

Institution: University of Northampton
Unit of Assessment: Education (UoA23)
<p>1. Unit context and structure, research and impact strategy</p> <p>1.1 Unit context and structure</p> <p>This REF submission continues a longstanding history of educational research at the University of Northampton (UoN) and its antecedent teacher-training institutions. Research, evidence-based practice, and innovative, research-led pedagogies have always been foundational to the University's research, learning and teaching strategies in education. Sustaining high quality educational research with significant national and international impacts is a key aim of Education's and University's strategic plans. Major research specialisms in Education relate to Special Education Needs (SEN) and inclusion, participatory research/practice with children and young people, and educational innovation and leadership.</p> <p>Since REF2014 there has been significant institutional restructuring, with changes to leadership, staffing and workloads. However, this restructuring has ultimately constituted a considerably more coherent education department and strategic vision for research. In REF2014 Education was spread across five research centres and three faculties with different institutional barriers hampering progress towards a cohesive unit. Through the restructuring, the educational research team is now consolidated into one research centre with a clear discipline-specific strategic direction co-developed with one faculty leadership team. Educational research at the UoN now coheres around the Centre for Education and Research (CER), which provides a focal point for all educational research in the Faculty of Health, Education & Humanities and the wider University. In the current REF period, CER has had three thematic priorities, with a co-director responsible for each:</p> <ol style="list-style-type: none"> 1. Special Education Needs (SEN) and inclusion (led by Preece). Research and practice in relation to inclusive education, social justice and SEN has been a key, longstanding specialism at the UoN. Five colleagues have developed new research on this theme in the current REF period. In this thematic area the work of CER has been important in: (i) gathering new evidence about the experiences of children and young people with diverse SEN and autistic spectrum conditions in a wide range of institutional, geographical settings; (ii) developing opportunities for evidence-based teacher-, practitioner- or parent/carer- development in diverse global contexts, often in settings where no training, guidance or evidence about SEN or autism has previously existed; and (iii) critically retheorizing all manner of normative societal labels, assumptions and exclusions relating to SEN and autism. 2. Participatory research/practice with children and young people (led by Murray). Participatory and interdisciplinary research with (rather than on or for) children and young people has been a major focus for us. In the current REF period, seven colleagues – working at the intersection of Education, Childhood and Youth Studies, Human Geography and Sociology – have developed new research on this theme. In this thematic area the work of CER has been important in: (i) developing new methods to engage children and young people <i>as researchers</i>; (ii) gathering new evidence about the experiences and participation of children and young people in diverse spaces of (formal and informal) education and care; and (iii) developing new theorisations of and <i>with</i> children and young people's learning, play and identities. 3. Educational innovation and leadership (led by Devecchi). During the current REF period, the UoN's institutional strategic plans have challenged researchers to explore and foster educational 'changemaking' and social impact. In this context, a distinctive body of research has explored and evaluated diverse modes of pedagogic practice and educational leadership in terms of their capacity to constitute transformational impacts. In the current REF period, five colleagues – working at intersections of teacher education, organisational management, information

technologies and theories of learning and teaching – have undertaken new research on this theme. In this thematic area the work of CER has been important in: (i) providing rich, evidence-based case studies of innovative learning, teaching and educational leadership practices in diverse (early years, primary, secondary, higher or informal) educational settings and on different scales (from the individual classroom, to the university campus, to national educational policies); (ii) evidencing the potential of new technologies and digital media to affirmatively ‘disrupt’ traditional forms of pedagogy and educational leadership; and (iii) critically theorising established models of learning and teaching through consideration of innovative forms of ‘active blended learning’ and ‘flexible’ learning spaces.

All research active colleagues and Postgraduate Researchers (PGRs) in Education are affiliated with CER and have contributed to, and worked within, at least one of these three thematic areas. The three centre co-directors hold regular operational meetings and maintain routine contact with all colleagues affiliated to Centre themes, as discussed in Section 2 of this statement. CER is accountable to, and is regulated and quality assured by, the Faculty of Health, Education & Society’s Research & Enterprise Committee, which sets annual key performance indicators and a framework for the Centre’s strategic direction. In 2019/20, CER colleagues and PGRs co-developed a new ‘**REACH**’ ethos for research centre operations (**R**ecognising individual and team success, **E**ngaging colleagues’ expertise, **A**cknowledging good practice, **C**ontributing to processes, **H**arnessing collaboration), and a centre implementation plan providing a rich offer of discipline-specific events, training, mentoring, peer support, impact-development and researcher-development opportunities for colleagues at all career stages, as outlined in Section 2.

1.2 Unit research and impact strategy

There is considerable evidence of positive step changes in educational research culture, strategy, capacity, funding and impacts within the unit. We performed well against objectives that were laid out in our REF2014 submission as well as our University Strategy in 2015:

1. Provide resources and support academic staff wishing to embark on research activity, emphasising the importance of research objectives within annual staff Performance and Development Reviews (PDRs)
2. Extend and internationalise participation in established networks and expand our reach in educational research
3. Strategically increase and augment doctoral supervisory capacity within the unit
4. Enhance the research bidding activity and increase the number of research outputs published

In relation to 1, focused investment in researcher development (totalling approximately GBP154,000 in the current REF cycle) has supported six colleagues (**Aidonopoulou, Caldwell, Calver, Karlidag-Dennis, Richardson, Underwood**) to complete their PhD/EdD in the current REF period, and there have been a further six appointments of new research-active colleagues with PhD/EdDs into Education (more than doubling in size from 7 FT colleagues in REF2014 to 16 FT colleagues in REF2021). Moreover, six colleagues who were entered as early-career researchers in REF2014 have now developed, via the University Associate Professor programme and focused investment in Centre co-lead posts, into Centre and Faculty research leadership roles, and/or have been Principal- and Co- Investigators on large international RCUK- or EU- funded research projects in the current REF period. An institutional commitment to invest in ‘Teaching & Research’ contracts has provided all Education colleagues with additional time allocated to research and scholarship activities. Within the framework of the Faculty of Health, Education and Society a suite of research objectives has been developed, with all colleagues on ‘Teaching & Research’ contracts having research-focused objectives via their PDR and a wider goal of supporting more teaching-focused colleagues to become research active. The multidisciplinary Faculty structure provides a stronger, consolidated infrastructure for our peer review process, research support, governance, impact enhancement and public engagement. As part of our move to the new Waterside campus, academic workspaces were built to facilitate collegiate dialogue

and Faculty research and enterprise planning has significantly increased opportunities for interdisciplinary research discussions, project development, and researcher development.

In relation to 2, our Faculty research strategy recognises that Education's success depends upon high quality collaborations with multidisciplinary colleagues at other Higher Education Institutes (HEIs) and multiprofessional practitioners in diverse regional, national and global contexts. In the current REF period, staff development and research seedcorn funding has enabled colleagues to extend – and particularly internationalise – our networks of research collaborators and beneficiaries. In the current REF period, all our major research funding successes – e.g. from ESRC, Newton Fund, EU Erasmus+ and UNICEF – have arisen from this support for colleagues' work to develop leadership and co-investigator roles within diverse, international, interdisciplinary networks. Strategic investments in Visiting Professors/Research Fellow roles have also supported this process of network-building in each of the Education's thematic areas.

In relation to 3, We have achieved a major step change in doctoral supervisory capacity since REF2014. All colleagues are now engaged in doctoral supervision, with 10 members having been supported to complete compulsory elements of our institutional Postgraduate Certificate in Research Degree Supervision, and subsequently become doctoral supervisors for the first time, in the current REF period. This growth in supervisory capacity has enabled the Education department to significantly grow its international community of doctoral researchers, as evidenced in section 2.2. PGRs – and those on MSc courses in SEN/Inclusion and Childhood and Youth – form a large, vibrant and active part of the Education research community. CER's implementation planning is explicitly designed to support the development of a postgraduate community, ensure inclusion and promote researcher-development in Education.

In relation to (iv), strategic investment in staff research time, plus regular internal opportunities for colleagues to bid for both University and Faculty funds (University Big Ideas Fund, Innovation Fund, URB@N Bursaries and Seedcorn Funding, QR impact support), have enabled development of networks, research bidding opportunities and pathways to impact. These opportunities have facilitated our research funding success, with GBP803,000 of new external income for educational research in the current REF period as of August 2020. There have been major recent funding successes in each of Education's thematic priority areas. For example, in relation to SEN/inclusion, **Preece** was awarded for an EU Erasmus+ grant (total value EUR430,000) for research on parent/carer education around autism in the Balkans and South-east Europe, **Listiakova** was awarded BA/Leverhulme Trust funding (total value GBP8,540) to explore experiences of families living with autism in remote and coastal regions, and **Rose** has directed a UNICEF research project exploring knowledges, norms and practices towards Bhutanese children with disabilities. In relation to participatory research/practice with children and young people, **Horton** won two international, multidisciplinary ESRC/Newton Fund awards (total combined value GBP390,504) to develop qualitative, visual, mapping and quantitative participatory tools to engage diverse Brazilian children and young people in research about water-energy-food nexus education, and **Murray** is Co-Investigator in an EU Erasmus+ project (total value EUR266,652) engaging with young people on issues of online safety. In relation to education innovation and leadership, **Devecchi** was Co-Investigator on an EU Erasmus+ collaboration (total value EUR447,510) which explored causes, risk factors and outcomes associated with early school-leaving among diverse groups of vulnerable young people.

The Unit's strategic ambitions for research mesh with the wider Faculty of Health, Education & Society's strategic vision to enable 'impactful research and enterprise to advance excellence in health, education, social care and social sciences locally, nationally and internationally'. An extensive consultative process with colleagues and external stakeholders has shaped this Faculty strategy in relation to research environment, identifying four priority areas for strategic and operational planning:

1. Community building and inclusion, in support of ambitious institutional targets for interdisciplinary research bidding and outputs, and equalities and inclusion;

2. Strategic partnerships, supporting colleagues to extending national and international networks of external collaborators and develop new opportunities for social impact, user-involvement and public engagement around research activities;
3. Assuring quality, constituting supportive processes to enable colleagues to enhance quality of research outputs, bids, environments and impacts;
4. Researcher development, sustaining a rich, responsive offer of development opportunities, activities and events for researchers at all career stages.

Activities over the next decade will align with a detailed Faculty implementation plan focused on these priority areas, and supported by a collective of four colleagues appointed to specialist cross-Faculty roles mapped to the priority areas. In this context, CER has developed an ethos and approach to specifically address Educational research and collegiate activities focused on community-building and inclusion, communications and partnerships, quality assurance, and researcher-development.

1.3 Supporting open research/access

In a key development in the current REF cycle, training and guidance in support of open research/access is now embedded in researcher-development within Education and the wider Faculty. Through CER and Faculty development activities, colleagues are routinely trained and adhere to University-level policies in relation to open access, with oversight and input from Faculty Research and Enterprise Committee and institutional Library and Learning Services. In addition to receiving training and support in open access and copyright, colleagues have received successive development activities in research data management planning, paying particular attention to the preservation and reproducibility of research. All research outputs are now required to be uploaded to the University's CRIS (Current Research Information System) and colleagues receive support to facilitate and enhance open access. Colleagues have been provided with extensive training in the selection of the most appropriate places for publication and use of tools such as Sherpa/Romeo to check funder requirements and conditions relating to copyright. Where required, colleagues also have access to an institutional fund to cover the cost of open access where the green route is either not available, or embargo periods are prohibitively long. Local guidance for colleagues now also routinely encourages upload of datasets to the institutional CRIS on submission, where it is checked for replicability and long-term digital preservation. Guidance for colleagues supports the development of FAIR (Findable, Accessible, Interoperable and Reasonable) sharing of data, striving to be as open as possible within funder and ethical parameters.

1.4 Supporting a culture of research integrity

A specialist education research ethics subcommittee – constituted within the wider, multidisciplinary Faculty Ethics Committee, governed by the institutional Research Ethics Committee – provides discipline-specific support and peer review for educational research at staff, postgraduate and undergraduate levels, aligned with British Educational Research Association (BERA) guidance on research ethics and integrity. All research projects undergo ethical review through this structure. CER researcher-development and training routinely provides guidance and support in relation to research ethics and integrity, underpinned by values of the Universities UK (2018) *Concordat to Support Research Integrity*. Our colleagues play lead roles in the development of institutional policy and good practice in relation to research ethics and integrity. **Horton** chairs the institutional Research Ethics Committee and is lead author of the central institutional *Research Ethics Code and Procedures*. **Preece** and **Murray** lead the education research ethics subcommittee, with lead responsibility for developing education-focused guidance, training and good practice and liaising with the University's Data Protection Officer and institutional Research Ethics Committee Chair to ensure policies, training and templates support best practice in relation to BERA expectations. All colleagues involved in ethical review processes undertake a bespoke Faculty-designed, mandatory modular training programme for ethics committee reviewers, ensuring that institutional Research Ethics Committees values of quality, consistency, constructiveness, proportionality and timeliness are embedded in our culture. A Faculty virtual learning environment relating to research ethics and integrity is regularly updated, offering advice and signposting to staff and students who are also supported to engage with

collegial ethical discussions at research centre meetings, and through the Faculty Research and Enterprise Committee. Development of a culture of research integrity is also extended through our colleagues' extensive roles in delivering taught sessions to undergraduate and postgraduate programmes on educational research ethics and integrity. The education research ethics subcommittee has an open-door policy for questions and queries and staff and students are therefore also supported.

2. People

2.1 Staffing strategy and staff development

Staffing within the Education unit has remained relatively stable, submitting 15 staff in 2014 compared to 16 staff for this REF cycle. Of those submitted to REF2014, 5 are still working with the department and 6 were with the university during the last assessment but not submitted, illustrating both our significant researcher development and demonstrating our supportive processes for internal promotion for research-active colleagues.

Research expertise and track record has been a key requirement in person specifications for all Education roles at Level 7 and above: candidates' experience of, and capacity to develop, research outputs, funding bids and postgraduate supervision are assessed during shortlisting and interviews. However, candidates' experience of teaching, school leadership and multiprofessional practice have often (and necessarily, given the strong development of taught undergraduate and postgraduate provision in Education at the University) taken primacy during recruitment. So, recognising the distinctive needs of a subject community characterised by senior, experienced teaching colleagues who have often moved from primary/secondary to HE sectors, Faculty leaders strategically invested in academic research skills-development and capacity-building for mid-career/Senior Lecturer colleagues during the current REF period.

This longstanding staffing strategy in Education has been to recruit experienced school leaders, teachers and senior multiprofessional practitioners. They develop taught undergraduate and postgraduate programmes and are then offered research skills-development as a key objective and a condition of their professional development. The remainder of education comprises colleagues who have progressed to more research-intensive roles through unit level support, the University's Associate Professor and Professorial development pathways, and a small number of immediately-postdoctoral colleagues appointed to Research Assistantships or Lectureships in specific, emergent, research-led teaching areas.

The unit continues to support mid-career/Senior Lecturer colleagues to complete their doctorate or undertake development via the UoN Postgraduate Certificate in Research Degree Supervision by allocating resources and ring-fencing hours for the work to be undertaken. As evidenced in section 1.2, this targeted support has constituted a significant step change to increase the level and capacity of research active staff.

For all colleagues, researcher development is principally managed and audited through the University's PDR process, whereby individual objectives and key performance indicators are agreed annually with line managers and appraised after six and twelve months. Since 2015, all colleagues are allocated at least one specific research-focused objective each year (objectives reflect current Faculty/institutional research Key Performance Indicators and typically include targeted activity in terms of bidding, publications, impact or sectoral and international network-building). The PDR is also the process through which individual research training needs are identified and plans are made for dedicated 'research and scholarly activity' hours. In addition to line managerial support, the Faculty Research Leader is responsible for mentoring colleagues at all career stages, supporting the development and delivery of individual research KPIs. The Research Leader meets with all new appointments in Education as part of their induction to signpost Research Centre themes, make links with contacts with shared interests, and set research-related milestones for the probationary period and beyond. CER provides a focus, network and support structure for all research active staff,

PGRs, and colleagues seeking to develop research skills within Education. CER provides a significant offer of networking, dissemination and impact activities as well as researcher-development opportunities open to Educational researchers and interdisciplinary colleagues across the UoN.

Within the Faculty of Health, Education & Society, members also have access to an extensive offer of interdisciplinary researcher-development training, workshops and seminars delivered through the Faculty's Research and Innovation Development programme. This programme of researcher-development events was directly indexed to the four domains of the Vitae (2015) *Researcher Development Framework* but has since been updated to align with the obligations of the Vitae (2019) *Concordat to Support the Career Development of Researchers*. Subsequent reviews of the programme in 2020/21 and 2021/22 will deepen this alignment with the Concordat. The Faculty development programme is designed to mesh with an extensive range of wider institutional support and development opportunities offered by the University's Research and Innovation Funding Support (RIFS) unit, Staff Development unit, Graduate School, and tailored mentoring processes for Associate Professors and Professors. Discipline-specific bespoke sessions, and extensions to generic development opportunities, are provided through the CER's programme of activities. CER development activities are co-developed by CER colleagues to address discipline-specific needs and opportunities.

The programme of events is reviewed annually through consultation with the Faculty's multidisciplinary research community, and sessions are explicitly tailored for 'Beginner', 'PGR', 'ECR' or 'Mid-career+' audiences. The Faculty Research and Innovation Development Programme includes more than 20 core focused workshops (e.g. 'building partnerships for research', 'planning impact into your research proposal', 'researcher well-being' and 'navigating peer review'), termly seminars and events hosted by each Research Centre, monthly opportunities to 'shut up and write', a monthly informal 'lunch and learn' programme (where ECRs can present and discuss their work, often for the first time, in a supportive environment), and termly 'Café Scientifique' public engagement events (where researchers host public lectures and workshops in a local café).

The Centre for Education & Research plays a key role in discipline-focused staff development. CER's co-directors support the Faculty Research Leader, **Horton**, in welcoming, mentoring and integrating new and prospective researchers, signposting (sub)discipline-specific research events and opportunities, providing colleagues with opportunities to participate in bidding activity alongside more experienced research staff, fostering a friendly and inclusive disciplinary research culture, and facilitating access to networks of external partners and organisations. Recognising the sustained value and success of this research leadership, six members of the Centre for Education & Research have been promoted to the role of Associate Professor (**Caldwell, Devecchi, Horton, Lumsden, Murray, Preece**), across several cycles of our institutional professorial development programme in the current REF period, with **Horton** having subsequently been promoted to a full Professorship. Associate Professors are supported via a substantial institutional staff development programme focused on research leadership with ring-fenced hours for research leadership, mentoring from a Professorial colleague from their discipline and are fast-tracked to participate in research committees. Recognising that the professoriate in Education is relatively small, the unit has made a number of strategic investments in Visiting Professors with strong, international reputations in subdisciplines aligned to the three centre themes of SEN/inclusion (e.g. **Professor Sue Ralph, Professor John Visser**), participatory research (e.g. **Professor Helen Lomax**), and educational innovation/leadership (e.g. **Professor Roy Evans**), to provide specialist mentoring support for Education's Senior Lecturers and Associate Professors, as well as earlier career and prospective research colleagues. For example, **Ralph** (as Editor of the *Journal of Research in Special Educational Needs*) provides guidance and peer-review for colleagues' academic writing, **Visser** provides strategic support on bid-development, particularly relating to large-scale national and international projects, and **Lomax** provides guidance for colleagues developing participative projects with EU and international partners. All Visiting Professors/Fellows are engaged in postgraduate supervision, and mentoring colleagues during their first supervisions. We are currently consulting on a new, additional cohort of Visiting Professors to further strengthen work

in priority areas, support interdisciplinary and international collaboration, and engage a more diverse, global professoriate going forward.

2.2 Postgraduate researchers

In the current REF period 71 PGRs in Education (31 completions, 40 ongoing) have been supervised by colleagues (for comparison, 17 Education PGRs were recorded in RAE 2008, and 57 were recorded in REF 2014). Colleagues jointly supervised a further 27 interdisciplinary PGRs registered in other subject areas, but closely aligned with CER thematic priorities. All PGRs are associated with one of our key themes and participate extensively in Research Centre activities. PGRs continue to make leading edge, and genuinely internationalised, contributions to each of Education's three thematic areas. For example, ongoing PGR studies have advanced understandings of SEN/inclusion in contexts as diverse as China, India, Ireland, Nigeria, and Zimbabwe, developed new participatory research with children and young people in Egypt, Hungary and Japan, and explored educational leadership, management and innovation in Cyprus, Ghana and Somalia.

In Education, the recent growth in supervisory capacity evidenced above has enabled supervisory teams to be increasingly tailored to researchers' interests and needs. Supervisory teams are allocated at the initial application stage and are designed to offer a balance of subject expertise, methodological background and supervisory experience. Given the distinctive profile of PGRs in Education, our supervisors have specialist expertise in: (i) supporting the progress and developing the academic self-confidence of postgraduates returning to academia after careers in primary, secondary or early years sectors; and (ii) supporting internationally-based postgraduates who often speak/write English as an additional language. Education's expertise in SEN/Inclusion has also enabled supervisory teams to provide a sector-leading degree of inclusive support for postgraduate researchers with diverse disabilities and needs.

All PGRs receive an extensive package of induction and generic researcher-development training from the University's Graduate School, which is complemented by discipline-based induction and training delivered through the Centre for Education & Research and the Faculty's Research and Innovation Development Programme (see section 2.1). Support is also available from the University's central Additional Student Support and Inclusion Services Team, Learning Development and Educational Linguistics teams (see section 2.3). The Unit and Graduate School have undertaken significant work in the current REF period to trial processes of PGR representation and engagement through co-produced PGR support and development activities (e.g. FEASST@8 and SuCCEED@8 programmes led by **Devecchi**) which have fostered student-led peer-support, digital inclusion and community-development projects, new PGR representative roles and forums, in which PGRs have consistently played active and leading roles. In addition, the CER structures and processes provide a wide range of opportunities for Education PGRs to engage with development opportunities and community-building events linked to each of the Centre's thematic priorities. The Centre's approach to discipline-based support for PGRs in education provides annually-updated opportunities for PGRs to engage in activities linked to:

1. Learning and teaching – offering and scaffolding opportunities for PGRs to contribute to undergraduate teaching and active blended learning, subject to availability
2. Research seminars and workshops – attendance and active participation in discipline-focused events
3. Education research, evaluation and consultancy – identifying and supporting opportunities for PGRs to be involved in different aspects of ongoing projects
4. Communications, dissemination and external engagement – providing opportunities for PGRs to take on 'press officer' roles linked to unit research activities or contribute to public engagement with key local, national and international stakeholders
5. Research conference and events – enabling PGRs to make active contributions to an annual three-day research conference and other research-based events

6. Career development and professional identities – offering discipline-specific careers advice and support for job applications

UoN has scored strongly in Advance HE's Postgraduate Researcher Experience Survey (PRES) (ranked 1st overall in 2020 and 4th overall in 2018). This is reflected in disaggregated data for postgraduate researchers in the subject area of Education. Consistently, Education has recorded PRES overall satisfaction ratings of 90% and above, ahead of the national (81%) average for the same period. Three further trends are evident in these subject-level data. First, between 2015-18 there were notable increases in Education postgraduate researchers' satisfaction with supervisors' subject expertise and skills (85% to 100%), and the quality of supervisory meetings (85% to 95%), feedback (85% to 91%) and support for research skills (81% to 91%) (coinciding with the increase in supervisory capacity, training and expertise noted in section 2.1). Second, for Education postgraduate researchers based on campus, satisfaction with their working environment increased from 85% to 100% (coinciding with major investment in the University's new campus and dedicated, purpose-built multidisciplinary workspace for the postgraduate research community (see section 3.1)). Third, for Education postgraduate researchers based in the UK, confidence that 'My institution values and responds to feedback from research degree students' increased from 77% to 100% (coinciding with significant work to develop PGR representation, engagement and inclusive student voice (see section 2.3). Faculty analysis of PRES data by subject area has been helpful in identifying areas for further strategic development within Education (e.g. in terms of enhancing teaching opportunities for postgraduate researchers and supporting needs of postgraduate international and offsite learners).

2.3 Equality and diversity

There is a strong tradition of critical and inclusive practice, and research in support of inclusive spaces in HE, within education and so we are especially committed to excellence in terms of equity and inclusion in research environments. CER particularly emphasises the necessity of linking inclusion and research excellence through its central overarching aim: 'to nurture and promote social justice, equity and inclusion within Education and related disciplines through a culture of high-quality research that is accessible to all'. In practice, colleagues advance this aim through sustained, routine activities including, but not limited to:

1. Ensuring that all local research policies and strategic plans undergo formal Equality Impact Assessment; supporting disciplinary colleagues to extend this practice to diverse aspects of educational research, innovation, policy, practice, learning and teaching within the institution; and leading collegiate discussion and the enhancement of practice via this process
2. Leading and supporting regularly-refreshed institutional training on equalities and diversities in the workplace, and convening workshops and development on equalities and inclusion within diverse educational settings;
3. Constituting a disciplinary ethics committee to offer specialist guidance and development regarding equality and inclusion issues in educational and pedagogic staff, postgraduate research and undergraduate research
4. Working with the Faculty lead on community-building and inclusion (see section 1.2) to co-develop discipline-specific opportunities for colleagues to continue to create a community of collaboration around inclusion issues and research at local, national and international levels
5. Enhancing annual Centre reporting processes to evidence the ways in which Education research demonstrates positive impacts in terms issues of equality, inclusion, and social mobility
6. Continuing to develop discipline-specific training and mentoring processes to develop positive social change through innovative and impactful research activities and outputs considering protected characteristics, sociodemographic factors and intersectional identities in educational research, spaces and practices.

In addition, many colleagues participate in a growing number of colleague-led institutional support

and advocacy groups such as the BAME Staff Network, LGBTQ+ group and Staff Disability Network. Colleagues have also benefited from the University's 'Navigator' (men and transmasculine) and 'Springboard+' (women, trans and non-binary) staff development programmes for colleagues in academic or professional service roles which provide an opportunity for staff to undertake personal and professional development and support for leadership, goal-setting and strategic visioning skills.

CER has undertaken leading work within the institution to develop sustained development work on diverse aspects of equalities, identities and inclusion. For example, since 2019, CER has convened a range of workshops and development opportunities around the theme of 'Women Researching' to showcase role models of educational research by diverse women, highlight leading edge research on gendered identities in education, and facilitate critical, action-orientated reflections on gendered inequalities in HE and educational research.

Despite all of these very positive activities, the unit recognises the importance of continuing to deepen the contribution of the education's sector-leading research on educational inclusivity in Faculty and Centre strategies for research. For this reason, equality, inclusion and wellbeing are key strands in Education's and Faculty's strategic commitments for 2020-25.

3. Income, infrastructure and facilities

3.1 Income

Despite a challenging external funding environment colleagues have been successful as Principal- and Co- Investigators on a wide range of large-scale, externally-funded, collaborative research projects. In the current REF period, educational research has brought GBP877,437 of new external research income direct to the UoN, typically within larger multi-institutional collaborations. This is a significant achievement for a modestly-sized UoA with many relatively inexperienced researchers. This research income differs from the last REF period in five key ways:

1. A larger proportion of our research income has taken the form of large-scale, multi-year grants competitively awarded to multidisciplinary consortia co-/led by Education colleagues. In the current REF period, Centre and individual objectives have specifically focused upon extending research networks, so it is heartening to see a succession of successful bids for major RCUK/Newton Fund and EU funding with interdisciplinary networks. For example, **Horton's** Successive ESRC/Newton Fund awards built upon and developed interdisciplinary collaborations with Human Geographers and engineering scientists to advance understandings of young people's environmental education, via innovative cross-disciplinary theorisations of materialities of water-energy-food.
2. The research income has become increasingly internationalised. Colleagues have increasingly been successful in networking with international consortia for large-scale EU and RCUK/Newton Fund awards for educational research in Europe and the Global South (e.g. **Murray's** work with multidisciplinary colleagues in Belgium, Denmark and Greece on the Erasmus+ CyGen (*Cyber Safe Generation: Digital Education by Design*) project, and **Devecchi's** Erasmus+ collaboration with colleagues in Italy, Romania, Portugal, France and Croatia to engage young people at risk of leaving school early). Education has been successful in tendering for substantive research and consultancy projects from diverse international funders including Autism Education, British Council, Caritas International, European Agency for Special Needs and Inclusive Education, Gan Shalom Berkeley, the Government of Ireland National Council for Special Education, Norwegian Ministry of International Development, SAHARA Disability Services, Santander, Save the Children, Sierra Leone's Ministry of Education, Sightsavers International, UNICEF, and the University of Bialystok. This increasingly international reach is also reflected in the growing number of international roles, keynotes and esteem indicators reported by colleagues.
3. A greater proportion of our research income is specifically ring-fenced for planned impact activities, reflecting both the heightened expectations of EU and RCUK funders, and the

growing skills and experiences of colleagues in developing pathways to impact. For example, a significant component of **Preece's** Erasmus+ collaboration on autism in the Balkans and South-east Europe, and **Listiakova's** BA/Leverhulme project with families living with autism in remote and coastal regions, has been to develop parent education and policy impact activities to enhance the educational and life experience of diverse, hard-to-reach groups in regions with very limited prior provision.

4. Alongside the prestigious large-scale funding foregrounded in this Environment statement we also want to celebrate the fact that more funding successes have come from early career researchers bidding for the first time. The bottom-line value of these research and evaluation awards may be relatively small, but we do not underestimate the importance of these first-time successes in developing education's research capacity. This includes colleagues who were entered as early career researchers in REF2014 who have now developed into Centre and Faculty research leaders and Principal- and Co- Investigators on international RCUK- and EU- funded projects.
5. The funding successes in the current REF have led directly to a larger body of peer-reviewed outputs. Increasingly, too, these publications have taken the form of substantial, critical/theoretical interdisciplinary contributions, as in research monographs, and the significant body of conceptual and empirical work emerging from our EU Erasmus+ and BA/Leverhulme projects on SEN/inclusion.

3.2 Infrastructure and facilities

The University has recently invested heavily in its facilities, having completed the move to the purpose-built Waterside Campus in 2018 at a total cost of GBP330,000,000. The campus has been heralded as the cutting edge of university infrastructure, winning the 2019 Royal Institute for Chartered Surveyors' coveted 'Design Through Innovation' award. While it is not possible to attribute a precise portion of this investment to Education, the department has benefitted from the new working environment with state-of-the-art IT infrastructure, new office space and a new library. This investment in institutional infrastructure and facilities has been important in the following ways:

1. Colleagues now work within new flexible academic workspaces, which have been purpose-built to foster collegiate dialogue and community-building. Whereas researchers previously occupied a rather 'silo'-like 'Education' office, they now share spaces with colleagues within the multidisciplinary Faculty of Health, Education & Society. Already there is evidence of dialogue, bid-development and strategic collaborations between the Centre for Education & Research and colleagues doing cognate work on health, wellbeing, social care, nursing and youthwork, supporting an interdisciplinary turn within the discipline and the co-development of a shared strategic Faculty vision for our research. The unit is also predicated upon innovative digital technologies and flexible learning spaces: the significant potential of this sector-leading investment in learning environments is still developing via research on educational innovation. While the new campus has evidently been positive for onsite Education PGRs we recognize the need to have a strategic focus on enhancing the experience of our growing community of offsite and international PGR colleagues and thus education has a specific operational priority to support involvement of offsite and international PGR colleagues in interdisciplinary community-building initiatives.
2. Education is now supported by a larger, consolidated and interdisciplinary Faculty infrastructure for researcher development and research support, peer review, governance, integrity, impact enhancement and public engagement, enabling scaled-up strategic support for researcher development, closely linked to wider institutional Research and Innovation Funding Support, development and guidance.
3. The new campus estate has particularly transformed the experience and working

environment of Education's PGR community. Whereas PGRs previously occupied a small, separate 'Education' office, the new campus provides an impressive, purpose-built, co-designed suite for the University's whole multidisciplinary PGR community. The success of this strategic investment in PGR workspace is seen in strong and improving PRES results for Education PGRs.

4. A substantial investment in facilities and resources has been made in equipment for digital pedagogies, multisensory play, classroom enrichment and outdoor learning – totalling approximately GBP115,000 in the current REF cycle – which has been used in a range of staff and PGR projects, participatory practices and public engagement/impact activities. Education is also supported by targeted investment in educational library and learning resources – including staffing for specialist subject librarians and learning technologists – which have underpinned many postgraduate and funded staff research projects in the current REF period.
5. As part of the UoN's wider transition to flexible and active blended modes of learning and teaching, Education has invested significantly in hardware and digital resources to support virtual and online collaborations, and this provision is widely used in research, particularly in the context of COVID-19 when practically every staff and PGR research project has shifted to online/virtual formats. For example, in addition to investment in upgraded online survey and interviewing software, we have benefitted from significant Faculty investment in Virtual Reality and simulation hardware and resources: the appointment of a full-time Faculty VR/Simulation lead, and GBP20,000 investment in additional computing resources has enabled a range of innovative educational research, learning and placement activities to take place in virtual reality spaces. A number of innovative research and evaluation projects linked to this new provision are underway, and education is thus well placed to develop a specialist profile in relation to virtual/digital reality simulation in education, social care, inclusive education and early years settings.

4. Collaboration and contribution to the research base, economy and society

4.1 Research collaborations, networks and partnerships

Over the REF period the unit has contributed to the vitality and sustainability of the Education discipline by forming high quality collaborations with multidisciplinary colleagues at other HEIs and multiprofessional practitioners in diverse regional, national and global contexts allowing us to sustain the research activities and income highlighted in sections 1.1 and 3.1. A key objective for us in the current REF period has been to extend – and particularly internationalise – our networks of research collaborators and beneficiaries. This can be seen in our major research funding successes with all of the awards – e.g. ESRC, Newton Fund, EU Erasmus+ and UNICEF – arising from careful, sustained work by colleagues to developed leadership and co-investigator roles within diverse, international, and interdisciplinary networks.

In the current REF period all Educational research themes have had international, multi-partner funding successes. For example, in relation to SEN/Inclusion, **Preece's** two three-year EU Erasmus+ projects have developed through ongoing collaborations with colleagues at the Universities of Cracow, Cyprus and Zagreb, the pan-European advocacy group Autism-Europe, and NGOs in Croatia, Cyprus, England, Macedonia and Poland. Likewise, **Rose's** research commissions for UNICEF and a range of national governments have been possible because of longstanding collaborations with HEI and NGO colleagues working on issues of inclusion in Bhutan, Cambodia, Georgia, Ireland, India, Norway, Oman and Sierra Leone. In relation to participatory research with children and young people, **Horton's** two ESRC/Newton Fund projects developed via more than a decade of interdisciplinary collaborative engagement with Human Geographers at University of Birmingham and Engineering Scientists at São Paulo State University, while **Murray's** EU Erasmus+ project extended collaborative partnerships with colleagues at University of Huddersfield, UC Leuven-Limburg, VIA University College Denmark,

and a consortium of primary and secondary schools in participating countries. In relation to educational leadership and innovation, **Devecchi's** EU Erasmus+ work has fostered engagement with Instituto Universitário de Lisboa and NGOs in Croatia, France, Italy, Hungary and Romania.

The effectiveness of these collaborations is evidenced by the fact that, in most of these cases, successive research funding successes (and a succession of peer-reviewed outputs) have resulted from these networks. Through these collaborations, staff have developed enhanced skills of interdisciplinarity, knowledge exchange with international partners, and impact-development with NGOs and policy-makers in diverse contexts. These experiences have also enabled researchers to mentor early-career colleagues in fostering collaborations, interdisciplinarity conversations, and research impacts. While education has thus seen a step change in the extent and internationalization of its research and impact collaborations since REF2014, we retain strong links with local, regional and national UK-based schools, charities and youthwork organisations which continue to inform and shape many colleagues' work. Colleagues continue to work on interdisciplinary research and evaluation with these longstanding partners, often in collaboration with co-investigators from other UoN research centres (notably the Centre for Health Sciences & Services, and the Institute for Social Innovation and Impact).

4.2 Contributions to research base, economy and society

Education's growing research capacity and expanding portfolio of networks, collaborations and partnerships have contributed to an increase in our external engagement, impacts and wider contributions. Not only have more colleagues been involved in wider research-related activities, but the nature and focus of these contributions has also shifted: whereas the REF2014 submission had a quite narrow emphasis on schools curricula and classroom pedagogies, the current REF period has seen many Education colleagues engaging in research in a more diverse range of everyday and organisational contexts, and with a notably wider range of multidisciplinary partners, to produce markedly more conceptually innovative, leading edge work.

Engagement with researcher beneficiaries and diverse audiences has been a key element of colleagues' work in the current REF cycle, particularly emphasized and supported in the Faculty Research and Enterprise Strategy and Research and Innovation Development programme. Through the kinds of collaborations and networks noted in section 4.1, colleagues have engaged in a wide range of multi-format/media engagements with research beneficiaries in relation to each of the three Educational themes. For example, in relation to SEN/Inclusion, **Preece** has worked with national charities such as Autism Concern and the Terry Arnold Memorial Trust, the pan-European advocacy group Autism-Europe, families and educators to co-develop a wide range of multi-lingual resources which have supported development of inclusive, research-led educational practices to international contexts where there has been literally no extant practice, policy or infrastructure in support of children and young people with autism, and where SEN has been profoundly stigmatised. In relation to participatory research with children, **Murray's** innovative work in this field has also been recognized and extended through expert advisory roles on the National Children's Bureau's Policy Advisory Group, the Department for Education's working groups on Level 2 criteria for Early Childhood and career pathways for the early years sector, and the National Gallery's 'Take One Picture' children's exhibition. Similarly, **Lumsden's** research on early years practice has been extended through expert roles with the Professional Association of Child Development and UNICEF in Turkey, Save the Children's Early Childhood Education and Care group, and the Institute for Apprenticeships and Technical Education. In the current REF period, **Lumsden** has also been appointed academic advisor for Department for Education on the Level Two Early Years qualifications and career pathways, and the Department of Health and Social Care's Health Inequalities Review in the Early Years. Through all these lines of work, all Education colleagues also contribute research-led teaching, training and evaluative work with the Faculty of Health, Education & Society's extensive networks of partner schools, youthwork organisations and HEIs regionally and internationally. Our thematic priorities show clear continuities with longstanding areas of educational research at the UoN (as in RAE2008 and REF2014), yet within each theme there is strong evidence of innovative, interdisciplinary practice which has renewed colleagues' work and

made notable contributions to sustaining the discipline by critically reframing key debates in educational research (e.g. around normative concepts of inclusion, participation, and leadership).

Through these lines of work, all colleagues contribute to research-led teaching, training and evaluative work with the Faculty of Health, Education & Society's extensive networks of partner schools, youthwork organisations and HEIs regionally and internationally. Our thematic priorities show clear continuities with longstanding areas of educational research at the UoN (as in REF2014), yet within each theme there is strong evidence of innovative, interdisciplinary practice which has made notable contributions to sustaining the discipline by critically reframing key debates in educational research (e.g. around normative concepts of inclusion, participation, and leadership).

Growing numbers of colleagues have been promoted to internationally-recognised disciplinary leadership roles. For example, a number of colleagues have served terms as Editors or Editorial Board members for international, interdisciplinary peer-reviewed journals, including *International Journal of Early Years Education* and *Early Child Development and Care* (**Murray**), *Child Abuse Review* (**Lumsden**), *Children's Geographies* and *Social & Cultural Geography* (**Horton**), *Journal of Special Education and Rehabilitation* and *Annales Universitatis Paedagogicae Cracoviensis: Studia Psychologica* (**Preece**), *Emotional and Behavioural Difficulties*, *Journal of Research in Special Educational Needs*, *REACH: Irish Journal of Special Education*, *Baltic Journal of Special Education*, *Australasian Journal of Special and Inclusive Education* (**Rose**), *Asian Journal of Inclusive Education* (**Farrow, Rose**), *Support for Learning*, *International Journal of Adolescence and Youth*, the *British Journal of Special Education* (**Garner**), and the *Polish Journal of Education Research* (**Underwood**). A large group of colleagues have also been regularly invited to act as peer-reviewers for a very diverse cross-section of international academic journals during the current REF period. Other recent interdisciplinary editorial leadership roles in education have included **Murray** editing a new research-focused International Handbook of Young Children's Rights (Routledge, 2019), and **Horton's** work as co-editor of a major 30-book series of research monographs on Spaces of Childhood & Youth (Routledge, 2017-2027) and a 12-volume reference work on Geographies of Children, Youth & Families (Springer, 2017).

A number of colleagues have had leadership and founding roles in multidisciplinary associations and learned societies, such as **Murray's** leadership roles in the 'Early Career Researchers' and 'Young Children's Perspectives' Special Interest Groups of the European Early Childhood Educational Research Association, **Horton's** founding role in the Royal Geographical Society / Institute of British Geographers Research Group on Children, Youth and Families, and **Farrow's** leading roles in the UK Disability Equity Research Network and UNESCO-UNEVOC International Centre for Technical and Vocational Education. Similarly, a number of researchers have been invited to perform expert and advisory roles in the current REF period for a wide range of national and international multidisciplinary, multiprofessional funding bodies, such as EU Horizon2020, EU Marie-Curie (**Devecchi, Horton**), ESRC (**Devecchi**), Newton Fund, British Council, National Science Centre Poland, Fonds Wetenschappelijk Onderzoek-Vlaanderen (**Preece**), National Children's Bureau, Organisation Mondiale pour l'Éducation Pré-Scolaire, Training, Advancement and Co-operation in Teaching Young Children (**Murray**), Nuffield Foundation, Irish National Council for Special Education, Government of India National Institute for Persons with Multiple Disabilities, Hong Kong Research Council, Singapore Research Council, Malaysian Social Sciences Research Council, and Cyprus Research Council (**Rose**). The disciplinary esteem of an increasing proportion of colleagues has been recognised via multiple invited keynote speeches at international multidisciplinary conferences in, for example, UK (**Lumsden, Horton, Preece, Underwood**), Brazil (**Horton, Preece**), India (**Rose, Horton, Preece**), Italy, China (**Rose**), Japan, Poland (**Underwood**), Cyprus, Croatia, Macedonia, and the Netherlands (**Preece**).