

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

Structure

The Department of Education at Brunel University London is committed to principles of social justice and equality, and this permeates all aspects of its research. This includes research-led outreach activities, such as the Urban Scholars Programme, and research demonstrating impact in relation to widening participation and social mobility. The Department's research makes an active contribution to policy development and debate in education in line with the United Nations' Sustainable Development Goals – particularly 'inclusive and equitable education for all'. Colleagues make a significant contribution to research in the fields of philosophy, professional education, educational identities and narratives, equality and diversity, inclusion and Special Educational Needs and Disabilities, curriculum, higher education policy and practice, literature and the humanities, social mobility and STEM education. We aspire for our staff and students to use education in all its forms to be a force for social good and to understand its potential as a transformative life experience.

Our research addresses education in the broadest sense, including formal and informal education (such as youth work and welfare contexts), and across the age ranges, including schooling, higher education and lifelong learning. Research is currently organised and led through three Research Groups, which correspond to three areas of strength distinctive to Brunel's Department of Education. As befits a Department that accepts students from a wide variety of non-traditional backgrounds, often living and working in local communities beset with educational and social challenges, we have a strong research focus on widening participation and social mobility centred around the **Education, Identities and Society** (EIS) research group (led by Hoskins). As an Ofsted Outstanding provider of research-led ITE we have a strong focus on **Pedagogy, Policy and Professional Education**, situated within the PPP research group (led by Aldridge). Corresponding with Brunel University London's focus on applying STEM research to social and professional contexts, the third research group coordinates and promotes external recognition of our strong research in **STEM education** (led by Watts).

Objectives and review; the future

The Department's aims from REF2014 were 1. to gain national and international recognition as a leader in the field of education; 2. to conduct research that is grounded in high-quality methodologies, underpinned by sound theory, and engaged with broad social science debates; 3. to have strong relevance to and impact on educational policy and practice; and 4. to develop a research community that is based on the principles of transparency, inclusivity, equity, fairness and collegiality. Evidence of continued success in each of these areas includes: 1. In 2017 Brunel became the home of the British Educational Research Journal, a preeminent UK and highly esteemed global generalist education journal; 2. Brunel researchers have been at the forefront of defining high quality interdisciplinary methodologies for social research including: Chappell co-edited the *Palgrave Handbook of Autoethnography*, Aldridge and Green launched the *Routledge Literature and Education* book series, and Watts' guide to *Interviewing in Educational Research* was acknowledged as a classic by being published in a new edition in the Routledge Revivals book series; 3. The

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relevance of our research can be seen in the interest it has garnered from Ofsted (Biesta was cited in the new Education Inspection framework's 'underpinning research' in 2019, Cushing has been consulted by her Majesty's Inspector (HMI) on the issue of linguistic discrimination in schools), and national news (Aldridge on Remembrance in Schools and Cushing on 'language policing'); 4. a programme of targeted mentoring has supported colleagues so that a larger proportion now have doctorates and are research active (with five colleagues gaining doctorates during the REF period).

Building on our success we have (i) brought further intellectual coherence to the department's research group structure, (ii) embedded the structure of research leadership, mentoring and support and (iii) increased the proportion of research active colleagues in the department.

The last REF environment statement recorded objectives for growth for PPP and EIS, including developing further scholarly work in 'mathematics education' and 'identities' for EIS. Since then we have achieved significant national and international recognition in these areas, indicated by two field-defining books, 'Debates in Mathematics Education' (Ineson) and 'STEM, Social Mobility and Equality: Avenues for Widening Access' (Hoskins). The introduction of the STEM research group early in this reporting period acknowledged significant strengths in Mathematics Education and other STEM research activity in the department and potential for growth in terms of bidding activity and collaborative work with the University's newly established STEM Inspire Centre.

Research is led by a Departmental Research Subcommittee that meets twice per term and is chaired by the Director of Research (DoR). The Committee comprises senior researchers, research group leaders, the Head of Department, the Research Administrator and colleagues with responsibility for internationalisation, departmental research ethics, the Department research seminar series and postgraduate research in education. The DoR is a member of the College Research Strategy Group, along with the other DoRs across the College of Business, Arts and Social Sciences (CBASS), the leaders of the College Research Centres, and led by the Vice Dean for Research in the College.

During the REF period the departmental research strategy has been to (i) seek out new international collaborations and direct our existing international partnerships towards field leadership and bidding activity, (ii) ensure the vitality and sustainability of departmental research and (iii) build on our existing strengths in PhD and EdD supervision.

In order to develop international collaboration, the role of Director of Internationalisation (Watts) was created to sit on Research Subcommittee, Department Management Board and College International Strategy Group. The DoI has been responsible for identifying and initiating strategic collaborations with universities in Mauritius and Portugal. These partnerships have resulted in the establishment of a new international journal and other significant publications, as well as developing collaborative bidding activity. International collaboration was also a focus of professorial recruitment during the REF period and the two new professors (Tsouroufli, Garner) have brought track records of success with European Commission, UNICEF and Erasmus bidding activity and well-established connections with universities in Greece, Turkey, and Malaysia. A generous programme of funding support for international conference attendance has further supported colleagues in building networks and developing international partnerships.

Vitality and sustainability have been a particular focus of new appointments and internal promotions. Senior colleagues were appointed to bring intellectual leadership to the EIS and PPP research groups (Hoskins, Aldridge), or to use experience of winning major international awards to support

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colleagues in bid-writing activity and establishing international partnerships (Tsouroufli, Garner). There are now six Readers in the Department, who are being supported on a professorial trajectory. At senior lecturer level, colleagues are building significant reputations for field-leading research (supported by funding from the CBASS Global Lives research centre, Green, for example has organised national conferences on literature and education and co-edited a special issue of *English and Education*). A number of newly appointed early career researchers are already having a significant impact in their field (Tennent's publication in *Education 3-13*, for example, challenges national reading assessment policy).

The department has an excellent reputation for supervising postgraduate research, particularly working with students from non-traditional academic backgrounds. During the REF period, we increased our strength in doctoral provision by validating an innovative EdD programme for which recruitment is thriving, and establishing the new ESRC Grand Union Doctoral Training Partnership. A significant number (39) of our international PG research students are funded by international bodies. An increase in the number of PGR students has been enabled by our successful efforts to increase the number of colleagues with doctoral qualifications. The number of PGR applications (63) in 2015/2016 (68 offers, 3 acceptances, 2 enrolled) increased to 130 in 2019/2020 (30 offers; 27 acceptances; 22 enrolled).

Over the next five years we expect to see further benefits of this strategy by capitalising on the support of new appointments, College Research Centres and international networks to secure increased research income within our identified areas of impact. Our recruitment strategy, research bidding activities and strategic scholarly collaborations will enable us to have a louder voice and a demonstrable impact on policy and the wider public discourse around education.

Impact

We aspire for our research activity to provide real benefits for social justice and inclusion, and to serve the particular needs of the communities in the University's immediate location. Emblematic of this commitment is the Urban Scholars Widening Participation Programme, which the University has supported throughout the REF period and which has successfully attracted external funding; this nationally recognised research-led educational intervention has successfully widened participation in higher education by BAME and lower income students. Students are among the key beneficiaries of the research impact of the Department of Education. The Urban Scholars Widening Access Programme (USP), following from Koshy's high profile research into the achievements of 'gifted and talented' pupils (for which Professor Koshy received an MBE in 2018), is a programme of sustained educational intervention. From 2015-2020 USP has made a demonstrable and positive impact on the engagement with learning, academic achievement, aspirations, HE orientation and self-understanding of 320 young people (aged 12 to 18 years) each year from 30 schools in areas of high social deprivation (mainly west and south London) and has additionally impacted on the views and experiences of parents, educationalists, government policy makers, and Widening Participation (WP) officers in Universities.

Through recruitment of colleagues to the EIS research group, we have sought to widen the scope of our impact on social justice matters to include issues of gender, class and race and across educational contexts including employment in HE (Tsouroufli) and social mobility in education (Hoskins) where our current work is likely to have significant policy impact in future.

Wainwright's exploration of education, training and welfare in the context of the extended role of housing associations (HAs) in England has provided a research-informed evidence base for HAs on

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their education, training and welfare provision for residents, informed decision-making and shaped service provision in relation to the types of education, training and welfare provision offered by HAs. It has also improved staffing and supported funding bids for key service provision and resident groups in need; and produced research-informed findings on good practice for the wider social housing sector on education, training and welfare provision for residents.

We have identified early reading and linguistic discrimination in schools as a crucial area where social disadvantage can be addressed through research. The department was successful in its efforts to reintroduce the PGCE in Secondary English to Brunel University London with a specialist teaching team from 2018. Through new staff appointments to the PPP research group (Cushing, Tennant) joining our existing specialism in this area (Jones) we are already making an impact on the national level through an extensive programme of research-led school-based CPD and through media coverage of our research.

Two further areas of impact development have been identified and resourced during the REF period, linking to the specific goals of the STEM and PPP research groups. The Brunel STEM Inspire Centre was formed during the REF period and offers a purpose-built, extensively resourced and innovative teaching and engagement space for departmental colleagues to develop their existing programmes of STEM research in direct contact with students and teachers in the local community – particularly Watts (science learning, intergenerational and informal learning), Kaur (new models for curriculum development and STEM integration) and Ineson (mathematics education). A colleague has been recruited in the department to act as academic liaison with the work of the centre. The Centre serves and supports science, technology, engineering and mathematics education in the local area, particularly at primary level where teachers lack specialist training, and in the coming years we plan to see impact around developing STEM aspiration in girls and ethnic minority students under-represented in STEM higher education and careers.

In the area of pedagogy, policy and professional practice (PPP), the role of Department champion for Enterprise and Knowledge Exchange (Tennant) has been created in order to more closely align our successful programmes of CPD with our research priorities. Initially this work is focusing on curriculum consultancy, drawing on our strong specialisms in the teaching of early reading (Tennant, Cushing, Jones), philosophy and religious education in schools (Aldridge, Biesta), and STEM and mathematics pedagogy (Watts, Ineson, Kaur, Hossain).

Interdisciplinarity

Education is an interdisciplinary field and a number of colleagues work on educational themes and applications at the intersection of academic disciplines. To strengthen interdisciplinary connections and lead, collaborate and exchange best practice with Brunel colleagues working outside of the field of Education, colleagues are encouraged to seek support from the college's research centres and to seek membership of the university's research institutes. A number of departmental colleagues have won awards through competitive funding calls to establish and maintain subgroups within the College's Global Lives Research Centre. Aldridge and Green have received three awards from Global Lives for the Literature and Education research group, which have supported two Brunel conferences in literature and education organised by Brunel education researchers; their work through the centre with colleagues across CBASS has supported them in leading the emergence of an academic field of engagement between literary studies and education studies. This field now has an annual conference organised by Brunel colleagues and a field-defining book series, Routledge Literature and Education (edited by Aldridge and Green). Further Centre awards made possible a

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connection between the departments of education and game studies to support ongoing research in digital storytelling (Watts, Crowe). Wainwright's research at the intersection of education, geography and social welfare is supported beyond the department by her membership of the Institute of Environment, Health and Societies, which provides administrative support particularly with seeking research funding and enables research development activities alongside colleagues working in disciplines beyond education. Aldridge's work on artificial intelligence and education is supported through his membership of Brunel's interdisciplinary Centre for Artificial Intelligence where he is able to collaborate with colleagues with a broad range of expertise pertinent to AI and lead a subgroup with a focus on AI inclusion and social justice.

Research Integrity

The Department's lead for Research Ethics (Green) sits on the research subcommittee. Ethical decisions around research are devolved to the department's own Research Ethics Committee, comprising a rolling roster of senior researchers and administered by the College research office. Completion of a substantial research integrity training module is compulsory for all colleagues and research students. The Department's commitment to and specialism in relation to research integrity is demonstrated by the editing of a special issue of the *British Educational Research Journal* on ethical questions in educational research by the DoR (Aldridge) and other publications on ethical questions in research (Wainwright). A Departmental Health and Safety Officer works with the School's Research Ethics Committee providing expertise on risk assessments.

Open Access

We are committed to progressing towards an open research environment. Colleagues are encouraged to take advantage of the institution's support for gold open access publication. Under the guidance of the Scholarly Communications Office, upon acceptance of their article colleagues can apply to a central fund; during the REF period, 30.8% of the department's outputs have been published gold open access. Staff are regularly kept up to date by visits from the University Research Data Manager on education team days and training by the Data Manager is also incorporated into the department's PGR student research training programme and the College's early career researcher programme. Senior colleagues are also expected to promote submission of articles to open access journals, and each of the two current full-time Professors is on the editorial board of an open access journal (Interdisciplinary Perspectives on Equality and Diversity, Tsouroufli, and Mauritius Institute's Journal of Education, Watts).

2. People

The central components of the department's strategy to develop colleagues and build research capacity are: a mentoring structure integrated within the three research groups; targeted recruitment with a focus on the vitality and sustainability of our identified research strengths; sensitive support of colleagues with a range of different needs and at a range of stages of their career and life (particularly through the creation of the role of Director of Equality and Diversity); and the integration of our thriving community of doctoral researchers into the research activity of the department.

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Staff Development

In line with the Researcher Development Concordat, we have sought to promote an equitable, inclusive and positive culture in all aspects of research, to facilitate different patterns of working and to attend to the wellbeing of researchers, and to actively ensure equality of opportunity and equitable conditions for research work. The primary means of doing so has been through our development and formalisation of the mentoring system throughout the REF period.

All existing colleagues have a research mentor who is their research group lead. All colleagues are members of one of the three research groups and new colleagues join a group associated with their research interests immediately on appointment. Research groups meet formally twice per term and in addition form a network through which colleagues collaborate and support each other with grant capture, publication, and research impact. Colleagues work together to gather data, write articles, book chapters, monographs, conference papers and research grant applications, and to disseminate their work. The groups plan and host research seminar events, which draw on the professional networks of group members. The groups serve to encourage a collegial culture through collaborative effort, offering informal development for early career colleagues by giving them the opportunity to present their work to a small and supportive group of colleagues.

The research group lead as mentor is responsible for ensuring that research guidance is tailored to the needs of colleagues at all career levels and for identifying any support that is needed; additional support is provided by the team of Professors and Readers (as well as additional professional expertise from the College Research Centres and the University's Research Institutes) and could include coaching for academic writing, guidance on grant capture, peer review, career aspirations and promotion applications, and colleagues with experience in impact supporting more junior staff. Research support is formally recorded and evaluated through an annual meeting with the research mentor where an individual research plan (IRP) is discussed and agreed, with additional supporting meetings according to specific needs. The IRP then feeds into the annual Professional Development Review with an appropriate line manager. The Department research budget incorporates a generous allowance for all research staff of up to £1250 per year to support conference attendance.

Recruitment

All REF-eligible staff in the department are on permanent contracts, which include an initial probation period during which time they are supported to submit at least one publication and apply for an external research grant. Recruitment at all levels follows a strategy for sustaining our identified research strengths and in particular ensuring development of colleagues through to internal promotion at professorial level.

In order to consolidate and provide leadership to existing research strengths, a number of senior appointments have been made during this period. At Reader level, Hoskins was recruited to lead the EIS research group and expand an established area of research strength in social mobility, identity and equality. Aldridge added to departmental research expertise in philosophy of education and curriculum and replaced Biesta as Director of Research. Filippakou strengthens our claim to address a full range of formal and informal educational contexts by leading departmental research into higher education. New professorial appointments were made in line with our goal to form new international collaborations. Tsouroufli brings specific expertise in Horizon and Erasmus funding as well as existing research collaborations with universities in Turkey and Garner brings a track record of

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success with UNICEF and European Commission funding, as well as collaborative relationships with colleagues in Malaysia and Hong Kong, that we seek to draw on in bidding for international projects and to expand the range of our research impact. These new appointments also ensure sustainability and expert guidance for our research into identity and equality (Tsouroufli) and Special Educational Needs and Inclusion (Garner). Additional appointments at Lecturer and Senior Lecturer have added to our acknowledged research strengths around the teaching of reading and writing (Tennent, Cushing) and philosophy (Ferri).

The success of this recruitment strategy is already evident. For example, Prof Tsouroufli has been successful in winning the three year ERASMUS Plus award 'Expanding the use of the Gender Equality Charter Mark for Primary Schools across Europe' led by Decsy Sheffield in partnership with Brunel University and institutions in Austria, Croatia, Serbia, Italy, Finland, Greece, Slovakia, and Hungary. This project, completing in 2021, has led to the production of gender equality training tailored to the needs of teachers in each partner country and adapted to reflect the socio-political context of each member-state. Prof Tsouroufli will lead researchers' in the Department's PGCE team to apply, develop and evaluate these materials as well as write publications resulting from the project.

Early Career

During this period there has been a sustained effort to improve research competence across the Department and increase capacity to supervise PGR students both through targeted appointments and supervision of colleagues to completion of their doctorates. These efforts have led to a significant increase in research capacity during the reporting period, with all but one member of staff on a teaching and research contract now having doctorates and able to supervise PGR students. The remaining colleague is in the third year of the EdD programme in the Department. This has enabled a marked growth in PGR student numbers, including four cohorts on the EdD programme (revalidated in 2016), averaging ten in each year group. The number of colleagues publishing in high impact journals, as well as the quantity and quality of individual outputs, has also been a focus during this period and has increased accordingly.

Early career researchers are encouraged to apply for one of the university's central schemes to support research - the Research Development Fund or the BRIEF award. In his first year, Cushing applied successfully for an RDF award to support data gathering in schools, which enabled him to complete an article and provided the seed for subsequent British Academy and Nuffield Foundation applications, both submitted in 2020. Departmental colleagues have had less success in securing BRIEF awards, so during the REF period research group leads (Hoskins, Aldridge) worked with colleagues in other Departments to support and review BRIEF awards so that in future we can better identify likely candidates and ensure critical and supportive peer review.

Research Leave and Support for Impact

Sabbatical leave has been granted to a number of colleagues during the REF period through a competitive process where decisions are made at a College level to ensure equity and parity among awards made. In addition to this formal scheme, shorter periods of research leave have been awarded on a bespoke basis in negotiation with the Head of Department and Director of Research to support completion of targeted and time-bound outcomes including writing projects, the formation of research networks, and the development of research funding applications. These awards have sought to take account of colleagues with caring responsibilities and other impediments to sustained

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periods of research intensity. For example, Geeta Ludhra: 24th April 2017 to 7th July 2017. Focused on writing research articles and chapters from doctoral data, and building her research project on Successful BAME Students. These included: 'Conveying the 'right' kind of message: Respecting the voices and identities of bilingual learners'; 'Pedagogical Responses to the Changing Position of Girls and Young Women'; 'What does it mean to be 'successful': Narratives of British South-Asian Headteachers and Headgirls' Paula Zwozdiak-Myers: 24th April 2017 to 7th July 2017. Focused on data gathering and the start of analysis on a project on FBV and this data led to an article 'Understanding inclusion in teacher education – A view from student teachers in England'

Deborah Jones: 16th April 2018 to 6th July 2018. Gathered data for her UKLA project looking at developing effective oral feedback exchanges: supporting children's writing at key stage two. Subsequently published book 'Unlocking Speaking and Listening' and article 'Talking about talk: reviewing oracy in English primary education.'

Every member of staff received a research support intervention during 2018/19 and 2019/20. This was resourced from the Department pay and non-pay budget. Some examples of the use of this resource are: Wainwright and Hoskins: hourly paid staffing allocated to marking to support impact case study work. Chappell and Kaur: hourly paid staffing allocated to marking to support writing for publication time. Crowe: non-pay budget used to cover travel costs for networking events and Zwozdiak-Myers: transcription costs.

Support has also been provided for staff returning from parental leave and ill health, including an OH assessment followed by a meeting with HoD to consider individual needs. Support normally involves a phased return and alleviation of teaching and administrative duties. During COVID 19, where staff have been working from home for childcare reasons, we have continued to protect Research Thursdays in agreement with DMB and not slotted teaching and administrative tasks into that day which cannot be done elsewhere due to childcare pressures.

Research Students

The table below shows the disaggregated completions into PhDs and EdDs.

Disaggregated PGR completions (as per the HESA totals) into PhDs and EdDs

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
EdD	1	1	6	1	0		0
PhD	7	0	2	11	0		3
Total (as per HESA)	8	1	8	12	0		3

PGR students make a significant contribution to the research culture of the Education Department and are actively integrated into a research community of colleagues and students. The consolidation of departmental research into the activity of the three research groups attracts students who identify strongly with our core research interests. Numbers have increased significantly since the last exercise. This is partly due to a new Doctor of Education (EdD) programme launched in January 2017. A cohort of approximately ten students is recruited to this programme each year. There are currently 43 students enrolled on the part-time EdD programme, 19 international students on the full-time PhD programme, 5 home/EU full time students and 16 part time home/EU students.

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The increase in PGR student numbers is also due to a transparent recruitment and selection process, which involves ensuring all academics in the department have the opportunity to consider each application we receive; this approach is also part of our equality and diversity strategy and ensures a balanced spread of doctoral supervision across departmental staff. Possible supervision teams are identified prior to interview and all those interested in supervising the applicant are involved in the interview. Each successful candidate is assigned a principal supervisor, a second supervisor and a research development advisor. PGR students meet with both supervisors at all meetings to benefit from a breadth of expertise and range of perspectives on their work. Principal supervisors with a track record of successful progression are typically paired with less experienced supervisors to support the induction of ECRs into PGR supervision. The education department collaborates with Oxford University to allocate ESRC doctoral research awards via the Grand Union Doctoral Training Programme. This major ESRC funding partnership was established during the reporting period and already two fully-funded awards have been made to research students in Brunel's education department under this scheme in 2018-19 and 2020-21.

PGR students are supported after enrolment through a programme of induction events, one of which is a review undertaken with the full supervision team. This ensures that the student is familiar with the key information within the Code of Practice for research degrees. Through the 'research development plan', doctoral students identify aspects that they would like to develop in the short and longer term and what support they would benefit from. They are required to attend a "Conceptualising and Designing Educational Research" doctoral support programme. Students attend a progression panel each year, which involves two independent academics from the department and is chaired by the PGR Director. They submit a substantial piece of writing, their updated research development plan and a progress report, which includes a statement from their supervision team about their progress. This provides an opportunity for their research to be scrutinised by academics outside their supervision team and prepares them for presenting their work in academic forums and for their viva.

As well as being encouraged to attend department, college, university and external research events, there are a number of activities, which contribute to the research culture for PGR students. This includes the PGR support programme described above, monthly RDA group meetings, a doctoral student-led research seminar programme and a doctoral student reading group, as well as a fortnightly online 'writing retreat' established during the Covid-19 Lockdown. PGR students are entitled to a generous allowance for conference attendance. The department hosts a long-standing staff-student research conference each year in which all doctoral students and staff are expected to participate together; each year a senior colleague presents a keynote address. PGR students can select to present their work either via a poster presentation or via a ten minute oral presentation.

Because a significant number of our PGR students are part or full-time educational practitioners, their experience and expertise enriches our research community. Collaborations between academic colleagues and PGR students also enhance the academic career progression of PGR students. For example, Gower, together with PGR student Fogarty, made a successful bid to BELMAS' research development fund for 'An investigation into the use of interactive, online video capture platforms to support the professional learning and development of a community of educational leaders across a range of different settings.' This builds on the doctoral research and outreach activity (whole school CPD for two Partnership schools during the REF period) on the pedagogy of teacher education and development by Gower and the EdD research team, bidding activity and leadership and management experience in the early years sector by Lewis Fogarty. The project also involves a

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research partnership with IRIS Connect, the company providing the technology and cloud based online platform for the capture and collaborative analysis of practice.

In 2019 and 2020, the department self-published two volumes of staff and student writings. Entitled 'It's education but not as you know it' and 'The voices of educators and education students', both volumes were designed and edited by a team of students from across programmes, providing a vehicle for collaborative and supportive environment of scholarship for staff and students alike. In a similar vein, special editions of education journals, edited by members of staff, have provided opportunities for both staff and students to publish research in, for example, early years science education (edited by Watts, Silby), early years STEM education (Watts) and educational technology (Watts). Publishing collaborations with students, commonly co-authorship with PGR students, include both articles and books with, for example, Saima Salehjee and Richard Malthouse.

Equality and Diversity; wellbeing

Equality and diversity is embedded into and reflected in our teaching and learning environment. The student body is exceptionally diverse all the way through the continuum of provision, with 32% of PGR students in the REF period coming from BAME backgrounds. The work of the Urban Scholars Programme is emblematic of the Department's commitment to widening participation in a number of areas, including research into engagement with higher education, the early childhood education and care workforce, and linguistic diversity amongst teachers and their students. The Department's commitment to addressing issues of equality and social justice in both local and global communities begins with our approach to developing our diverse body of research colleagues throughout their research careers and in particular through support for early career researchers and doctoral students. During the REF period, the role of departmental Director of Equality and Diversity (Kaur) was created. As well as ensuring compliance with all university policy on equality and diversity, the Director of E&D actively guides the Department Management Board on how best to support research activity and actively promotes these strategies to the department as a whole. For example, during the Covid-19 lockdown the Director of E&D sought out information on colleagues' working patterns and barriers to research and gave advice to DMB on how best to structure and timetable research support events. Remote working for both staff and PGR students is accommodated through support for online supervision. Additionally, doctoral research training sessions are offered on weekend or evenings with an option to attend remotely, recognising the large proportion of working professionals among the PGR student body. During the Covid-19 Lockdown, PGR students were able to draw on departmental research expertise in remote lesson observation (Gower) when making adjustments to their designs for data collection.

In PGR recruitment, we celebrate and actively promote the diversity of our research student community, of which 50% (FTE) come from outside the UK, and a significant number are mid or late career 'returners' to academic study, students from non-traditional academic backgrounds, who have been supported through Brunel's 'continuum of provision' to PGR study, and full time professionals in busy teaching careers and often leadership roles.

A number of doctoral researchers have completed successfully and subsequently taken roles of responsibility in both national and international organisations. For example, Peeranut Kanhadilok (2014) is currently Director of the National Science Museum, Bangkok, Thailand; Alison Silby (2014) Lecturer in Primary English Education, University of Reading; Sarah Alix (2015) Programme Director

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of North Essex Teacher Training; Evelina Dimopoulou (2016) vice-Principal of Whitfield Academic Trust; Aisha Al-Kaabi (2017), Assistant Dean for Student Affairs at Qatar University.

We have striven to promote a sense of belonging, cohesion and inclusion while also differentiating support and expectations of colleagues with different working patterns. One initiative that has particularly supported the wellbeing of colleagues has been the institution of 'research Thursday', whereby colleagues in the Department do not schedule meetings or teaching on Thursday so that the day can be given over to research activity by all colleagues in the Department. More differentiated support for colleagues has included workload alleviation to ring-fence off-campus writing time for the completion of a writing project or the gathering of impact data. The institution of Departmental 'shut up and write' days, accessible to both academic staff and PGR students, has encouraged an opportunity to work on research in a sociable environment and access additional encouragement and support.

REF Submission Process

The Department took an inclusive approach to the selection of its output portfolio, with all Readers and Professors comprising the group that assisted the UoA coordinator by reading and reviewing outputs. According to the University's REF Code of Practice, all colleagues involved received training in equality and diversity in relation to the REF submission. The selection is also representative of the spread of research across the three departmental research groups and staff protected characteristics. This includes 5% of staff aged 30-39 contributing 13% of the outputs. However, 63% of female staff only contribute 54% of the outputs and the 16% of staff of Asian ethnicity only contribute 8% of the outputs.

The lower number of research active in the STEM research group accounts for the lower number of outputs used overall and per person submitted from STEM (1.25), compared with the EIS (2.33) and PPP group (2.25) during the REF period. Our recruitment strategy, research bidding activities and strategic scholarly collaborations will enable us to achieve growth of the STEM group and support the development of early career researchers.

3. Income, infrastructure and facilities**Strategies for generating research income.**

The Department's research subcommittee takes a strategic overview of bidding across the unit of assessment, monitoring funding calls, ensuring that less experienced colleagues are developed and mentored by being involved with larger bids, and overseeing peer review processes. All research bids are peer reviewed by a departmental colleague with successful bidding experience and an experienced colleague beyond the department.

New researchers receive training in income generation through the College's Early Career researcher support programme. Additional training events are arranged regularly in the Department and in collaboration with the CBASS Research Centres. During the reporting period the decision was taken that any research sabbaticals in Education awarded via the college's competitive scheme should include income generation activity and should include a programme of support tailored to achieving that end.

Colleagues are encouraged to seek pump-priming funding via competitive and target-driven schemes at university level (the Research Development Fund) and College level (through the

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CBASS research centres) directed towards the completion of bids to large funders. Recent awards from these sources have enabled the preparation of significant bids to ESRC (social mobility in the early years), Nuffield Foundation (linguistic discrimination), Templeton Foundation (moral education and cultural capital) and the Fundacao de Ciencias e Tecnologia, Portugal (Higher Education pedagogy).

Professorial colleagues Tsouroufli and Garner have been appointed with a view to increasing the ambition of the department's future bidding for research funding. Both provide expert guidance and peer review on bidding to a range of major international guidance including Erasmus and European Union. Expertise in peer review is also provided by Wainwright, who is a member of the ESRC peer review college and was invited to the expert group for the AHRC, British Academy and ESRC to discuss development of the Horizon 2020 Societal Challenge 6 (2017).

Research income bidding is administered and supported by the university's Research Support and Development Office and follows a university wide procedure to ensure the quality and feasibility of bids, rigorous peer review, and oversight by the university's Research Ethics Committee.

Summary of funding

Over £600,000 of research income has been awarded during the REF period. Funded projects include Enhancing Mathematical Learning Through Talk (Greater London Authority, £275,000), a British Academy/ Leverhulme small grant to investigate Social Housing and New Forms of Tenant Engagement (£9,965), and a tender on financial education for the Money Advice Service (£24,000). A project funded by the UK Literacy Association explored Scaffolding Children's Writing (£2,396) and two projects funded by Culham St Gabriel's Trust explored Religious Literacy and the forgotten educational dimensions of Religious Education (£24,000). During the period two fully-funded studentships were awarded under the ESRC Grand Union Doctoral Training Partnership. An ESRC post-doctoral fellowship was awarded to Dr Gunjan Wadhwa in August 2020 under the mentorship of Professor Tsouroufli: *'Rural youth identities in India: Exploring intersections of nation, gender and technology in an area of civil unrest'* £107,972.

Contribution to major external projects includes Aldridge's role as advisor on the Templeton Foundation funded project 'What distinctive contribution does Religious Education make to the development of epistemic literacy in relation to Big Questions in religion and science?', led by UCL IoE, and Chappell's contribution to 'Universities Supporting Victims of Sexual Violence: Training for Sustainable Student Services' (£148,236) co-funded by the European Commission's Justice, Rights, Equality and Citizenship Programme (DAPHNE).

Organisational infrastructure

The Urban Scholars programme is funded by Brunel University Access Office, Moody's Foundation in New York and Niftylift in Milton Keynes, and attracts significant additional charitable funding (£1.5m in total over the REF period), to deliver a widening participation intervention to students in UK schools, employing three colleagues based in the Department of Education. The programme provides a test bed for research and impact development around social mobility and widening participation in HE.

The university's new STEM Inspire Centre (comprising a university investment of £25m during the REF period) has significant potential for developing outreach and impact with local schools, teachers and students and a new appointment of a colleague on a joint contract between the STEM Centre

Unit-level environment template (REF5b)

and the Department of Education will allow educational research projects to be collaboratively designed in the coming REF period.

Seminar Series

The Department's monthly research seminar series is essential to our thriving research culture and brings together academic research staff and research students. A generous budget has enabled us to bring high profile researchers to the Department to share their expertise and keep colleagues informed in the latest developments in research related to the interests of the three research groups. Contributors have included leading global education scholar Professor Henry Giroux, Amanda Spielman (Ofsted Chief Inspector), Professor Michael Hand (University of Birmingham), Professor David Scott (UCL IoE) and Professor Vini Lander (Leeds Beckett University).

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

During the REF period we sought through targeted support for colleagues, including travel grants, and new appointments of senior staff, to seek new international partnerships and strengthen existing collaborations. This strategy has borne fruit in terms of demonstrable global field leadership activity and bidding success. We have also sought to consolidate recognition of the department's interdisciplinary research activity around the foci of the three research groups, and our intellectual leadership of enquiry into education and social mobility, STEM research, and curriculum and pedagogy respectively has achieved media recognition locally, nationally and internationally and had a demonstrable impact on educational policy development. Our contribution to research, the economy and society has been characterised throughout the submitting period by our strong commitment to issues of diversity and social justice. In all our research activity we have sought out opportunities to network, collaborate and disseminate that extend the reach of our research and its potential to be a force for social good, in particular in line with the UN SDGs quality education (4), gender equality (5), decent work and economic growth (8) and sustainable cities and communities (11). Our efforts to establish the vitality and sustainability of the research environment mean that alongside recognition of the work of globally established senior scholars, promising early career scholars have also been nurtured and supported to make decisive contributions to national and international discussions of linguistic discrimination and mathematics education.

Arrangements, support in place for and effectiveness of research collaboration

Our commitment to building international networks for the future, facilitated by the appointment of Watts as Director of Internationalisation, led to the strategic identification of Mauritius Institute of Education and University of Aveiro, Portugal as international research collaborators. These collaborations have so far given rise to the establishment of a new journal, the *Mauritius Journal of Education* (edited by Watts, with Ineson also serving on the editorial board) as well as collaborations with colleagues in other national contexts together with former PhD students and colleagues in other UK institutions (such as a study of parents and their children's choice of school subjects and career aspirations, conducted in partnership with colleagues at the UCL Institute of Education and the Mauritius Institute of Education, and a study on Teaching and Learning in Portuguese Education, conducted alongside colleagues from the University of Aveiro, which has resulted in a book publication). Professorial appointments made during the REF period (Garner, Tsouroufli) have also developed our capacity to engage with international contexts and communities. Professors

Unit-level environment template (REF5b)

Tsouroufli and Garner have initiated projects that have engaged early career researchers in the Department with new international communities. These international partnerships have led to collaborative bids currently in preparation or under review to Aga Khan Foundation, ERASMUS, European Cooperation in Science and Technology (COST) 2020 and the European Consortium of Innovative Universities.

The effectiveness of our research collaborations within the UK are further demonstrated in the *Pedagogy, Policy and Professional Education* research group by the media attention attracted to our projects on Remembrance in Schools (Aldridge, with colleagues from Oxford Brookes University), covered by The Guardian in 2014 and 2020, and the Times Educational Supplement in 2019, and in *Education, Identity and Society* through Hoskins' work on graduate salaries for professionals working in early years (with colleagues from the university of Roehampton), covered in Nurseryworld in 2019.

Relationships with key research users and beneficiaries

The department's collaborations and impact are also indicative of our commitment to researching social mobility for students with non-traditional backgrounds and other disadvantaged social groups and addressing issues of social justice across local, national and global networks through the work of the **Education, Identity and Society** research group.

Chappell's work on the education of university professionals to deal with sexual violence, carried out alongside colleagues in the University of Exeter, has transformed models of staff development in higher educational institutions across Europe. Garner's research mentorship and collaboration with Gower and Hossain has led to a Horizon 2020 grant '*Mentoring for School Improvement*' involving 120 schools from six countries.

In support of access to higher education globally, experts in Brunel's Department of Education (Watts, Ineson) have supported colleagues in a College of Business, Arts and Social Sciences (CBASS) initiative to help develop PhD supervision at Ahlia University in Bahrain. There has been a long-standing project with the University of Aveiro, Portugal in the scholarship of teaching and learning in higher education, culminating in a book (Pedrosa, M.H. and Watts, D.M. (2019). *Academic Growth in Higher Education: Questions and Answers*. New York, BRILL/Sense Publications).

From the **Pedagogy, Policy and Professional Education** group, Biesta's work in educational philosophy and theory garnered significant international attention during the REF period. Most significantly, he was able to advise national strategy directly through his role as an associate member of the Educational Council of the Netherlands, the advisory body of the Dutch government and parliament (2015-2018). Aldridge's work on remembrance in schools during the UK's WW1 centenary celebrations has produced, in addition to papers and research conference presentations, a briefing document that is being used by school leaders to reflect on and plan their participation in national events of commemoration.

The Education Department has received significant media attention for its research. Cushing's work into linguistic discrimination in schools received attention during 2019-20 in BBC News, The Times, The Telegraph, and the TES. In addition, we have pursued a strategy of active dissemination to our partners in the local community, including arranging 'Education Question Time' public events incorporating Brunel and visiting academics, as well as influential public figures in education, partnering Brunel education academics with teachers on the Hillingdon Local Education Authority 'Innovation and Improvement Networks' and through university-funded public seminar series', including 'Humanising Education' in 2018-19.

Unit-level environment template (REF5b)

The Department is a **recognised leader of Research in the national context**. Editorship of the British Educational Research Journal, the British Educational Research Association's 'flagship' journal, has resided with an all-Brunel team following a competitive application process in 2017. The team have stated their mission to lead a journal that is a reflection *on* as well as *of* the field of education, and have exemplified this by reintroduction the 'special Issue' to the journal commissioning a number of issues that focus on emerging priorities for educational research, thus leading the field and showing the way for subsequent research in these important areas. Colleagues additionally serve as editors of Support for Learning: the British Journal of Learning Support (Garner) and assistant editors of Educational Theory (Biesta), the Journal of Philosophy of Education (Aldridge), Journal of Educational Policy (Hoskins).

Further **indicators of our recognition for intellectual leadership nationally and internationally** include: Department colleagues have been invited to give keynote addresses to the Association of University Lecturers in Religious Education, the Philosophy of Education Society of Great Britain (Aldridge), the Maltese Ministry of Education (Zwozdiak-Myers), University College Cork, ('Athena Swan 5 years on' and American University in Athens (Tsouroufli). Garner is a Fellow of the British Academy and Watts is a Fellow of the Institute of Physics. Aldridge was a Visiting Fellow in literary studies in the 21st century classroom at the University of Queensland in 2017, Watts is Visiting Professor at the Mauritius Institute of Education and Tsouroufli became Visiting Professor at Bahçeşehir University, Istanbul, Turkey in January 2020.

Colleagues have served on the Executive Boards of Philosophy of Education Society of Great Britain (Aldridge), Association for Moral Education (Aldridge), Society for Research in Higher Education (Filippakou), British Society for Research into Learning Mathematics (Ineson), and UCET (Zwozdiak-Myers). Department colleagues are also at the **forefront of defining new fields and methodologies** in educational research. Examples include Aldridge and Green's editorship of the field-defining Routledge Literature and Education Book Series, Biesta's co-editorship of the Theorizing Education series, also for Routledge, and Chappell's co-editorship of the major collection The Palgrave Handbook of Auto/Biography.