

Institution: University of Bristol
Unit of Assessment: 23: Education
1. Unit context and structure, research and impact strategy

Unit Context and Structure

The School of Education at the University of Bristol (UoB) is a recognised centre of research excellence and methodological innovation. Since REF2014 the School has undergone a period of revitalisation and growth, with significant University investment seeing us expand from 34.5 FTE staff submitted in REF2014 to 42.3 FTE submitted in REF2021.

The School's aim is to ensure that education can positively contribute towards the realisation of more sustainable educational futures in an increasingly uncertain world. We seek to do this by undertaking interdisciplinary research that spans schools, universities, informal learning and comparative education, co-produced with local and international partners and guided by shared principles of social, environmental and epistemic justice. Our work is underpinned by an intellectually vibrant, inclusive and nurturing research environment, with a particular focus on supporting Early Career Researchers (ECRs) and integrating postgraduate and postdoctoral researchers into our research community. The success of our approach is evidenced by our ability to attract significant funding for research (£8.1m during this REF period), by our production of quality outputs in leading journals, book series and monographs, by our high-profile media contributions and by the significant external impact of our research. We contribute to the strength of the wider education sector through active participation in research councils, learned societies and research training and capacity development – both national and international.

Growth and the addition of undergraduate teaching to our portfolio, including in the psychology of education, has generated the emergence of new areas of research strength. Today, our research is organised around the work of five research centres: four that focus on substantive areas of educational inquiry and one whose focus is primarily methodological. These centres are directed by leading professors in the field, supported by emerging scholars.

- **The Centre for Comparative and International Research in Education - CIRE** researchers address issues of social, environmental and epistemic justice in education theory, policy and practice with a comparative sensibility to global-local dynamics. Directors: Tikly with Paulson, Mitchell.
- **The Centre for Psychological Approaches for Studying Education - PASE** focuses on understanding developmental, social and cognitive processes relevant to education and facilitating inclusive education policy and practice. Directors: Allen with Rose.
- **The Centre for Teaching, Learning and Curriculum - TLC** addresses questions relating to teaching and learning in schools, universities, the community and out-of-school contexts, with a focus on issues of social and environmental justice in co-production with teacher educators and practitioners. Directors: Coles with Oldfield, Brownhill, Helme.
- **The Centre for Higher Education Transformations - CHET** researchers represent a broad range of disciplinary traditions to inform critical analyses of higher education and explore higher education as transformative practice for sustainable futures. Directors: Watermeyer with Lucas.
- **The Centre for Multilevel Modelling - CMM** primarily focuses on producing new statistical methods and software for tackling research questions and disseminating these techniques

to the social science community through bespoke training. Researchers utilise advanced statistical methods to inform, analyse and critique education and other areas of social policy. Directors: Browne, Leckie.

The centres provide staff, postgraduate and postdoctoral researchers with an academic ‘home’ that reflects the substantive focus of their research (domain or methodological oriented) and supports a thriving research environment through targeted research activities and mentoring. We also operate two cross-cutting research networks that foster focused dialogue between researchers and wider communities of practice within the education sector: Mathematics, and Language and Literacy. Cross-pollination of ideas is supported through regular School-wide writing retreats and research development days, and our weekly seminar programme (*Bristol Conversations in Education*). We celebrate research and impact successes through research soirées, newsletters, School assemblies and by publishing [Impact Stories](#) on our website.

Research and Impact Strategy

The research and impact strategy is led by our Research Director (Manchester), in partnership with our Impact Director (Thomas) and Postgraduate Research (PGR) Director (Orchard). It is supported by a dedicated School Research Manager (Cox), two Research Administrators (Haslam, Smith), and a Communications and Marketing Team (Backwell, Rossiter). A research committee that includes centre and network leads, and ECR and PGR representatives, regularly reviews our strategy, and centre and network directors report to the committee against agreed objectives. Strategy is also informed by participation in Faculty Research and Ethics Committees and colleagues’ leadership roles in University Research Institutes (URIs; see Institution Environment Statement: REF5a).

Our strategy places collaboration and partnership at the centre of all stages of the research cycle. The success of this distinctive approach is evidenced by our excellent research outputs; our wide-ranging impacts (see Impact Case Studies [ICSs]) and Impact Stories on our School website; our successful grant capture (Section 3); and in our extensive partnerships and collaborations (Section 4). Our strategy ensures that all researchers are supported and actively encouraged to engage in impactful, interdisciplinary work within and beyond our centres and networks (Section 2).

We have had considerable success delivering the strategic **objectives set out in our REF2014 environment statement**, exceeding expectations in a number of areas:

1. Promoting knowledge co-production

We have significantly contributed to the theory and practice of knowledge co-production nationally and internationally. Facer’s six-year AHRC leadership fellowship directing the UKRI ‘Connected Communities Programme’, a £40m national research programme aimed at building national capacity for university-community collaborations, has impacted directly on UKRI research funding guidance and practice in relation to co-production. Manchester’s development of multi-disciplinary collaborative methodologies in health was selected by the AHRC as one of their ten highlights in their 10-year celebrations. Central to our commitment to co-produced research and impact development is early upstream engagement with partners in research design. This approach is embedded across our research centres, where national and international partnerships are created and sustained through support from our wider infrastructure and facilitates (Section 3). Examples of significant impacts include: Coles’s collaboration with the National Centre for Excellence in Teaching Mathematics (NCETM), leading to changes in practice in over 8,000 primary schools in the UK and informing national policy in Mexico, and Howard Jones’s collaboration with teacher

educators and the International Bureau of Education, resulting in the take up of new neuroscience-informed approaches to teaching and learning (see ICSs).

2. Development of scholarship in the area of higher education and widening participation

Our research in Higher Education (HE) has strengthened substantially through the appointment of three professors (McFarlane, Watermeyer, Shields) and one lecturer (Abrahams). Alongside Lucas and Timmis, they launched our new research centre focusing on HE transformations. This built directly on our excellent research early in the REF period in knowledge economies, broadening our focus in line with our strategy. Significant contributions include Abrahams's impactful research on social class and social mobility; Watermeyer's critical research in response to issues of digital exclusion (particularly relevant in the context of COVID-19 and the REF process); and Macfarlane's work on the ethics of teaching and learning.

We have also continued to develop our scholarship on widening participation. This includes Timmis et al.'s (ESRC £487K) Southern Africa Rurality in HE project which has improved policy and practice to enhance HE access and participation for students from rural communities (see Impact Story) and our research on the relative attainment of BAME and socioeconomically disadvantaged learners in Bristol (Tikly, Rose, Washbrook) which has fed directly into UoB planning. Strategic appointments in the sociology of knowledge and racial justice (Sriprakash) and comparative and international development (Mitchell) have enabled us to expand our research on widening participation to address issues of epistemic exclusion and justice in HE. This is crucial in the wake of the Black Lives Matter movement, the fall of the Colston statue in Bristol, and the recognition of how UoB has benefited from the slave-trade. Our researchers are also actively involved in developing UoB decolonisation activities; this includes hosting visiting Professor Boaventura De Sousa Santos, Tikly's work with the Bristol Institute for Learning and Teaching to establish a cross-university community of practice on decolonising the curriculum, and Barrett's work with the South West Doctoral Training Partnership (SWDTP) on decolonising research.

3. Strengthen our research in improving educational outcomes and aspirations

We have strategically grown our expertise in improving educational outcomes through the recruitment of internationally-recognised experts (Rowse, Allen) and have made substantial research contributions in areas including: children's literacy (Rowse), aspirations (Baker), understandings of typical and atypical language and cognitive development amongst children in educational contexts (Allen, Sedgewick, Knight, Howard); and, the social and demographic factors that influence educational outcomes (Washbrook). Our applied partnership research in this area has also resulted in significant impacts, including: Leckie and Thomas's research improving national policy on the Progress 8 measures and school evaluation in China (see ICS); Barret and Tikly's research, in collaboration with the University of Rwanda, developing language supportive textbooks and pedagogy to raise learning outcomes for disadvantaged groups of learners in Africa; and Bakopoulou's research on raising learning outcomes of boys in Bristol. Our commitment to conducting impactful research in partnership, has been bolstered by Paulson's GCRF-AHRC (£2m awarded 2019) Education Justice and Memory (EDJAM) Network-Plus focusing on inclusive and equitable quality education and lifelong learning opportunities for all in Colombia, Cambodia, Uganda and Pakistan.

4. Contribute to sustainable development and wellbeing

Environmental sustainability has become a growing focus for our work. Strategic leadership positions include: Facer's 20-month secondment (01/03/2019-31/10/2020) to the Zennström Chair

in Climate Change Leadership at Uppsala University, Sweden, to focus on HE and climate change; and Tikly's appointment as a UNESCO Chair in the area of Inclusive, Good Quality Education working towards achieving Goal 4 of the Sustainable Development Goals. Our research contributions on sustainable development include: Shields's publication of the first analysis and forecast of carbon emissions from global flows of international student mobility; Facer's publication of the Higher Education Policy Institute's first intervention on universities and climate change; and, Coles's impactful World University Network funded project (£26K) which examined ways of bringing community environmental concerns into the scope of lessons in primary schools in Mexico (see ICS). Our contributions have recently been strengthened through Tikly's Network-Plus (GCRF £4.75m awarded in 2019) Transforming Education for Sustainable Futures (TESF) project that brings together an interdisciplinary team of scholars, educators and grassroots community organisations in Somalia, Rwanda, South Africa and India, to develop insights into education's role in supporting sustainable cities, livelihoods and climate action; Shields and Paulson's JustEd project (ESRC £1.4m led by Bath University) which focuses on the relationship between education and epistemic, environmental, and transitional justice in Nepal, Peru and Uganda; and Howard-Jones's GW4 (Bristol, Bath, Cardiff and Exeter) Climate Change Education Network (£13.5K), which brings together 60+ teachers and researchers from across the South West to develop new approaches to climate change education.

Our research on wellbeing has continued to develop and includes Manchester's Tangible Memories (AHRC £383K) and Parlours of Wonder projects (AHRC £80K) which explored the use of objects and storytelling in care homes to build social connections and improve older people's quality of life (see Impact Stories) and her co-produced work on older people's experiences of isolation and loneliness (ESRC £50K; ESRC IAA £50K). Sedgewick's and Lynton's research on student wellbeing and mental health also contributes to this strand, as does Wenham's research with Year 11-13 students exploring the mental health effects of the COVID-19 pandemic which has been featured in several media contributions and journal articles.

5. Inter- and trans-disciplinarity

Interdisciplinary thinking is actively supported by our research centres, in our *Bristol Conversations in Education* seminars and through high levels of staff involvement in cross-university research collaborations. Significant projects that give a flavour of our commitment to interdisciplinarity include Browne's research with colleagues from education, veterinary science, computer science, sociology and social statistics across several partner universities that developed statistical software (with over 15,000 downloads, see ICS); Sutherland and Manchester's work on the Productive Margins project (ESRC £5m awarded to Bristol) with colleagues from Law, History and Drama, and nine community organisations, and which resulted in the co-design of new regulatory processes; Thomas's work (see Leckie, Thomas ICS) on the 'Progress of looked after children' project (Nuffield Foundation £150K) with social workers, sociologists and statisticians, resulting in the DfE reporting separately on the educational outcomes of children "in need" and prompting the launch of a large scale Department for Education (DfE) review; and, Paulson's MEMPAZ project (AHRC £403K), with educators working alongside historians, civil society organisations and the truth commission in Colombia to inform transitional justice and education programming (see Impact Story).

During the assessment period, our approach to promoting and sustaining research impact has increasingly been informed by the gains made from putting academic knowledge into dialogue with local community knowledge. This is exemplified by Manchester's establishment of UoB's 'City

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Fellows' programme to build long-term institutional collaboration between Bristol city and UoB (see REF5a) and by Tikly's and Paulson's GCRF Network-Plus awards which prioritise dialogue between academic and local knowledge. Our inter- and trans-disciplinary work is also supported by the URIs. Browne was the founding director of the Jean Golding Institute on data science, Facer and Manchester were founding members of the Brigstow Institute (specialising in co-produced research in the humanities and social sciences) and our staff are active in the Migration Mobilities Bristol Specialist Research Institute (SRI; Paulson, Giampapa and Sharples) and work closely with the Elizabeth Blackwell Institute on mental health, education and diversity (Sedgewick, Wenham) and with the Bristol Digital Futures Institute (Manchester, Facer, Oldfield, Grant).

6. Diversification of funding streams

Since REF2014, we have continued to successfully diversify our funding streams in line with this strategic objective (see Section 3 for full details).

Future Strategy

Our strategy beyond 2021 will focus on sustainable futures, addressing urgent contemporary challenges of national and international concern. This will include evaluating the social, epistemic and environmental impacts of COVID-19. We believe that our depth and strength across multiple fields means we are well placed to respond to changing policy and funding priorities. Our enhanced staff base, with excellent talent at all levels, means we are in a strong position to deliver on this strategy. Our recent significant funding successes provide a firm foundation for whole School research and impact activity over the next period and our School, Faculty and University infrastructure for developing research funding and career progression remain outstanding (see REF5a).

Our strategic goals are:

1. To continue to make significant contributions to research addressing the challenges of social, environmental and epistemic justice for sustainable futures

The next period will see our research centres sharpen their focus on the contribution of their work to education for sustainable futures – understood as addressing issues of epistemic justice, social inequalities and environmental change. We have four key infrastructures in place to support our research and impact in this area: the two GCRF Network-Plus grants that are already providing methodological leadership in the School; the newly awarded GW4 Climate Education network; our new partnership panel of local civic partners with whom we will be co-developing research agendas (inaugural meeting, Spring 2021); and the launch of an Educational Futures network (January, 2021) which will build dialogue across our centres and strengthen methodological and collaborative capacity between them. To bolster these collaborations, the School will work towards a conference on Education for Sustainable Futures in 2023, supported by major publications in the School's two book series with Routledge and Bristol University Press. The work will also build on the School's ongoing and deep collaboration with UNESCO's Futures of Education 2050 Programme.

2. To build on our methodological diversity to strengthen our commitment to inter- and trans- disciplinary research in partnership and collaboration

One of the School's key strengths is its methodological diversity. We will continue to innovate in the collaborative development of new statistical methods and software design in CMM and in our use of advanced quantitative methods across our centres. We will also strengthen our model of co-

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producing research through partnerships with teacher educators and by drawing on Manchester's involvement in developing UoB's Civic University strategy and her pioneering work with the City Fellows programme (see REF5a). A focus for the School will be on harnessing our methodological diversity to develop excellence in mixed-method approaches to inter- and -transdisciplinary educational research that embraces open practices and has maximum research impact. We will achieve this through facilitating collaborative research projects, fostering methodological exchanges in our public *Bristol Conversations in Education* series, in regular methodological research development events and by collaborating within and across URIs in line with UoB strategy (see REF5a).

3. To sustain and grow a thriving research environment for our staff, PGRs and postdoctoral researchers

In these challenging times for the sector protecting our strong research culture will be vital in ensuring the continued development of our high-quality research and impact across our diverse staff and student base. To achieve this, we will:

- Sustain our commitment to wellbeing support, active mentorship and career development for our staff, PGRs and postdoctoral researchers;
- Invest in EDI, specifically targeting Race Equality Commission and Athena Swan awards (minimum bronze);
- Support our research centres to continue to build strong, inclusive, thriving communities;
- Strategically recruit staff and grow our community of PGRs and postdoctoral researchers in key areas of strength and aligned with our commitment to EDI;
- Support staff research through dedicated research time and access to study leave;
- Incentivise a balanced portfolio of ambitious but achievable grant capture through targeting opportunities and mapping against staff strengths in close collaboration with UoB's Research & Enterprise Development (RED) team;
- Work with the URIs/SRIs to support our researchers to connect with others, to build large-scale multidisciplinary grant success and produce high-quality outputs;
- Sustain our commitment to facilitating research impact through collaboration with RED;
- Strengthen our local, national and international partnerships in training and research.

Research Integrity and Open Research

Our research is conducted to the **highest ethical standards** consistent with UoB, UKRI, BERA and British Psychological Society (BPS) codes of practice. All of our research is subject to rigorous ethical review, including internal review of grants before submission, and our researchers are required to discuss ethical issues in paired conversations with other researchers to increase ethical reflection. Our expertise in ethical practice has shaped UoB conversations on the ethics of co-produced research (Manchester, Facer and Dunleavy), informed UoB's Global Challenges Steering Group (Barrett); and contributed to UoB's development of ethical guidelines for equitable international partnerships (Tikly, Facer). We are also **committed to open research** supported by excellent UoB initiatives and infrastructure (see REF5a). Led by CMM and PASE our researchers are actively embedding open research principles into their research practices, for example through making research data openly available, publishing registered reports and uploading pre-prints to the Open Science Framework. We will strengthen this commitment over the next period in line with good research practice.

2. People

Staffing Strategy

This REF period has been one of reinvigoration and significant change in the School as we have grown, created new undergraduate programmes and revised our research strategy. Our submitted staff base has increased to 38 full-time and seven part-time staff members representing 42.3 FTE, up 22.6% from 34.5 FTE in REF2014. At the same time we have reduced the proportion of our submitted staff on fixed-term contracts from 9.8% in 2014 to 5% in 2020, seeking, as far as possible, to offer colleagues permanent contracts in line with UoB strategy (see REF5a).

We have targeted staff recruitment, made possible due to departures, retirements and significant University investment in the School, towards refocusing and strengthening our research efforts in line with our strategy. During the period we have made 21 appointments that purposefully span across all career stages. This has enabled us to build a high-quality and high-energy team of Professors able to provide research leadership and mentorship for an excellent cohort of ECRs, who represent 9 FTE of our staff base. The profile of submitted staff includes: 13 Professors (four female, nine male), nine Associate Professors (eight female, one male), 11 Senior Lecturers (eight female, three male), 12 Lecturers (eight female, three male) and one Research Fellow (female).

Whilst our focus has been on expanding our permanent staff base, we have also strategically grown our postdoctoral community in areas of research importance through our winning of two UoB Vice-Chancellor (VC) Fellowships (see REF5a) and two BA postdoctoral fellowships. This includes: Grieve's VC Fellowship which focusses on the co-production of knowledge anchored in the lived experiences of adolescent girls in Sub-Saharan Africa; Lynton's VC Fellowship, working strategically within UoB and national organisations on student well-being; and Stockfelt and Simmons' BA Fellowships on educational aspirations and outcomes for Black Caribbean males and on sociability in children with profound and multiple learning disabilities.

Staff Development

We seek to create an active and inclusive research culture, mentoring and developing staff at all levels, and offering robust training and support for our ECRs and postdoctoral researchers. All staff have dedicated research time built into their workloads: at least 35% FTE for those on teaching and research contracts; and 10% for those on teaching only contracts. To create sustained time for research we prioritise blocking teaching and shifting administrative commitments where possible, and support staff to identify research days away from meeting and teaching commitments. All staff are also entitled to apply for a term of research leave. Since 2014, we have supported 14 colleagues (11 women and three ECRs) to take research leave. Two of our staff (Washbrook and McKeown) have also been awarded competitive University Research Fellowship awards, which provide a year of support for academics to work on their own research agendas. All staff have access to internal research funds (up to £1.5K per year) to enable participation in international conferences or, in recognition of EDI and sustainability priorities, to support other forms of research development that may not involve international travel. All research grant time is recognised and honoured in workloads.

We **actively support career progression** through structured mentorship and development. Promotion criteria recognise activity in four key areas: research, education, engagement & impact, and leadership & citizenship – dependent on the pathway and grade (see REF5a). Annual staff reviews, conducted by the professoriate, support colleagues to identify their development needs in

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each of these areas. These needs are met through active, inclusive mentorship, formal training and informal support within research centres. Specifically, **all staff are paired with a research mentor**, with whom they meet with regularly to discuss research plans and development needs. For new staff, formal service reviews are completed at six months (interim service review) and 12 months (final service review) to provide early feedback and support for development. Research centres meet at least every two weeks, providing all staff with ongoing opportunities to engage in academic debate and scholarship through themed reading groups, work in progress and reflection sessions. All staff are actively supported to engage in CPD and UoB offers sessions on a wide range of research related activities as well as year-long courses in academic and research leadership skills, which we expect all staff seeking to progress to the next grade to engage with.

The success of our strategy for developing staff is evidenced by the School's promotions record. In the current REF period eight colleagues were awarded Personal Chairs (three female, five male); 12 colleagues were promoted to Associate Professor (nine female, three male); four colleagues (all female) secured 'accelerated' progression from Lecturer to Senior Lecturer; and 14 colleagues (11 female, three male) progressed from Grade K (Lecturer/ Research Associate) to Grade L (Senior Lecturer/Senior Research Associate). We also have a strong track record of supporting Initial Teacher Education (ITE) colleagues to conduct PhD research (currently four staff) through fee waivers and allocated time.

Teaching pathway staff are actively encouraged to engage with both mentoring programmes and research centre activities and are supported to develop research proposals. Successes include: Kelly's funded research on diary writing and teacher wellbeing (Brigstow Institute £3.7K; ESRC £3.5K) and Smith's research on KS3 students' understanding of the links between maths and art (Hepworth Wakefield £2K). Our **ECRs** are supported through targeted activities at School, Faculty and University levels. This includes skill-based workshops on grant writing, publishing and career development in the School. The Faculty ECR network offers targeted support and networking opportunities. Where possible, the School prioritises ECRs in the allocation of School research funds (e.g. grant capture fund, see Section 3) and offers substantial support for ECRs who wish to apply for research funding. All ECRs are also supported to complete the University-wide Cultivating Research and Teaching Excellence Programme (CREATE – see REF5a), leading to fellowship of the Higher Education Academy. Since 2014, 13 staff members have successfully completed level 1, nine level 2 and two level 3 of the programme.

Our **postdoctoral researchers** are supported through both UoB's commitment to the Researcher Development Concordat and the wide range of career development and mentorship opportunities available within and outside of the School, including the Bristol Clear programme (see REF5a). The success of these support mechanisms is evidenced in the career progression of our postdoctoral researchers. For example, BA postdoctoral fellows Simmons and Stockfelt have moved on to prestigious positions as lecturer in education at Bath Spa University and as postdoctoral researcher at the University of Gothenburg respectively.

PGR Training and Support

The School is a thriving centre for PGRs conducting high-quality research as part of our research centres and networks. This community currently comprises **229 doctoral students** (73 registered for the PhD, 58 for the EdD Bristol programme and 98 for the EdD Hong Kong Programme). Our PGR training and development strategy is led by our PGR director (Orchard) with support from our

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PhD programme director (Yu) and our EdD Bristol and EdD Hong Kong programme directors (Giampapa and Shields).

The high-quality of our PGRs is evidenced in the number of **secured scholarships from competitive schemes**, this includes: 11 ESRC scholarships, five University of Bristol Studentships and 33 competitive government scholarships from 11 different countries during the period: Chile, Saudi Arabia, Dominican Republic, Indonesia, Mexico, Kazakhstan, Bahrain, Pakistan, Malaysia, Oman and Malawi. We are committed to capacity building to support securing scholarships and offer 1-1 support with prospective PhD applicants in preparing their research proposals as well as application workshops for current Master's students.

The School is proud of and committed to excellent PGR training and support. Our in-School supervision involves two supervisors, annual progress monitoring, an 18-month academic review process and a programme of ESRC approved compulsory research methods, research design and educational philosophy units taken in Year 1 as part of the SWDTP. The ESRC SWDTP has been led, since its inception, by members of the School, who bring that expertise to bear in regular reviews of our programme. Our MSc Educational Research programme (led by Bakopoulou) is a programme in the SWDTP education pathway and our staff regularly teach on both the education and advanced quantitative methods pathways.

All our PGRs are encouraged to play an **active role in our research centres**, to participate in writing in progress sessions and methods workshops, to make formal presentations of their work at inter/national conferences and are supported to develop these presentations for publication. They are also invited to present in our Bristol Conversations in Education series, for example a 2020 panel saw three of our PGRs present their work on epistemic justice in education. The success of our approach to PGR supervision is evidenced in high numbers of completions across our PhD and EdD programmes. During the assessment period a total of 229 students were awarded doctorates, fully or co-supervised by colleagues in the School: 102 PhD and 127 EdD (72 Bristol and 55 Hong Kong). The proportion of REF-eligible doctoral awards supervised by staff in the School is reflected in Table 1 (REF4a data). Yearly fluctuations in awards align with admission and scholarship numbers, EdD programme re-structuring, the removal of the EdD Hong Kong from the HESA data later in the period and staffing changes.

Table 1: PhDs and EdDs awarded, by proportion of School of Education supervision

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
PhD	13.5	16.3	11.7	19	12.75	6.33	12.6
EdD (Bristol and Hong Kong)	22	22	16	23	11	7	5
Total	35.5	38.3	27.7	42	23.75	13.33	17.6

PGRs are an integral part of our community. A representative at each of the Master's and Doctoral levels is selected by the student body to represent their interests and share their expertise at Research Committee and Teaching and Learning Committees. **PGRs are also eligible to apply for research funds** in the School and impact funds at University level and are given dedicated access to desk space and computing facilities in three rooms within the School available 24/7. PGRs are fully integrated into UoB's doctoral community through their membership of the Bristol Doctoral College where they benefit from state-of-the-art facilities and opportunities to apply for funding to support their research and public engagement activities and to participate in cross-

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disciplinary seminars and workshops. UoB also provides a range of development opportunities – such as thesis bootcamps and writing support - that facilitate successful completion (see REF5a).

To support **career development** and in addition to 1-1 support from supervisors, the School Careers and Employability lead (Howard) and UoB's Careers Service support PGRs in identifying and achieving their career goals. As part of their academic career development, PGRs can apply for paid teaching assistant positions and research assistant positions supporting research centres. For instance, in 2019-2020, nine of our PGRs and two of our Master's students worked on our mixed portfolio of research projects and five PGRs were also employed to support our research centre activities.

PGRs are also encouraged to publish their research in leading journals and to present their research at conferences, supported by their supervisors and research centres. The School's Annual Doctoral Conference, organised by our PGRs, is an important focus for building research capacity and is now run in collaboration between Bristol and Hong Kong students. In 2020, our PGRs ran this conference fully online and attracted a global audience of 142 participants, enhancing the academic conversation and networking opportunities for our PGRs.

Many of our PGRs have gone on to secure prominent positions or win competitive fellowships. For example, Roney (Lecturer in Education, Brunel University); Dermalip (Senior Manager in Scoring, Pearson); Kedzierski (Lecturer in Education, UoB); Stockfelt and Simmons (BA postdoctoral fellowships); Ruiz-Cabello (ESRC postdoctoral fellowship awarded in 2020); Munoz-Chereau (GCRF Fellowship, Research fellow position, UCL).

Equality, Diversity and Inclusion

Our commitment to EDI is evidenced in all areas of our work. There are real areas of strength, and areas where we are continuing to work hard and are aware that much more needs to be done – particularly in the light of our commitments to address Bristol's history of slavery and our desire to decolonise our curriculum.

We have an active **EDI committee** and every School committee has a standing EDI agenda item. The EDI committee raises awareness through School-based events and has made substantial changes to practice including how students' Disability Support Statements are made available to staff, spearheading the **School's response to the Black Lives Matter** movement and UoB's role in the slave trade, and working to address unconscious bias in recruitment processes. **UoB's REF2021 code of practice emphasised a commitment to equality and diversity:** UoA coordinators received EDI training (including in unconscious bias) and received a detailed EDI breakdown of draft output submissions. When selecting between outputs of equal quality, protected characteristics, as well as the of the spread of outputs across individual members of staff and their career stage, were fully considered.

The School leads the teaching and learning strand of the UoB-wide application for 'bronze' status in the **Race Equality Charter** and we currently working towards bronze School-level **Athena Swan recognition**. Of our academic staff, 78% identify as White (down from 85% in REF2014), 66% are women and 59% of our Professors/Associate Professors are women. We are proactive in encouraging women to apply for new positions and promotion; three out of four new Associate Professors appointed in 2018 were women and three women were appointed to Associate Professor in 2019.

All staff, regardless of contract length/type or career stage, are eligible for research leave and for internal funding. In 2019/20, six out of nine successful applications to our grant capture fund were awarded to ECRs, one to a mid-career scholar and two to professors/associate professors. Five of these were women and four men. **Flexibility** is also offered in how staff can use School research funds (e.g. for RA time, equipment etc), recognising that, for some, caring responsibilities can make conference attendance difficult. At a School level, we schedule meetings and seminars for school-friendly times, enabling staff with caring responsibilities to attend through avoiding problematic timings. We also make exceptions to our conference policy for carers and staff with illnesses, which in accordance with UoB's declaration of a climate emergency requests staff to avoid air travel where possible. At a University level, staff can also access the Maternity and Carers Coaching Service, join the Parents and Carers Network and apply for support to develop research from the Returning Carers Scheme. Two female staff members have directly benefitted from the Returning Carers Scheme in the last two years.

Support procedures are also in place for staff to enable flexible working as well as to ease the transition for staff who are returning from a period of leave. For example, staff are supported with phased returns to work following illness or bereavement and we have a system of 'keeping in touch days' for those on parental leave. Similarly, students are supported to extend or suspend their studies should they need to during periods of ill health or due to caring responsibilities.

Staff, PGR and postdoctoral researcher wellbeing is prioritised. The School has two mental health champions who focus on promoting staff and student mental health. We also have dedicated student wellbeing advisors who are available in the School and within residences – the latter available 24/7. Centrally, PGRs have access to the Students Health Service, Disability Support, day nursery for students with children, support for students leaving care, faith and spiritual support and international student support. Staff can also access counselling services, staff development for wellbeing, events and campaigns, resources and Employee Assistant Programme (EAP) as well as a 24-hour helpline provided by our insurers.

3. Income, infrastructure and facilities

Our thriving research culture is supported and sustained by excellent facilities and excellent administrative and professional support at School, Faculty and University levels (see REF5a). This infrastructure, coupled with the significant financial investments the University has made in the School since REF2014, has enabled us to foster a research environment centred on capacity building and driven by our strategic aims. The success of our approach to supporting research and research impact is evidenced by our large-scale funding successes, high-quality outputs and important research impacts.

Research Income

Since 2013, we have secured approximately £8.1m in research income, including £5.45m from UKRI and the British Academy. Our focus on interdisciplinary and collaborative research has positioned us well to respond to a changing funding landscape, enabling us to diversify our range of funders and to secure larger interdisciplinary grants. Major recent grant successes demonstrate our strategic commitment to research on social, environmental and epistemic justice. Examples

Unit-level environment statement (REF5b)

during the period, in addition to our GCRF Network-Plus awards in 2019 (Paulson £2m and Tikly et al. £4.75m) and those detailed in our ICSs, include:

- Facer (AHRC £1.048m 2015-20) *Connected Communities Phase 2*.
- Barrett et al. (Partnership for Strengthening Innovation and Practice in Secondary Education/WellSpring Philanthropic Fund £900K over three grants 2013-2020) *Strengthening secondary education in practice: Language Supportive Teaching and Textbooks in Tanzania*.
- Robertson et al. (EC FP7 £643K awarded to Bristol 2013-17) *Universities in the Knowledge Economy*.
- Facer (AHRC £877K 2012-16) *Leadership Fellowship for the Connected Communities Programme*.
- Timmis et al. (ESRC £487K 2016-19) *Southern Africa Rurality in Higher Education*.
- Manchester (AHRC £383K 2013-15, plus £80K follow on funding, 2017-2018) *Tangible Memories*.
- Washbrook (ESRC ORA £233K 2019-21) *The Development of Inequalities in Child Educational Achievement: A Six Country Study* project.

A core element of our research landscape is targeted support for early-stage project development. Central to this is access to competitive URI strategic funding. Recent URI-funding successes aligned with our strategic objectives include: research into health and wellbeing (e.g. Rumble and Manchester; Sedgewick, Kelly); into early stage collaborations with organisations in Bristol and beyond (e.g. Gall, Manchester, Oldfield, Buchczyk); and in the field of big data and education (e.g. Giampapa). We have also been successful in combining impact and research activity through consultancies with, for example the Home Office (£45K). These are combined with average annual revenues from the MLwiN Software (around £25K) and training workshops (around £15K).

Our ECRs have been highly successful in obtaining both small-scale (e.g. BA, Experimental Psychology Society; Wellcome Trust) and large-scale external funds to support their research activity. This includes highly competitive ESRC Future Research Leader Awards (Leckie £150K awarded in 2013, McKeown £159K awarded in 2017) and BA Postdoctoral Fellowships (Stockfelt £234K 2013-17 and Simmons £249K 2014-17).

A strong link exists between our research funding successes and our high-quality outputs and impacts. This is evidenced across our ICSs. For example, Leckie and Goldstein's work on school league tables (ESRC £150K 2013-15; ESRC £379K 2018-21) has been highly acclaimed through esteemed publications and impacts; as has Browne's work (ESRC £786K 2013-17) on use of interactive eBooks in teaching and Howard-Jones's research on brain reward systems (EEF and Wellcome Trust £650K 2014-17).

Funding Support

Supporting the development of applications for a balanced portfolio of research funding is central to our research strategy. Excellent support at School, Faculty and University levels has ensured our success during the assessment period and includes the following:

- The School has a **Research Director** and a full-time **Research Manager** with expertise in grant capture and supporting research development. The Research Director facilitates cross-centre bid development through research away days and workshops, advises individuals on research opportunities and reads and reviews draft funding applications. The

Research Manager supports all stages of bid development – from sending weekly updates on funding opportunities to the preparation of grant materials.

- All staff are eligible to apply for **School research funding, Faculty strategic funding and URI funding** for early-stage projects. In 2018, the School developed a Grant Capture Fund (£34K per annum in 18-19 and 19-20 from Faculty) to support individuals, groups or institutional activity associated with strategic bid development.
- All draft research bids are **formally peer-reviewed** within the School. Bid development forms part of discussions in staff review and **mentoring sessions**. Each research centre is funded (£1.5K per annum) to organise bi-weekly meetings, reading groups and seminars to share and spark new research ideas as well as get feedback on existing and developing research.
- The School is supported by **expert research advice from the Faculty and University** (see REF5a) with the RED team offering bespoke support vital to our ambitious funding targets. This includes: supporting bid development; commenting on draft applications; soliciting peer review through the University Peer Review Process; hosting mock interview panels (e.g for ERC/UKRI bids); and, horizon scanning new grant opportunities relevant to our researchers. This support has been invaluable in ensuring high levels of research income as well as the success of our ECRs in gaining prestigious fellowships and grants (e.g.BA/ESRC postdoctoral fellowships; ESRC Future Leader grants).

Impact Development Support

The School has actively engaged in and supported research aimed at external impact for many years. During this REF period the support we offer for impact activities has significantly increased. Our impact strategy has been explicitly incorporated into our research strategy and an Impact Working Group, including postdoctoral (Grieve) and ECR (Mitchell, Sharples, Baker) representatives has been established. Impact development support includes:

- The School's **Impact Director and Impact Working Group** facilitate staff connections with stakeholders and partners at all stages of the research cycle, enabling collaboration, co-production and/or feedback into research questions, design and outputs. They also review and provide feedback on the impact sections of grant applications and encourage staff to publish Impact Stories to enhance dissemination of impacts achieved.
- **The Impact Director has a dedicated fund** as well as access to impact-related faculty funding to support impact activities. All staff are also eligible to apply for competitive UoB impact funding. In the period we have secured 22 impact projects (18 ESRC IAA, three GCRF IAA, one AHRC IAA) with significant results observed in our ICSs (e.g. Coles's partnership with the NCETM supported by an IAA award) and in the Impact Stories published on our School's website.
- **Impact is facilitated and promoted through the sharing of freely-accessible summaries** of our research targeted at users and beneficiaries in Policy Briefs, Working Papers, and Impact Stories. Our weekly *Bristol Conversations in Education* seminar series is also open to the public and non-academic research partners are actively encouraged to participate.
- **ECRs/postdoctoral researchers/PGRs are actively mentored** in impact development, offered bespoke training workshops organised by the Impact Working Group and supported to submit impact funding applications. Four ECRs in the School have been awarded IAA funding in the last two years (Bakopoulou, Kelly, Brownhill and Knight). PGRs are also supported with impact activities through the SWDTP and are encouraged to present at public facing conferences.

- **Excellent UoB infrastructure** provides bespoke impact support (see REF5a). For example, the Faculty Impact Development Manager and Research Development Officer give feedback on draft ESRC IAA bids and contribute to School impact training events, and the public engagement team and the RED partnerships team supports knowledge exchange activities and the growth and management of larger partnerships. Other teams across RED provide professional expertise to researchers in stakeholder mapping, market analysis, community and civic engagement, and working with policymakers. UoB's PURE research management platform enables all staff to promote their current work to a wider audience and to document their research impact activities.

The success of our impact activities is evidenced across our ICSs and Impact Stories, demonstrating how our commitments to user engagement has resulted in significant, wide-reaching social and educational impacts. Our impact work has also been nationally recognised. For example, Leckie won the 2019 BERA Impact Award for his school league table research and Manchester was featured by UKRI as one of 18 top women in research and innovation impacting on societal grand challenges.

Research Facilities

The School has excellent research facilities and, over the last REF period has significantly invested in facilities for our new strength in cutting-edge psychological research.

General facilities. The School is distinctive in having our own conference facilities for conferences up to 110 people, including seminar rooms. Our refurbished library continues to be supported by a specialised education librarian and provides space for silent individual study and a collaborative study space for group working and discussion, with access to PCs, printers and photocopiers and to scanning and video viewing facilities. We have a lively common room, as well as dedicated and fully equipped research rooms for PGRs and postdoctoral researchers. Our staff room is open to all staff and PGRs, creating a vibrant hub for informal conversation.

Specialist facilities. Our recent significant investments are oriented towards building our capacities in psychology, neuroscience and quantitative research. This includes a new Psychology research laboratory that provides the space and resources required for conducting experimental and observational research on topics such as the use of touchscreens in childhood (Hoicka BA mid-career fellowship £109K); and cognitive and developmental processes in atypical and typically developing children and young people (Allen, Sedgewick, Howard, Knight). The School has also purchased a Clinical Research Imaging Scanner used in neuroscience education that supports research. Staff benefit from access to a growing number of psychological tests for research and an agreement with and access to the School of Psychological Sciences labs and equipment. For example, we currently share costs for a Qualtrics survey software license that enables staff and students to conduct online experimental and survey research.

Expert technical support. Our research in these areas has also been supported through the investment in and appointment of a psychology specialist technician (Novak in 2019), who has strong expertise in using advanced methods and analysis techniques and in using specialist equipment (such as the Biopac and our eyetracker). Crucially, Novak's expertise feeds into research planning, grant applications and collaborative research outputs. The School also employs a Senior Advanced-Skills Science Technician, an IT Education specialist, and a software developer to develop and manage MLwiN software to support technological innovation.

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

The School has a vibrant culture of national and international research collaboration; 52% of our submitted outputs have co-authors from other institutions with 52% of those being international. We are committed to growing and sustaining our partnerships and collaborations in line with our strategic aims.

Staff members are actively involved in **leadership positions in national research networks and organisations that facilitate research collaboration**. For example; Orchard as co-convenor of the BERA Philosophy of Education Special Interest Group (2018- present); Coles as co-convenor of the BERA Special Interest Group for Mathematics Education (2016-19) and; Shields and Paulson as executive committee members of the British Association of International and Comparative Education (2012-15). Examples of **successful national-level research collaborations** include: McKeown's collaboration on positive youth development with Taylor (Queen's University Belfast) resulting in six journal articles and three book chapters since 2017; Rose's collaboration with Jay (Loughborough) on the Everyday Maths project resulting in two journal articles and resources for schools and parents, influencing the way that schools and parents can work together to support children's maths learning; and Mitchell's outputs (four since 2019) on education in sub-Saharan Africa in collaboration with the REAL Centre (University of Cambridge).

Our involvement in **international networks that support research collaboration** includes: Timmis as Vice Chair of the Global Higher Education and Research Global Challenge Group (2019-20); Gall as board member of the European Association for Music in Schools (2015-present); Orchard as executive committee member of the Philosophy of Education Society of Australasia (2019-20); and McKeown as Co-Chair of the International Network of Peace Psychologists (2019-present). **Successful international research collaborations** include: Rowsell's collaborations with Peppler (University of California-Irvine) and Ehret (McGill University) resulting in four journal special issues that have made a new contribution to the field of literacy research; Leckie's collaboration with Merlo (Lund University, Sweden) on the sociodemographic predictors of health behaviours using novel multi-level modelling methods leading to 15 articles; Washbrook's research with the Columbia Population Research Center on social gradients in educational outcomes leading to £1.2m+ funding for related projects (from the ESRC, the Australian Research Council, the Canadian Institute for Advanced Research and the Russell Sage Foundation), a co-authored book (nominated for the Grawemeyer Award in Education 2017), two high-quality articles and three book chapters; Timmis's SARHiE project with de Wet (University of Johannesburg) resulting in four articles, three working papers, one book chapter, a special issue and a multi-authored book as well as a range of impact activities; and Sriprakash's BA funded project on Early Childhood Development with partners at the Centre for Budget and Policy Studies, India, leading to policy workshops in the UK and India, policy briefs, a symposium and two articles.

Examples of **research visits and fellowships** include: Tikly (Visiting Fellow, University of Johannesburg, 2010-present); Leckie (Guest Researcher, Lund University 2018-21); Macfarlane (Distinguished Visiting Professor Al Mazrui Centre for HE; University of Johannesburg 2015-20); Coles (Visiting Academic Simon Fraser University, Canada May-June 2018); Manchester (Visiting Academic, University Western Australia, 2017); Facer (Visiting Academic, University of Santa Barbara, 2020; Zennström Chair in Climate Change Leadership, Uppsala University 2018-2020); Thomas (Visiting Adjunct Professor Queensland University of Technology (2016-18); and

Sriprakash (Visiting Scholar, Melbourne Graduate School of Education, University of Melbourne August 2019; Visiting Scholar School of Education, University of Cape Town August 2017).

UoB's Benjamin Meaker Fellowship scheme has also allowed us to bring over three **prestigious visiting professors** (Boaventura de Sousa Santos, Roberto Poli, Liazhen He) who have brought in critical expertise in epistemic justice and sustainable futures to support our strategic aims. They have also led to ongoing collaborations such as Facer and Poli's development of an international network of Anticipation Studies which now hosts a biannual international conference with over 400 delegates, as well as a book series with Routledge.

Engagement with Users, Beneficiaries and Audiences

The School has a long track record of collaboration with partners at the local, national and international levels. These partnerships are central to our research, both in 'upstream' identification of research questions and in ongoing collaborations to address these questions.

Locally, collaborations with Bristol City Council on youth educational aspirations in South Bristol (Rose, Sutherland), on ethnicity and achievement (Tikly, Rose, Washbrook) and on the achievement of Bristol schoolboys (Bakopoulou) have influenced teaching practice and city education policy. Sutherland was instrumental in setting up the Merchants' Academy Trust in South Bristol now sponsored by UoB, and Bailey (ITE director), is a trustee and governor. Twelve staff members are actively involved as governors, trustees or sit on membership committees for Multi-Academy Trusts in the Bristol area. Manchester was central in driving and establishing the University-wide 'City Fellows' programme, which provides time and funding for partnerships between civil society groups and UoB, as well as in developing collaborative partnerships between UoB and health workers in the social care sector. Together, these local collaborations are producing not only long-term trusted partnerships between the School and the city, but significant research contributions such as Gall's work on music and disability, Smith's work on creativity in English, Buchczyk and Facer's Special Issue on Learning Cities and Sedgewick's research with NHS teams and SENCOS on the mental health and relationship experiences of autistic women and girls.

Nationally, collaborations with partners that have resulted in significant outputs and impacts include: research with the UK's National Association for Teachers of Religious Education to improve teacher practice (see McKeown, Williams and Orchard Impact Story); research with China's National Institute for Education Sciences to enhance school evaluation and professional learning communities (Leckie, Thomas, ICS); and research with Save the Children (Washbrook and Moss) to understand more about gender gaps in literacy and language development, culminating in a high-profile launch event, a presentation to MPs and significant publicity in support of their campaign for nursery education.

Internationally, we are committed to deep and ongoing collaborations with partners from the Global South. For example, Barrett and Bainton's partnership with teacher educators in Tanzania to develop a pedagogic approach for supporting lower secondary students learning in a second language has influenced teacher practice (see Impact Story); Timmis's partnership with the Southern African University Learning and Teaching forum to examine HE access and participation for rural students in South Africa has informed policy and practice (see Impact Story); and Paulson's research in partnership with the Commission for the Clarification of Truth, Coexistence and Non-Repetition in Colombia has informed the Colombian truth commission's approach (see

Impact Story). Further examples of collaborations with civic partners from the Global South are evidenced in the EdJAM and TESF Network Plus awards. These collaborations are enabling the School to develop significant critical contributions to the research literature on education and international development, and education and peace studies.

Over the REF period the School has also developed a **substantive partnership with UNESCO**. From 2014, Facer has been working with UNESCO'S foresight and futures teams on the development of futures literacies; Howard-Jones was seconded to UNESCO to embed his research on neuroscience and education into their work and Tikly was appointed a UNESCO Chair in Inclusive Good Quality Education. The School has also been playing a key role in UNESCO's Education Futures 2050 Initiative – Sriprakash was invited to contribute a background paper on reparative futures, and Facer has been both an Expert Advisory Group member for the Commission and has since been seconded to join the core writing team. This work not only offers an important avenue for the School's research to collaboratively develop international policy, but also provides a context within which to further develop our own research agendas on international and comparative education policy and educational futures.

Our engagement with users and beneficiaries also takes more familiar forms – staff members communicate their research through **television, radio and newspaper coverage**, as well as in blogs, websites, podcasts and active social media accounts, supported by the School's Communications Officer and Research Manager. Staff also regularly facilitate workshops in schools and lead seminars with the general public as well as contribute to the annual ESRC Thinking Futures Festival and the city's annual 'Festival of Ideas'. Highlights of our engagement with public audiences include Howard-Jones's key role in the Channel 4 Series The Secret Lives of 4 Year olds as well as Facer's partnership with Somerset House in London to run a major public learning event as part of the Connected Communities Programme, which attracted over 10,000 visitors over three days.

Contributions to Economy and Society

The social benefits of the School's research are evident at local, national and international levels, for example, in addition to our ICSs:

- Abrahams's Paired Peers project has been used by UoB to improve its approach to widening participation and student experience.
- Gall's work has resulted in recommendations incorporated into DfE's new National Curriculum for Music and Special Educational Needs/ Disabilities.
- Orchard, McKeown and Williams' research has influenced the Commission on RE's report for a National Plan for RE and has informed National Association strategic planning.
- Macfarlane's work on academic citizenship has influenced the reward and recognition policies of universities; the Beedie School of Business at Simon Fraser University has developed its service expectations for academic staff by incorporating all elements of the 'service pyramid' from this work.

A particular strength has been developing capacity in teaching quality and assessment in the Global South and in China.

- Yu's research on "summarization" has been used as a blueprint for introducing and designing tasks in two high-stakes English language tests in China (the 'Gaokao': the national university entrance examination taken by about ten million students annually; and the NETS: National English Testing System which is soon to be in operation).

Unit-level environment statement (REF5b)

- Crossley's report to the Fiji Ministry of Education (2016) on Quality Teachers and Teacher Education in Fiji from joint research funded by the BA and University of the South Pacific has influenced national policy.

In addition to our research, the School has a strong innovation, consultancy and policy engagement strand of activity:

- CMM produces the MLwiN software which has over 15k users and has been purchased by 193 non-academic organisations. It also produces the LEMMA online training materials which have over 37k users. This activity has both supported and benefited from the development of several ESRC programme node grants totalling £5m+ over the past ten years.
- We have developed apps in partnership with users to support storytelling in care homes - the StoryCreator app was downloaded 775 times (2015-2019), 500 of which were international (Manchester; Impact Story) and to support teaching of Shakespeare in schools (Smith, currently at concept stage).
- We have provided consultancy across the assessment industry, to Cambridge Assessment, the British Council, Educational Testing Service (Yu).
- We have provided statistical consultancy to funders such as CHDI and NC3Rs (Browne).
- We have contributed to national policy debates on educational futures, including presentations to the Science and Technology Select Committee, the Royal Society's work on the future of AI and the Labour Party's Fourth Industrial Revolution Strategy (Facer).

We are also, however, committed to critical reflection on the processes of research engagement, including examining the new exclusions that can be produced in these processes. Our research in this area, led by Facer, has led to principles taken up by UKRI and the establishment of a new national funding programme: the 'Community-University Partnership Initiative'.

Contributions to the Sustainability of the Discipline

The School plays active roles in strengthening the discipline in the following ways:

Leadership and support of key scholarly communities. Sixteen staff members hold leading positions in national or international subject committees. Notable examples include: Coles (Executive committee member of the British Society for Research into Learning Mathematics); Gall (Member of the executive board of the European Association for Music in Schools); Yu (Expert Member of European Association for Language Testing and Assessment); and Manchester (Executive Committee Member Socio-gerontechnology global network). Several staff have held presidential or Chair roles; for example, Moss (BERA President), Crossley (President of the British Association for International and Comparative Education (2017 – 2018) and McKeown, Chair of the BPS Social Psychology Section (2019-2021).

Actively developing new routes into education. In 2016 we launched undergraduate programmes in Education Studies and Psychology in Education. Since 2017, we have been providing taster sessions introducing education as a field of inquiry to students with non-traditional qualifications and since 2018, we have participated in the new foundation year in social sciences offered by UoB. We are already seeing students joining the degree programme through this route; one in 2019 and one in 2020 joined our small cohorts of up to 60 students. Signifying our intention to progress this element of our work we have recently announced a Black Bristol Scholarship that will fund four PGCE scholarships annually (16 scholarships, 2021-2025).

Unit-level environment statement (REF5b)

Addressing key national and international priorities in education. Our partnerships across disciplines in the area of peace and conflict (Paulson, McKeown), sustainable development and climate change (Tikly, Facer, Crossley), ageing (Manchester), and racial justice (Sriprakash) are central to positioning the better understanding of education and learning as central to addressing contemporary challenges. Our new Educational Futures network will bring together our growing expertise in this field to capitalise on these strengths.

Providing **education-led responses to emerging social concerns.** In 2020, our researchers were central in setting up city-wide responses to the COVID pandemic (Manchester's ReCOVer group of social science researchers, civil society actors and city council; see REF5b COVID-19 annex) as well as in conducting empirical research into the impact of COVID on students and young people (Wenham) and on the impact of the pandemic on HE (Watermeyer).

Contributions to the Research Base

It is assumed that all staff members will play an active role in institutional, national and international academic citizenship, and research centres actively mentor staff in this area.

Journal editorship and grant committees. Ten staff members have positions as Editor/Co-Editor in Chief of significant journals in the field, including: *Research in Mathematics Education*, *Comparative Education Review and Assessment in Education*, *Futures*; *International Studies in Sociology of Education*; eight have roles as Consulting Editor/Associate Editor; and 20 are involved in one or more journals as editorial board members. The School also acts as home for three book series – with Routledge, Bristol University Press and Policy Press – in areas relating to co-production of research, educational futures and comparative and international education. Colleagues make regular contributions to grant committees and peer review for UKRI (eight staff are members of ESRC peer review colleges) and also contribute internationally to the work of the Academy of Finland, the Swiss Research Foundation, the Dutch Research Foundation and the Inter-Agency Network for Education in Emergencies. Staff have also played key advisory roles with UKRI. For example, Goldstein provided guidance on research assessment techniques to the ESRC and Thomas to ESRC's future priorities in international development; Facer has contributed to the development of the UKRI EDI initiative and to providing guidance on impact and engagement to the ESRC, AHRC and BBSRC; and Tikly has contributed to commissioning and review panels for the ESRC/DfID Raising Learning Outcomes Programme.

Fellowships and prizes. Prestigious fellowships granted include: Hoicka and Sriprakash (BA Mid-Career Fellowships); Browne (Turing Fellow); Facer and Crossley (Appointed Fellows of the Academy of Social Sciences); Howard-Jones (Fellowship at UNESCO); and Facer (AHRC Leadership Fellowship). Four staff members have received prizes in recognition of their research contribution: Brownhill ('Silver' winner at the Nursery World Equipment and Resources 2019 Awards, London); McKeown (2018 Ed Cairns Early Career award for Substantial Contributions to Peace Psychology (awarded by Division 48 of the American Psychological Association); Williams (2018 Early Career Award, British Psychological Society Social Psychology Section); and Leckie (2017 Royal Statistical Society Frances Wood Medal for outstanding contribution to Social Statistics).

Invited keynotes. Over 65% of submitted staff have given one or more keynotes at national and international events. International examples include; Shields (International Conference on Interdisciplinarity of Knowledge, Education and Research Birla Institute of Technology and

Unit-level environment statement (REF5b)

Science, India January 2019); Facer (International Association of University Teachers, Mexico, November 2019); Watermeyer (Leibniz Centre for Science and Society, Germany 2020); Bakopoulou (Croatian Education Conference, October 2018); National examples include: Macfarlane (Higher Education Close-Up Conference 10, University of Lancaster June 2020); and, Tikly (World Education Forum, London January 2018).

Conference organisation. Significant positions held by staff members include: McKeown (Program Chair of the 2019 International Conference in Political Psychology, Lisbon); Facer (Chair of the Second International Conference on Anticipation, 2017; Chair of the Utopias & Social Change Conference, Bristol, 2016); Shields (Chair of the conference committee for the British Association of International and Comparative Education (BAICE) in 2014); Orchard (member of organising committee, Philosophy of Education Society of Australasia conference, 2019); and, Smith (member of organising committee 2016-present, National Association for the Teaching of English, ITE conference).

PGR Training Collaborations

The School has extensive collaborations in PGR training. Barnes led the successful rebid application for the SWDTP in 2016 (extending the institutions to five – Bristol, Exeter, Bath, Plymouth and West of England, £3.4m) and as Director developed the ESRC-GCRF postdoctoral fellowship scheme in 2016 and conducted a mid-term review of the SWDTP in 2019, before stepping down as Director in December 2019. Our School is now directly involved in the SWDTP through Barrett as deputy director – she leads on preparing, planning and coordinating higher-level training and the allocation of postdoctoral fellowships and academic-led collaboration funding. The School also runs a highly regarded face-to-face multilevel modelling course (to 60 researchers per year) and an innovative online version that is regularly attended by PGRs locally, nationally and internationally.

Concluding Remarks

Our School's story since REF2014 is one of strategic growth and diversification. We have strengthened our thriving research culture through investment in our people and infrastructure and through large-scale funding successes. We continue to attract excellent PGRs and postdoctoral researchers and, through working in collaborative partnerships, our research has made a strong contribution to the research base, to policy and to practice. Our ambition is to build upon our achievements to bolster our disciplinary and interdisciplinary contributions on the themes of social, environmental and epistemic justice for sustainable futures, and to continue to strengthen our research culture, in particular by addressing challenging questions of equality and diversity. This approach will ensure the sustainability of our research and the discipline as well as cement the School's growing reputation for strong local, national and international research partnership and collaboration.