

Institution: The University of Leeds (UoL)
Unit of Assessment: Education
1. Unit context and structure, research and impact strategy

Overview

Summary of vision, strategy, and distinctiveness

Research in the School of Education examines (i) educational processes in formal and informal settings, and (ii) education as a driver for fair and inclusive societies globally. Our research into educational processes probes pedagogy, assessment, curriculum, and teacher development to improve educational accessibility, methods and outcomes for all. Our work on education as a driver for societal change investigates issues of equity and inclusion *in and through* education. We do this by advancing understandings of typical and atypical development, shaping constructs of disability and poverty, leading international debate on digital transformation, and decentring approaches to language, literacies, mobility, and migration. Staff in our School bring diverse knowledge, specialisms, cultural and linguistic backgrounds, and vocational experience to their research, and use techniques from disciplines including education, linguistics, psychology and sociology. Our strategy is to develop this diversity and capitalise on the richness of these multiple perspectives in increasingly collaborative large projects.

The following themes exemplify our distinctive contribution since REF2014:

- *Critical analysis of curriculum in formal school settings.* Several influential large-scale intervention studies have been externally funded: enhancing character education in schools (Templeton, Pike); reading for comprehension (Education Endowment Foundation, EEF, Clarke); support for students with low science attainment (EEF/Wellcome, Inglis). Grant capture has also enabled contributions on broadening access to post-16 mathematics, (Nuffield, Homer) and improving mathematics pedagogy (Swedish Research Council, Sayers). This work includes strong impact activity with projects driving changes in education policy and practice nationally (Homer, Pike).
- *Research-informed improvement of higher education pedagogy and assessment.* Morris and colleagues are known internationally for their development and analysis of online pedagogies at global scale (ESRC, Morris). Homer leads a long-term programme of highly impactful research focused on strategies for improved medical assessment (Homer). These research programmes have made innovative use of large-scale datasets and sophisticated statistical analysis methods.
- *Education as an enabler of more inclusive, prosperous and just societies.* Significant research funding from ESRC and British Academy has enabled the School to shape debates in the fields of education, inclusivity and child poverty (Main), and childhood deafness communication and development (Swanwick). High-quality research publications include three books providing major contributions to theory building (Davies, Luke, Swanwick).
- *The role of language and language education in addressing social inequality.* Six UKRI-funded projects have made Leeds an essential point of reference. Deignan has made outstandingly novel contributions through the use of applied linguistics analysis techniques in school settings. Baynham and Simpson have combined high-quality research and committed impact activity in the field of adult language education, multilingualism and migration. Kubanyiova and colleagues are resetting the agenda for researching encounters of people with conflicting worldviews through work at the interface of social sciences, arts and humanities.

Unit structure and leadership

The Unit of Assessment incorporates all research active staff within the School of Education, Faculty of Social Sciences. Research strategy is led by the Director of Research (DoR) in consultation with a research committee (including PGR and ECR representation) and the professoriate. These mechanisms have increased the reach and dynamism of research groupings and enhanced the collective ambition to respond to emerging and complex societal challenges (section 3).

Since REF2014 we have completed a major review of research/impact strategy and leadership, and reconfigured previous 'academic teams' (teaching and research) into research-specific Centres (outlined below). These Centres: strengthen research leadership; provide a coherent external

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articulation of our research strengths; establish platforms for developing new areas of growth and capacity for capturing external funding. Centre membership includes all academic staff and PGRs, researchers from beyond the School and partners outside academia.

- The *Inclusion, Childhood and Youth Research Centre (ICY, Director: Kontopodis)* carries out interdisciplinary, global research on childhood and youth that shapes research and policy agendas at interconnected regional, national and global levels. The work of this Centre is informed by a broad understanding of education, childhood and youth, which encompasses learning and human development across the life span, media and technologies, gender, diversity, poverty and inequality, and disability.
- The *Centre for Language Education Research (CLER, Director: Kubanyiova)* conducts interdisciplinary, international research related to language education with the aim of promoting an inclusive, just and prosperous society. CLER's research is positioned at the interface of the social sciences and the arts and humanities and engages with broad questions on the role of language and intercultural communication in education for sustainable community development, global citizenship, and appreciation of cultural diversity.
- The *Centre for Curriculum, Pedagogy and Policy (CCPP, Interim Director: Kontopodis)* conducts research into the policy and practice of formal education, particularly in school settings. CCPP collaborates with local and national partners to examine teacher and student learning in a range of subject areas with distinctive strengths in mathematics and science education. CCPP's research has informed national and international curriculum policy with a strong focus on enhancing social inclusion and citizenship.
- The *Centre for Research in Digital Education (CRDE, Director: Morris)* is a cross-institutional and interdisciplinary network that conducts research into the role of digital technologies to support learning in the higher education and workplace learning sectors, exploring multiple contexts (formal education, informal learning, lifelong learning) and various modes (blended, hybrid and fully online).

Cross-Centre collaboration brings diverse research perspectives and methodologies to our examination of learning, teaching and assessment in formal and informal settings, and enables us to undertake agenda-setting investigations of constructs of fairness and inclusivity. The DoR reviews and guides research funding proposals from the early stages to ensure that application teams build on cross-Centre collaboration as appropriate (section 3) and involve external expert collaborators. Examples of successful cross-Centre collaboration include: a research programme using corpus linguistics analysis methods to explore linguistic challenges in school contexts involving CLER/CCPP staff (AHRC/ESRC, £803k); the design and evaluation of an innovative character education curriculum in schools involving ICY/CCPP staff (Templeton, £1.5million). Homer's research/impact programme on medical assessment in HE is enabled through links with CCPP and the Leeds Institute for Medical Education (LIME).

Review of REF2014

All priorities identified in our REF2014 submission (highlighted in italics) have been addressed.

- *Priority 1: Developing our international expertise in the new sociology of childhood, seeking to understand different aspects of children's participation in and experience of modern society.* This has been supported through two external professorial appointments (Kubanyiova, Kontopodis) and strategic recruitment of staff with international expertise (section 2). Multiple funded projects evidence our growing international expertise in childhood and youth studies. For example: deprivation and exclusion (Australian Research Council); character education (Templeton, US); English medium education (three British Council projects); school policy and pedagogy (two Swedish Research Council projects). We have publications addressing international perspectives on childhood and youth led by Kontopodis, and Luke's book analysing youth culture in Cuba (included in a selection of five outputs of 'exceptional scholarship', Lexington Books, 2019).
- *Priority 2: Broadening and deepening the focus on learning technology to encompass the impact of digital technology on young people's lives, learning and language use, both in developed and developing countries.* Supported through: a new Chair in Educational Technology, Innovation and Change (Morris); Research Fellow appointments (Swinnerton, Perrotta); a new Centre for Research in Digital Education, leading to significant research funding: Unbundling HE (ESRC); Alternative Frames for Gaming (EU); Impact Case Study (Enhancing Global Online Education).

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- *Priority 3: Studying the progression of young people in post-compulsory education and training, and the factors that underlie choices and outcomes.* Evidence of this development includes Ryder's co-edited book *Understanding Student Participation and Choice in Science and Technology Education* from a five country EU-funded project (54,000 chapter downloads 2015-2020; top 25% Springer eBook) and Homer's Nuffield-funded study on the enactment of a new post-16 mathematics qualification.

Since REF2014, we have become significantly more outward facing in terms of engaging with international stakeholders at all stages of research. Through our new appointments from early career through to professorial, the majority being international, we have extended our reach, ambition, and interdisciplinary expertise.

Achievement of strategic aims during the assessment period

Growing our collaborative and interdisciplinary research

Our increasing interdisciplinarity is evidenced by multiple funded research projects. For example, Perrotta's study *Alternative Framings for a new role of Gaming in Education and Society* (EU) involves a diverse team of sociocultural theorists, policy researchers and game developers in the UK, Italy and The Netherlands. In a linked sequence of AHRC-ESRC-funded studies, Deignan's research programme draws together the expertise of applied linguists, curriculum researchers and school-based educators to explore curriculum transitions in schools using analytical techniques from corpus lexicography. Morris's ESRC study examines the role of digital technology in addressing inequalities through a collaboration with historians, sociologists, education researchers, digital strategists, and institutional policymakers.

Publications, seminar series and other collaborations also evidence our interdisciplinary research activity. Of our output submission, 52% include co-authorship outside the School of Education. Kubanyiova leads an AHRC-funded interdisciplinary network *Ethics and Aesthetics of Encountering the Other (ETHER)* involving linguists, philosophers and artists from seven countries to develop tools for researching encounters of people with conflicting worldviews. Harvey and Simpson co-ordinated an interdisciplinary Leeds Arts and Humanities Research Institute (LAHRI) seminar series building interdisciplinary research partnerships linking the academic and creative industry sectors. Kubanyiova chairs the Language and Culture cross-institutional research sub-theme, led by LAHRI and the UoL Cultural Institute. Baynham was Co-I on an ESRC-funded seminar series *Queering ESOL* which brought together ESOL researchers, feminist and queer scholars from the UK, US, Brazil, Mexico, Hong Kong and Australia to explore the cultural politics of LGBT issues in the ESOL classroom. Ahmadian, Clarke, Kubanyiova and Simpson contribute to *Language at Leeds*, an interdisciplinary network for language research encompassing expertise from across the UoL.

Research leaders in the School support less experienced staff to build interdisciplinary research teams with a focus on high-quality track record and diversity of individual strengths. This is enabled through extended processes of internal peer review of research applications (section 3). The School draws upon the UoL Crucible Programme, designed to support the engagement of early career academics in interdisciplinary research activity. In the latter part of the assessment period, we have set up a new interdisciplinary network linked to the ICY Research Centre. The ICY network strengthens links between the School's Centres, and others across the UoL: the Centre for Global Development (POLIS), the Centre for Disability Studies (Sociology & Health Sciences), the Centre for Immersive Technologies (Engineering, Computing & Psychology) and the Centre for World Cinemas (Humanities). Supported by the Leeds Social Sciences Institute (LSSI) the ICY network links with high-performing social sciences institutes globally (Argentina, Australia and China) to explore the impact of emerging technologies on childhood and youth in terms of education, inequality and inclusion across different disciplinary and geographical contexts.

Developing international networks and collaborations

International research strategy is co-ordinated by the DoR and Centre Directors supported by the LSSI and the Research and Innovation Service (RIS). Over the assessment period we have had funded research collaborations in Europe (Perrotta, Ryder, Sayers, Swanwick), Asia (Badger, Lamb, Simpson, Walker), US (Pike), Africa (Harvey, Kuchah, Morris, Swanwick) and Australia (Main). To support our focus on the role of education in addressing societal challenges globally, we have established research partnerships in: low -middle income countries Cameroon, Rwanda (Kuchah),

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Ghana (Swanwick), Indonesia (Kuchah, Lamb), Vietnam (Deng, Grassick); and upper-middle income countries Brazil (Kontopodis, Swanwick), China (Kontopodis, Wilson, Zhao), Cuba (Luke). The realisation of our internationalisation strategy, and the global breadth of our impact activity is exemplified in our role in enhancing global online education (Impact Case Study, Morris).

Enhancing engagement with non-academic partners to ensure research with impact

We involve non-academic partners, including children, families, teachers, and local, national and international bodies, at all stages of our research activity, from inception to dissemination. For example, Main's research programme on children's voices in addressing child poverty has collaborated at all stages with local and national non-academic bodies such as Leeds City Council, the Child Poverty Action Group, The Children's Society, the Department for Work and Pensions. To support impact activity across our research community, the School has two Impact Champions; a staff and a PGR representative. Reviewing PGR applications and draft theses includes consideration of impact. All staff/PGRs can apply for internal funding to support impact activities.

School Research Centres drive our impact and engagement agenda. CLER hosts 'research-impact conversations', seminars and workshops that include non-academic partners (e.g. professionals in schools, policy makers, arts organisations and NGOs – UoL Culture Research Theme). The ICY interdisciplinary network involves strong links with non-academic partners internationally, closely linked to the UoL Global Health Research Theme. CCPP works closely with local and national primary and secondary schools leading to collaboration and co-production within research bids and funded projects (Homer, Ryder). We work in partnership with both of our local Research Schools, Huntington School in York (Deignan) and Bradford Research School (Ryder). CRDE has excellent links within the HE sector, government, government bodies (e.g. Jisc) that enable it to lead research-informed policy on digital education across the UK. All our Centres are committed to supporting the UoL mission of being at the heart of the local region and Northern Powerhouse (section 4).

We have a strong record of using impact-specific funding opportunities to enhance the societal benefit of our research activity. ESRC Impact Acceleration Account awards administered by the LSSI include: fostering effective parent-practitioner partnerships in character education (Pike); Leeds Teacher Wellbeing Project (Hanks, Mathieson, with Business School and teacher unions). Baynham and Simpson's work in adult migrant language education has been pivotal in the development of the Migrant English Support Hub (MESH). This consortium of adult learning providers and Local Authority stakeholders has subsequently been awarded £154k from the Vulnerable Persons Resettlement Scheme (VPRS) and £267k from the EU Asylum Migration Integration Fund, as part of the £7m Refugee Integration Yorkshire & the Humber project, led by Migration Yorkshire. Our Impact Case Studies demonstrate the benefits of meaningful long-term collaborative relations with non-academic stakeholders that have shaped research at all stages, from design to impact, e.g. Homer's work on medical education assessment is enriched by his association with the General Medical Council and the Nursing and Midwifery Council. The integration of research-informed policy in online digital education across the UK is enabled through Morris's links with the Department for Digital, Culture, Media and Sport, the Department for Education, Jisc national committees and FutureLearn.

Enhancing quality through ambition, collegiality and open collaboration

The School has a collegial research environment that supports partnerships at local, national and international levels. Considerations of open access and data protection are supported through allocations of research time and University support systems. Examples resulting from this include Main (ESRC), who has published open access data overviews on children's voice and child poverty (ResearchGate), Sayers is part of a National Library of Sweden consortium ensuring open access for all publications from her Swedish Research Council project (improving mathematics pedagogy). Harvey and Simpson worked with White Rose University Press to ensure open access to a 15-chapter edited book arising from the British Association for Applied Linguistics conference organised at Leeds, 2017. School workshops (staff/PGRs) emphasise the application of University-wide policies on open research access (e.g. deposit within White Rose Research Online-WRRO). The School piloted an innovative "Request a Copy" feature within WRRO providing early open access to papers under embargo. Our internally hosted research journal *Hillary Place Papers*, established in 2014, is entirely open access and embodies the principle of open access among PGRs/ECRs (section 2).

Our internal review process is a key mechanism for establishing a culture of critical review and research integrity. This is supported by School-wide workshops (staff/PGRs), for example on ethical co-authorship agreements, procedures of anonymity, and working with young and vulnerable people in research and impact contexts. Our research leave model has been redesigned to be flexible and responsive to individuals' needs and School priorities, including urgent funding calls and field-changing writing.

Future research and impact strategy

The School plans to consolidate research activity and resource around our identified areas of strength. To achieve this, we will capitalise on the diverse knowledge, specialisms, cultural and linguistic backgrounds, and vocational experience of our research community to develop more extensive collaborative projects and new streams of funded research with national and international stakeholders. Through the development of novel approaches to examining questions of social justice and inclusivity *in and through* education, our work will continue to address emerging global challenges and funder priorities (particularly AHRC, ESRC, GCRF, Nuffield Foundation) and change the lives of children/young people, families, and educational professionals.

1. Pedagogical innovation and the digital pivot in formal education settings

We will continue our distinctive contribution around online pedagogies in higher education. Responding to growing digital globalisation and inequality, this theme will focus increasingly on the changing nature of global higher education as a result of digitisation, and digital literacy for learning and work-force development. The rapidly changing landscape of primary and secondary schooling (heightened through the impact of the COVID pandemic) requires new collaborations with schools. We will enhance our focus on teacher engagement with education research, continuing our strength in the core subjects of language/literacy, science and mathematics. This will enable us to inform schooling that addresses the challenges of societal inequality, globalisation and health, climate change, and sustainable livelihoods. We will capitalise on research synergies with priority #1 (human development in diverse digital societies) to enhance distinctiveness, research quality and impact. Planned appointments from 2021 will provide additional leadership and capacity in digital education and the role of schooling in democratising educational outcomes. We have recently secured a three-year Research Fellowship on the role of learning analytics in higher education (Leeds Institute for Teaching Excellence, Swinerton). Broadening and deepening our relations with local schools, we have recently been chosen as the sole HEI partner for one of the national teaching school hubs enabling collaboration with 200 schools across the Yorkshire region.

2. The role of language and communication in building inclusive, socially engaged and sustainable societies

We have a strong research programme on children's, young people's and adults' language and literacy practices in multilingual societies, across formal and informal educational institutions and in diverse spaces of community participation. We will draw on our extensive global networks and conduct socially engaged research into accessible education and public service provision that honour the linguistic, cultural and social diversity of communities and address challenges of civic engagement, critical thinking, environmental awareness and social cohesion in uncertain times. Our interdisciplinary approach and cross-sectorial engagement, supported by strategic funding will ensure that our work continues to be responsive to global priorities. Impact activity will inform the development of inclusive pedagogies, practices and policies for language education, language teacher education, public communication, local governance and community outreach. The development of this work is supported by three new sources of network and collaboration funding (Kubanyiova, Harvey, Clarke & Hebron).

3. Education as an enabler of more inclusive, prosperous and just societies

We will continue our high-quality research and impact activity to promote education as a driver for equality and human rights for children and youth across family, educational and community settings in close dialogue with young people and policy makers. This will involve a stronger focus on examining learning and human development in diverse and rapidly evolving digital societies and consideration of capacity building and sustainable development in underprivileged communities locally, nationally, across Europe and in countries of the south. This trajectory is supported by our growing expertise in global youth studies, young people and families, and youth engagement with media and technology. Our work will address current and emerging societal challenges: social

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inequality, poverty, complex human relationships with technology, growing role of artificial intelligence, need for sustainable livelihoods. The development of this research is supported by a recent professorial appointment with expertise in global youth studies and the role of new media in addressing poverty and inequality (Kontopodis). New funding that will advance this theme includes: EU Horizon2020 Innovative Training Network 'early childhood deafness: communication and social inclusion' (Swanwick); an interdisciplinary Leeds-Ghana partnership that examines early support and education for deaf children and their families (British Academy-GCRF, Swanwick).

To take this work forward we are committed to innovative cross-Centre collaborations and meaningful engagement with impact partner networks at local, national and international levels. To support this, we plan to host the Edu4Future conference (inaugurated at Leeds in 2019 - section 4) every two years. Our staff have been heavily involved in shaping the new Centre for Applied Education Research (CAER), an ambitious research-impact partnership between the Universities of Leeds and Bradford, the Bradford Institute of Health Research, Leeds Trinity University, DfE, EEF and other local partners. CAER is linked to the Bradford Opportunity Area (one of 12 in England) and aims to support schools in engaging with education and health research that can enhance young people's development. Working with CAER provides access to the ongoing Born in Bradford cohort study and will enable us to progress language interventions across regional schools and practitioners' engagement with education research. Working with the LSSI and colleagues across the UoL the School is shaping the 'Child of the North' project, an interdisciplinary network within the N8 Research Partnership aiming to understand systems and interventions affecting children to improve childhood experiences and enable transformative change. Linking to the UoL Research Themes (culture, cities) this network supports the School in progressing its vision of advancing educational processes in formal and informal settings and promoting education as a driver education for fair and inclusive societies within a strong regional partnership.

2. People

Staffing strategy and staff development

Staffing vision. The School attracts and develops academic staff who value and engage in high quality challenge-led research in our priority areas. We set high expectations that are clearly and consistently communicated, and explicitly supported. The School provides personalised developmental support for staff at all career stages. As evidenced below we enact the principles of the Concordat to Support the Career Development of Researchers.

Recruitment and promotion. Our submission of 30 staff comprises 14 staff appointed since August 2013 with four ECRs (Ahmadian, Dang, Inglis, Mazgutova). These appointments support our focus on: global childhood and youth (Kontopodis, Main, Davies, Luke, Harvey); language education research (Kubanyiova, Ahmadian, Zhao, Mazgutova, Dang, Kuchah); school curriculum and pedagogy (Sayers); psychology in education (Griffiths, Hebron). Drawing upon opportunities provided by UoL Organisational Development and Professional Learning (ODPL) the School was awarded two University Academic Fellows within the Great Minds programme: Main (child poverty and social exclusion) and Perrotta (sociology of digital education). Planned appointments target our priority research themes: pedagogical innovation and the digital pivot in formal education settings; the role of language and communication in building inclusive, socially engaged and sustainable societies; education as an enabler of more inclusive, prosperous and just societies.

Staff support and development. Peer support around whole School priorities is a strong characteristic of our school. Staff are assigned a research mentor with annual staff review and development (SRDS) meetings, and access to personalised support (in line with the Concordat) is facilitated through our mentoring programme. QR allocation provides research-active staff with 20% workload allocation for research. In addition, research active staff can request more and annually have received an average additional workload allocation of 10% (providing 30% total) to support ambitious and targeted activity aligning with School priorities. ECRs have full access to all staff support mechanisms (including research leave and internal funding). Staff new to research in their first three years of contract, and staff completing a doctorate are supported through an additional 10% of workload in each case. Individual staff workload totals for teaching, research and leadership are accessible and transparent to all (Concordat). Through Annual Academic Meetings (AAM) with the

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Head of School and the DoR individual annual research plans, training and support are reviewed and agreed.

All staff can apply for research leave. The School supports ambitious applications that align with School priorities. Typically, research-active staff take a semester-length research leave every 4-5 years. This has been used to: develop and submit large, collaborative, interdisciplinary research bids; write field-changing articles and books and undertake pump-priming or pilot activities. The School also has an annual Research Investment Fund (RIF) that provides flexible support for research and impact activities aligned with School objectives. RIF funding has been used to support staff to: write high quality publications; develop large grant applications; attend research training activities and conferences; organise networking sessions with non-academic user groups.

Monthly Research Lunches enable discussion between staff/PGRs on topics such as applying for research funds, responding to reviewer feedback, and are particularly beneficial for ECR staff. Group Writing Sessions provide a weekly peer support group for staff/PGRs to engage in individual writing. We hold twice-yearly research away-days and Writing Retreats for staff/PGRs. The School Reading College provides feedback and support on research writing. Staff/PGRs send near-final research manuscripts to the College ahead of submission. Manuscripts are reviewed by two staff members (one experienced, the other mid/early-career) providing peer feedback and mentoring opportunities. Since its inauguration in September 2017, the College has reviewed around 50 manuscripts from early-mid career staff including at least five co-written with PGRs.

Facilitating and rewarding links between academia and non-academic stakeholders

Our success with impact acceleration funds (section 1) is facilitated through School processes: several of our research lunches have focused on engagement; Centres each run at least one 'outward-facing' School-wide event annually; at early stages of research bid development internal review focuses on engaging non-academic stakeholders as partners.

Postgraduate Researchers (PGRs)

Our ambition is to attract high quality PGRs to work with staff on the School's priority research themes and to provide exceptional research training for the next generation of education researchers and global citizens. The School includes around 90 PGRs on two programmes: PhD and the professional EdD. The EdD supports research engagement for non-academic education professionals particularly in the Yorkshire region. We have achieved a 24% increase in completions/year since REF2014 (13.8 to 17.1).

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	Total
EdD	2.0	1.5	2.5	0.0	1.0	1.0	5.0	13.0
PhD	9.5	13.7	14.3	19.8	18.0	13.0	18.5	106.8
Total	11.5	15.2	16.8	19.8	19.0	14.0	23.5	119.8

Supporting our objective of addressing global challenges, our PGRs are from 23 countries with 56% of completions from outside Europe. Interdisciplinarity is stimulated through co-supervisions with other Schools e.g. Linguistics, Psychology, Medical Education, Food Sciences and Nutrition, Computing, Music and Physics. Of completions, 12% were Research Council scholarships and 64% female. We have a large and successful part-time cohort (20% of completions).

Approach to recruitment

We work with high-quality candidates to develop applications aligning with our research priorities. We encourage progression from our MA programmes to PhD/EdD with two information events each year. An example of our ambitious and international approach to PGR recruitment is the recent award of an Horizon2020 Innovative Training Network (€4million, £600k to Leeds, Swanwick) to support 15 PGRs across Europe with two based at Leeds.

Evidence of the quality of training and supervision

Each PGR has two supervisors, typically an experienced member of staff alongside an early/mid-career academic. Formal supervision meetings are held at least every month. Many PGRs conduct overseas fieldwork and we require monthly fieldwork reports and video-call supervisions for

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monitoring and support. The most recent Postgraduate Research Experience Survey (PRES_2019) shows that PGR satisfaction scores are consistently higher than the Russell Group (Education) average; 92% satisfied with overall experience (79% Russell Group average). The School uses the UoL Graduate Record of Achievement and Development (GRAD) online system to record supervision meetings, training plans, formal progress reviews and changes of location. GRAD provides a central shared staff/PGR space that supports a coherent developmental pathway for PGRs.

In addition to School-taught modules on research methods, structured training is provided through the regional White Rose Doctoral Training Partnership (WRDTP), the Leeds Doctoral College and the University ODPL, LSSI and Library development programmes. PGRs can access internal funding to enable international conference presentations. Within the assessment period at least 60 PGRs have presented their work at international conferences. PGR Taylor was shortlisted for the 2020 UK Literacy Association student research prize. PGR Aliaga-Salas co-edited a book from her thesis exploring teacher research as professional development. Our PGRs are active within the annual Leeds Doctoral College Showcase, fostering cross-disciplinary links and peer group support. PGR Hariri received an award at the 2020 Student Sustainability Research Conference for the originality of her work on sustainable assessment feedback in second language education.

Integration into research culture of the School

The School has an inclusive and participatory approach to its doctoral community. The PGR representative committee, which includes both PhD/EdD programmes and full-time/part-time cohorts, meets regularly with senior staff in the School to discuss the integration of PGRs within the research environment. In 2017, PGR Hussain won a University-level award for her work in supporting PGR integration within the School. Each Research Centre has a PGR lead and all PGRs are Centre members. We employ PGRs within our funded research to support their academic and professional development e.g. quantitative analysis of data (teacher development in maths, Ryder and Tasara, Department for Education), data collection (pupils' reading and language skills in secondary schools, Clarke, EEF). Kubanyiova's AHRC network (ETHER) includes a PGR internship to support development of research methodologies. Taylor worked with PGR Parinita Shetty to co-organise a workshop at the ESRC Festival of Social Science, 2019 on the theme of children's writing.

The School has multiple activities involving staff and PGRs e.g. Informal Research Lunches (monthly), Group Writing Sessions (weekly) and Writing Retreats (twice yearly). PGRs can submit manuscript drafts to the School's Reading College for feedback. PGRs are encouraged to consider co-writing journal manuscripts with supervisors. Workshops within the School have focused on the ethics of co-authorship to ensure PGR agency in writing with supervisors. The School hosts the PGR-led research journal *Hillary Place Papers*. The Editorial Board consists of PGRs/staff working together to commission articles and co-review manuscripts. This has published 34 outputs, 47% of which are co-authored by PGRs. The School hosts an annual PGR-led Research Conference (RSEC) to discuss generic aspects of their work (e.g. methodological challenges, research impact, ethics) in a collegial and supportive environment.

PGR wellbeing

The School holds regular PGR lunches and has an active social programme, designed to reduce social isolation and foster peer group support. The wellbeing of PGRs who are part-time and/or offsite is supported through regular contact with supervisors and our dedicated PGR Administrator/Support Officer. Fortnightly online seminars presenting PGR work in progress ensure inclusion of part-time and off-campus PGRs. These include staff-led sessions on themes such as 'how Examiners assess a thesis' and 'philosophical underpinnings of education research'.

Preparing PGRs for future research and impact activity

The School Employability Officer offers tailored careers information sessions for PGRs. The latest PRES data (2019) shows a 10% increase since 2017 in PGRs reporting the successful development of professional networks. We encourage PGRs to engage in placements, e.g. PGR D'Silva's LSSI award to work with The Equality Trust on income inequality and social disadvantage, PGR Dearden's collaboration with Birmingham Opera Company, PGR Marquez's OECD-Paris internship on PISA data analysis.

Future developments.

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We plan to increase the number and quality of PGRs through enhanced interdepartmental supervision of interdisciplinary projects and greater alignment of PGR projects with School priorities (section 1), e.g. an ESRC WRDTP Collaborative Studentship 'inclusivity in children's engagement in democracy' with the School of Politics and International Studies and the UK Parliament Education Service. We will build on recent success with the EU Horizon 2020 research and innovation programme and further exploit ESRC WRDTP studentship awards.

Equality and diversity

The School has established two roles dedicated to equality and diversity: Equality and Inclusion Officer, and Disability Officer. Our work on gender equality has been recognised by an Athena SWAN Bronze award to the Faculty of Social Sciences. Over the assessment period, the School has had two Directors of Research (both female) and a female Head of School for three years.

Research leave is open to staff at all career stages, full-time or part-time, and staff do not have to have been in post for a specific period to apply. The School makes adjustments for staff by supporting flexible working arrangements, (e.g. off-site working, flexible office hours) to accommodate personal circumstances such as caring responsibilities. We consider the gender balance of supervisor pairs for each PGR as appropriate to PGR gender and cultural background. Staff returning from periods of parental leave or ill health are provided with a phased return-to-work plan.

The School has followed the UoL Code of Practice on staff entry. Two grade 7 'teaching and research' staff have been judged as yet to reach research independence; one recently submitted a doctoral thesis, the other is within 18 months of doctorate completion. Of six 'research only' staff in the School, one grade 8 staff member has been assessed as independent.

Our submission of 30 staff shows strong female representation at 56%. This extends into higher grades; 50% female at grade 9/10. Our professoriate is 41% female, significantly higher than nationally (26%, HESA-2018/19). Our output submission has 65% attributed to female staff. ECRs are fully represented in our submission: 11% of output attributions; 14% of staff submitted. Output attributions also reflect a strong body of developing early-mid career researchers: 36% to staff on grades 7-8.

3. Income, infrastructure and facilities

Strategy for generating income

Sustained external income is central to our goal of producing high-quality research with societal impact. Our Centre-led research income strategy (section 1, elaboration below) has led to major growth within an increasingly competitive funding environment. Our total research income over the REF period is £4,044,961. Our average income per year of £577,852 is 62% higher than REF2014. In response to the challenging climate our strategy has been to diversify our funders (awards from 24 different funders over the assessment period). We have intensified our efforts to secure funding from AHRC/ESRC. Staff with a track record of AHRC/ESRC funding, and early-mid career staff successful with other funders, are encouraged to convene AHRC/ESRC bid teams. From the early stages of bid development research leaders work with bid developers to encourage: ambition; linkage to School research priorities; consideration of impact partners; building appropriate interdisciplinary and multi-institution teams. Encouraging ambition has also been supported at Faculty level through monthly 'Pro-Dean surgeries' that provide a drop-in opportunity to discuss funding sources and networks. As a result, our UKRI and British Academy funding has more than doubled since REF2014 to £243k/year. Our UKRI success rate is 42% (16% for REF2014).

Peer review processes and peer support for grant proposal development have been strengthened over the REF period, with particular attention on early stages of development. Staff send an Expression of Interest form to the DoR and Head of School who consider quality, feasibility, strategy-fit and support/mentoring. Targeted allocation of RIF funds, additional workload hours and research leave enable appropriate staff to focus on ambitious grant applications aligning with School priorities. The School encourages large collaborative bids, enabling more efficient use of support services, more secure research assistant staffing, and enhanced impact through sustained collaboration with partners. As a result, the average size of funding applications within the School has risen from £128k (REF2014) to £163k. Peer review processes introduced over the period also aim to increase success

Unit-level environment template (REF5b)

rates making more efficient use of our staff and resources. Draft applications are independently reviewed by two senior staff, co-ordinated by the DoR. Research Council applications undergo an additional level of peer review at Faculty level. As a result, success by grant value is now 20% (6% for REF2014).

Our strategy of addressing societal challenges includes responsiveness to targeted funder calls. Schemes relevant to the School's priority themes are identified at an early stage by the DoR, supported by Faculty and School professional support staff. Our flexible support mechanisms (time, funding - section 2) are deployed at short notice enabling staff to respond to short-term calls. Examples of targeted-funding calls that the School has responded to (with success) include: digital technology in higher education (ESRC-Newton); character education (Templeton); school improvement (3 EEF awards); translating cultures (AHRC).

The DoR monitors the distribution of RIF funds, additional workload hours and study leave to ensure equality and diversity. Of 13 funded projects in the prestigious UKRI category, eight were led by female staff and five led by staff at grade 9. Early/mid-career staff are encouraged to engage with more senior staff to form application teams. Staff are encouraged to use pump-priming (e.g. within RIF) to enable small-scale research leading to larger funding applications consistent with the School's research priorities (e.g. Clarke's feasibility work ahead of a successful EEF funding application). Review and mentoring arrangements include an emphasis on maintaining ethical standards in research, e.g., explicit reference to the application of BERA ethical guidelines.

Many of our high-quality research outputs follow from prestigious grant awards, e.g. metaphors of climate change (Deignan, AHRC), child poverty (Main, ESRC), the educational support of children who are deaf and their families (Swanwick, British Academy). We have been successful in securing funding for six ESRC/LSSI Impact Acceleration Account awards. These awards have progressed the School's research priorities e.g., 'improving educational and social outcomes for deaf children of Roma families' (Swanwick) takes forward our social justice and inclusion research and impact agenda. Our impact case studies follow from large and prestigious funding awards reflecting our objective of meaningful inter-relation between world-leading research and impact with reach and significance. For example, 'Children's voices in addressing child poverty' (Main) follows from an ESRC Future Research Leaders project and two subsequent impact projects (ESRC/LSSI Impact Acceleration Account award, an impact project funded by Leeds City Council).

Infrastructure and facilities

Physical infrastructure. Research community building has been further enabled by the consolidation of the School campus into one dedicated building (previously two sites). This has supported cross-Centre collaboration and collegiality and ensured a single high-profile location on campus for meetings with non-academic partners. Dedicated PGR facilities are prioritised. The School has a PGR common room and nine PGR-specific rooms with 64 workstations. Full-time PGRs within their study period have individual workstations. Other PGRs share hot-desking facilities within the building.

Dataset facilities. We have distinctive strengths in the innovative use of large-scale datasets and statistical analysis methods; 22% of our submitted outputs include analysis of large-scale national datasets. This is supported by use of national dataset infrastructure. Homer is recognised internationally as a researcher with expertise in the statistical analysis of large-scale education-related data, e.g. leading projects making distinctive use of the National Pupil Database (Nuffield) and HESA datasets (Nuffield, International Baccalaureate), national evaluations (e.g. DfE Opportunity Area Programme) and membership of the DfE Data Sharing and Approval Panel. Main has utilised national and international datasets in her work on child poverty and wellbeing, e.g. the international Children's World dataset, UK Poverty and Social Exclusion dataset. Our strength in corpus linguistics also utilises large-scale dataset analysis (Dang, Deignan).

Website/blogs. We have invested in developing our website presence over the REF period: enhancing visibility of our impact work; showcasing high profile research activity; increasing responsiveness through Twitter feeds, blogs and podcasts (e.g. a dedicated webpage of resources for parents and teachers home-schooling during COVID pandemic).

Professional services. The School has 1.0FTE research support working with the DoR and Centre Directors on communications and impact partner engagement. Professional staff provide 0.2FTE

Unit-level environment template (REF5b)

within the School on HR and finance linked to research. At Faculty-level 7.8FTE (includes 2.0FTE specifically on impact) provide pre/post-award support and targeted training (e.g. diversifying funding sources).

University-wide resources. The School has utilised Faculty International Research Mobility Awards (FIRMA), e.g. two awards enabled researchers and impact partners from China, Brazil, India, South Africa and Germany to contribute expertise in digitalisation, education and inclusion at the Edu4Future conference organised by the School (section 4). UoL LSSI funding supports our impact strategy (six Impact Acceleration Account awards). Swinnerton and Zhao have held Leeds Institute for Teaching Excellence (LITE) Fellowships.

Wider facilities. Staff are encouraged to exploit funding opportunities of the White Rose Consortium. This includes: White Rose Doctoral Training Partnership Collaborative Awards, e.g. Main's application for a doctoral partnership with Irise International (Ugandan-based NGO); White Rose Collaboration Funds (e.g. multilingualism and ASD, Clarke, Hebron). The School has utilised the National STEM Learning Centre based at York to support impact partnership in the development of bids (Ryder, ESRC) and communication of research findings to non-academic education professionals (Banner, Inglis).

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

Research activity involving collaboration.

Leadership of funded research collaborations in Europe, Asia, Africa, US, and Australia has expanded the international reach of our research. For example, within our inclusion priority theme, we increasingly work with African partners: Ghana (Swanwick-British Academy-GCRF); Rwanda (Kuchah-ESRC New Investigator Grant); South Africa (Harvey-AHRC-GCRF, Morris-ESRC); Cameroon (Kuchah-British Council); Griffiths was Co-I on a World Bank-funded RCT trial of the impact of integrated parenting, nutrition and malaria prevention in Mali. Following strategic appointments (section 2) we have growing collaborations in Indonesia, Vietnam, Japan, Cameroon, Slovakia, Afghanistan, Oman, Canada, Brazil, Chile, Latin America, New Zealand and China. For example, Lamb co-edited the 30-chapter Palgrave Macmillan Handbook of Motivation for Language Learning with colleagues in Sweden, Japan and Hungary (8,500 chapter downloads in the first six months). Harvey co-founded the International Association of Applied Linguistics (AILA) research network Creative Inquiry in Applied Linguistics (100 members across 5 continents) leading to an interdisciplinary AHRC-funded Research Network (Learning at the Intersection of Language and Arts, LILA). The AILA Fully Inclusive Practitioner Research (FIPR) Network (23 countries) founded by Hanks is driving discussion on methodological challenges in applied linguistics research. Clarke is part of the Chilean Language and Reading Alliance (CLARA), arising from an ESRC-Newton funded research network resulting in a co-authored publication reporting the effects of a reading intervention for low-income children in Chile.

Collaboration strategy prioritises *interdisciplinary* international research. For example, Swanwick's leadership in deaf education and inclusion involves collaboration with the National Technical Institute for the Deaf at Rochester Institute of Technology (US), Max Planck Institute (Germany), the Behavioural Science Institute, Radboud University (Netherlands) and the Centre for Research in Cognition and Neurosciences (Belgium). Clarke is member of the Language and Reading Research in Yorkshire (LARRY) interdisciplinary network of c.30 researchers (education, psychology, human communication, linguistics) with strong regional impact goals, e.g. presentation at the Leeds Dyslexia Festival, 2018. We emphasise the role of PGRs in supporting research and impact communities globally. For example, Swanwick worked with PGR Fobi to identify collaborators in Ghana leading to international collaborative funding (education for young deaf children, British Academy-GCRF).

An example of how we are pursuing our agenda on international, interdisciplinary collaboration into the next REF cycle is the Edu4Future: Local & Global Perspectives conference organised by the School in 2019. This two-day event brought together academic partners from a range of disciplines with stakeholders from UNESCO, UNICEF, Save the Children and the National Children's Bureau (100 participants from eight countries).

Collaborations to improve the impact of our research.

Unit-level environment template (REF5b)

Our impact case studies evidence our commitment to sustaining meaningful ongoing collaboration with non-academic stakeholders. For example, Main's impact case study demonstrates a long-term, productive research-impact collaboration at local and national levels (Leeds City Council, The Child Poverty Action Group, The Children's Society). Morris's impact case study demonstrates how we scale up our impact with collaboration locally (Morris is former Dean of Digital Education, current Interim Deputy Vice-Chancellor: Digital Transformation at the UoL), nationally (FutureLearn) and internationally (South Africa links).

We have extensive impact collaborations beyond submitted case studies. Our contribution on critical analysis of school curriculum is exemplified by Pike's secondment 0.5FTE as CEO of a multi-academy trust of six schools (7,500 pupils) in the north of England 2017-21. This school network is pioneering the development of research-informed 'schools of character', drawing from Pike's research on character education (Templeton-funded project, Ethical English book). The following exemplify our work with education professionals to provide research-informed tools to address societal challenges. An ESRC/LSSI Impact Acceleration Account award enabled Davies to work with the award-winning social enterprise 'Families Feeling Safe' to organise an impact event for teachers, charities and safeguarding professionals that introduced research-informed safeguarding resources (on bullying, domestic abuse and child sex abuse) for use with young children. Chambers co-edited a book for education professionals on addressing the challenges of integrating language teaching in Anglophone contexts. Swanwick's Language Planning Toolkit (from a mid-career British Academy Fellowship) has been presented through workshops in schools and with national deaf organisations (National Sensory Impairment Partnership, British Association for Teachers of the Deaf).

To enhance our impact collaborations, we actively draw upon the UoL Public Engagement programme, e.g. Harvey (participatory theatre) was supported by a UoL Public Engagement Fellowship leading to a Public Engagement with Research Award (2017), Clarke (EEF-funded, reading for comprehension) presented research-informed resources at a UoL 'Be Curious' public engagement event. To support our inclusion agenda, we engage members of our school-aged and adult local community on work experience within research projects (e.g. Main, Deignan, Simpson). These projects benefit from their perspectives and offer university-based opportunities to those who might not otherwise have such access. Such activities evidence our contribution to the UoL mission of being at the heart of the local region and Northern Powerhouse.

Indicators of wider influence and recognition in the community

Editorial activity

Our editorial activity exemplifies our international leadership and areas of research strength. As co-editor of the journal *Metaphor and the Social World*, Deignan is leading the development of interdisciplinary analyses of metaphor in social contexts. Our contribution to social justice and childhood is exemplified by the *Childhood Vulnerability Journal*, co-founded by Main (also co-editor of the *Journal of Poverty and Social Justice*). Other editorial lead roles exemplify our disciplinary leadership in reading (Clarke and Griffiths, associate editors of the *Journal of Research in Reading*), technology in education (Morris, Chair of Editorial Board, *Research in Learning Technology Journal*), curriculum and formal schooling (during Ryder's term as editor-in-chief the ISI impact factor for *Studies in Science Education* increased from 1.26 to 3.25). Special issue editorship has enabled leadership of new disciplinary debates, e.g. resetting the agenda for inquiry into language teacher cognition (Kubanyiova, *Modern Language Journal*), critiquing the dominant 'what works' agenda within school curriculum (Homer, *International Journal of Research and Method in Education*). Staff have (co)-edited 24 books, many involving substantial international authorship, and worked on the editorial board of 30 research journals.

Research grant reviewing, consultancy and committee work

The School has three members of the ESRC peer review college (Main, Morris, Ryder). Other prestigious Grant Board membership includes Research Council of Norway (Morris), reviewing within UKRI-GCRF and EU Horizon 2020 (Kontopodis), British Academy-GCRF (Simpson). Demonstrating commitment to societal benefit, staff have contributed evidence to government committees and independent commissions, e.g. The Department for Digital, Culture, Media & Sport Digital Skills and Inclusion Research Working Group (Morris), UN Special Rapporteur on Extreme Poverty (Main), DfE

Data Sharing Approval Panel (Homer), oral evidence to the All-Party Parliamentary Group on Social Integration (Simpson).

Leadership of research and professional organisations

We are disciplinary leaders in applied linguistics and language education with multiple leadership roles. Kuchah is President of the International Association of Teachers of English as a Foreign Language (IATEFL) with a membership of c.4000 practitioners, consultants and researchers across 134 countries. Deignan is Treasurer of International Association for Researching and Applying Metaphor; Ahmadian, Hanks and Simpson serve on the Executive Committee of the British Association for Applied Linguistics. Our contributions around inclusion and childhood are emphasised through the following leadership roles: Expert Advisory Board Member, UNICEF Office of Research-Innocenti Report Card 16 team (Main); British Association for Teachers of the Deaf (Swanwick). Leadership within curriculum/pedagogy includes: Secretary of the European Science Education Research Association (Ryder); invited honorary member of Japan Association of College English Teachers (Hanks). Our influential work on technology in education is indicated by Morris's appointment as Chair of the Communications and Publications Committee for the Association for Learning Technology.

Organisation of conferences and seminar series

Through extensive conference organisation activity, the School has provoked intellectual debate on issues of disability, inclusion, equity and poverty, challenged understandings of language, literacies and mobility, and shared cutting-edge research into pedagogy, assessment, curriculum and teacher development. Representing our work on inclusion and just societies: Main co-organised the 2018 Childhood Vulnerability Conference, Frankfurt; Baynham was consultant to the ESRC-funded seminar series Queering ESOL. Examples of our disciplinary leadership in languages and language education: Kubanyiova is PI of an innovative AHRC-funded seminar series, Ethics and Aesthetics of Encountering the Other (ETHER); Simpson chaired the local organising committee for the 50th Annual Meeting of the British Association for Applied Linguistics (BAAL) held at the UoL; Lamb was organising committee member for the British Council/ITB/UoL Biennial Conference on Language Education, Indonesia, 2016/18. Conference organisation activity also reflects research strengths in curriculum and policy. Ryder was on the organising committee for European Science Education Research Association conferences (c.1800 researchers) in Helsinki (2015) and Dublin (2017). Sayers co-organised the Eleventh Congress of the European Society for Research in Mathematics Education, Utrecht (929 participants). Our leadership through digital education event organisation includes: a flagship ESRC-funded UK digital education policy event, 2018; FutureLearn Academic Network, 2019 (Morris, Swinnerton) and the 2020 world-leading conference on Digital Transformation that was attended by an international audience of over 400 delegates.

Conference activity

Staff have given at least 355 presentations at international conferences over the assessment period. The excellence of our research and its important contribution to the discipline globally is evidenced by 42% of these presentations being invited. Evidencing our emphasis on impact, this includes 107 conferences for non-academic practitioners (52% invited). The following invited keynotes exemplify our global contribution on the role of language and language education in addressing social inequalities: International Second Language Teacher Education Research Conference, Minneapolis (Kubanyiova); International Conference on Current Practices in Language, Linguistics and Literature, Pakistan (Lamb); International Conference on Foreign Languages and Literature Teaching, Taiwan (Dang); invited keynotes in Poland, Israel, Sweden, Cyprus, Netherlands (Baynham). We have a distinctive strength in corpus linguistics, e.g. invited keynotes by Deignan: International conference on Metaphor and Discourse, Spain; German Society of Cognitive Linguistics. The following invited keynotes exemplify our advances in the field of inclusion and social justice: International Conference on Educational Anthropology, East China Normal University (Kontopodis); National Institute of Special Education International Symposium (Griffiths); International Symposium on Shared Parenting, London (Davies). Invited keynotes also demonstrate our emphasis on critical analyses of curriculum and pedagogy: The Tao and Character Education, 21st Century Human Values Forum, Andong, South Korea (Pike); National Science Education Research Association annual conferences, Brazil & Korea (Ryder); invited keynotes in Japan, US, Turkey, Thailand (Hanks). Morris has given 15 invited keynotes in nine countries, showing our major contribution to research in digital education.

Prizes and Fellowships

Morris and colleagues were awarded Learning Technology Team of the Year (2015) by the Association for Learning Technology. Ryder was awarded an Honorary Doctorate (2017) by Uppsala University, Sweden. Hanks was shortlisted for the Christopher Brumfit thesis award (sponsored by Cambridge University Press) and Kubanyiova shortlisted for the Duke of Edinburgh English Language book award. Homer is a Fellow of the Royal Statistical Society; Baynham is a Fellow of the Academy of Social Sciences.

Staff have held five Visiting Professorships over the assessment period, e.g. University of Jyväskylä, Finland (Simpson), College of Gouda, Netherlands (Pike). Swanwick's recent book resulted in a Visiting Professorship at University of São Paulo, Brazil. The School has hosted 25 Visiting Fellows from 10 countries. We support Visiting Fellowships linking with our strategic priorities (section 2). For example, staff within CLER hosted the prestigious Hornby Scholars scheme to support research mobility of 10-15 TESOL professionals annually from low-middle income countries (2014-2016). Morris hosted a Visiting Fellow from China leading to two co-authored journal articles in our research priority area of digital education. Simpson has hosted two Visiting Fellows from the University of Jyväskylä leading to multiple publications in adult ESOL. Kubanyiova hosted a Visiting Professor from University of West, Sweden, leading to a joint Swedish Research Council bid on student motivation.

Contribution within the PGR community

Staff have acted as Externals Examiners for 106 UK PGRs and 41 PGRs internationally. Ryder co-organised two doctoral summer schools (c.100 PGRs) for the European Science Education Research Association (Turkey, Czech Republic). Simpson was an invited tutor at the Language and Migration Summer School for PGR/ECRs at the University of Bern. Hanks (and previously Clarke) leads the Childhood, Education and Youth interdisciplinary training pathway for the ESRC WRDTP at the University. Kubanyiova led a workshop for PGR/ECRs at the Eleventh International Conference on Language Teacher Education, Minnesota. We support regional capacity building by providing experienced supervisors to work with less experienced supervisors based at smaller local HEIs (e.g. Leeds Trinity University).