

Unit-level environment template (REF5b)

Institution: University of the West of England, Bristol

Unit of assessment: 23 Education

Section 1. Unit context and structure, research and impact strategy

Context and structure

This Unit sits primarily in the Department of Education and Childhood (E&C) within the Faculty of Arts, Creative Industries and Education (ACE). The Unit has built upon strengths identified in REF2014, with structural changes and strategic appointments during the current census period. Higher Education (HE) research, a particular strength in 2014, has been further developed, evidenced by the significant number of HE focussed outputs submitted in this exercise (61% of total), and our two impact case studies, ICS#1 'University outreach' and ICS#2 'Paired Peers'.

The Unit's staff conduct social justice-driven interdisciplinary research across the breadth of educational activity in both scholarly and applied contexts. The principal research structure is the Bristol Inter-Disciplinary Group for Education Research (BRIDGE). BRIDGE is led by **Bovill** (Associate Head of Department for Research and Scholarship) and a team of senior researchers including **Andrews, Burke, Maisuria** and **Waller** (all Associate Professors), and **Newbutt** (Senior Research Fellow).

BRIDGE has three inter-connected strands, representing established and emerging areas of research, which respond to key challenges locally, nationally and internationally:

- *Researching with children and young people* (**Andrews, Carter** and **Chicken**). This strand focuses on children's experiences, rights, voices, perspectives and practices using social science methodologies and methods, giving primacy to children's voices. Research issues include early education and learning; teaching, early childhood pedagogy and curriculum; education policy; professional development and learning for educators; language development; researching multilingually; parental engagement in children's learning; literacies, learning and identities; the sociology of childhood; and ethical and methodological challenges of research with children.
- *Digital education* (**Newbutt** and **Last**). This strand's research focuses on digital inequalities; digital literacies and competences; digital cultures and practices; digital research methods; curriculum innovation; virtual reality technologies (VRTs); and the applied use of technologies for groups with special needs. This work has been brought into sharper focus by the COVID-19 pandemic.
- *Research in global and sustainable education* (**Bovill, Jones** and **Knight**). Our research on sustainable development addresses questions such as 'how can society approach responsible and ethical consumption?'; 'why are there inequalities in global education?'; 'what educational approaches can counter sexual violence?' Building upon the UN Sustainable Development Goals, this strand's core purpose is advancing the economic, social and environmental knowledge to solve future challenges, create opportunities and shape our communities across the region and beyond as outlined in the UWE Bristol Strategy 2030 (see Institutional Statement).

BRIDGE's 200+ membership encompasses the Unit's large PGR community (see section 2) and colleagues from across UWE, including those active in other research groups and centres. BRIDGE's membership also spans other regional universities, including Bath, Bath Spa, Bristol and Cardiff, and local schools and colleges, particularly those with whom we enjoy formal partnership arrangements. Other members include staff from local authorities and the Office for Students, and third sector bodies seeking to expand educational opportunities for the socially and economically disadvantaged including Future Quest, Into University and South Bristol Youth.

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Overarching research and impact strategy, and objectives

Aligned to the University's Research strategy, the broad spectrum of research conducted by Unit staff is informed by a strategic focus on research-with-impact, and with four main aims:

- (1) To produce internationally excellent research that has real world impact and contributes to a sustainable economy and society, encouraging diversity and inclusivity.
- (2) To enable staff to undertake ambitious projects – developed through partnerships, collaboration and co-creation with regional industry and stakeholder networks – as the platform on which national and international research-with-impact is based.
- (3) To undertake interventionist research that engages with real world issues and policy as a locally embedded civic university with national and international reach.
- (4) To support and grow a diverse complement of PGRs and Research Fellows in order to broaden the Unit's research base and ensure sustainability.

Achievement of strategic aims for research and impact 2014-2020

1) Internationally Excellent Research.

Early in the REF period, we identified the need to develop the Unit's activities through building education research capacity to undertake more high quality, high-impact research. For example, the appointment of internationally acknowledged Technology Enhanced Learning (TEL) expert **Cook** brought with him leadership of a strand of the EU funded cross-European *Learning Layers* project (see section 3). Early career researcher (ECR) **Santos Rodriguez** was also appointed to work on this project. Investment continued throughout the period through appointing **Costa** and **Newbutt**, both with a record of high-quality research in digital education. This aim was further advanced through strategic investment for colleagues conducting research, and through building balanced teams, with seed-corn investment funding to undertake pilot projects to develop their experience and enhance the Unit's research base. Colleagues presented work locally and at national and international conferences, publishing outputs and developing bids for external funding. Recipients of this support included **Edmonds**, **Lewis** and **Fogg-Rogers**. In 2020/21 **Andrews**, **Burke**, **Jones** and **Wilkinson** are also recipients of this internal investment.

2) Impact, Partnership, and Collaboration.

Another identified priority was increasing collaboration within the Faculty, across the University, regionally, nationally and internationally to enhance the impact of our research. For instance, the *Paired Peers* project (**Bradley** and **Waller**; see ICS#2 below and section 3) involved collaboration between colleagues from two UWE faculties and four other universities, and with policy makers including from the *Office for Fair Access* (OFFA). Local impact has been achieved by colleagues from numerous collaborating partner organisations taking research back into their institutions, notably our doctoral students' partner organisations including the Cabot Learning Federation and both City of Bristol and Weston Colleges. Specific support measures have facilitated this, including seminar series featuring presentations from UWE colleagues and postgraduate students; larger scale events involving national and international speakers; and showcases of our externally funded project work. Unit staff also work closely with UWE's Academic Practice Directorate (APD), for instance **Burke**, whose keynote address to APD's annual Festival of Learning event in 2020 drew upon his research on graduate resilience, and **Waller**, who sits on APD's University-wide pedagogic research award panel. Research into HE pedagogy and other aspects of education theory and practice is widespread within UWE, as evidenced by the *Education Research Network* (*ERNie*), established by **Waller** and **Rolfe** in 2016. Unit members were central to *ERNie*'s work, for instance leading research activities and events designed to appeal to staff across the institution, including guest lectures and seminars (e.g. **Bradley** and **Waller**), workshops on subjects like 'getting published' (**Harrison**) and particular research methods (**Newbutt**), and hosting events promoting opportunities for research collaboration (**Bovill**). *ERNie* ran until early 2020, when the APD built upon the network's success, scaling it up to establishing *Higher Education Pedagogies, Policy & Practice* research network (HEPPP). Several Unit members (**Bovill**, **Burke**, **Maisuria** and **Waller**) sit on HEPPP's advisory board, offering strategic leadership regarding its policy, direction

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and activities, enhancing the network's impact.

The Unit's two impact case studies hinge on long-established collaborations, working relationships with key individuals, and co-production with academic colleagues and research users.

ICS#1 *University Outreach* coalesces around the work of **Harrison**, drawing upon four projects where he was the PI, in collaboration with colleagues within UWE and other universities. The principal vector for impact was a close working relationship with OFFA (now Office for Students, OfS) built over many years, including engagement with the Director and Deputy Director and other staff focusing on evidence and policy. Following delivery of workshops at OFFA events since 2014 focussing on the evaluation of university outreach activities designed to widen HE participation amongst 'non-traditional students', and on student bursaries, Unit staff were invited to tender for two projects on bursary and outreach activity evaluation described in the ICS. These fed directly into national policymaking on university outreach activities and student retention, and into practice among numerous English universities.

ICS#2 *Paired Peers* (**Bradley** and **Waller**) draws upon a longitudinal project on the impact of social class backgrounds on student experiences and outcomes covering 2010-2017, and began as a collaboration between UWE and the University of Bristol. In a similar manner to ICS#1, close working relationships with policy makers including OFFA ensured the project had a direct line to impact. For example, a key member of OFFA's staff sat on the project's advisory board, and their Director spoke at the project report's launch, as did opinion leaders such as the Chair of Universities UK, a Bristol MP and high-profile journalists and commentators including Laurie Taylor, Melissa Benn and Polly Toynbee. The launch events attracted practitioners and academics, and members of key bodies including the government's Social Mobility Commission and third sector bodies promoting equality of access to universities and to graduate professions.

3) Real World Research

BRIDGE's central cross-cutting organising principle is *social justice*, that is, how can education research contribute to producing a more inclusive, diverse, equitable and just society? Recent world events highlighting these issues include climate emergency, #Metoo, Black Lives Matter, those 'left behind' communities revealed by Brexit, and issues of digital poverty further thrown into sharper relief by COVID-19. Major projects drawing on this principle include *Inclusive Campus #SpeakUp@UWE Bristol*, an anti-sexual violence social norms campaign (**Bovill** and **Waller**, 2017-2019) which was shortlisted for the Times Higher Education 2020 Awards in the category 'Outstanding Support for Students'. Other projects include *Paired Peers* on higher education, social class and social mobility – see above and ICS#2), and the research activity run under *Project Zulu* (**Carter**, **Edmonds**, **Knight**, **Lewis**, **Vickers-Hulse**, **Whitehouse** and **Witt**, 2016 to date – see section 3)

4) Supporting and Growing Research

The BRIDGE research group established a Research Associate position to help realise its expanded potential regarding bidding, maintaining a lively research culture and community, organising research dissemination (particularly through social media), impact activities and other related events. This post was initially filled by **Almohammad** (2018-2019), then **Podpadec** (from 2020).

Key initiatives have continued to build research capacity and enhance our wider research environment. For example, funding to support ECR staff to attend BERA's 2014 and 2018 conferences to present research and build networks, and the establishment of bodies such as the Bristol hub of the transnational *Open Network for Mobile Learning Scenarios* (ONMLS) (see section 4). The inclusion of outputs by staff from other departments across the University (e.g. **Babayigit**, **Bradley** and **Fogg-Rogers**) reflects the Unit's aim to cross institutional boundaries, promoting synergies and co-working between colleagues. **Babayigit** is a child psychologist whose work explores language acquisition processes, **Bradley** is a sociologist of work and gender who led the *Paired Peers* project, and **Fogg-Rogers** is a key figure in UWE's Science Communication team

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who has worked with E&C staff on a number of projects involving the learning and teaching of science (see section 3).

Building upon **Costa's** successful 2019/20 project bid, Unit staff have won three further prestigious Vice-Chancellor's Inter-disciplinary Research Challenge Fund Awards of £10,000-£25,000 each for 2020/21, designed to encourage cross-disciplinary research between faculties. **Newbutt** is on a team looking at '*Integrating Social Robots into School Settings: Co-designing robot-enhanced classrooms for children with autism*'. **Newbutt** also has a cross-faculty research award with a colleague in Health for a project '*Mental wellbeing and exposure to restorative environments: Comparing flat-screen viewing and immersive virtual reality*'. **Bovill** is working on two projects with colleagues from elsewhere in UWE, to explore '*the impact of language and culture on gender salience*' and '*what and how do young people want to learn about consent and pornography in school and how can this inform resource development?*' These awards are designed to pump-prime external funding bids, seeking to further increase the quantity, reach and impact of our externally funded research.

Research and impact strategy 2020 onwards

The strategic aims across the Unit going forward are to:

- (i) Increase the breadth, international reach and impact of our research collaborations, partnerships and knowledge exchange activities.
- (ii) Extend research activism impact, intervening in major debates and cross-cutting issues including: the impact of digital poverty on educational opportunities and outcomes; climate change; education and sustainability; education, social reproduction and social mobility in pandemic and post-pandemic Britain.
- (iii) Further integrate E&C colleagues, PGRs and Fellows into the Unit's research culture to ensure continuity and sustainability across our research activities and increase the diversity of our research base.
- (iv) Establish a departmental peer review group for mid-career researchers to build their research bidding and publication profiles, complementing similar Faculty and University level initiatives.

BRIDGE has a clear target over the next period to build upon its firm foundations and become a national leader in research focussed on HE institutional intelligence data, looking to lead collaborations with colleagues from other HEIs. We will also work with colleagues outside academe and seek external funding to undertake significant impact-focussed research, building upon our extensive theoretical and practical expertise, as highlighted in ICS#1.

BRIDGE's three areas of focus - researching with children and young people; digital education; research in global and sustainable education - align with the four strategic priorities of UWE's Research Strategy 2030 (see Institutional Statement); digital futures; creative industries and technologies; health and well-being; and sustainability and climate change resilience. We will continue collaborating on the cross-cutting theme of social justice, with an enhanced focus on sustainability and resilience (including post-pandemic recovery). Specifically, we aim to:

- (i) Increase the number, size and scope of externally funded projects, strengthening their reach and impact, e.g. through grant writing retreats, utilising the data and research work of *BRIDGEBid* (the bid cluster of BRIDGE) and through recruitment of a permanent RA to support bids and tenders.
- (ii) Enhance the scale, range and influence of collaborations and partnerships within UWE and with external partners including other HEIs, particularly in areas of existing strength locally and nationally, for instance through both sector leadership and research network events.
- (iii) Continue to develop *BRIDGEBid* through mining data on existing and new areas identified as priorities, such as BAME student data.

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- (iv) Strengthen further our PGR provision and numbers through recruitment and closer partnership working. We are currently developing a range of PG options, including with overseas partners in China and elsewhere to align with our UG partnership provision. These include developing an online Professional Doctorate in Education (EdD) programme for international markets. PGR culture is being enhanced to embed our doctoral researchers more deeply into research activities, for example through attendance at seminars and guest lectures, and participation in academic reading groups and writing retreats.
- (v) Embed PGRs and ECRs into the Unit's research programmes and culture to help ensure continuity and sustainability across its research activities (e.g. co-authoring outputs with supervisors, and incorporating ECRs into established research teams for bidding) with a particular focus on increasing diversity of its research base through targeted research collaboration and project focus.
- (vi) Establish a research pipeline enabling currently non-research active staff to develop early research work, ECRs to move into mid-career phases, and mid-career researchers into senior phases through strategic use of internal and external funding opportunities.

BRIDGE, whose raison d'être is inter-disciplinary research, is well equipped to work across traditional academic disciplines to understand the challenges posed by an increasingly complicated world and develop education research programmes to tackle the 'wicked problems' faced locally, nationally and globally.

Research integrity

UWE is committed to promoting excellent research observing the highest standards of integrity. A central Research Governance team supports researchers in meeting the requirements of the *Concordat to Support Research Integrity* and UWE's *Code of Good Research Conduct*. Our HR Excellence award, first bestowed in 2012 and renewed biennially since, recognises success in implementing the *Concordat to Support the Career Development of Researchers*.

The Unit's researchers create and maintain a Research Governance Record (RGR) for all projects. The RGR's completion requires a risk assessment considering, for example, levels of psychological harm participating in a study might cause, and risk arising from issues including lone working practice and safeguarding. All researchers must undertake safeguarding training if collecting data with children or vulnerable adults, and possess current DBS clearance if so.

The ethical integrity of research within the Unit is overseen by a Faculty Research Ethics Committee which **Andrews** chaired 2015-2020. The Chair also sits on the University Research Ethics Committee. **Andrews** used her extensive expertise in advising on ethical aspects of research within the Unit, including specialist support for our PGR cohort.

Researchers are also required to generate a Data Management Plan (DMP) for all projects to include how data is handled from inception to disposal which takes a 'life course' approach documenting the data journey. The DMP offers a rationale for data collection, access, restrictions, storage, and back-up; clarifying how data is documented, described, maintained and preserved. The DMP must follow UWE protocols and be compliant with the Data Protection Act 2018. Research directors including doctoral supervisors undergo Research Governance training to facilitate this. A detailed checklist of all requirements of the RGR has been constructed to support researchers in maintaining data security compliance.

Open research

UWE has had an open access repository for research outputs since 2010 and established an open access data archive in 2015. Staff must deposit publications within three months of acceptance, copyright permitting. Since 2019 all research students must make their data open access through the data archive. Research staff are also encouraged to use the data archive. We implement data management software as recommended good research practice.

Our staff can make use of a centrally administered fund to pay open access costs for UKRI funded projects, and a growing number of open access agreements with publishers to facilitate gold open

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access. All doctoral theses are digitised and downloadable from the UWE repository, except where sensitive or confidential data is included.

Section 2. People

Staffing strategy and staff development

The Unit's overall strategy is to recruit, develop and retain high-achieving researchers at all career stages whose work complements and extends core aims defined in Section 1. To achieve a vibrant research culture, researchers are assisted at each stage of their career, and many colleagues joining the department have been supported through from their PGR studies onto ECR status (e.g. **Bowden-Clissold, Chicken, Edmonds** and **Whitehouse**), and for some, subsequently to mid-career researchers (e.g. **Harrison** and **Waller**).

This 'train and retain' status is reflected in the enhanced research status of staff with significant responsibility for research included in this submission, with 90% of submitted staff holding primarily research-focused positions (up from 64% in 2014).

Through a variety of cross-university and faculty-level development funds, UWE enhances support for ECRs, including a £3m investment in the *Vice Chancellor's Early Career Researcher (VCECR) Awards*. These prestigious grants support emerging researchers in priority areas to undertake preliminary research with a view to generating high quality outputs, forging collaborations with relevant external partners and making a substantial bid for external funding to develop the work. VCECR award holders are allocated a senior researcher to oversee their project and receive dedicated support in bidding for external funds. This Unit's previous VCECR recipients include **Andrews, Babayigit** and **Harrison**. Subsequently, all have gained significant external funding, for example **Andrews** was part of a cross-disciplinary and cross-institution team awarded a £1.5m AHRC grant to research multi-lingualism through an exploration of processes and practices of researching in contexts where more than one language is involved. Other Unit staff not yet considered to have significant responsibility for research, including **Butcher, Chicken, Edmonds, Lewis** and **Witt**, have also received VCECR support previously, as will **Carter** and **Jones** in 2020/21.

Several 'mid-career' researchers (e.g. **Andrews, Costa, Harrison** and **Waller**) enjoyed Faculty and/or Department funded periods of research time during this REF period, facilitating completion of specific projects, some of which are represented in this submission's outputs. The Faculty provides support for researchers attending conferences and for staff to study for higher degrees, particularly the EdD. Twelve E&C staff over the REF period have either completed or are currently undertaking doctoral study. Over 20 staff from other UWE faculties and UWE professional services are currently on the EdD programme, significantly contributing to development of research capability beyond the Department and across the wider UWE community.

Support to develop individual and collaborative projects and high-quality outputs is provided through systematic mentoring and peer review. The importance of impact is fully embedded in the research culture in staff recruitment, at induction, during probation, in personal development reviews and in career progression and promotion evaluations. Staff are trained to build impact into research activity at every level, beginning with the conception and design of the research. They are encouraged to work with a variety of educational and civic stakeholders as active partners, responding to their interests, needs and priorities whilst undertaking rigorous conceptual enquiries addressing significant issues for the education sector.

During the reporting period, **Andrews, Harrison** and **Ryan** were promoted to Associate Professor, and **Newbutt** to Senior Research Fellow. These promotions reflect strategic investment to strengthen areas of excellence and increase research capacity, augmented by additional external appointments: **Burke** and **Maisuria** enhance our social justice work, and **Costa** our digital education research.

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Bovill and **Newbutt** participated in the Research Accelerator Programme designed to enhance research careers, developing strategic bidding skills and fostering new collaborations. Senior research staff (**Andrews, Burke, Cook, Costa, Harnett, Harrison, Maisuria, Newbutt, Ryan** and **Waller**) have had dedicated research time and a brief to develop other staff as part of their research leadership roles.

Our leadership model offers development opportunities to less experienced colleagues. Two of the Unit's Associate Professors (**Andrews** and **Waller**) benefitted from a mid-career mentoring scheme where an experienced Professor from the wider Faculty supported them in securing successful external bids. Recently appointed **Burke** and **Maisuria** are currently being mentored similarly, as is **Bovill**.

The Unit makes good use of Visiting Fellows and Professors whose expertise complements and extends our work. For instance, Dr John Selby, previously HEFCE's Director of Widening Participation and Admissions, has been a Visiting Fellow and an active participant in our research seminars, and advisor to a number of projects involving the Unit's staff (notably *Paired Peers*). Selby's connections to high level policy makers and third sector bodies exploring issues of widening participation to HE and access to the professions has further enhanced our work's impact. **Harrison** retains Visiting Research Fellow status since leaving the University, and Carol Fox (previously a graduate student) is a Visiting Fellow working on a project with **Waller** exploring the progress of mature students in the city. **Bradley** (whose pre-retirement outputs feature in our submission), **Brine** and **Harnett** each retain Emerita Professor status.

Other examples of support for staff include enabling ECRs to co-author articles and books under the guidance and mentorship of more experienced researchers – **Andrews, Harrison** and **Waller** for instance. The EdD programme team are currently discussing with a publisher an edited collection of research undertaken by the programme's students and recent graduates exploring the impact of education policy upon professional identities in a range of education contexts. Building on a successful venture with Routledge published in 2010 (which contributed outputs to REF2014), the proposed new collection features Unit staff whose work has been developed and supported from conception through to publication.

At Faculty level, we have proactively sought research collaborations with colleagues across the University. In addition to winning one Vice-Chancellor's Inter-disciplinary Research Challenge Fund Award in 2019/20 and three in 2020/21 as mentioned above, we initiated exploratory collaboration events with colleagues in the faculties of Health and Applied Sciences (February 2020) and Business and Law (March 2020). Potential collaborations arising from these events are currently being developed into proposals.

Postgraduate Research

The Unit seeks to provide an exemplary training, support and learning environment for its PGR students, drawing upon UWE's Graduate School (GS) and its Code of Practice for PGR Study. We recruited strongly throughout the REF period, building upon the growing base reported previously – from a PGR student population of 25 on the RAE2008 census date, rising to 31 by REF2014, to 52 in July 2020 (3 PhD and 49 EdD). There were also 29 students on the taught phase of the EdD, scheduled to become PGRs in either 2021/22 or 2022/23. A new cohort of 16 EdD students were recruited during summer 2020 despite additional challenges posed by COVID-19.

Most of our PGRs follow the EdD route, being either employer-funded or self-funded practitioners working between academic and professional contexts. Consequently, they bring valuable skills, knowledge and expertise informing the Unit's research culture, and help maintain a strong research/practice link. PGR students often come from organisations with whom we have partnership arrangements, delivering on our strategic objective of impacting positively on learning and teaching regionally.

Andrews and **Waller** lead the EdD, working closely with **Smart** as PGR student lead, overseeing progression of PhD candidates and EdD research phase students. The EdD also helps address

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development needs of our own staff; with significant numbers delivering the taught phase and progressing to supervise research phase students.

In REF2014 we reported 18 PGR completions, which has risen sharply to 33 now, broken down thus:

Year	PhD	EdD	All Completions
2013/14	2	2	4
2014/15	4	2	6
2015/16	1	2	3
2016/17	4	3	7
2017/18	0	0	0
2018/19	1	5	6
2019/20	3	4	7
Totals	15	18	33

Research students are supported in a range of ways:

- All have a Director of Studies and supervisory team who undergo compulsory training in supervisory practice;
- The EdD taught phase includes intensive research training, and PhD students must pass 60 credits of PG research courses;
- Students attend regular training and support days, and other activities at Faculty and Department level, including BRIDGE research seminars, the annual Faculty Research Celebration event and Faculty PGR conference;
- Through internal events, PGRs are provided with opportunities to present their research in supportive environments, and receive feedback from peers and doctoral supervisors;
- The Graduate School provides general and personalised advice on training needs, funding, careers and other issues and offers networking events and access to national and regional networks. PhD students in particular benefit from the GS skills development programme focussing on employability skills, including residential personal and career development courses;
- A Student Study Fund (usually £350) enables attendance at UK or overseas conferences or workshops;
- UWE Wellbeing Services, augmented by dedicated PGR support through the GS, assists students with mental health and/or wellbeing concerns;
- Students are represented throughout University PGR governance structures, including Graduate School Committee and Faculty Research Degrees Committee.

The 2020 Postgraduate Taught Experience Survey showed 100% satisfaction for phase one of the EdD programme, illustrating how well it prepares candidates for their research phase. The most recent (2019) Postgraduate Research Experience Survey showed overall student satisfaction with our research degree programmes is 93%, compared with 81% nationally.

Equality, Diversity and Inclusion

As highlighted in section 1, the Unit's research is driven by social justice concerns, and is fully engaged with equality and diversity issues, especially social class, 'race'/ethnicity, gender and sexuality, and disability. Examples include **Waller's** work on class and higher education, **Andrews'** on multilingualism, **Bovill's** on sexual harassment on campus, and **Newbutt's** on the use of VR to tackle learning disabilities. Our research promotes intersectional analysis of equality and diversity issues.

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UWE has signed up to the Athena SWAN principles and currently holds bronze institutional status (since 2013, renewed under the scheme's wider scope in 2017). Athena SWAN at University level includes a priority action to raise aspirations of women to have research careers at a senior level. As a result, the University's Women in Research Mentoring Scheme (WRMS), run throughout the REF period, has helped promote the careers of women researchers and increase their number among senior staff. Several Unit members have been mentees (**Bovill, Carter, Vickers-Hulse, Whitehouse, and Woodbury**) while others have acted as mentors (**Andrews, Costa, Harrison and Waller**). **Andrews** has been the scheme's longest serving mentor, mentoring six participants since it started, and currently sits on the Steering Group and Matching Panel responsible for pairing mentees and mentors.

Of the staff whose outputs are submitted to the REF in this Unit, 50% identify as female and 50% as male, whilst 20% are of BAME heritage. Senior staff are responsible for EDI initiatives including decolonising the curriculum at University, Faculty and departmental levels, and research in this area includes **Vafadari** and **Whitehouse's** work through ITE partnerships and BAME networks to empower practitioners in a diverse range of Bristol schools to decolonise their curriculum. Within the Unit, staff have been identified as having significant responsibility for research and outputs have been selected, according to the University's Code of Practice. This includes selecting outputs according to their quality as determined through a thorough peer review process involving an internal peer review panel comprising eight senior researchers, and three external reviewers towards its latter stages. There was no expectation about the number of outputs any one individual contributed to the submission. Where it was necessary to choose between a small number of outputs with the same quality score to reach the required total, account was taken of the distribution of outputs between individuals and across the subject areas of the submission.

Section 3. Income, infrastructure and facilities

To ensure sustainability, the Unit's work is supported by a mixed economy of core and competitive internal funding and various external sources. Major income sources across the REF period, which totals c.£1.2m include two *European Framework 7 Integrating Projects* totalling £273k (£27k to UWE), two from AHRC totalling £546k (£77k to UWE), and one from Leverhulme Trust, totalling £262k (£234k to UWE). The Unit has also undertaken work commissioned by bodies including OFFA and OfS, as outlined in ICS#1.

The Unit won competitive Faculty funding for activities that led to resources being deployed to build research capacity, for example pump-priming several small projects by supporting staff with dedicated research time and mentoring from senior research staff. More recently the Faculty has invested in BRIDGE activities including collaborative networking events and by providing resourcing to administer the group, develop its digital and media presence and provide for various activities: seminars (external and internal speakers); mentoring of ECRs; writing retreats focussed towards research publication work; and an academic reading group (particularly encouraging PGR involvement).

2014-2018

Early in this REF period, external funding was received for projects under three themes, examples of which are:

Design for Digital Learning

Work continued on the *Learning Layers* project (2012-2016), a major cross-European project with funding totalling c.€9.9m (UWE received c.€0.5m) comprising seventeen partners across seven nations, to explore the 'scaling-up' of Lifelong Learning using Technology Enhanced Learning across Europe. The project investigated how workplace informal learning could be supported by new technologies like mobile phone and tablet apps. UWE's work, led by **Cook** and involving **Santos Rodriguez** and **Last**, trialled the project in two sectors traditionally hesitant to adopt learning technologies: healthcare in North East England and building/construction in Northern Germany.

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Work also continued on the *BrEaking New Ground IN the Science Education Realm* (ENGINEER) project (2013-2015) with European funding totalling c.€2.8m, (UWE received c.€127k). This trans-European project involved ten nations, all of whom linked a science museum with a primary school and used inquiry-based pedagogical methods in science education to develop greater awareness of and interest in engineering. **Harnett** led the UWE team of **Knight** and **Lewis**. The project provided extensive teacher training on inquiry-based methods, and used inexpensive materials for student-led design problem solving. Science museums led the outreach effort targeting schools, teachers and science museums, with activities involving some 27,000 students across ten nation sites.

Post-Compulsory Education, Social Justice and the Student Experience

Paired Peers (2010-2013) and (2014-2017), funded by the Leverhulme Trust, was undertaken in collaboration with the University of Bristol, where phase one was initially based, with phase two based at UWE. The Principal Investigator was **Bradley**, other UWE staff involved include Co-Investigators **Bathmaker** and **Waller**, **Bentley** (also a PhD student on the project), **Papafilippou** and **Ward**. Phase one followed a cohort of 90 students studying similar undergraduate degree subjects in Bristol's two universities. The primarily qualitative project compared student experiences of, and transitions into, through and out of university, examining how class background impacted upon those transitions and experiences. Phase 2 followed 56 of the original cohort for three further years, examining career progression and their wider lives following graduation. Phase one funding was returned in the previous census period, but total funding for phase 2 was c.£262k, with UWE receiving c.£235k. Several project outputs feature in the submission, and it is the focus of ICS#2.

2018-2020

Since 2018, BRIDGE projects under its key themes include:

Researching with Children and Young People

Children as Engineers was a four-year HEFCE-funded project (£10k) led by **Lewis**, **Edmonds** and **Fogg-Rogers**, pairing Initial Teacher Education students with undergraduate engineering students, training them to use engineering challenge materials which they delivered in upper key stage two classrooms. The impact of participation in the project was evaluated and it was established that for pre-service teachers there were significant benefits for their science and engineering subject knowledge and their confidence to teach these subjects (a key factor in ensuring positive outcomes for children). This pedagogical practice is now embedded within UWE's engineering and educational undergraduate programmes, ensuring all students benefit from the research.

Digital Education

Several recent projects on *Autism and Virtual Reality* led by **Newbutt** involved development and application of technologies (specifically virtual reality (VR) and head-mounted displays (HMDs)) to autistic groups (including EC funding of c.£25k). This cutting-edge work brought together practitioners, parents, young people, researchers and technology companies to collaborate on using VR in schools, increasing its impact markedly. The project facilitated collaboration with Faculty colleagues in UWE's *Digital Cultures Research Centre* and *Bristol VR*, and built on **Newbutt**'s previous EPSRC-funded work with Michigan State University which uncovered findings related to acceptability, presence, immersion and possible issues with VR and HMDs for autistic adults. **Newbutt** has previously investigated how virtual world platforms such as Second Life™ help people with autism navigate social situations such as visiting a coffee shop, going to the cinema or attending a job interview. His current work involves an interdisciplinary team of UWE researchers (education, robotics and architecture) investigating how socially intelligent robots can be used in schools to support young autistic people.

Global and Sustainable Education Research

Project Zulu (PZ) is a UWE-run charitable educational initiative supporting ten township schools in Kwazulu-Natal, South Africa, including several research-informed educational projects on learning and teaching, ICT development, physical infrastructure and sports coaching. Projects involve student volunteers and academic staff (**Carter**, **Edmonds**, **Knight**, **Lewis**, **Vickers-Hulse** **Whitehouse** and **Witt**) working jointly with pupils, teachers and school leaders to improve facilities,

Unit-level environment template (REF5b)

share innovative practice and develop resources and strategies to enhance educational opportunities. The project's research arm evaluates the impact of these initiatives, eliciting stakeholders' views, including the local South African education department, and evaluates the strengths and weaknesses, benefits and drawbacks for partners in both countries. **Carter** has recently won a British Academy award of £30k to extend this work around the use of reading apps.

Infrastructure and Research Support

The Faculty's Associate Dean for Research, supported by its Director of Research and Associate Heads of Department for Research and Scholarship, ensure applications for internal research funding (see below) are evaluated in terms of research excellence, career progression and alignment with research strategy; ECR applications are considered separately to ensure parity. Research leaders liaise with department heads over workloads, and monitor progress and outcomes against agreed targets that are sensitive to career positioning, progression, track record, wellbeing and equality and diversity issues. Researchers are encouraged to make full use of the University's Personal Development Reviews where line managers ensure clear development goals and KPIs are identified for individual researchers.

All research-active staff are allocated up to £1,500 per person per year for attending conferences and conducting empirical research. In addition, Unit researchers have benefitted significantly from awards made through the Faculty's 5 competitive funding schemes:

- (i) Research Support Time (RST) provides dedicated research time to complete internationally excellent outputs;
- (ii) Research Collaboration Fund (RCF) provides up to £12,000 to support staff working with colleagues across UWE, other HEIs and industry;
- (iii) Research Impact Fund (RIF) provides money to further impact activities and evidence gathering;
- (iv) Research Publicity and Dissemination Fund (RPDF) enables staff to promote their research inside and outside the academy;
- (v) Research Group Scheme encourages the creation of new research groups around strategically significant themes and supports the ongoing work of established groups including BRIDGE.

In addition, selected staff participate in annual intensive bid-preparation Summer Schools for emerging researchers, including previously **Bovill**, **Carter**, **Newbutt** and **Lewis** from within this Unit.

UWE's Research, Business and Innovation unit provides a programme of research skills and development training and ensures staff are aware of opportunities for external funding, bids for which are encouraged through workshops, individual mentoring and UWE's Peer Review College that also supports staff in bidding. To complement this, BRIDGE established a peer review system for bids and academic outputs as part of its core mission. ECRs benefitting from this include **Carter** who recently published in *British Educational Research Journal*, and **Jones**, whose work appeared in *Children's Geographies*.

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

Research collaborations

Internal collaborations:

Unit members collaborate with colleagues from other University research centres and groups. **Waller** spoke at *Social Science Research Group (SSRG) 2015* launch event and has addressed meetings of several SSRG thematic strands (e.g. the *Identities, subjectivities and inequalities* sub-group). Such research collaborations resulted in co-authored publications, including on the impact on undergraduates of participating in an A-Level student tutor/mentor scheme with local schools and colleges.

Unit-level environment template (REF5b)

Harrison and **Waller** worked with UWE's student finance team in evaluating the effectiveness of student bursaries (see ICS#1), and **Bovill** led an interdisciplinary team of UWE researchers and practitioners in the HEFCE funded (£50k) project on the role of education in tackling sexual harassment on campus.

The Unit enjoys strategically important links with the Faculty's *Digital Cultures Research Centre* (e.g. **Newbutt's** work on VR), and other UWE centres and groups, notably the *Centre for Appearance Research* (e.g. the continuation of **Bovill's** work educating to prevent sexual violence mentioned above, which also involved colleagues from various professional services roles and other academic departments).

External collaborations:

As well as leading on national and international projects, **Cook's** role within the University and local community until his 2018 retirement included coordinating the Bristol hub of the transnational *Open Network for Mobile Learning Scenarios* (ONMLS). Further support for this initiative came from SRF **Santos Rodriguez**, and Research Fellow **Last**, to assist the hub part-time.

Specific projects involving collaboration with both policy makers and colleagues in other universities included those behind both Impact Case Studies. **Harrison's** projects outlined in ICS#1 on improving university outreach and broadening access to HE resulted in the development of a financial support evaluation tool (2015-2017, with Sheffield Hallam, King's College London and Oxford - £57k total) and an evaluation self-assessment tool (2017-2018, with Sheffield, Sheffield Hallam and Derby - £30k total) for the OfS. Both have been widely adopted across the university sector. High impact outcomes of this included workshops for c.100 university-based practitioners on using financial support evaluation tools; **Harrison's** methodology led to a better evaluation of the effectiveness of financial support facilitating better targeting of access funding.

Harrison's collaborative work on care-experienced students within HE resulted in extensive collaboration with university-based practitioners and local authority practitioners nationally (e.g. *National Leaving Care Benchmarking Forum*), whilst his sole-authored 2017 *Moving On Up* report informed policy development for both the OfS and DfE. Work with various local authorities helped embed this into practices regarding support for student care leavers, further enhancing this research's impact.

We also collaborate with regional bodies including *Bristol Cultural Education Partnerships*, partnership schools and multi-academy trusts, colleges and other organisations such as the *Western Region Widening Participation Research Cluster* and *Future Quest*, a locally-based organisation with national reach, promoting outreach into schools and colleges encouraging participation in HE amongst socially disadvantaged communities. *Future Quest* is currently leading work with the new *Social Mobility Pledge* initiative of Rt Hon Justine Greening (e.g. **Waller** is speaking at their first national event in November 2020). UWE's annual Schools and Colleges conference has included presentations from members of this Unit (e.g. **Burke, Harrison** and **Waller**).

Other collaborative work includes **Carter's** research into phonics screening checks in primary schools; she worked with 63 schools in South Gloucestershire who adopted the audit for effective early reading practice. Similarly, **Carter's** Boosting Reading at Primary (BRP) work has been used widely by Bristol LA schools. A cross-city cohort of 724 pupils made an average of 3.67 months progress in reading age following interventions, and teaching assistants in the city are now trained using this approach. **Carter's** work has also involved international collaborations including the Erasmus Plus funded: *Open the Door to Reading* project which developed guidance for practitioners working with young families in five European cities: Bristol, Gothenburg, Brussels, Turku and Milan. **Carter** has also recently won a BERA small grant to study the impact of Coronavirus on supporting one-to-one reading for children in need of additional support.

Unit-level environment template (REF5b)

Contributions to the discipline**Academic editorship**

Unit members collectively sit on sixteen journals' editorial boards, including high-profile examples such as *Journal of Education Policy* (**Maisuria**), *British Journal of Sociology of Education* (**Waller**); *Teaching in Higher Education* (both **Harrison** and **Waller**) and *Educational Psychology* (**Babayigit**). They have guest edited four journal special issues across the period, and edited a total of ten books. **Waller** is a Publications Director of the British Sociological Association (BSA).

Participation on research and grants committees, and learned societies

Newbutt has served on the advisory board of projects funded by the German Research Ministry and the FP7 COFUND EU Marie Curie fund. He is a Research Associate and Member of the Center for Avatar Research and Immersive Social Media Applications (CARISMA), Michigan State University, USA.

Newbutt, **Harrison** and **Babayigit** have all reviewed large research proposals for the ESRC, and **Waller** for its Belgian equivalent, the FWO. **Babayigit** has also been a reviewer for Biotechnology and Biological Sciences Research Council and the British Council Newton Fund, for whom **Maisuria** also reviews. **Bradley** has served on panels for the ESRC, the Irish Research Council for the Humanities and Social Sciences, the Swedish Research Council and the Academy of Finland. **Harrison** has reviewed research funding applications for the SRHE, and **Maisuria** for the British Education Studies Association (BESA).

Harrison is an elected member of the SRHE's Governing Council, **Maisuria** is an Executive Committee Member of BESA, **Babayigit** was a Committee Member of the British Psychological Association, and **Waller** is an elected Trustee of the British Sociological Association.

Fellowships

Newbutt has held visiting fellowships at University College Dublin and Michigan State University; **Jones** is an honorary research fellow at Exeter University; **Maisuria** at Sweden's Uppsala and Goteborg universities; **Whitehouse** at universities in Lund (Sweden) and Timisoara (Romania). **Bradley** is a Fellow of the Academy of Social Sciences, and holds an Honorary Professorship from Karlstad University (Sweden).

Prizes

Jones and **Whitehouse** won a silver publisher's award from the *Geographical Association* for their co-authored 2020 book *DRY: The diary of a water superhero*, whilst **Bradley** and **Waller** won second prize in the *Society for Education Studies* 'book of the year' award for their co-authored 2016 monograph book from the *Paired Peers* project. **Waller** was also runner-up in UWE's 'Research with Impact' award 2019 for this work.

Harrison and **Waller** won the *British Education Research Journal's* Editor's Choice annual award for their much-cited 2018 article on the discourse of aspirations, and were shortlisted in 2019 for their WONKHE higher education policy website blog on a similar topic.

Edmonds, **Fogg-Rogers** and **Lewis** were shortlisted and highly commended for a 2018 House of Lords STEM Inspiration Award for their research project on getting children interested in engineering, and were national winners of the 2018 *Teacher Education Advancement Network* 'Commendation for Effective Practice in Teaching' award for the same work.

Membership of Research Council or similar national and international committees

Harrison is an Advisory Group Member for the OfS project on standards of evaluation, and **Burke** a network convenor for SRHE and a BSA Study Group convenor. **Maisuria** is an advisor to the Private Schools Policy Reform group, and member of London Educational Research Network Scholars. **Smart** has served as an advisor to the Council of Europe's History Education unit, and to EUROCLIO (*European Association of History Education*), and represented them across Asia and Europe.

Invited keynotes and lectures

In addition to many contributions within the four UK nations, Unit members have given keynote lectures or similar invited contributions in 24 other countries during the census period: *Armenia*;

Unit-level environment template (REF5b)

Brazil; Canada; China; Croatia; Cyprus; Denmark; Estonia; France; Germany; Greece; India; Ireland; Italy; Latvia; Netherlands; Norway; Poland; Portugal; Russia; Serbia; South Korea; Sweden and USA.

In the UK context, Unit members contribute to events across a wide range of topic areas. Examples include **Jones** being a keynote or invited speaker at *ESRC's Communicate conference* and *Royal Entomological Society's annual conference* (both on sustainable food) and Expert Discussant at *PURE: London 2018* (on ethical fashion). **Costa** made keynote contributions on topics including using social theory in research, digital scholarship and estranged students in HE, **Waller** gave keynotes to several PGR conferences externally, and **Newbutt's** contributions included addresses on virtual reality and autism. To enhance their research's impact with practitioners, Unit members frequently address teachers' conferences, for instance **Witt** on maths anxiety, **Foley** on the teaching of both classics and Shakespeare in a secondary school environment, and **Andrews** on 'Achieving success in linguistically and culturally diverse schools and settings'. **Burke** has both given several keynote addresses on using Bourdieu's theories in educational research (as has **Waller**), and addressed the *Association of Graduate Careers Advisors* on graduate employability, a topic **Waller** has also spoken to various professional bodies about, including the *Scottish Law Society*. **Harrison** gave a keynote to the *National Network for the Education of Care Leavers* annual conference on his research on care leavers and HE.

Conference chair roles

Maisuria has organised and chaired the *International Conference on Critical Education* and the *Marxism and Education: Renewing Dialogues* (MERD) seminar series for several years and is on the organising committee for BESA 2021 Annual Conference. **Bovill**, **Burke**, **Harrison** and **Waller** have each convened and chaired symposia at *SRHE* annual conference, as **Harrison** has at the *European Conference on Education Research*, and in 2018 was included in *BERA's* showcase of UK-based research for the *American Educational Research Association*. **Waller** has chaired several symposia at *BERA* and *BSA* annual conferences, and, along with **Harrison** convened and chaired several *Western Region Widening Participation Research Cluster* symposia throughout the period. **Bovill** organised a conference on 'Gender, Sexuality, Bodies and Identities' in a BRIDGE collaboration with UWE's *SSRG* and *Centre for Appearance Research*, with keynote speakers from the US. **Burke** has co-organised the bi-annual *BSA Bourdieu Study Group Conference* in Bristol (2016); Lancaster (2018) and Barcelona (2020), although the latter was victim of the COVID pandemic.

Refereeing academic publications

Unit members have further contributed to the research base by reviewing book proposals for publishers including *Continuum*; *Emerald*; *Open University Press*; *Palgrave*; *Policy Press*; *Routledge* and *Sage*.

Unit members have also peer-reviewed article manuscripts for c.40 different academic journals including: *British Educational Research Journal*; *British Journal of Sociology of Education*; *British Journal of Educational Studies*; *Cambridge Review of Education*; *Discourse: Studies in the Cultural Politics of Education*; *Higher Education*; *Journal of Education Policy*; *Oxford Review of Education and Sociology*.

Babayigit, **Burke**, **Harrison**, **Maisuria** and **Waller** have all been keynote contributors or invited panel members at UK and international event sessions focussed on getting ECRs published.

External Doctoral Examinations

Throughout the census period, Unit members have examined doctoral theses at some 30 UK and international universities, including Bahauddin Zakariya (Pakistan); Birmingham; Cardiff; Institute of Education (UoL); Kings College, London; La Trobe (Australia); Liverpool; Nottingham; Queen's Belfast; Sheffield; University College, Dublin and York.

Members have also been external examiners for PGR degree programmes during the period e.g. **Waller** for University of Bristol's MSc Educational Research, University of Leicester's MA Social Research and the joint Roehampton and Kingston University EdD.