

<b>Institution: University of Hertfordshire</b>
<b>Unit of Assessment: 23: Education</b>
<p><b>1. Unit context and structure, research and impact strategy</b></p> <p>The Unit comprises 14.7 FTE (16 staff), primarily members of the School of Education, but also staff from three other Schools (Business, Life and Medical Sciences, Humanities). It is resourced and supported by the School of Education and includes the School Associate Dean for Research, 2 Professors, 3 Readers, 1 Associate Professor, 8 Lecturers and 1 Research Fellow. There are 2 early career researchers (ECRs) in the Unit. Research is supported by, and represented through, the University's Research Centre for Professional and Work-Related Learning (Director, Levy) and the Centre for Educational Leadership (CEL) (Director, Woods); these are based in the School of Education.</p> <p>The Unit was not submitted to REF 2014. It was subsequently reorganised to operate through this REF period and it has achieved some notable successes:</p> <ul style="list-style-type: none"> <li>• Ranked 1st for research culture and research skills and 2nd for supervision from the 34 Education units entered in the 2019 Postgraduate Research Experience Survey (PRES) with 97% satisfaction for supervision and research skills;</li> <li>• 82% increase in average annual research income in comparison with the REF 2014 period;</li> <li>• 75% staff in the Unit are women including the 3 Readers and a Professor, and the School of Education achieved the Athena Swan Bronze award in 2017;</li> <li>• Unit member (Gilbert) received the Times Higher Education, Most Innovative Teacher of the Year Award in 2018 for a research-led pedagogy concerning compassion.</li> </ul> <p><b>Strategy</b></p> <p>The Unit has built on a long history of user-related research with direct implications for policy and practice, focused on its areas of research strength in: educational (especially distributed) leadership, higher (including transnational) education, teacher education and pedagogy; and science education through the University-based Primary Science Quality Mark (PSQM) which supports science leaders' development of science teaching and learning in primary schools across the UK and internationally.</p> <p>The Unit's strategy has been to deepen research in these areas of strength, contributing to the development of theory and practice, and further develop research collaboration across the University and internationally. Synergies across areas of research have been developed. In educational leadership, a sustained, distinguished, body of work focuses on the development of leadership as a shared process underpinned by democratic and collaborative principles in service of holistic learning and human flourishing. Building on this, the Unit is strengthening complementary areas of HE and pedagogic research, as well as establishing foundations for research focused on science education and PSQM. The Unit's pedagogic research has deep roots and influence nationally through research-based pedagogic tools (Jarvis) and strategies (Gilbert). Innovative exploration of collaborative, democratic leadership, and distinguishing it from distributed leadership (Woods, Jarvis), has been complemented by the examination and development of concepts such as agency, autonomy, authority and compassion (Gilbert, Connors, White). In 2020 the appointment of Huet as a second Reader in Higher Education strengthened the Unit's international profile with her strong, active, collaborations in Europe and South America; she also added to the Unit's research strengths in theory and practice.</p> <p>Key successes during this REF cycle include three EU projects: European Arts-Based Development of Distributed Leadership and Innovation in Schools (ENABLES, 2019-21); collaborative teacher learning and distributed leadership (EFFeCT, 2015-2018); European Policy Network on School Leadership (EPNoSL, 2011-15). The Unit pro-actively participates in a range</p>

of international networks concerning school leadership, involving the UK, US and other countries. Woods led an organising group of UK academics and practitioners which edited and contributed to a special issue in Educational Management Administration and Leadership that followed a British Educational Leadership, Management and Administration Society (BELMAS) funded series of workshop-style conferences comparing educational leadership and administration in England, Scotland, Wales and Northern Ireland. The distinction of this research and breadth of these international networks and engagement has enabled the Unit to lead on developing and supporting a key objective of the 2015-2020 University Strategic Plan: Fostering and Strengthening Research with Global Partners. HE research networks and collaborative research in the Unit extends into Europe and South America.

The Unit's research degree programmes reflect its commitment to practice-based research. In addition to full and part-time PhDs and Masters' degrees by research, the Doctorate in Education (EdD) has over 50 students across all stages. Nearly a third of the current students on the EdD are University academic staff, which has created a pipeline of education research expertise and capacity across the University. As part of the Unit's strategy to develop international activity, a cohort of the EdD was launched in 2018 in Shanghai, China delivering the programme to selected university teachers in the Shanghai local government region. The programme involves supervisors from the School of Education visiting Shanghai for one week every term for each cohort and the cohort spending two periods of six months at the University at the start and end of their doctoral programme, joining the UK-based cohort. This development has introduced a new international dimension to the research in the Unit.

### **Interdisciplinary Research**

In line with one of the key aims of the University's Strategic Plan of promoting a research rich environment, the Unit adopted a strategy of leading deep-rooted, interdisciplinary research, working collaboratively across a range of fields and disciplines, with colleagues in other Schools. The emphasis on collaborative research and consultancy pre-dates, but has been supported by, the development of six University interdisciplinary Research Themes (Food; Health and Wellbeing; Global Economy; Heritage, Cultures and Community; Information and Security, Space) and the cross-University collaboration this has facilitated. Unit staff are active in leading bids and gaining funding across the Research Themes and with a range of Schools, e.g. Hertfordshire Business School (Leading service improvement and innovation in education; Distributed leadership and co-production; Negotiating power and leadership in service co-production; Teacher wellbeing).

The Unit's research in leadership associates with the University interdisciplinary research theme *Global Economy*. Concepts including agency, autonomy, authority, and identity, and the use of collage as a research method, have also been developed with great creativity and relate to the research theme of *Heritage, Cultures and Communities*, as does a strong strand of externally-funded research focusing on language and linguistics in terms of methodology (McDowell; Schelletter), or content focus and methodology (e.g. Smith, with Kersten; McDowell and Levy; Woods).

The *Health and Wellbeing* interdisciplinary theme and the University policy of addressing social challenges is also supported through a wide range of applied research projects in collaboration with health researchers in areas such as resilience, wellbeing and families experiencing multiple problems creating a breadth unusual in the field of education. Examples of research include the *Thriving Families Never Too Late: Evaluating the Impact of Attainment, Self-Regulation and Competency for Hertfordshire County Council*, 2014-15 (£10k) and the *Five Ways to Wellbeing Evaluation* for Buckinghamshire County Council, 2015-16 (£15k). Also developing an *Evaluation Plan and its Implementation* for North Hampshire Clinical Commissioning in 2017-18 (£10k). Pro-active engagement across the University also fosters collaborations which bring an interdisciplinary dimension to the Unit's research. An Education Research Network, initiated and supported by the Pro-Vice Chancellors for Research and Enterprise and Student Experience, in which Jarvis and Smith have important leadership roles, meets at least twice a term to facilitate

networking between colleagues from a range of disciplines across the University. This forum has assisted the Unit to develop interdisciplinary research with several other academic Schools.

### **Impact Strategy**

The Unit's impact strategy encompasses four key dimensions:

- *a sustained focus*: on specific areas of research over time, building on previous research and impact;
- *research-practice links*: with education practitioners and other stakeholders to provide a strong framework for practice-based and -oriented research;
- *a value-based collaborative approach to building capacity*: working collaboratively with stakeholders and users in research design/reviews, developing an iterative research process, engaging users, and establishing practitioner-researcher dialogue and co-production;
- *strategic networking, partnerships and collaborations*: with established partners of the School of Education such as schools and Local Authorities; engagement with international professional bodies and associations; and, established national and international research partners and networks.

The submitted case studies are illustrative of the Unit's approach. *The development of democratic and collaborative leadership cultures within schools and education systems* (DCDL), is based on Wood's research dating back to 2010 and supported by 6 funded projects, including 3 successive EU-funded ones. *School-based teacher education: informing policy and developing professional practice for educating new teachers in schools* (SBTE) (White) demonstrates the impact of ground-breaking research on policy and practice in England through the contribution to the National Standards for school-based initial teacher training mentors report (DfE, 2016) and the development of a national professional framework for school-based teacher educators. Research-practice links were central from the start for both case studies, with high practitioner involvement in the UK, US and Europe and engagement at international conferences which include practitioners e.g. BELMAS and the International Professional Development Association (IPDA). The DCDL case study used established partners in three successful bids for EU funding which created new collaborative partners (see section 4). White's SBTE case study has also used established relationships to develop a sustained, collaborative research project with Timmermans and Avans University, Netherlands, and a close working relationship with the National Association of School Based Teacher Trainers (NASBTT) to have a significant influence on framing national practice. This is reinforced by on-going relationships with key stakeholders in the UK and Europe.

A significant proportion of the Unit's research involves working collaboratively with schools, community organisations and other education stakeholders. This method facilitates long-standing partnerships, improved research design and impact.

The impact strategy has also been operationalised through engagement of all Unit staff in at least one of the following: a series of Impact Case Study/project development meetings; successful bids for internal and external (including EU) funding; UH Research Office workshops and services. Unit meetings have shared good practice and development plans across the case studies and other projects with impact potential. Members of the Unit work with the assigned Research Office Impact Facilitator, and have been allocated, and bid successfully for, additional central university funding of £17K to support the development of their impact case studies. The Unit's Research Fellow has also had a role in supporting impact development, including generating and analysing impact evidence data. Leaders of REF impact case studies – and other projects with impact – have specific workload allocations for this purpose. Staff have attended social media and research impact training events and the workload allocation system enables small funded projects to be used as a basis for bids for larger more impactful ones.

**Open Research Environment and Integrity**

The Unit is committed to making its research openly available in line with the Concordat on Open Research Data. The Unit's Open Access (OA) strategy aligns with the University approach. The University has a long-standing requirement that all new research outputs by staff are deposited in its Research Archive (UHRA). This is in fulfilment of its commitment which can be summarised as the mandatory 'green' OA deposit of all research outputs in the UHRA by the author via upload to the University's Research Information System (RIS) at the time the research output is accepted for publication. Unit staff also use central University funds to facilitate gold open access when necessary.

Project outcomes, including resources for practitioner use, are on websites which continue to be accessible after the end of projects, e.g. PSQM evaluations, as are tools, resources, and other strategies to support HE pedagogy. Stakeholders contribute to the design and implementation of collaborative research projects. In addition, the Unit's value-based strategy to increase stakeholder participation in, and capacity to undertake, research is represented in many of the examples described in section 4. The Unit's research is also open in that examples of the arts-based research methods, and the analysis of these, is available on websites e.g. Academia.edu, YouTube, with the arts-based and embodied methods literature review on the [ENABLES webpage](#).

The University is a signatory to the Concordat to Support Research Integrity and there is centrally provided mandatory training on research integrity for all researchers including workshops, an annual seminar and sessions included in the Doctoral College's Researcher Development Programme. At Unit level Research Integrity principles and practice are built into the programme for continuity and progression for research students. The success of this approach is reflected in the high awareness of research integrity shown in PRES 2019, with 94% of Education research students agreeing that their understanding of research integrity had developed during their programme.

**Future Strategy**

The Unit's future strategy is to:

1. build on the income success of this REF period (82% average annual growth) and specifically on the Unit's large collaborative international research projects in leadership and doctoral practice to make six collaborative international bids a year to targeted funders with partner universities;
2. develop HE transnational research partnerships by identifying and developing synergies between three large project foci and complementary research areas:
  - a) **distributed and democratic collaborative leadership:** specifically,
    - arts-informed leadership development with established partners e.g. universities of Innsbruck, Austria; Alexandru Ioan Cuza, Romania; Jyväskylä, Finland; Institute of Lifelong Learning and Culture «VITAE», Latvia;
    - developing ways of teachers' learning about democratic leadership, e.g. Ball State University, Indiana; and,
    - a focus on innovation for human flourishing in the digital age, e.g. University of Lapland, drawing on complexity, distributed leadership and leadership-as-practice theories through current work with network partners e.g. universities of Bath; Northeastern, US.
  - b) **doctoral practice pedagogy** with collaborative research partners (including Shanghai universities, the University of Aviero, Portugal, the Federal University of Amazonas) examining changing student motivations, expectations, and 'doctoralness', and interrelating this with academic staff development as teachers on doctoral, including transnational education, programmes.
  - c) **Transnational Education (TNE):** extending the TNE research on designing and engaging in blended teaching, professional learning, and collaborative approaches as a focus, as well as a means of supporting, practitioner research:

3. develop broader teacher education and pedagogical research as a basis for: developing tools and strategies (including those based on innovative and impactful research on compassion) for use in HE; school-based teacher education; and, building on specific new expertise and experience in forest schools and outdoor education;
4. develop research identifying factors in successful leadership and professional learning of primary science teachers, using and extending data from the evaluation of the Unit's PSQM;
5. continue to build the sustainability and vitality of the Unit by increasing the number of staff with significant responsibility for research by a further 20% over the next 5 year period and also the volume of research through the appointment of at least one ECR and two Research Fellows to areas of research strengths in distributed and democratic collaborative leadership, doctoral practice pedagogy and Transnational Education;
6. increase doctoral student enrolment by 40% over the next 5-year period.

## 2. People

The Unit comprises 16 staff (14.7 FTE): 1 Academic Manager (Associate Dean for Research) 2 Professors, 3 Readers, 1 Associate Professor, 8 Lecturers, 1 Research Fellow including 2 ECRs thus providing an appropriate balance of expertise and sustainability. All staff are on permanent contracts.

### **Staff Development**

In this REF period the Unit's strategy has been to create a strong pipeline of staff both working towards and having significant responsibility for research, support their development, and strengthen the research environment. A Unit Research Engagement Group co-chaired by Smith and White was established in 2014 and has been very successful in strengthening colleagues' research identity, sense of community, and a culture of collegiality and collaboration through:

- 'research conversations' to promote research engagement and individuals' research plans;
- personalised needs-led mentoring informed by the University research mentoring system piloted in the School;
- open 'drop-in' sessions for staff to discuss research issues and seek advice;
- weekly email bulletins;
- online meetings, open to all, to discuss colleagues' research interests, opportunities and how they may be supported, as well as other more specific Unit research areas and funding.

These strategies have complemented the support given to those who are not yet independent researchers. Strategies regularly used to stimulate and organise sustained connections of the more- and less-experienced colleagues include:

- enabling less-experienced staff to work with experienced researcher colleagues in bids and to support the development of research projects;
- coaching and mentoring both at School and University level. For example, Research Office support for developing bids; access to the Vitae website; Unit events, and resources; dialogues with staff with significant responsibility for research to increase understanding of the nature of higher quality research (e.g. larger data sets, longitudinal studies, building on own previous research, greater theorisation of the research, researching with those based overseas);
- engaging in activities and processes organized by the University Researcher Development Group (Chaired by White since 2019);
- an online practice-focused refereed journal, *LINK* (established 2014, 9 issues published), which supports colleagues new to research in publishing research-based articles (process



includes feedback and mentoring), as well as more experienced researchers to share research;

- writing afternoons, days and a weekend, plus guidance on how to develop as a writer used in appraisal and shared across the Unit;
- established a large, fully equipped room for Doctoral researchers with desk space for eleven.

The Unit's workload allocation system has been revised, enabling more staff to gain research time, while at the same time ensuring that academic staff who are independent researchers contribute significantly to teaching as well as research. This strategy has supported the development of a culture of research-informed teaching in the Unit. In addition, all Unit staff have an annual appraisal, with 6-month review meetings which include discussion of research targets.

An impact development strategy and group to support colleagues' impact development plans within and beyond the Unit, including extensive support (at University and School levels) which complements bid- and project-focused work aligned to user-related research.

Internal research funding has also proved a valuable stimulus for external bids. For example, funding is made available within the Unit, with no pre-set limit, to engage in external conferences as well as events provided by the University-wide Researcher Development Programme run by the Doctoral College. There is also a central 'Skill-up' funding scheme which gives small grants to support personal, professional and career development and a scheme for small research grants for staff who are not yet independent researchers.

Other developments which support the research vitality of the Unit include:

- weekly research seminars with separate 'strands' aligned to areas of Unit strengths in research such as leadership, higher education, pedagogy, teacher training and professional learning. These seminars are led by researchers of international standing from across the UK and internationally (Europe, USA, China, South Africa, Israel) as well as by doctoral programme graduates, and colleagues across the University;
- from 2018, a significant growth in opportunities to engage with international academics visiting the Unit, particularly from China (from partnerships) and Eastern Europe (related to the Unit's EU-funded activity). This engagement activity has complemented a successful policy of seeking funding from bodies such as the British Academy, Leverhulme, and Erasmus+, for collaborative research and knowledge exchange with international co-applicants.

### **Research Students**

The Unit was ranked 1<sup>st</sup> for Research Culture, and for Research Skills, 2<sup>nd</sup> for Supervision, 3<sup>rd</sup> for Responsibilities, and 4<sup>th</sup> for Professional Development from the 34 Education units participating in the 2019 Postgraduate Research Experience Survey. Students expressed 97% satisfaction with their supervision, 97% with their acquisition of research skills, and 84% overall satisfaction with their experience. The whole University was ranked 4<sup>th</sup> for research culture, 15<sup>th</sup> for supervision and 21<sup>st</sup> for overall student satisfaction from 103 HEIs entered (with a 62% local response rate).

The Unit currently has 65 doctoral students, both for PhD and students and those on the education doctorate (EdD). This programme, which is part-time, has been very successful, recruiting cohorts each year since its inception in 2005. Students are supported by day sessions across the year based around EdD programme themes which reflect the Unit's expertise in professional learning, reflexivity, and research methodology and methods. PhD research students attend relevant sessions and benefit from mixing with the often more mature and experienced EdD students. An annual writing retreat weekend is also financially supported by the School of Education which, together with the large recently refurbished research student base room, enhances collegiality among the research student body. Unit research expertise around doctoral learning and teaching is central to the programme. The research students' programme

of study includes relevant elements of the Doctoral College Researcher Development Programme, which aligns with the domains and descriptors of the Vitae Researcher Development Framework. The extensive range of sessions (also open to academic staff) support the development of independent researchers able to lead on and develop the impact of research.

All research student supervisors have completed supervisory training delivered by the Doctoral College. They are also supported by Doctoral College procedures and processes for quality assurance and enhancement from admissions through to award, with Unit Research Tutor oversight to monitor student progress and development needs, ensure access to appropriate pastoral and other support for students and ensure good student-supervisor relationships. The University has introduced a Research Student Monitoring System (RSMS), an online platform that facilitates the record keeping and interaction between students, supervisors and the University's Doctoral College. Detailed records of all supervision meetings and progression assessments are entered on a regular basis by students and their supervisors into the RSMS and are accessible throughout the course of the doctoral study, enabling feedback between students, supervisors and the Doctoral College, providing a robust mechanism to record students' meetings with supervisors, their progress and assessments..

The number of doctoral awards over this REF period represented in Table 1 has increased since 2015 -16 (excepting 2020 because EdD completions were constrained by the impact of Covid-19) reflecting the strength of the Unit's research environment and culture for the largely part-time research students, as indicated by the Unit's extremely positive 2019 PRES results. It should be noted that the part-time EdD programme is a minimum of 5 years duration; however, students more typically take 7 years to complete to the award.

Table1: Doctoral awards 2013 -2020

2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
2	3	1	4	6	6	3

### ***Equality and Diversity***

The Unit fully supports the University's commitment to all equality and diversity principles. The School of Education successfully obtained the Athena SWAN Bronze award in 2017 and is currently well advanced in its preparation for the Silver award which will be submitted in November 2021.

75% of the Unit staff are women including a Professor and all 3 Readers. Of published contributions to *LINK* (one female, one male co-editor), 33 are by women, 11 by men (3 joint). From 2015-16 most speakers in the Unit's flagship research seminar series were women. One staff member (7%) identifies as BAME.

More women than men apply for, and are accepted on to, doctoral degrees. The percentage of women undertaking doctoral degrees is currently 78% and 37% of research students identify as BAME. This latter percentage is encouraging as it indicates there should be a pipeline of BAME candidates for future academic posts both in the School and the Unit which is a current recruitment focus. An aspect of the doctoral student recruitment strategy is targeting secondary school teachers seeking to increase both male and BAME research student numbers.

Furthermore, all Unit staff have an appraisal target to enhance the recruitment, experience and attainment of BAME research students. Images on websites, where research is highlighted, have been selected to represent a diverse population. Both staff and research student recruitment advertisements specify that applications are welcome from groups under-represented in the sector, and 'blind' applications have been introduced in which ethnicity and gender are not visible. There is a requirement that interview panels comprise a mix of genders and, wherever possible, ethnicities. All staff who perform interviews have already undertaken Unconscious Bias

training and a whole-School curriculum review (including attention given to 'decolonising the curriculum') has taken place.

Research staff meetings are held at times that enable part-time staff to participate. Even before COVID-19, all staff were able to work at home and attend the University only when they had School-based commitments. The School of Education has a flexible working time policy used consistently by several staff. Unit members are active in the School Equality, Diversity and Inclusion Group as well as University staff networks including the Women+ and Professors Network (which provides career advice, encouragement and mentoring for women researchers) and the Academic Women's Action Group, the BAME staff network, Carers, Parents, Disability and Wellbeing, LGBTQ+, and Menopause networks.

### 3. Income, infrastructure and facilities

#### *Income*

The Unit has achieved a substantial 82% growth in average annual research income in this REF period with a strong upward trajectory set to continue due to a similarly substantial growth in research awards from £269k to £1.24M. The Unit's well-established position in distributed and democratic collaborative leadership has facilitated large-scale collaborative international and other funded research, including successive EU-funded projects: European Arts-Based Development of Distributed Leadership and Innovation in Schools (ENABLES) (2019-21, total £224k; £64k for the Unit as lead partner), European Methodological Framework for Facilitating Professional Collaboration among Teachers (2015-2018, total £501k; £89k for the Unit) and the European Policy Network on School Leadership (EPNoSL), (2011-2015, total project: £2.35M, £226.4k for the Unit). Substantial income has been obtained through these strongly aligned collaborative grants focused on distributed leadership to enhance equity, participatory professionalism and democratic citizenship. An important facet to secure this funding has been the use of distinctive arts-based and embodied learning approaches which have evolved from empowering school leaders by developing tool kits and broadening the leadership base to impacting on different policy levels.

An award from the Shanghai Teacher Professional Development Centre for Private Universities, contracted through Shanghai Normal University (£499k) to develop doctoral research and professional learning in China, and a follow-on award (£533k) to extend this research programme have facilitated collaborative research with academics in Shanghai universities. The research focus is on TNE together with the development of doctoral practice and professional learning in China. Specific interrelated strands include student engagement (Connors, Jarvis, Levy, James), pedagogic development (Huet, Smith, Jarvis, McDowell, White), teacher professional development and learning (Levy, Kersten), curriculum development (Levy, James) and leadership of teaching (Woods, Jarvis).

Research in both HE and TNE are areas of increasing strength. Funded research includes the impact of HE research and researchers on national HE policy development (£10k, Smith); partnership in HE publicity, policy & practice (£8.4k, Smith, Kersten); educational developers and quality assurance policy (£4k, Smith); a 3D model for professional conversations (£6k, Jarvis); developing a Transnational Toolkit (£5k, Smith). This work focuses on pedagogy: exploring the future of blended learning, through a focused literature review, analysis of strategic plans, and interviews to inform the development of another university's blended learning vision (4k, Smith); learning and teaching in the areas of student voice and student-staff collaboration (£10k, Jarvis, Dickerson); English Language Teachers (ELT) teachers' stories of resilience (£4k, James); a philosophical investigation of partnership in HE, (£3k, Smith, Woods), and developing doctoral practice in Shanghai universities as noted above.

In science education, the Unit has carried out two empirical research evaluations of the PSQM and its impact on teacher development (£4k, £10k, White, Dickerson, Levy); gained seed-corn funding to examine the role of computational physics in students' conceptual understanding of



physics across six UK universities (Connors, Levy), and used its expertise and innovatory work in science education and CPD to attract international partners for collaborative research (e.g. Education Endowment Foundation efficacy evaluation).

Additionally, the Unit has built up a range of collaborative research evaluations of services centred around children, young and vulnerable people. Examples include: *Exploring why families home educate in Hertfordshire* (£16.3k, Smith, Dickerson); *Herts Thriving Families' nurse project* (£5k, Smith, Levy); *Herts Thriving Families Attachment* (£5k, Levy, Smith); *Troubled Families* (£10k; Levy); *Five Ways Group Engagement & Brief Intervention Products and Training* (£15k, Smith); *Developing an Evaluation Plan and its Implementation* for North Hampshire Clinical Commissioning (£10k; Dickerson, Levy); *Young People's Puppet Theatre* (£9.8k, Smith, Dickerson); *Identifying the uniqueness of TRACKS*, (£12k, Smith, Levy); *Evaluation of Harrow First ITE*, Canons High Teaching School Alliance (Smith, £2.5k); *Classroom management strategies and gender in primary schools* (£5k; McDowell).

The successive EU projects mentioned above have contributed to a trajectory moving from contribution into leadership of research, generating increased funding, broadening the range of Unit staff participating in this area of research, and enhancing its distinctiveness by extending the forms of arts-informed research used. The Unit's experience of innovative arts-informed research methods, and those appropriate for researching with vulnerable participants, has been a valuable basis for developing novel funding bids which secured, for example, the EU funding of £224k within the ENABLES project. Therefore leading large international research projects with partnerships in Europe and China using expertise across the Unit focused on democratic leadership, professional learning and doctoral practice has provided important award successes.

### **Infrastructure and Facilities**

Unit members extensively use the University's Learning Resource Centres (LRCs) which give access to 417,000 print stock, 543,000 e-books, 50,575 journal titles and 220 information databases. They benefit from the support of a dedicated LRC Information Manager, facilitating access to, and advice on, using referencing management tools, SPSS, NVivo and a range of specialist software, including that which supports public engagement and impact development. Support from web-technologists and technical staff who have produced micro-websites together with a range of research-informed practice development tools for stakeholders and to support research impact development is also in place, with a specialist role providing specific expertise for generating and analysing impact data. University Marketing and Communications support the continuing development of websites that represent work within the Research Centre for Professional and Work-related Learning and the Centre for Educational Leadership. These websites have also provided a means to engage staff in research and income generation activities locally and internationally.

Following the growth of the Unit's collaborative research particularly in Europe and China over the period 10 international Visiting Research Fellows and Professors (Czejowska, Austria; Vanassche, Belgium; Fu Wen, Liu Xinrong China; Urbanovic, Lithuania; Abbiss, Young, New Zealand; Kristiansen, Norway; Howard, Spain; Zara, Turkey), identified through existing collaborative research networks, have been accommodated to support and extend research, to strengthen the research environment and to further develop the Unit's positive research trajectory.

There is a dedicated Unit resource of eleven IT desks fully equipped with computers and peripherals for the part-time research students and access to another Unit common room with refreshment and cooking facilities and a seating area for over 20 people. Also, research students and staff can access a range of social and informal meeting spaces co-located with the Unit together with bookable meeting rooms. Moreover, there is extensive provision of individual and collaborative learning spaces both in the LRCs and across the University.

Research students and staff also benefit from the University Doctoral College's Researcher Development Programme (including online sessions, and Spring and Summer Schools) and a

range of events including an annual postgraduate research conference, regular drop-ins, and a student representatives forum. The Research Student Management System, overseen by the Doctoral College, is also valuable support for both students and individual supervisors. For example, indicating when procedural milestones are due, and for recording student progress together with actions and for providing the overall level of student progression across the Unit. Unit staff utilise Research Office training and support for grant bids and impact development, with a dedicated Impact Facilitator supporting work across specific projects and they also use the central scholarly communications team to facilitate green OA publication while recent transformative agreements with Sage and Wiley facilitate gold OA without individual payment.

Staff in the Unit have successfully bid for over £15k of central Research Office funding for research skills development and seed corn funding as a basis for making larger bids in addition to £17k to support the development of research impact. Proof of Concept awards from the University Innovation Team concerned with *Developing Overseas PSQM* (£15k; 2018-19) and *Growing PSQM in Scotland* (£5.25k ; 2019-20) have also extended the impact of science education research across the UK, Europe and Asia.

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

##### **Research Collaborations and User Partnerships**

The Unit has extensive international research collaborations built on the long-established value it has placed on collaborative user-focused research.

**Educational leadership:** the EU-funded European Policy Network on School Leadership (EPNoSL) built on a key area of strength in researching distributed leadership. The UK-contribution led by Woods, involved 17 other universities, 9 research/capacity building organisations, 5 professional associations, 14 Government Ministries across Europe, together with 25 Associate Members across Europe, India and Africa, and stakeholders from 42 European-based institutions. This network provided a basis to engage in the EU-funded EFFeCT and ENABLES projects to extend collaborations and research in related areas such as teacher learning as well as leadership through using innovatory arts-informed research approaches.

EFFeCT was led by Woods in partnership with: Tempus Public Foundation (Hungary); University of Jyväskylä (Finland); National Centre for Education (Latvia); National Institute for Continuous Professional Development (Czech Republic); and Mary Immaculate College (Ireland). Networks which subsequently developed include Complexity Group meetings in Bath and Leadership for Professional Learning Symposia in Cambridge. The networks facilitated the collaborative development of a wide range of accessible resources of different types which supported varied modes of professional development relating to autonomy, accountability, and authority in the practice of distributed leadership. These were used by senior leaders of schools and other organisations such as Teaching School Alliances in the UK together with both senior leaders of schools and districts and school students in the USA.

The ENABLES project, led by Woods with the University of Jyväskylä (Finland), Institute of Lifelong Learning and Culture (Latvia), Alexandru Ioan Cuza University of Iași (Romania) and the University of Innsbruck (Austria), further extended this work. The outputs of the projects are a unique online resource and knowledge hub for arts-informed and embodied learning methods of distributed and democratic collaborative school leadership development.

**Higher education:** a wide range of partnership projects have informed institutional policy (Smith: Blended Learning, Derby); impact of HE research and researchers on national HE policy, (Napier and Loughborough), staff-student partnership (Jarvis: HEA); and change through projects (Dickerson, Levy: HEA). International collaborations include computer-mediated communication (Kersten: WWU Muenster, Germany); ELT (Kersten: PH Karlsruhe, Germany) and successive large doctoral practice collaborative research and developments projects: Shanghai Normal University 2018-21). A research partnership with the Federal University of

Amazon in Brazil focused on the design of learning spaces in universities and on the professional development of postgraduate supervisors (Huet).

**Teacher Education and pedagogy:** The innovatory focus of White's research in School-Based Teacher Education has attracted collaborative work with key user stakeholders such as the Teacher Education Advancement Network (White is invited annually to run national workshops for teacher educators); the University Committee for Teacher Education; and the Chartered College for Teachers. This latter collaboration has informed policies and practice developed by the National Association of School Based Teacher Trainers (NASBTT) in the UK and the Netherlands, through a sustained relationship with VELON (the key Dutch stakeholder for school and university practitioners in this area). Other projects have centred on a range of user-focused research, including the development of young learners (Kersten; Harris); children's reading and learning (Scheletter, with Steinlen, Piske: University of Erlangen-Nürnberg, Hopp: University of Braunschweig); cross-cultural research on gender and classroom management strategies in primary schools, with Lenz and Klattenberg: University of Hildesheim, Germany (McDowell).

The efficacy of Teaching Assistants – and how to address that through training - has become a high-profile issue, and research examining the nature of teaching assistants' work using methods based in linguistics (McDowell and Levy) has potential to have significant impact. A distinctive, well-established, form of research consultancy provided by Unit staff supports teachers to develop research-informed practice in a range of schools. This service has complemented a series of collaborative evaluations across schools, a specialist early years autism centre (TRACKS) (Smith, Levy), and the use of puppets in schools (Smith, Dickerson) which have been explicitly formative and included practice development tools for users.

A sustained series of evaluations by Unit staff with County Councils in Hertfordshire, Buckinghamshire and Hampshire has supported their work with Troubled Families including Hertfordshire's *Healthy Schools* initiative; Buckinghamshire County Council's pilot roll-out of *Five Ways to Wellbeing*; and, *Developing an Integrated Care Programme Evaluation Plan* for the North Hampshire Clinical Commissioning Group.

### **Contributions to Economy and Society**

The Unit's strategy is to work collaboratively and engage users in the processes of research and development (for example, of practitioner development tools) in ways that maximise their benefit from the research. This distinctive collaborative research-consultancy approach is received positively by the Unit's partners and is used both in marketing and tendering contexts. Unit staff work with a wide range of organisations, nationally and internationally, using their expertise in arts-informed research, innovative methods appropriate for research with vulnerable participants, and modes of learning (which informs pathways to impact).

Through the Unit's research, *leadership* practice has been enhanced. For example, enabling practitioners' and others' (e.g. school students') participation and increased proactivity in participating with others, and designing leadership development utilising the concepts of intentionality and emergence. More broadly, the Centre for Educational Leadership (CEL) has, through a range of collaborations, enhanced *teaching*, for example by promoting reflective pedagogy: reflection and critical thinking, uncovering and using tacit and experiential knowledge, collaborative learning and alternative teaching and research approaches such as art-informed methods. CEL has led extensive *research* activity, gaining funding to conduct, support and coordinate leadership research. Engagement with users has been extended by the development of resources such as the 'degrees of democracy framework', toolsets, video-scribes and materials for fostering collaborative teacher leadership and learning. These have been employed in an extensive range of practitioner workshops and other events providing economic benefit in the USA, Europe and UK. For example, a Developmental Democratic Planning model was endorsed by the US National Council of Professors of Educational Administration as 'a significant contribution to the scholarship and practice of school administration and K-12 education' for use in practitioner research and development.

Contributions to *HE* policy are strongly evident. For example, Smith's TNE Toolkit, to support teaching staff who deliver degree-level education transnationally, published by the HEA focuses specifically on quality assurance and enhancement; the logistics of TNE; learning teaching and assessment; and relationship building and was described by Advance HE as, providing 'guidance, checklists, questions and authentic experience to both inform and stimulate reflection about TNE'. The extensive contribution to pedagogy is represented in the development of pedagogical research and enquiry through collaborative partnership projects (Jarvis), research-informed resources for: pedagogy development - used in a widening range of universities in England and Scotland (Jarvis), the development of partnership learning communities (Smith, Woods), a self-study blog for the International Forum for Teacher Educator Development (White, Jarvis) and technology-enhanced learning (Cubric, Huet).

**Teacher Education and pedagogy benefiting society:** many projects completed over a sustained period have developed pedagogy in universities (Jarvis, Dickerson, Gilbert, Bage). Jarvis's research-based tools on pedagogy are increasingly widely used in universities, currently UEA, UAL, UCL, Cambridge, Goldsmiths, Imperial College, Aberdeen, Belfast. Gilbert's work on compassion in group work, boosted by his Times Higher Education 2018 award as the 'Most Innovative Teacher of the Year', for research-based development of pedagogy, has been used and iteratively developed through work in universities across the UK, including Imperial College, SOAS, UEL, Sheffield Hallam, Swansea, Liverpool John Moores, and Exeter. Engagement with national organisations across HE, and into mental health, as well through Twitter, blogs and nine films on YouTube has enabled this research to reach across the sector, supported by a network of staff from 42 universities (June 2019). The impact on practice extends from pedagogy, into assessment, addressing the BAME attainment gap, and, through collaborations since 2016 with a national theatre company, *Upswing*, to circus performance. Research in technology-enhanced pedagogy (Cubric), complemented by previous Jisc-funded projects (Evaluating Electronic Voting Systems for Enhancing Student Experience; iTeam), has benefited that community.

A range of research projects enhance the quality and impact of professional practice in schools, across Teaching School Alliances (Levy, Smith, Dickerson), and beyond traditional education settings, typically using the Unit's expertise and innovative methods in researching vulnerable groups (led by Smith and/or Levy, with Dickerson). Foci include early years autism, home education, school nurses, local authority provision and development of resilience, wellbeing and family support services, interventions to support potentially vulnerable children within families with attachment issues; and, Troubled Families. A series of school evaluations and teacher research projects have been explicitly formative and include practice development tools.

**Science education:** the Unit has led the sector on the development and evaluation of the Primary Science Quality Mark (PSQM) creating a powerful impact on the quality of science education across the UK and internationally which has addressed a national priority. The Unit was successful in its bid to the Education Endowment Foundation for a £364k national evaluation of the PSQM with full access to the evaluation data which will feed back into the programme. The Unit has completed funded evaluations of the impact of Royal Society of Chemistry (RSC) bursary-funded PSQM, on the teaching of science (especially chemistry) in primary schools (RSC-funded) and of the PSQM (Primary Science Teaching Trust (PSTT) - funded). The Unit also has a PSTT-funded PhD studentship focusing on teachers' experience of PSQM.

### ***Contributions to Sustainability of Discipline***

Unit staff contribute as follows.

### **Key contributions to learned societies:**

- Harris: Member, Natural England's Strategic Research Group for Learning in the Natural Environment, 2012-.



- Levy: Elected Member IPDA International Committee, 2004-; Past Chair, Vice Chair (twice); Co-Chair Conference organisation 2006-2019.
- Smith: Society of Research into Higher Education Trustee and member of the Governing Council; Publications committee (2013-18); co-convenor, Policy Network; Lead assessor for submissions for HE Policy strand, SRHE annual conference; contributor to the newer researcher professional development programme, running workshops on getting published, and discourse analysis in higher education research (2012-); Steering group member, reviewer of the Pedagogies of Partnership research projects Advance HE.
- White: Member IPDA International Committee 2014-2018, Secretary 2016-2018, Secretary IPDA England, 2019-; Co-chair Association for Teacher Education in Europe; Research and Development Community for the Professional Development of Teacher Educators.
- Woods: Immediate Past Chair (2016-2018), Chair (2013-2016), Vice Chair (2011-2013), Council Member and Director (2009-2020), BELMAS.

**Awards:**

- Gilbert: Times Higher Education 2018 award: 'Most Innovative Teacher of the Year', for research-based development of pedagogy.
- James: British Council ELT Research Award, 2017, *ELT Teachers' Stories of Resilience*.
- Levy: Fellowship of IPDA, 2017 in recognition of his contribution to, and standing in, the field of professional development and learning in education.
- Woods: Distinguished Service Award, BELMAS, 2019 in recognition of the quality and sustained nature of his research, and contribution to the development of the research community and practice across the UK and internationally; Fellow of the Academy of Social Sciences.

**Journal editorship & reviewing:**

- Cubric: Co-Editor: Electronic Journal on E-learning.
- Harris: Editorial Board: Geographical Journal, 2010-2017; Reviews Editor: 2011- 2015.
- Jarvis: Editorial board: Deafness and Education International.
- Smith: Executive Editor: Teaching in Higher Education.
- Woods: Guest editorships of special issues: 1) *Responses to structural change in schooling in England*, Management in Education, 2015 (with Prof. Simkins); 2) *Structural Reform in England: Emerging configurations of governance, leadership and management in the new 'local'*, Educational Management Administration & Leadership, 2014 (with Prof Simkins); 3) *Diverging Systems? Educational Leadership and Administration in the Four Nations of the UK*, School Leadership & Management, online/print 2020/2021. Invited to edit Handbook on Leadership in Education, Elgar Publishing. Invited by editors of Democracy and Education to respond to application of his concept of holistic democracy in research with US schools. Member, editorial boards: Italian Journal of Sociology of Education, Research in Educational Administration and Leadership, Other Education: The Journal of Educational Alternatives.
- Huet, Jarvis, Levy, Smith, White, Woods regularly review for a range (over 20) of peer-reviewed journals with international reach including: American Educational Research Journal, British Journal of Sociology, British Journal of Educational Studies, Higher Education, International Journal for Academic Development, International Journal of Educational Research, Journal of Education for Teaching, Journal of Education Policy, Professional Development in Education.

**Invited: keynotes, lectures and other invited activities:**

- James: *Cul-de-sacs and narrative data analysis*, Nova Southeastern University, Florida.
- Kersten: Co-convenor of strand: *The Challenge of Language Play and Language Creativity* Westfälische Wilhelms Universität Münster, Germany, 2016. Organised



symposium: *Linguistisches Wissen in Schule und Universität* (with Professors Grundler, Intemann; Ludwigsburg and RWTH Aachen) GAL congress *Angewandte Linguistik in der Lehre, Angewandte Linguistik lehren*, Marburg, Germany, 2014. *Exploring understandings of partnership in HE in using corpus-based methods, focus group and interview data*, workshop, with Smith, RAISE Partnership event, Birmingham, 2017.

- Levy: Co-edited *IPDA Conference Proceedings*, 2011-17.
- McDowell: *Doing Being a Primary School Teacher: Does Gender Matter?* University of Linnaeus, 2016. *Doing Being a Primary School Teacher: Is Teaching a Community of Practice?* University of Hildesheim, 2015.
- Smith: Keynote *Developing and Implementing the AdvanceHE Transnational Toolkit*, Transnational Education in HE: recognising opportunities and growing educational exports, Westminster Briefing, 2019. Keynote *Supporting the effective delivery of Transnational Education in UK Universities*, Raising Standards of Transnational Higher Education, Inside Government, 2018. *Using multi-dimensional methods in higher education research: the case for critical discourse analysis*, seminar, Centre for the Study of Higher Education, University of Kent, 2018.
- White: *Enriching our practice as teacher educators: working in partnerships*, University of Reading, 2019. *Professional Development of Teacher Educators*, Roehampton Teaching and Learning in Schools, 2019. School-led research development, IPDA/TEAN event 2016.
- Woods: Plenary presentation *Educational Leadership and Administration in the UK: A Comparative Review*, with Donnelly, Jones, Potter, Simkins, and Torrance, BELMAS Annual Conference, Hinckley Island, 2019. Keynotes: *Frailty, Strength and Autonomy: Leadership in England's School System*, with Roberts, J. Jarvis and Culshaw, BELMAS UK Review Conference, Birmingham, 2018; *Limitations of Distributed Leadership: Critical reflections and ways forward*, Inspiring School Leaders Conference, St John's College, Cambridge, Perceptum Education, 2017; BELMAS conference on *Leadership for Democracy*, Co-operative Head Office, Manchester, 2015; *Holistic Education and Democratic Values, Alternative Education in England: All together now?* Holistic Education Organisation Conference, Leeds Beckett University, 2015; *School autonomy: An opportunity to distribute leadership across a self-organising school system?*, *Autonomia e Liderança das Escolas*, Lisbon, Portuguese Ministry of Education and Science, 2015; *Distributed Leadership for Equity and Learning*, University of Žilina, supported by EPNoSL, Žilina Administrative Region, Slovakia, 2015. Lecture *Critical Reflections on Distributed Leadership: Implications for understanding and improving school leadership*, Institute of Educational Leadership, University of Jyväskylä, Finland, 2016. Invited participant, World Summit of Educators, Soka University of America, California US, 2016. Open lecture, *Distributed leadership for equity and learning*, Mykolas Romeris University & Ministry of Education and Science, Vilnius, Lithuania, 2015.

#### Other indicators of expertise and esteem:

- Harris: Trustee, Farms for City Children.
- Jarvis and White: Invited chapter: the International Handbook of Self-study on Teaching Teacher Education Practices, 2020.
- Smith: University of Surrey Annual Output Review - Expert assistance in preparation for the REF, reviewing HE outputs, 2018, 2019; Member UK Research and Innovation Future Leaders Fellowship Peer Review Panel.
- Woods: Invited co-editor, with Barnett (University of Texas, San Antonio), of a book marking 10<sup>th</sup> anniversary of the International School Leadership Development Network, which is supported by BELMAS and the University Council for Educational Administration (US), 2020; Author two invited chapters: *Encyclopaedia of Educational Administration*, Oxford University Press, 2020; Commissioned 'country paper' on England, for Educational Authorities Inquiry, Sweden, 2018; led to invited chapter in international volume on educational authorities in schools, 2020; Chair, BELMAS *Educational*

*Leadership and Administration in the United Kingdom: A Comparative Review* (2017-2020); Fellow, Royal Society for the Arts.

- Levy: Fellow, Royal Society for the Arts.
- McDowell: Sole founder, *The Gender and Workplace Discourse Research Network*, 2017.
- Huet: Invited member of the Research Centre “Didactics and Technology in Education of Trainers”, University of Aveiro, Portugal, member of the Laboratory for Supervision and Evaluation; Member of International Scientific Committees: 2020 ICED Conference (Consortium for Educational Development), Zurich; 4<sup>th</sup> World Conference on Qualitative Research 2021, Barcelona, Spain; Author of invited chapter: ‘The Cambridge Handbook on Undergraduate Research’, CUP, 2020

**Doctoral examinations in this REF period:**

Staff in the Unit have acted as examiner in 51 external doctoral examinations over the REF period.