

<b>Institution: Newcastle University</b>
<b>Unit of Assessment: UoA 23 Education</b>
<p><b>1. Unit context and structure, research and impact strategy</b></p> <p>Education at Newcastle University (NU) is driven by the transformative power of education, from the individual to society at large. Our research pushes the boundary on what is possible in different contexts, from local to global, and from engagement to impact. Our Unit is passionate about high quality, novel, and internationality recognised research, which vitalises education and benefits society.</p> <p><b><u>Context and Structure</u></b></p> <p>The Unit is based within the School of Education, Communication and Language Sciences (ECLS), a large and vibrant collection of colleagues who educate future teachers, linguists, speech and language therapists and educational psychologists. Research in the Unit is intrinsically interdisciplinary, with the School providing a rich environment for collaborative working across related disciplines. In addition to Education and Educational Psychology colleagues from ECLS, which is part of the Faculty of Humanities and Social Sciences (HaSS), our UoA includes medical educators from the Faculty of Medical Sciences (FMS). The Unit's research co-ordinator (<b>Clark</b>) has support from the School's Research Director (<b>Law</b>) and Impact Director (<b>Smith</b>), through our School Research Committee (SRC), to develop strategy and deliver their responsibility for the management of research. The Unit is submitting 21 (16.7FTE) researchers (19 and 16.7FTE in 2014) and Equality, Diversity and Inclusion (EDI) has been integral in the construction of our REF submission. Our Impact Case Studies (ICS) and outputs are broad-ranging and are distributed across all staff reflecting our range of experience, length of service and specific special circumstances. Our approach is in line with the NU strategy of supporting an inclusive research culture (ILES 3.2).</p> <p><b><u>Research Themes</u></b></p> <p>Our work explores powerful transformational tools in education, for people of all ages, professions and utilises knowledge exchange. These premises underlie all aspects of our research, engagement and impact strategies. Our work aligns to four main themes:</p> <ol style="list-style-type: none"> <li>I. Social justice and education;</li> <li>II. Pedagogic innovation;</li> <li>III. Professional learning and practice;</li> <li>IV. International development and global education.</li> </ol> <p>These themes align our academic strengths to best meet the scholarly, scientific and social challenges of our time. We encourage researchers to work across different themes, and we do so successfully. This enables interdisciplinary approaches to flourish, and forges collaborations with global partners. Woven through our themes are three ways of working that make the Unit distinctive and effective: (i) our marked interdisciplinarity in research and impact; (ii) a supportive and responsible research culture that is inclusive in nature and values different kinds of contribution; and (iii) a commitment to collaborative working with, and serving, the end-users of our research.</p> <p><b>I. Social justice and education</b></p> <p>This theme explores perceptions (and realities) of fairness and equality in education and seeks to build a more just future. We have developed conceptual frameworks to explore and explain inequities alongside models of research practice which are co-produced and transformative, advancing knowledge in areas such as relational justice, through our Nuffield funded project (<b>Laing, Todd</b>, 2014-16:£174K): Fairness in Education. It works to disrupt education inequities</p>

and has developed a range of frameworks which explore how schools and other organisations can work together to transform communities and address disadvantage; poverty proofing schools (**Laing, Thomas, Tiplady, Todd, Wysocki**, 2014-16:£174K; 2020-22:£175K) and through developing a Children's Community (**Laing, Todd**, 2016-19:£45K) to enable a consortium of academics, NGOs, and community groups to work together to undertake transformative research to address a need.

Our research into alternative learning environments acknowledges that physical space and material resources matter to education and how it is experienced by all. Through research projects such as Eurosole - promoting young people's transition pathways through engagement in European self-organised learning spaces (**Burns, Stanfield**, 2015-18:€391K) and the Collaborative ReDesign with Schools (CoReD) project (**Thomas, Tiplady, Woolner**, 2019-22:€254K) we have found that the environment can either support or constrain particular teaching and learning activities, convey values and aims, and potentially contribute to educational change. We aim to improve how all children learn and our commitment to emancipatory methodological and pedagogical approaches underpins much of our work. The ROMtels project uses technology to support multilingual enquiry-based learning for groups of children (translanguaging pedagogy) (**Smith, Wysocki**, 2014-17:€248K: ICS:23-1\_Smith) that improves both how children learn and their sense of belonging. This benefits children, families, and teachers as part of the school community, and the wider social community.

## II. Pedagogic innovation

This theme explores the impacts of the total learning environment, including technology, on teaching and learning practices and outcomes. We work to effect educational change, providing alternative models for the curriculum and environment for pupils, teachers and schools to maximise inclusive practices and learner-centred approaches. Examples of such work includes project-based (PBL) and inquiry learning and community curriculum-making. Our 'PBL goes to University' project (**Leat, Thomas**, 2019-21:£77K) is re-engineering Newcastle University's outreach and engagement activity into sustainable, documented, employer-involved, mainstream curriculum PBL projects for secondary schools.

We contribute to understanding the increasing impact of technology in education and challenges to the traditional role of the teacher. SOLEs (Self-Organised Learning Environments) are a form of innovative pedagogy where students self-organise in groups and learn using a computer with minimal teacher support, typically considering a single difficult ('big') question. Our SOLEs research (**Burns, Mitra, Stanfield**) has driven debate worldwide on the future design of education. We also advance knowledge of teaching and learning in innovative learning environments, open-plan and flexible spaces and outdoor learning, including **Tiplady's** work on Forest Schools (c.£42K total:2017-21), and **Fletcher's** work on sail training (c.£13K total:2018-21), and the impact of such approaches on the wellbeing of children and young people. Our work on the physical environment of education has had a sustained impact on practice and policy. Our review of evidence was influential within and beyond the UK, resulting in the development of a collaborative project (CoReD), and a booklet co-authored with the Council of Europe Development Bank (*Constructing Education*, 2020). This work continues our interdisciplinary focus, drawing together research, policy and practice in participatory school design.

## III. Professional learning and practice

Our research encompasses policy, theory and practice in professional learning across a range of contexts and staff are represented from compulsory and higher education, medical education and educational psychology. We have developed research that aims to provide professionals with knowledge, skills, and tools to be able to work together, crossing disciplinary and organisational boundaries. **Clark's** (with **Leat, Thomas, Tiplady**) Framework 7 (2014-16:€1.9M) FaSMEd project (Improving Progress for Lower Achievers through Formative Assessment in Science and Mathematics Education) produced a toolkit for teachers to support

the development of practice and facilitated professional learning reflection on approaches for the use of new technologies. The co-creation of knowledge with our users is a dominant feature of our approach to transformative research and is illustrated in two exemplar interdisciplinary projects. The AHRC Co-curate North East project (**Clark, Leat, Thomas, Tiplady**, 2013-16:£319K) brought together online collections, museums, universities, schools and community groups to make and re-make stories and images. It opened up 'official' museum and 'un-official' co-created community-based collections and archives through innovative collaborative approaches using social media and open archives/data. The Horizon 2020 ACCOMPLISSH project (**Laing, Todd**, 2016-19:€1.9M) explored research co-creation to enhance impact. We identified that research impact is best encouraged by establishing authentic, reciprocal relationships with collaborators and that different research methods and tools are needed for effective co-produced research.

#### IV. International development and global education

We work with young people from disadvantaged communities focusing on societally-relevant challenges. The University's GCRF Water Security and Sustainable Development Hub (**Dixon, Humble**; 2019-24:£17.7M) aims to inspire and empower young people from disadvantaged communities in India, Colombia, Ethiopia and Malaysia to become active global citizens; the next generation of climate and environmental leaders and activists to carry out co-created citizen science projects. The project aims to create long-term systemic shifts in the knowledge and aspirations of young people addressing a societally-relevant challenge. The project will explore intended learning outcomes for the children, who they will gather data from their own communities to inform policy and knowledge.

The British Academy GCRF Youth Futures project (**Dixon, Humble**, 2020-22:£220K) aims to identify and understand India's ongoing marginalisation of young women and their lack of employment opportunities and exclusion arising from their gender, caste, religion, geographic discrimination. This interdisciplinary project incorporates young women's voices to understand the key issues perpetuating and restricting their engagement and economic empowerment. A second GCRF research project focuses on Early Childhood Education and Development (**Dixon, Humble**, 2019-21:£293K) and has direct relevance for the United Nation's Sustainable Development Goal (SDG) 4.2 that promises all children quality early childhood development, care and pre-primary education in preparation for primary education. This work considers the barriers/challenges and facilitators to school enrolment and attendance in Pakistan and India. This interdisciplinary project combines the expertise of academics, practitioners and health experts from the UK, Pakistan and India, including the disciplines of early childhood development, cognitive and non-cognitive learning, economics and children's health. We have a very strong track record carrying out research that informs national and international policy around the world concerning schooling for the marginalized (see ICS:23-2\_Dixon\_et\_al).

#### Key developments since REF2014

Our research centres have been central to our evolution and development of our four themes. In 2014, the EG West Centre, founded to develop knowledge and strengthen our understanding of self-organizing systems in education, closed, and evolved into **SOLE Central**. Since 2019, as part of NU's new research strategy (ILES 2.12) the work of SOLE Central continued through the **Centre for Learning and Teaching (CfLaT)**. CfLaT (established 2002) provides a supportive, collegiate environment to nurture the development of Unit staff engaged in research, and has a wide disciplinary membership from medical education, educational psychology and speech and language sciences. SOLE Central was a global hub for research into SOLEs that brought together researchers, practitioners, policymakers and entrepreneurs. The work of both centres has helped to evolve and strengthen a collaborative and discursive culture that is an essential component in our strategic growth, and in the creation and translation of knowledge about teaching and learning in a range of contexts including schools, universities, workplaces, families and communities. As NU's Research Strategy advances from its 2019 launch, Unit staff are central to efforts to develop a Newcastle University Centre of Research Excellence (NUCoRE)

(ILES 2.21-2.23) in Childhood and Youth, drawing in colleagues in sociology, geography, history, literature and applied child health.

Since 2014, the Unit has aligned its interdisciplinary engagement and impact strategy with NU's Social Justice theme and has contributed significantly to the work of the University-wide Institute for Social Renewal and continues to develop our engagement with the re-launched Newcastle Institute of Social Sciences (NISS) in 2019. Unit staff play a prominent role in NISS (Director: **Todd**) to bring together social scientists and increase the visibility of social science research both within and beyond the University. Through **Smith's** anti-racism research, we are involved in the University's Race Equality Charter work and we are leading on work to develop anti-racism pedagogies in HASS through NISS and Newcastle University Humanities Research Institute (NUHRI).

**Dixon** is the co-director of NU's Global Challenges Academy (ILES 2.25) and NU's lead for the Global Challenges Summit. Through this role, **Dixon** helps to foster research and partnerships to help realise the UN Sustainable Development Goals, and to mentor and support other staff to undertake research globally. The Global Challenges Academy (GCA) was set up in 2016 to engage colleagues with the goals and opportunities of the Global Challenges Research Fund (GCRF) and its stewardship contributed to NU being awarded two of the 12 UKRI GCRF Hubs, (Water Security and Sustainable Development Hub:£17.7M; Living Deltas Hub:£15.2M). Unit staff (**Dixon, Humble, Todd, Woolner**) are Co-Investigators on these research projects. The GCA acts to underline NU's commitment to equitable partnerships for impactful research and better enables the University community to help realise the UN SDGs.

The Unit's co-production work is likewise central to NISS's co-production theme, and since 2014 **our principal focus has been on developing and implementing co-production methodology to enhance the interaction between the research and practitioner community**. This has helped us to understand and explore the impact of relational approaches, and cultural perspectives to pedagogy and to understand the educational achievements, experiences and trajectories of children, particularly those living in vulnerable circumstances. By focusing on co-production with 'users' (including children, families, practitioners and policymakers) and respecting and valuing the different kinds of knowledge they bring, we have enhanced the responses of individuals, schools, related agencies and communities to educational disadvantage on global and local scales in diverse contexts and especially those caused by poverty and conflict. It considers the lived experiences and tacit knowledge that rests outside the academy and is more likely to harness the potential of participants and beneficiaries to be active partners in stimulating change. Newcastle's unique approach to co-production is its development of a range of theory and practice tools (see Section 4).

The Unit has been particularly influential in lobbying for education generally, not only as an academic discipline but as a force for social change to challenge inequalities in the world, including the Campaign for Living Wage within NU and Poverty-proofing the School Day nationally (**Laing, Thomas, Tiplady, Todd, Wysocki**). Our unit staff are highly influential, strategic and developmental. Ultimately, through our interdisciplinary and collaborative models of working we aim to enhance understanding of the ways in which Education itself can contribute to challenging, disrupting and overcoming inequality.

Research integrity is especially important given the Unit's work, and since 2014 we have strengthened this commitment. ECLS established its own Ethics Committee (Director: **Walker-Gleaves**) to complement Faculty and University systems to add a level of robust scrutiny and support for research activity for staff and students. This ensures that ethical practice is foregrounded in everything we do and is not limited to compliance. Our commitment to working with potentially vulnerable participants is realised through our participatory and co-production approaches and we balance research integrity alongside safeguarding for those in educational contexts in an increasingly digital age. Our commitment to open research has been strengthened. We have deliberately published in Open Access journals where possible, and



created our own series of practice-based booklets to broaden our reach and increase accessibility to a range of audiences.

### **Research and Impact strategy**

Our strategy since 2014 has been to continue our high quality, internationally recognised research with a benefit to society. Through our research, engagement and impact activities we have explored and developed powerful transformational tools.

The Unit has an established reputation in undertaking co-produced research with educators and young people. We have studied the processes and methodologies of co-production, developed and theorised these. We have used our findings to inform subsequent research and knowledge exchange activity designed to generate maximum impact from our work and ultimately improve life chances for children. Projects where we have combined this include the Joseph Rowntree funded Thinking Differently Project (**Clark, Laing, Todd**, 2013-16:£90K) working in co-production with three community projects that worked with youth and alcohol. We found that co-produced research can aid reflection and enhance practice for the children's workforce, and that young people involved in co-produced research can be empowered to become agents of change in their own communities. On an international stage the co-production of research has also been continued in the Youth Futures project and GCRF Water Security Hub (see above). Our robust co-production approach informs many long-term interdisciplinary research partnerships that have prevailed over several years, enabling us to further explore the nature and form of research partnerships in co-produced research (see Section 4).

Inward investment to support our impact strategy has developed understandings of impact, pathways, generation and measurement and we have embedded impact throughout the lifecycle of projects. We created the School Director of Impact (DoI) role (**Smith**, 2018) to take the lead on identifying strategic approaches to enhance the development of impact and long-term capacity-building and succession planning of Impact projects across the Unit. **Smith** is a member of the SRC (see Section 3) and the Impact Faculty Forum ensuring that colleagues learn from and contribute to Faculty impact practices. This has helped us to realise our strategy of high-quality research, developing and strengthening our links and synergies across the themes, facilitating flexible collaboration across the Unit and beyond. This has enabled us to develop cross-disciplinary, local, national and international research with strong links to other universities, non-academic partners and our users. The nature of the way we work, and our close collaboration with practitioners, partners, policy-makers and educators means that the impact of our work inextricably informs our research.

Over the last submission period we have encouraged and supported an integrated cycle linking engagement to research to impact, much of which is practice related. Our success in this regard is evidenced through our ESRC Impact Acceleration Account (IAA) and Faculty impact awards (see section 3) and our collaborative work with local, national and global partners (see section 4).

### **Future research and impact strategy**

Our continuing mission is to make a positive difference to the lives and life chances of children and young people in North-East England, the UK and globally through the generation of high-quality research that produces findings that can enhance understanding and knowledge and influence policy and practice. We will deepen and diversify existing partnerships with the broad range of stakeholders of our research, and identify new ones to progress our efforts in certain areas, such as widening participation, and outdoor learning. This will ensure our research culture continues to be sustainable and progressive, so we are best placed to respond to persistent and emergent societal challenges which intersect with education.

For the next five years, we have committed to the following objectives:

- Build on and nurture the strong partnerships we have with community, cultural, and public sector organisations at the regional, national and international level. These include (as examples) Children North East and Council of Europe Development Bank, as active partners in research, dissemination and impact activities. This will embed impact at the core of our research, sustained by training and funding, and maximise the potential for our diverse academic excellence to have local, regional, national and international impact.
- Pursue diverse sources of external grant income and improve our approach to interdisciplinary collaborative and rapid response calls increasingly prevalent as we address the intractable challenge of Education.
- Refresh and continue our evolution of our structures to support research, including the research centres and the emerging NUCoRE. This will further develop our diverse innovative practices with external partners that maximise opportunities for capacity-building, generating income, impact activity and quality outputs.
- Further develop the productive interdisciplinary nature of our work within (e.g. outdoor learning, innovative pedagogies, widening participation) and beyond the Unit, (e.g. Childhood and Youth NUCoRE).
- Continue to support and encourage co-creation of research with interdisciplinary stakeholders, in recognition of its importance and benefit.
- Further our progress towards a Unit that is committed to research integrity, including integrated ethics in practice to reinforce public trust and responsibility in education research.

## 2. People

### **Staffing strategy**

Of our submitted staff in 2014, 5 late career staff have retired (3M/2F) while 4 colleagues whose careers were developed in the Unit went onto senior posts elsewhere (Hall, Lofthouse, Mazzoli-Smith, Tooley 3F/1M). We have renewed the Unit, through a programme of targeted recruitment for sustainability and growth. Eight staff have joined (5F/3M) and these include appointments ranging from Early Career Researchers (ECR) (5:2M/3F) to professors (2F). Our current submission includes 21 staff (FTE16.7) with this demographic/career spread:

Figure 1: Demographic data for submitted staff

Role	Male	Female	ECR	Open-ended	Fixed term	Total
Research Associate	1	3	3	2	2	4
Senior Research Associate		2	1	1	1	2
Principal Research Associate		1		1		1
Lecturer	2	3	1	4	1	5
Senior Lecturer	1	2		3		3
Reader	1			1		1
Professor	1	4		4	1	5
<b>Total</b>	<b>6</b>	<b>15</b>	<b>5</b>	<b>16</b>	<b>5</b>	

Our current profile is broadly representative of Education as a discipline and the NE region of the UK. Acutely aware of the precariat, we identify where we can convert contracts wherever possible, this has enabled 3 such colleagues (F) to be moved to open-ended contracts and we plan to expand this. This is important for our future management of research activity and our succession planning.

### **Equality, Diversity and Inclusion (EDI)**

EDI is a key driver of our research, and as such we take pride in living these values in all that the Unit does. We are committed to parity between staff on Teaching and Research (T&R), Research and Innovation (R&I), and Teaching and Scholarship (T&S) pathways, and we ensure that **all** colleagues are given the opportunity to succeed. We are mindful of exclusionary language in adverts, and gender-balanced interview panellists have the opportunity for unconscious bias training. Interview presentations are open to all staff; these are well-attended.

Across the submission, 5 (24%) were counted as ECRs (recently awarded PhD) at the census date, including our two Research Excellence Academy appointments (see section 3). Our robust and supportive environment for ECRs includes a tailored induction programme with clear lines of supervision, mentoring and development.

The Unit is committed to the support and development of all staff engaged in research and we lead by example on diverse career pathways. Notably, five female staff (across all pathways) have been awarded PhDs from the Unit since 2014 (and one Masters) and we are supporting three colleagues (**Laing, Tiplady, Wysocki**) in their doctorates concurrent with their research roles. Since 2014, 6 new researchers have become Principal Investigators (PI) and **our strategy has led to considerable achievements in promotion (79% success rate)**. Examples include: Lecturer to Senior Lecturer (3:1M/2F); Reader to Chair (1M); 1 Research Assistant to Research Associate (RA); 3 female RAs to Senior Research Associates (SRA) and the Unit's (and University's) first promotion from SRA to Principal RA and then Personal Chair.

Unit meetings take place across core hours which help people with caring responsibilities to balance work and life. All staff, regardless of contract, part-time working, have access to training and development and career opportunities, in the context of personal requirements and needs to particular career stages. Unit members have accessed a broad range of University staff development programmes tailored towards the individual and their career

stage, but also have opportunities to undertake bespoke EDI and professional programmes. These include the Policy Academy (**Clark**), training to support PI development, academic leadership programmes (8), Chair leadership development (4) and unconscious bias training. Unit staff are actively involved in several NU EDI networks: NU Women (particularly their writing group: **Laing, Mroz, Shields, Todd**), the Disability Interest Group (**Clark**) and Neurodiversity peer support group (**Clark**).

Our commitment to EDI is integral to the Unit and we are reviewing our processes during the preparation of the School's Athena Swan Bronze submission (2021). Unit staff contribute actively to EDI work: **Clark, Smith** and **Wysocki** sit on the School EDI Committee, a proactive conduit between the staff and student body and the School Executive Board, feeding into Faculty EDI. As part of this work, we are undertaking diagnostic and robust consultation, including an EDI and impact of COVID19 survey, to inform a review into the effectiveness of our policies and processes.

### **Staff development**

Our staff development strategy is aimed at all staff being supported to do research at all stages of their careers, and includes mentoring, probation, appraisal and training. We have reinforced our areas of strength through our robust mentoring and development processes to support succession planning. Personal Research Plan meetings (PRPs) directly feed into the annual Performance Development Review (PDR). PDR reviewers routinely discuss research and impact activities and pathways to promotion and encourage staff – and identify support needed - to apply. Impact is also a feature of all PRPs across HASS; however, the guidance produced by the Unit, also includes prompts for impact in discussing colleagues' PDRs and PRPs. We provide strategic advice (e.g. for sabbatical leave) on people's plans and identify ways in which they can be supported. Colleagues can apply for one semester of research sabbatical leave in every 6-8 semesters. Since 2014, 6 Unit staff have taken research sabbaticals, successfully resulting in a range of outputs and we now have a programme for a member of staff to be on leave in each semester. The unit also benefits from institutional-level initiatives for a range of areas which are relevant at different life/career stages; from the Returners Support Programme (ILES 3.3) after parental leave, to 'Unpacking Your Chair' promotions programme and flexible retirement.

Peer and group mentoring takes place across ECLS in weekly meetings alternately on paper writing and research funding proposals (Hosts: **Fletcher, Clark**). Additional knowledge exchange activities take place through monthly reading groups, strategy meetings, weekly research seminars, and CflaT 'research teas'. Our regular research away-days keep share best practice within NU, focus on strategic development (research and impact) and facilitate discussion on key topics common to all research active staff. During Covid-19 these activities moved online enabling increased diversity of participants. **Such commitment of resources to the Unit has enabled the development of a thriving research infrastructure that is strategic and research-enabling.**

### **Research students**

As the next generation of researchers, PGR students are integrated in our activities as fully as possible. **Relative to REF2014, there has been a very impressive increase in PhD completions. A total of 140.78 PhDs were awarded in the Unit between 2014-2020 with the annual rate increasing by 24% from 16.2 to 20.1 in this submission period.** This increase has been achieved through high-quality supervision, successful recruitment and greater funding support from UKRI or external sources.

Our PGR population is diverse, including a mix of different studentships such as the Integrated PhD (IPhD), and professional doctorates (EdD and DAppEdPsy). IPhDs are flexible and practical programmes combining advanced training in discipline-specific and generic research skills with original research. EdDs and the Educational Psychology doctorates are similar but



incorporate taught research modules and work placements. These professional doctorates represent a significant proportion of the Unit's allocations:

Figure 2: Doctorates and Professional doctorates annual data allocations								
	2013	2014	2015	2016	2017	2018	2019	Total 2013 - 20
<b>Doctorates</b>	2.78	10.02	7.78	4.00	1.76	4.02	17.78	<b>48.14</b>
<b>Professional Doctorates</b>	19.00	14.43	19.31	15.00	13.74	11.17	0.00	<b>92.64</b>
<b>Totals</b>	<b>21.78</b>	<b>24.45</b>	<b>27.09</b>	<b>19.00</b>	<b>15.49</b>	<b>15.19</b>	<b>17.78</b>	<b>140.78</b>

**Clark** leads the Education pathway within the ESRC Northern Ireland and the North East Doctoral Training Partnership (NINEDTP) between Newcastle, Durham and Queens University Belfast. We are fortunate to have had 7 funded studentships from this highly-competitive programme since 2014. UoA23 also participates in UKRI training partnerships, extending the interdisciplinarity reach of our work. For example, we co-supervise within the EPSRC Digital Civics Doctoral Training led by Open Lab, NU's cross-disciplinary research centre. Since 2014, we have increased co-supervision across disciplines, including Medicine, Engineering, Law, Arts and Cultures and Modern Languages. We have a steady presence of international students (self- and scholarship-funded) from a range of countries including Saudi Arabia, Iran, Malaysia, Ghana, India, Iraq, Turkey, Nigeria and China. This diversity enriches the research culture and brings different perspectives to the discipline.

This PGR diversity results in a lively interdisciplinary research culture and vibrant student community which comprises home and international students. The shared workspace for PGR students (individual work areas and breakout spaces) allows part-time and full-time students from around the world to work together, sharing experiences and learning practices. In response to Covid-19, our supervision, progress panels and viva examinations moved swiftly online and continued virtually. ECLS provides conference funds to self-funded PGR students up to £300, and hardship funds of between £500-£2500 in any year. PGRs have a minimum of 2 co-supervisors with a minimum of 10 formal supervisions annually; the lead must have supervised a PhD to completion. Progress is reviewed by Annual Progress Review meetings with 2 other colleagues.

We host our seminar series, research group meetings, postgraduate events and much of our PGR teaching in our building, which enhances our sense of being a cohesive academic community. UoA23 students lead and participate in the ECLS annual PGR Student Conference, now in its 20th year. This cultivates a PGR culture, spreads awareness of research being undertaken and provides formative feedback. Additionally, ECLS publishes an open-access e-journal of outstanding PGR research work (ARECLS) to help increase their publishing experience and visibility in the field. Submissions are critically peer-reviewed (blind) by research students and academic staff. In addition to a PhD Support Group run by students for students, there are bi-weekly Unit-wide writing group meetings where students and staff review each other's (draft) papers. The PGR community contribute to monthly research seminars (both internal and external guest speakers), and benefit from monthly CfLaT informal research seminars, (currently online).

PGR training is primarily organised via the HaSS Postgraduate Training Programme, to which several Unit colleagues contribute. Our students also receive advanced research skills training including one of the most popular Advanced Training courses that NINEDTP offers: Visual Methodologies (Leaders: **Burns, Clark, Fletcher Laing, Woolner**). The 2-day course aims to raise the profile of visual methodology (and co-production and participatory elements within it), build capacity and broaden its application across the disciplines. Within the course a PGR student shares best practice in its use. UoA23 facilitates cross-disciplinary opportunities at UG level by hosting student placements, since 2018 CfLaT has

hosted a full-time psychology student annually, where the individual engages in all aspects of project, development work and writing to gain extensive experience in research.

Our PGRs have gone on to a range of academic and non-academic posts. As examples, five have been appointed to lectureships at UK universities and five are now employed by the Unit. Many of our students on professional doctorates (See Fig 2, e.g. Educational Psychology) take their research skills into the field of work, enhancing the profession. Other EdD graduates now work for their respective Ministries of Education in Kuwait, Oman, Malaysia and Thailand. Several successes around publications for our PGR students include co-editing the *Handbook of International Development and Education* (2015) and producing peer-reviewed journal articles. One of our students received the 'Enterprise and Entrepreneurship Award' for her research around phonics in Nigeria (2015). Currently 11 PGR students have undertaken Internships with NU's Global Challenges Academy and 2 as Internships with the UN in New York.

### 3. Income, infrastructure and facilities

#### Income

**Our external grant capture has grown by 17% (from £2,425,722 for REF2014 to £2,836,141 in this REF cycle).** Evidence of our high-quality research which benefits all corners of society is the diversity in our funder portfolio: global, European, UKRI, charity, national and local funding. Our success has been based on the quality of our research, our highly-developed processes of supporting funding applications, including in-house peer review and by extending existing comprehensive, but flexible, mentoring systems to support staff in preparing research bids.

The Unit has also benefited from considerable internal investment which has helped leverage external funds. Following the development of the SOLE method, and the £1M TED Prize (2013), NU made a major staffing investment in SOLE Central. This investment – from NU's Research Excellence Academy (REA) and Research Investment Fund (RIF) – funded time for two co-directors (**Leat, Todd**), a lecturer (**Stanfield**) and a SOLE Central Fellowship (2014-16), then extended through further REA investment (**Burns**, 2016-20). This investment in capacity enabled us to broaden SOLEs research and expand it into different settings, e.g., 'Dream Achieve Realize Express' (**Burns, Stanfield**, 2017-19:£90K Caritas) used SOLE to improve student-teacher-parent relationships. Further investment from REA enabled increased capacity in a Fellow across all our themes (**Fletcher**, 2018-20). The TED prize facilitated the build of dedicated SOLEs (7 in India and 2 in the UK) and these are now sites of further research including the combined effort of SOLE Central and CfLaT on the impact of SOLE in school classrooms. The Unit has hosted ongoing and completed doctorates investigating SOLEs, in the UK and elsewhere, and the fellowship (**Burns**) has enabled the interdisciplinary development of SOLEs to Art and SOLEs work, combining the benefits of engagement with digital and art-based pedagogies in collaborative work with schools, galleries and artists.

#### Infrastructure

Whilst the leadership team work with School, Faculty and University Research and Innovation Committees to ensure that colleagues have the time, resources and support to fulfil their research potential, they also develop cases for further investment (see REA). SRC is chaired by the School Director of Research and membership includes: Head of School; each subject group's Head; UoA coordinators; Director of Impact; PGR Director; ECR representative and ECLS research-focused professional services (PS) staff (1.6FTE). Our PS staff play a key role in ensuring an inclusive and vibrant research culture, from organising and contributing to strategic research awaydays, SRC meetings, to preparing grant applications, identifying funding opportunities, and managing project budgets. SRC also works closely with the School's EDI Committee to promote a progressive EDI environment.

All colleagues (T&R, T&S, R&I) can apply to the SRC budget for (on average) £1,000 individual research funds annually, to support conference attendance and other research expenses. We have been particularly innovative in recently expanding the range of activities people can apply for: Scholarship Projects and Visiting Researchers (both £2000 maximum per application). This is to reflect that, while conference activity is important, this may not always be possible for colleagues due to different personal circumstances (e.g. having caring responsibilities) and that alternative research support may be more useful to them. Unit staff have also been awarded £46K (9 awards since 2014) from the Faculty's Bid Preparation Fund to pump-prime funding applications, resulting in applications to UKRI open calls and, for example, the ESRC New Investigator scheme (**Burns, Fletcher**).

Impact support is integrated in all that we do from our processes and systems to being a standing item on agendas at SRC, ECLS, Centre and Unit research awaydays. Impact is an important element of induction guidance for new colleagues and a consideration in the appointment of new research-active staff. We have pioneered an Impact resource hub (Teams) which includes news, shared documents on impact for all stages/levels; from nascent research and creative pathways to impact for research funding applications, to evaluation of impact from ECRs to professoriate. Staff are also offered the opportunity to have funding grant applications reviewed by the DoI. **Since 2014 Unit colleagues have successfully bid for c.£121K from the Faculty's ESRC Impact Accelerator Fund (ten staff) and c.£21K from additional Faculty impact funds. Staff were also awarded over £75K from NISS on projects concerned with impact and social renewal.**

The Unit's achievements have been supported by substantial infrastructure based in Faculty including Research Funding Development Managers (2FTE), EU and International Funding (2FTE), Business Development Managers (2FTE) and (since 2014) dedicated Impact Officers (2FTE). This is complemented by NU support from Press Office, Organisational Development, IT (invaluable during the pandemic), and library services.

Education occupies a large proportion of a listed building on the main campus, substantially refurbished since 2014 (c.£331K). Ongoing investment in our building structure (c.£500K) is improving accessibility, promoting inclusivity and will align with our future ableism/neurodiversity in academia agenda. This will inform the current structure of individual offices and spaces, and facilitate more dedicated computer clusters and collaborative spaces for staff and PGRs. Refurbishment has also included investment (2016:£40K) in technological facilities e.g. iLab:Learn.(a laboratory for developing educational applications of digital technology) which facilitates collaboration with SOLE Central, Unit staff and PGR students. The Unit is distinct in that it provides a dedicated resource centre for Education student collaborative projects, containing educational resources and a library.

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

**Collaboration is at the heart of everything we do.** Our collaborative relationships span disciplines and institutions in academia, government, industry and the public and Voluntary, Community, Social Enterprise (VCSE) sectors affecting policy and practice to improve economic and societal wellbeing globally, nationally and locally. We have developed academic and practice networks worldwide, as well as (unusually) in developing countries, responding to global challenges. The interdisciplinary GCRF Living Deltas project involves a team of c.120 people across 20+ academic institutions including 50 post-doctoral RAs and 10 international PhD studentships and **Todd** and **Woolner** provide educational expertise. The Water Security Hub involves 49 stakeholder partners, from utilities, industry, local and national government, regulators, professional bodies and the third sector. These 'collaboratories' are based in Colombia, Ethiopia, India and Malaysia which face different development challenges around water security issues.

**Researchers within the Unit are leading innovators in the development, practice and conceptualisation of co-produced research.** This approach is based on the principle of working *with* others, rather than conducting research *on* them. This approach has been used in our research projects and knowledge exchange activities (e.g. Learning City Symposium, 2017) over the last decade, which have led to a range of impacts for policymakers, educators and children and young people. The impact of research into effective ways of performing co-produced research and activity has led to *increased organisational capacity* for effective policy making and changes in policy and practice, e.g. our Children's Communities work and the development of Wallsend's Action for Youth and Action for Play. Impacts on these projects include enhancing understanding and awareness, capacity building, changes in policy and practice, economic benefits, and enhancing wellbeing. A coming together of Newcastle's reputation in co-production and a desire to explore the boundaries of it led to **Laing's** embedded secondment in a school partnership Trust through ESRC IAA funding (2016-18:£10K): with insights presented at BERA's Presidential Roundtable on research pedagogies (2017).

Involvement of young people in the process of co-produced research has also led to young people gaining the skills and knowledge to become community activists to tackle disadvantage in their own communities in Scotland and Northern England. Our approach has informed the practice of co-produced research through a range of outputs including four practice booklets for practitioners, policymakers and researchers. These have been very popular, with 3000 printed copies requested and PDFs downloaded over 50,000 times. These were complemented by a series of practitioner and academic workshops delivered in England, Scotland, Netherlands, Spain, Germany, Vietnam, Brazil, Turkey, Portugal, Hungary, Croatia, Australia, Republic and Northern Ireland. Continuing Professional Development courses for teachers and training in visual methods has reached over 500 academics and students from across the globe. Training materials and sets of practical tools (including comics, postcards, graphics, films) have been made available.

Co-designing projects such as 'Poverty Proofing the School Day' helped reduce the stigma of poverty and level the education field. It was adopted by the Scottish Parliament's Education and Skills Committee in their new strategy 'Cost of the School Day', so far benefitting 10,000 young people. Involving young people in our research has led to CfLaT being the first HEI Unit to be awarded Investing in Children status recognising organizations committed to the human rights of young people.

**We are unique in that we have staff within the Unit whose primary focus is advancing capacity for research and impact in developing countries** and this work has global reach and impact. Our work in international development and SDGs has been instrumental in changing education policy, practice and funding through knowledge exchange. It has enabled grassroots awareness and knowledge exchange amongst communities, philanthropists, governments and NGOs. Practically, it has influenced the operation of public-private partnerships in post-conflict zones within Liberia and Sierra Leone, the establishment of school chains in Africa and changed how children learn to read English in India and Nigeria through the development, implementation and research of curriculum packages.

The ESRC (UKRI), DFID and USAID recognise the contribution our work has made to improving attitudes towards schooling, resulting in changes in the allocation of research funding. Our research has resulted in c.0.5M children being provided with schooling over the last decade in Kenya, Uganda and Nigeria. Our research around phonics and curriculum development has allowed 105,000 government primary teachers in Nigeria to undertake continuing professional development: this impacts on 8M children. Our research has changed the way international aid is allocated through DFID with hundreds of millions of pounds being invested to improve and support schooling for children from deprived socio-economic backgrounds. Internationally we are working with partners in India, Africa and South America to explore the links between education policy and SDGs including girls' empowerment (SDG5), climate action (SDG13), water and sanitation (SDG6), pollution and health (SDG3).



**SOEs have been instrumental in developing new educational systems across the world, innovative pedagogical practices, and fundamentally enabling children to access education in circumstances where they would not otherwise.** The impact has been global with documented SOEs appearing in over 50 countries across 5 continents, involving 2.5M children worldwide. Students have benefitted from improved access to use technology to learn computer skills, group interaction skills and improved wellbeing and agency. SOE research has also impacted on the development of national educational policy in the Ukraine, Trinidad and Tobago and Columbia. SOE's positioning as transformative innovative practice is discussed in the *Palgrave International Handbook of Alternative Education*. Understanding the ways teachers use SOEs has revealed the extent to which teachers have been inspired by presentations, class demonstrations and considerable media presence and reached out to the SOE team for research-based guidance, unlike a more conservative research model where researchers may embed an innovation in specific classrooms. This speaks to the disruptive and agentic nature of SOEs in invigorating these complex and iterative (and self-organised) relationships between the research and its many forms of impact.

**Part of our strategy since 2014 has been to extend and maintain our European networks** through our extensive systems of support including: presenting at international conferences (through SRC funding), exchanging visiting scholars, bid preparation support and mentoring, and network meetings. This considerable activity has led to several successful new partnerships, which has led to consolidated collaboration for bid writing, resulting in successful outcomes of funded research. With national negotiations we hope to continue our engagement with European networks and funds.

We have received considerable funding through several Erasmus+ projects which demonstrate a strong interdisciplinary research base with collaborative partnerships. The EIT Health project (**Leat, Thomas**, 2019:£12K) uses narrative approaches and socio-cultural theory to develop resources for health professionals to develop person-centred practice, drawing on work on professional learning and thinking skills. The ITELab project (Initial Teacher Education Lab) (**Leat, Tiplady**, 2017-19:€996K), included the co-production and testing of innovative approaches to support the development of digital pedagogical competences of student teachers. Outputs from these projects have influenced the way teachers teach, are trained and develop confidence and best practice relating to teaching in the digital world. The ROMtels project led to an improved education for Roma pupils leading to considerable improvements in attendance and achievement. Roma pupils and their families face persistent social and education disadvantages and exclusion across Europe, so this impact is significant (ICS:23-1\_Smith). Parents' involvement as co-participants in the research was emancipatory, transforming their self-perception as language experts leading to new ways of working with schools benefitting their children's learning.

Such examples evidence that we now collaborate with other university colleagues in different disciplines across Europe and many of these projects have developed our capacity and enthusiasm for engaging with partners from outside academia. We led the world-leading ACCOMPLISSH project (13 universities from 12 countries) to develop approaches and tools for encouraging impact through the co-creation of social science and humanities research responding to societal challenges by working with voluntary, community, government and industry partners. Our work enabled the creation of new networks, and influenced Universities across Europe to develop systems, structures and conditions to encourage engagement outside academia. Another example is the N8 Policing Research Partnership work (**Clark**) HEFCE catalyst project 'Innovation and the Application of Knowledge for More Effective Policing' (2014-21:£7.5M). This cross-disciplinary project builds on collaborations with the N8 universities, police forces and partners and is transforming the ways in which researchers engage with policing partners in research co-production.

**Alongside our global reach, we embrace being a part of a Civic University** and Unit staff are actively supporting and shaping the University's Engagement and Place Strategy (ILES 2.1.2). We have long-established relationships with VCSE organisations, their service-users and



professional communities of practice. We have strengthened our engagement with partners through our work locally, responding to local social justice challenges. We are acutely aware that half of all children on the doorstep of the University live in poverty. **Laing** and **Todd** have responded to this by drawing on our previous research to develop a Children's Community, bringing together c.70 local organisations into a collaborative partnership. By using co-produced approaches to research, we have increased organisational capacity for effective policy-making and delivery and changes in policy and practice. As a result, the Children's Community has taken a more considered approach and has run strategic projects including co-ordinating children's summer activities and the development of an area-based play strategy. Our work has thus directly influenced the development of the educational strategy of area-based approaches, and enabled organisations to secure funding in the region of £0.5m to continue to deliver front-line services to young people.

**We are, through our research, responding to current educational policy and practice challenges regionally, nationally and internationally.** These include regional challenges regarding having a workforce to meet the growth sectors in the North East. Our Project Based Learning (PBL) projects (**Leat, Thomas**) use a co-production approach involving partnerships with local employers and the NE Local Enterprise Partnership. These projects have supported schools to address the new statutory careers education guidelines in England and to address these specific challenges for the region. So far, this approach has involved 90 partners and 50 schools across the Netherlands and UK. We have recently developed the North East Outdoor Learning Research Hub (Facilitators: **Clark, Fletcher, Tiplady**), a dynamic network (the first in the region), to bring professionals in education, health, outdoor practitioners and researchers together to share and support research and to impact upon policy and practice in outdoor learning. Through such networks we engage with users and impact on outcomes.

**Unit staff contribute significantly to the subject discipline through many leadership roles.** Colleagues have played key roles in British Educational Research Association (BERA): elected council member 2012-2017 (**Todd**); BERA Special Interest Group Convenor for Research Methodology in Education, **Todd**: 2008-2016 and **Smith** as vice chair of UCET's (Universities Council for the Education of Teachers) Research and International Forum. **Our editorships represent a broad disciplinary and international base**, including: Division of Educational and Child Psychology; International Journal of Research and Method in Education; Curriculum Journal; Narrative and Conflict; Higher Education Research; Praxis; and Applied Education in Engineering Sciences. **Our reviewing expertise is substantial**, including: British Educational Research Journal; International Journal of Inclusive Education; Teaching and Teacher Education; Teacher Development; Video Journal of Education and Pedagogy; Journal of Speech, Language, and Hearing Research; Drugs and Alcohol Today; Contemporary Social Science; Educational and Child Psychology; Evidence and Policy.

The Unit has benefited from 20 international visiting scholars since 2014, which have led to sustained collaborative activities including conference symposia and events, co-authored journal articles and project partnerships. This led to colleagues taking the lead on the European Educational Research Association networks 2012-2019 (**Laing, Leat, Todd**). Colleagues have been recognised for their contributions to the discipline through a variety of prizes and awards: British Psychological Society 2017 Award for Distinguished Contribution to Educational and Child Psychology (**Gibbs**); Member of the Most Excellent Order of the British Empire for Services to Education in 2016 (**Humble**). Our Forest School project (**Tiplady**) was awarded the Outdoor Learning Research Award (2018), and the ROMtels project (**Smith, Wysocki**) was shortlisted in the THE Awards 2020 for research project of the year (arts humanities, social science). **Woolner** and **Burns** were awarded a British Academy Rising Stars Award for 'Art and SOLE' (2016-17:£15K). **Todd** received the award for Outstanding Listening and Action by Tyne and Wear Citizens (2017) for the Fair Work Campaign for Real living wage at NU. The FaSMEd project received the Scientix 6th STEM Resource Award and winner of a NU 'Celebrating Success' Award (**Clark**). Colleagues have received considerable recognition for excellence in research supervision, with nominations in 2019, 2018 and 2017 for NU Students' Union Supervisor of the Year Award across the Faculty (**Walker-Gleaves**).

**The societal contribution of our research is significant and far-reaching:** from changing the face of teaching through thinking skills, to the development of SOLEs, to advancing the teaching of reading of English in schools in Delhi. **Our research is focussed on benefitting the lives and education of people living in vulnerable circumstances, and in advancing innovative pedagogies and education spaces.** Our research is co-produced, engaged, creative and world leading, advancing pedagogies for equity and conceptual frameworks. We produce accessible resources emanating from our research for parents, teachers, schools, Universities, school consortia, charities and organisations thereby enabling impact which is powerful and transformational in changing attitudes, understandings, practices and policies.