in turn, is supported by a mentoring co-ordinator to ensure good practice. The research mentor complements the more formal elements of staff development at Durham such as ASRs and the PGCAP. A key outcome of mentoring within this REF period has been our success in increasing research income, at least in part because all senior staff are expected to engage with less experienced colleagues in joint writing and research bids. We have introduced additional support for grant proposals with a two-stage internal peer review process. The first focuses on early formative support to improve the concept and broad design, and the second checks adherence to award criteria and overall coherence nearer to submission.

Promoting research groups for mutual support and development: Staff and PGR students receive further support from appropriate research group(s) or project teams, and through seminars and informal meetings at which ideas are shared and developed. There are extensive seminar programmes in the SoE, CEM and CMER (with over 125 research seminars taking place in the SoE, CEM and CMER between 2008 and 2013). About half of the speakers are from educational institutions outside the UK. Research groups host smaller events to promote discussion around topics of mutual interest several times per year. Groups are also expected to hold research seminars to coincide with our International Summer Postgraduate Institute for part-time and overseas research students. Our PGR students run a weekly seminar series to practise presentations, prepare for the viva, or simply to talk about new ideas.

Fostering a culture of collegiality: The School recognises its potential to support staff development across the University and enjoys the benefits we receive from engaging in such activities. We developed, and now lead, the teaching of Durham’s revised PGCAP which includes innovative research modules on ‘Gaining funded research’, ‘Supervising PGR students’ and ‘Leading funded research’. Staff have also led inter-departmental workshops on topics such as systematic reviewing, RCTs, multi-level modelling and QCA. These interactions are important in promoting the School’s research interests across the University and support further collaboration, such as the formation of a joint CEM/SoE/WRI evaluation group to undertake EEF research.

iii. Doctoral Training and Postgraduate Research Student Development

Doctoral awards 2008-13

	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Traditional doctorates (PhD)	5	7	14	6	8.3	40.3
Professional (EdD)	11	6	4	8	10.6	39.6
Non-UK (EdD)	10	5	5	5	6	31
					Total UK	79.9
					Total all	110.9

Durham has a vibrant and successful doctoral programme. As indicated in the table above, of the 79.9 UK-based doctoral awards made since 2008, 50.4% are PhDs and 49.6% EdDs. (NB figures vary slightly from HESA data due to transfer of staff between Departments and classification

changes.) Our Education doctorate is research-based, requiring the submission of an original thesis and examined by *viva voce* with external and internal examiners. A further 31 doctoral awards were made to students on our overseas programmes, which represents an increase of eight doctoral awards per year (14.1 awards per year from 2001-2008 to 22.1 per year in 2008-2013). This includes 6 ESRC and Durham Doctoral Scholarships.

PGRs and research groups: Research students benefit from the wide range of research undertaken in the School and the expertise in a variety of areas: quantitative and qualitative methods, pure and applied, conceptual, methodological and empirical. They attend seminars and workshops at CEM or use project facilities such as the SynergyNet lab classroom and observe research in progress. Innovative work such as that in methodology (e.g. QCA and visual methods) or on the presentation of research findings, work on threshold concepts, students' conceptions of research, on developing students' meta-learning capacity or the epistemology of educational research also contribute to the diversity of approaches in the School and to its intellectual environment. Students present their developing work in both public and peer meetings, including the SoE International Summer Postgraduate Institute. There is an active PGR Forum that organises weekly events and monthly seminars according to need and interest, such as on each other's work or particular methods and research techniques. A PGR fund of up to £300 per student per year supports presentations at conferences.

Supervision and monitoring are conducted according to the national Researcher Development Framework and the QAA Code of Practice. A PGR Committee constituted by all supervisors with elected student representatives supports and monitors PGR students. It shares good practice and reflects on and monitors the PGR student experience. Each supervisory team has at least two staff members. Every student and supervisory team separately report on progress at six months and 12 months. A formal progression panel independently assesses first-year students' readiness to progress to their second year, using a combination of these reports, a student presentation and an interview. All PGR students also complete an annual review for the Deputy Head of Faculty (Postgraduate) which includes review of their supervision and research environment. Each PGR student is a member of a College, which provides pastoral support. We aim to ensure that they receive excellent support and training and understand they are valued and integral members of our research community; the recent appointment of Joyce-Gibbons, who held an ESRC studentship, illustrates our success in this. Key components of our success are:

Close links with the Doctoral Training Centre: The strength of our research culture is evidenced by its significant contribution to the successful North East Doctoral Training Centre (NEDTC), a collaborative venture between the universities of Durham and Newcastle. This is one of the largest of the ESRC's national network of doctoral training centres. Bagley, as former PGR Director and Head of School from 2013, sits on the Advisory Board.

Award-winning training: The University provides a comprehensive programme of skills development for its PGR students, based on a Training Needs Analysis completed during induction, in discussion with supervisors. This is reviewed regularly and is based on the Researcher Development Framework (RDF). University courses complement research training provided by the School and the individualised research training students receive from their supervisors. In May 2010, Durham received the Gold Global Learning Impact Award of the IMS Global Learning Impact Consortium for our on-line training modules.

d. Income, infrastructure and facilities

Income: in accordance with our strategy for sustainable expansion our average annual research income has increased since 2008 by nearly 20% from £5.6M to about £6.7M per annum with a total of nearly £31 million over the REF period. Of particular significance is the breadth of RCUK projects funded across our research groups during the REF period, noted above, involving both interdisciplinary awards and collaborations with other Universities. We also saw an increase in the number of EU grants, with eight staff recording income across 10 projects. We have also actively developed our partnership with the EEF, with 18 intervention and evaluation projects in the REF period. The most significant contribution comes from CEM's distributed research network monitoring performance in partnership with schools, which accounts for about £24 million of the income recorded. Investment in staff to support both bids for, and management of, research project income feeds into our strategy for sustainability. This focus on sustainable growth underpins our strategic aims for generating future research income. Support from the SRO will provide targeted information to staff about funding opportunities and streamline the application costing process with

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increased liaison with the University RO. Sustaining existing partnerships and research collaborations and developing new ones are central to our integrated approach to research and impact.

Infrastructure and Facilities: There is a large, specialist Education library in our main building supported by a specialist education librarian. Between 2008 and 2012 there has been a 22% increase in library spend for Education, with, for example, £87,260 spent in 2011-12 on books, journals and other serial publications. An Academic Liaison Librarian, working alongside the subject specialists, attends Boards of Studies and staff-student committees, including those for postgraduate researchers, to optimise research support. The recently refurbished Education Library has current holdings of 45,000 books and 300 periodicals and a dedicated PGR study room. The main University Library offers access to 1.6 million printed items, 17,500 electronic journals, 290,000 e-books, 308 online databases, 1,300 technology-enhanced individual study spaces, guides, training and one-to-one support. The University Library also manages the Durham Research Online (DRO) and E-Theses repositories. As part of the main Library's Researcher Development Programme, over 4,000 person hours of training have been provided to research students across the institution since 2008, including 95 staff and research students from the SoE. Durham's Computing and Information Service (CIS), which provides the framework and support for most IT activities, is investing over £14m over the next two years in a major transformation of our IT networks and data centres. The managed desktop service to students and staff provides general software and applications as well as specific research tools. PGR students have their own dedicated PG IT training specialist, with IT rooms for postgraduates around the University. Visiting academics and students can use EduRoam, the world-wide wireless access network, which also facilitates internet access for staff and students visiting other institutions. The SoE has additional dedicated research space for postgraduate students and a regular series of activities designed with them to support their needs. A loan stock of research equipment includes HD video cameras and audio recorders, laptops for fieldwork and data-collection for use by both staff and research students, with investment of about £15k since 2008. Some projects have enhanced facilities through the research spaces created. For example the lab space afforded by the SynergyNet project, with multi-touch tables and full video and audio recording capabilities, provided facilities for the work of six PhD students (including two ESRC-funded PhDs), 11 Masters projects and five undergraduate dissertations in Education, as well as the work of other students in Psychology and Computer Science. The indirect benefits of increased income have underwritten increased support for research and additional appointments in the SoE.

e. Collaboration and contribution to the discipline or research base

Durham endeavours to renew and lead education in the UK and internationally through: (i) interdisciplinary and international research collaborations focused on identifying and advancing new research agendas, methodologies and capacities; (ii) intergenerational renewal through our support of PGR and early and mid-career researchers; (iii) professional service that provides leadership and guides strategic developments. **(i) Collaborations: Interdisciplinary collaborations** are a central feature of education research at Durham, supporting our aims to produce innovative and distinctive research of the highest quality and of developing partnerships. Examples above included interdisciplinary work in TEL with Computer Science and Psychology, and with Geography and Health exploring the impact of *Physical Activity* through school-based intervention. 12 of the Wolfson Research Institute's fellows are based in the SoE, CEM and CMER and a joint CEM/SoE/WRI evaluation group was formed to undertake EEF evaluation research, with expertise in randomised controlled trials and experimental designs. Interdisciplinary work is a feature of research at Durham, with the Institute for Advanced Studies (IAS) bringing together academics from around the world annually to collaborate on a different multi-disciplinary theme. Recent themes in which we have been involved include '*The Legacy of Charles Darwin*', with an exploration of the exaptation of technology in education, and '*Light*', with a focus on understanding education as 'illumination'. Holmes' involvement in the innovative *Researching Multilingually* network with colleagues in Glasgow and Manchester has led to significant AHRC funding for this new research theme. These collaborations also contribute to our strategic aims to sustain the increase and diversity of our external income through these partnerships. **International collaborations:** achievements are evident in joint outputs with colleagues at other Universities around the world such that about half of the staff submitted have published in leading academic journals with colleagues from overseas. CEM's extensive international network involves

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researchers in Australia, New Zealand and South Africa, and we have a number of internationally-renowned Honorary Professors, including Andreas Demetriou, Hans Luyten and John Hattie, who are also all active members of CEM's Research Board and have presented their work at joint seminars or spent time at Durham as visiting professors. These relationships both reflect and enhance our research in assessment, measurement and evaluation, supporting our distinctive work on large-scale interventions and rigorous evaluation in education which has advanced the adoption of trials methods in education in the UK. Other examples of our international contributions include Gorard's membership of the EU-funded Network of Experts on Social Aspects of Education and Training and Higgins' contributions on transversal competencies as a member of the EU-funded Centre for Research on Lifelong Learning's (CRELL) 'Learning to Learn' network (2007-9).

(ii) Intergenerational renewal: research students are a vital part of the contribution we make to education research in creating the next generation of researchers. Developing PGR students as highly-valued colleagues of the future is a key goal. We offer advanced training workshops through the ESRC DTC on *Visual Methods* and *Researching Multilingually*. Our support for ECR and mid-career researchers is evident in activity to build research capacity through national initiatives, such as the ESRC Researcher Development Initiative (RDI) and involvement with the National Centre for Research Methods. Prominent among these are Higgins', Coe's and Torgerson's RDI project '*Training in the Quantitative Synthesis of Intervention Research Findings in Education and Social Sciences*', Gorard's and Torgerson's RDI '*The Research Design Basis for Undergraduate Quantitative Methods (QM) Teaching*' and Higgins' & Wall's role in the RDI project '*Building Capacity in Visual Methods*'. This work contributes to our strategy of maintaining a vital research environment to support the development of new researchers in education.

(iii) Professional Service to Education: Staff at Durham make a contribution through service to education nationally and internationally in terms of undertaking peer reviews for journals and research funders and by undertaking external examining for courses and PhDs. Our contributions in this area support our strategic aims to maintain a vital research environment and to develop research partnerships. We support funding bodies such as ESRC, encouraging Peer Review College Membership and Grant Panel membership (Gorard). Internationally, Gorard and Torgerson are methods experts on panels for the US Institutes of Education Sciences (IES). Torgerson is also a former Campbell Collaboration Education Chair and organises the Randomised Controlled Trials in the Social Sciences conference. Initially founded with ESRC funding to Gorard and Torgerson, the Eighth Annual Conference was held in Durham in 2013. Nine staff review for other national funding bodies in Denmark, Estonia, Greece, Hong Kong, Qatar and Romania. Durham academics have undertaken service through external examining for 109 doctoral students, 49 awards were from HEIs outside of the UK across Europe and in Australia, Canada, India, New Zealand, Pakistan, South Africa and the USA, developing our international reputation and connections.

The intellectual contribution of Durham's staff is also evidenced through significant international keynotes: Land, for example has given over 20 international keynotes on Threshold Concepts and Higher Education, as well as supporting four biennial conferences on Threshold Concepts and a fifth which will be hosted in Durham. Professorial staff have also presented keynotes to a diverse range of audiences including the EU Commission and the Research Council of Norway (both Gorard), the French Academy of Sciences (Torgerson), the Asia-Pacific (Elliott) and Finnish (Higgins) Education Research Associations and the World Council for Gifted and Talented Children (Newton). Engagement in the networks offered by these opportunities extends the reach of potential partnerships and future collaborations. The majority of staff are active members of educational organisations such as the British and American Educational Research Associations and the European Association for Learning and Instruction. Disciplinary foundations of education are evident in memberships of the Philosophy of Education Society of Great Britain, and the British Psychological and Sociological Associations, as well as memberships of other organisations such as Society for Educational Studies and the Royal Statistical Society. Four staff have been elected to be Academicians of the Academy of Social Sciences. Nine staff have served as editors or assistant editors of education journals during the REF period, including *Ethics and Education*, *The Curriculum Journal*, and *International Journal of Educational Research*. These roles indicate leadership of research and scholarship in education, with similar leadership shown by a further eight staff who have edited or co-edited special issues of journals with a thematic interest relating to their expertise their respective fields.