

Institution: Institute of Education (IOE)
Unit of Assessment: 25 Education
a. Overview

We aspire to be a globally pre-eminent centre for research and development in education. Our objective is to foster research that is rigorous and influential and shapes and extends the field – reflecting our view of education as a critical, multi-disciplinary field informed by a range of social, economic, cultural and political issues.

Nine departments provide the base for academic staff and research students. Our 28 research centres provide focal points for leading-edge research. Most are supported by major grants from research council, government or philanthropic sources; others are formally approved by Senate, the IOE's supreme academic body and report on their work annually. We encourage Special Interest Groups (SIGs), of which there are currently 11, and support them with seed funding. They run seminar series and reading groups and offer a forum for peer review of ideas and research proposals. They are an active and vibrant element of our research environment, in themselves and as the starting point for new research and research centres.

Research in the Department of **Humanities and Social Sciences** uses disciplinary perspectives and methods (from history, philosophy, sociology) to examine educational purposes and effects, now and in the past, especially in relation to education policy and equity. There is also research on education and health in international development.

Research on improving learning addresses learners, classrooms, institutions, systems and society, both theoretically and empirically, covering early years through to adult education and workplace and online learning. It encompasses professional education and leadership and management. There is also comparative study of the economic and social functions of education. Work in these areas is concentrated in the Departments of **Early Years and Primary Education, Lifelong and Comparative Education** and the **London Centre for Leadership in Learning**.

Research in the Departments of **Curriculum, Pedagogy and Assessment** and **Culture, Communication and Media** focuses on the inter-relations of knowledge, learning and culture in formal and informal educational environments. It considers learning in specific subject areas and technology enhanced learning. It also examines the production, organisation and representation of knowledge, including digital forms of knowledge, and discourses of knowledge.

The Department of **Psychology and Human Development** researches psychological approaches to learning, development and teaching from early childhood to adulthood, encompassing: organisational contexts for learning; language, literacy and numeracy; teaching and learning processes; social and emotional competence; and special educational needs. Educational neuroscience is a growing aspect of the department's work.

Research in the Department of **Quantitative Social Science** uses data from administrative registers, cross-sectional surveys and longitudinal cohort studies to provide insights into: the antecedents of skill formation and development; the impact of education and skills on employment, income, health and social participation; and issues of agency, choice, inequalities and identity.

The Department of **Childhood, Families and Health** encompasses research on parenting, family and care services, social work and social pedagogy, and young people's health and wellbeing. It examines the educational trajectories of looked-after children, as well as wider child disadvantage. The sociology of childhood and children's rights are further areas of study. Work on systematic reviews covers a range of areas in education and health.

Our current departments were established following a restructuring exercise in 2007/08 to strengthen each of these areas of research and teaching. Since then we have conducted major reviews through new corporate, research, consultancy and knowledge transfer (RCKT) and postgraduate research (PGR) strategies.

We co-ordinate our research activity through a directorate, faculty and department structure. The Pro-Director: Research and Development (**Reiss**) leads our research activity, supported by Faculty Directors for Research (**Crech, Pratt**). Our PGR provision – comprising the largest PGR community in education in the UK – is co-ordinated through our Doctoral School, led by the Dean of the Doctoral School (**Tolmie**). Key committees are the RCKT Committee, which guides our RCKT strategy and its implementation, and the Research Governance and Ethics Committee.

Throughout this document Category A staff are indicated in bold type.

b. Research Strategy

Achievement of strategic aims for research during the assessment period

Our mission, as set out in RAE2008, was “to pursue excellence in education and related areas of social science to support individuals, institutions and societies facing the challenges of change”. We made seven specific commitments. Three set priorities for the scope of our research – to develop: (1) understandings of improving education at scale, including through digital technologies; (2) approaches to exploring the relationships between economic competitiveness, social cohesion and the non-economic benefits of education; (3) understandings of the role of education in society, health and the environment. Two established priorities for developing the discipline of educational research: (4) extend multi-disciplinary approaches and methodological innovation; (5) strengthen quantitative approaches across the life course and systematic review. Two identified priorities for sustaining our progress: (6) develop new researchers who will lead the field; (7) strengthen our capacity to leverage strategic partnerships worldwide in enhancing education. In each we have made substantial progress and in most have gone beyond our intentions in 2008. In the process, we have consolidated our position as one of the foremost schools of education in the world.

We set out below our specific achievements, which in all cases span our departments; our progress in relation to priorities 6 and 7 is covered in sections c and e. Together, our achievements encompass 698 externally-funded research projects, conducted for some 207 funders. Through that work we have attracted over a quarter of UK education research funding. We are consistently ranked among the top-four recipients of Economic and Social Research Council (ESRC) funding and among the top-five recipients of social science research funding. In the 2013 QS World University Rankings, we ranked seventh overall in education; on the indicators of research citations per paper and impact we ranked third, behind Harvard and Stanford.

Fundamental to this performance has been the unique depth and breadth of our research in education, its international reach and the IOE’s flexible structures, which make the most of the critical mass of expertise at our disposal. Our research continues to be distinguished by its combining of established disciplines and emerging fields and its methodological range and innovation. We endeavour to provide a context within which new ideas are encouraged to flourish, and are then, crucially, rapidly recognised and helped to develop.

1) Improving education at scale. The UK Department for Education (DfE)-funded Effective Pre-school, Primary and Secondary Education (EPPSE) project has made major advances in our understanding of the relationships between the curriculum, pedagogy and progression in the early years and beyond. The role of ‘sustained shared thinking’ between teacher and learner in marking out high quality pre-school provision has been widely picked up by both researchers and practitioners (**Siraj-Blatchford, Taggart**). **Bradbury** has provided a critical analysis of early years assessment policy and practice. **Blatchford’s** findings on the negative effects of deploying untrained teaching assistants to support learners with special needs has led to a radical reassessment of teaching assistant practices by many schools and local authorities. Other research at classroom and system level has addressed the impact on teaching and learning of environmental and classroom noise (**Dockrell**), which has generated substantial interest among academic and professional architects involved in school design. Studies on the prevalence and composition of ability grouping (**Hallam, Parsons**), personalisation (**Watkins**), formative assessment (**HargreavesE**), argumentation pedagogy (**Andrews, SimonS**) and effective provision of group work (**Baines**) provide striking examples of work in this area. **Tolmie** extends this to illustrate how group work impacts positively on pupil relationships as well as learning, bringing together two previously separate strands of research, by showing that both outcomes depend on a common mechanism. **Stoll** has offered a broad and conceptually rich commentary on education change and school improvement (with one of the ‘most downloaded’ articles within the *Journal of Educational Change*). Publications from **Ehren** on school accountability and improvement include one of the most cited articles for the *British Journal of Educational Studies* in 2010. **Earley, Eddy Spicer, SmithH** and **Waterhouse** have made substantial contributions that illustrate the range of expertise on school improvement and leadership.

Within our subject-based studies, research on literacy includes empirical studies as well as cross-disciplinary theoretical consideration of English as a school subject and its re-framing in the digital age (**Anderson, Andrews, Flewitt, Walters, Wyse, Yandell**). **Hardcastle** has provided a sophisticated discussion of the relation of language to thought, with implications for learning. Research by a critical mass of colleagues in our Department of Psychology and Human Development

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(PHD) on typical and atypical development in different contexts has led to improved understandings of possible continuities in pedagogy, including in relation to literacy (**Dockrell**, Griffiths, **Hurry**, **Marshall**, **Masterson**). Studies of the relationship between basic calculation proficiency and mathematics achievement have made an important contribution to theoretical understandings of children's mathematical abilities and the implications for teaching and learning: **CowanR** has shown how mathematics learning depends on the interplay of core cognitive abilities and specific knowledge, which has very precise implications for teaching strategies. **Dowling**, **Geraniou**, **Houssart**, **Morgan**, **Pratt** and **Rodd** have undertaken internationally-renowned research on mathematical discourse and communication. Through the Cornerstone Mathematics project we are designing state-of-the-art technologies in collaboration with schools that will transform the teaching and learning of mathematics (**Hoyles**, **Noss**). Our research on literacy and numeracy extends to influential studies of adult basic skills (**Duncan**, **Evans**), including through our National Research and Development Centre for Adult Literacy and Numeracy and our Adult Language, Literacy and Numeracy SIG. Our work also reports on the outcomes of a highly-regarded study of the use of mathematics in the workplace, introducing the important concept of techno-mathematics (**Hoyles**). Our Mathematics Education SIG supports collaboration across these different aspects of our research. There are also subject-based studies on science (**Amos**, **Davies**, **Levinson**, **Mujtaba**, **Reiss**, **SimonS**, **Tunnickliffe**, **Wheeldon**), history (**Foster**), geography (**Lambert**, **StandishA**), foreign language learning (**Gray**, **Paran**, **Revesz**), including support for bilingual learners (**Wallace**) and language and identity (**Cara**), religious education (**Souza**), music, with research that continues to have international impact on secondary school practices (**Baker**, **GreenL**) and interdisciplinary work on the art curriculum and museums in education (**Meecham**).

Our research has deepened the understanding of the significance of new technologies for education. Much of this work has been led by our Department of Culture, Communication and Media (CCM), and particularly our London Knowledge Lab (LKL) – a unique collaboration between computer and social scientists, now in its 10th year. LKL has hosted the ESRC Teaching and Learning Research Programme (TLRP) Technology Enhanced Learning Programme (2007-11) (Director: **Noss**) and numerous Research Council UK (RCUK)- and EU-funded research projects. Research includes foundational, interdisciplinary work on human-computer interaction and adaptive technologies for learning (**Mavrikis**, **Porayska-Pomsta**, **Price**), which has important implications for models of learning and practice in supporting it. Research has addressed the opportunities and pedagogical challenges afforded by collaborative technologies, including for teacher professional development (**Daly**, **Gibson**, **Hughes**, **Kahn**, **Laurillard**, **Neumann**, **Turvey**) and the re-design of learning in technology-rich environments (**Luckin**). We have developed original theories of mobile learning (**Pachler**) and addressed its application to the mainstream classroom (**Davies**), work-based learning (**Pachler**), for learners on the autistic spectrum (**Mintz**) and for learners in developing countries (**Winters**). Work extends to explorations of video gaming and the construction of online identities through avatars (**Carr**, **Gazzard**, **Kambouri**, **Vasalou**). CCM has also expanded our Arts and Humanities Research Council (AHRC)-funded activity, resulting in a new research centre in collaboration with the British Film Institute – the Centre for Digital, Arts, Research, Education. Work includes the 'Children's Playground Games and Songs in the New Media Age' project (with the Universities of East London and Sheffield), which challenged the belief that the media are destroying the imaginative play of children (**Burn**). **Potter's** accounts of primary school video-making have addressed children's creative engagement with digital media. **Pelletier** has taken a psychoanalytic approach to examining new media and knowledge production.

Philanthropic funding has supported research programmes over the assessment period, including our Centre for Research in Autism and Education (Director: **Pellicano**), which is focused on identifying effective interventions for those with autism. Highlights include research on autistic children's perception of shapes and their skills as foragers. It has provided the basis for arguably the most coherent account of autism yet, helping to explain its genetic, neural, behavioural and social characteristics (**Pellicano**). Other work in PHD has progressed understanding of children's holistic face recognition and motion processing (**Annaz**). **Farran's** research is distinctive for its world-leading contribution to understanding of spatial perceptions and navigation in Williams syndrome, providing insights into the neural processing of spatial information in typically developing children.

MossG provides cutting-edge analysis of the relationship between research and policy through the example of literacy attainment. **Pollard** and **Taggart** provide studies of the influence of major

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national research programmes in education and their lessons for research impact. **BrownC** provides a new model of research adoption in policy.

2) Relationships between economic competitiveness, social cohesion and the non-economic benefits of education. A major development has been the establishment, in 2008, of our Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES) (Director: **GreenA**). LLAKES was the first ESRC Research Centre specifically for research on education and was awarded a further five years of funding from 2013. The centre's key research themes are (i) the social and cultural foundations of learning, knowledge production and transfer, and innovation within a changing economy and (ii) the effects of knowledge and skill distribution on income equality, social cohesion and competitiveness. Its interdisciplinary, mixed method research has provided rich insights into how lifelong learning can reconcile the social and economic objectives of education policy. The centre has raised over £2.5m in additional external research grants, published over 160 journal articles and research papers and has established a reputation as a world-leading centre for the comparative study of education system effects. It also hosts the Skills and Employment Survey, providing researchers with nationally-representative data on workplace learning and skills utilisation. LLAKES demonstrates the value of our research centres in showcasing research in a way that has influence on external stakeholders, within and beyond the UK (**Evans, Fuller, GreenA, GreenF, Guile, Hoskins, Janmaat, Keating, Mostafa, Preston, Unwin**). Wider research under this commitment has examined international comparisons (**ScottD**) and education policy borrowing (**Morris**).

Our Centre for Post-14 Research and Innovation has critically engaged with government activity in this sector and put forward proposals for 'high opportunity' progression systems (**Hodgson, Spours**). Research from our Centre for Higher Education Studies includes analysis of reform in English higher education (HE) that locates the sector in a global context and interrogates the tensions informing the 'supra-national' development of tertiary education (**Carpentier, Marginson, ScottP**). **Callender** and **Dearden** have made a major contribution to debates on the impact of fees and student support on HE choices, particularly for part-time students. **David** and **Preece** have also addressed identity and equality and diversity in HE. **Whitchurch** introduced the concept of 'third space' professionals in UK HE, grounded in international data.

We have conducted extensive research on citizenship education in diverse and complex societies (**Bourn, Candappa, Han, Starkey**). This is driven by a number of our research centres, including the Development Education Research Centre (Director: **Bourn**) and the International Centre for Education and Democratic Citizenship (with Birkbeck) (Director: **Starkey**). There are also SIGs on Citizenship, Culture and Education and Education for Sustainable Development, with **Blum** analysing coverage of climate change within the curriculum. More recently we established, with significant philanthropic funding, the Centre for Research and Evaluation in Muslim Education (Director: **Panjwani**) as the first centre in Europe on Muslim education in non-Muslim societies. The Centre for Holocaust Education (Director: **Foster**), also supported by philanthropic funding, has produced the first research-based accounts of the teaching of the Holocaust in UK schools. There is wider work on Holocaust remembrance in the UK (**Pearce**).

3) The role of education in society, health and the environment. We have spearheaded research on contemporary changes in educational governance, examining the growing role of business and philanthropy in new policy networks. This ground-breaking research, led by our Centre for Critical Education Policy Studies within the Department of Humanities and Social Sciences (HSS), explores how neo-liberalism works in education policy transmission on a global scale (**Ball, Junemann**). This is complemented by wider research on trends in current education policy in England, including commentary on new policy technologies founded on behavioural sciences (**Higham, Leaton Gray, Santori**). HSS also hosts our research in the history of education, which provides a historical perspective on contemporary education policy debates (e.g. the raising of the school leaving age – **CowanS, Woodin**), as well as wide-ranging reflection on the development of this field and directions for its future (**McCulloch**, also co-ordinator of our History of Education SIG).

Class, gender and ethnicity have been enduring considerations in our work. Research on the educational strategies of middle-class black parents has generated new analyses testing the important theory of 'concerted cultivation' for a population about whom relatively little is known (**Vincent**). Work by **Ringrose** extends and develops theorising of the sexual politics of schooling. (**Ringrose** is also co-ordinator of our Gender, Sexuality and Education SIG.) **RogersL** examines gender differences in approaches to studying. There is philosophical and cross-disciplinary treatment

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of the concept of social capital and of special education needs, including critiques of capability theory as applied to profound disability (**Armstrong, Cigman, Vorhaus**). **Suissa** provides a philosophical perspective on parenting. The Philosophy at the IOE research centre showcases the work of colleagues working in this area (Co-ordinators: **StandishP, Derry**).

The Department of Childhood, Families and Health (CFH) contributes a range of evidence on supporting strong stable families and communities and children's capabilities and life chances. The creation of CFH through our internal restructuring in 2011, bringing together our Thomas Coram Research Unit (TCRU) and Social Science Research Unit (SSRU), has strengthened the synergies across their respective areas of work. There is highly original research on families including comparative studies on transitions to parenthood (**Brannen**), studies on fatherhood (**O'Brien**) and work on a significant new area for research, mothers in stepfamilies (**SmithM**). There is an important comparative study of the progression of looked-after children in education and examination of social pedagogy (**Cameron**). This work builds on a decade of research, from which our Centre for Understanding Social Pedagogy was established. There is also analysis of the demographic profile of looked-after children (**Owen**). Work in these areas is being further developed through the DfE-funded Childhood Wellbeing Research Centre (CWRC) (with the Universities of Loughborough and Kent) (2010-14) (Director: **Phoenix**). There is a strong connection to **Flouri's** large-scale quantitative research on the role of parental engagement in promoting resilience, which has attracted several ESRC awards. Publications extend to social work practice (**Austerberry**), the experience of foster carers and looked-after children (**OliverC**), the experience of refugee children (**de Block**) and effective support for young people's health (**WigginsM**) and emotional wellbeing (**Warwick**). There is a unique synthesis of the evolving literature on the sociology of childhood from one of the originators of this field (**Mayall**).

Families and food has been a growing area of research for us, with two ESRC/Department of Health (DH) awards, a postdoctoral award and a recent European Research Council (ERC) 'Starting Grant' for a five year study of families and food poverty (**O'Connell**). This is a substantive focus of the ESRC Narratives of Varied Everyday Lives and Linked Approaches (NOVELLA) research programme (see below), as is 'environmentally friendly' behaviour.

Our research has progressed understanding of problematic behaviours in children and young people, including self harm, depression (**Hurry**) and anxiety (**AllenJ**). There is ground-breaking ethnographic research on play, and playground games specifically, and their role in children's development (**Baines, Brooker, Richards, RogersS**). Our extensive research on music – supported by our Music Education SIG – has examined the impact of social music making (**Henley, Welch**) and its impact on wellbeing in later life (**Creech**). This ESRC-funded research is original in its emphasis on 'geragogy' in music education.

We have made a leading contribution to research on the role of education in international development. **McCowan** brings together philosophical, economic and sociological reflections on how to understand rights and education. Our contributions to debates on girls' education and equity in education combine historical and philosophical, as well as meta-analytic analysis (**Unterhalter**) – work that has attracted attention in the medical research community as well as within education and development research. This work relates mainly to Africa; there is wider work on education in Africa (**Oketch, Rolleston**), India, Myanmar and Pakistan (**Kingdon, Lall**) and Vietnam (**Carr-Hill**). There is a significant strand of cross-country work on ending violence against girls (**Heslop, Parkes**). Research extends to considerations of the causes of child under-nutrition in developing countries (**Pridmore**) (see also our work on systematic reviews, below). Action Aid, the UK Department for International Development (DFID) and Save the Children have been key funders and partners in this research. Our publications in this field include those taken from a special issue of the *Lancet* on the Millennium Development Goals post-2015, authored by colleagues from the London International Development Centre (LIDC), of which we are a founder member (with Birkbeck, London School of Hygiene and Tropical Medicine (LSHTM), Royal Veterinary College (RVC), School of Oriental and African Studies (SOAS)) (**North**). Established in 2007, the LIDC has grown as a highly innovative endeavour, developing interdisciplinary research and training programmes to address complex challenges, including the role of education addressing issues such as HIV/AIDS and climate change.

4) Multi-disciplinary approaches and methodological innovation. Methodological innovation has been a strong feature across our research. We have hosted three ESRC National Centre for Research Methods (NCRM) nodes over the assessment period, out of a total of 13 nationally, which have provided a particular focus for this work.

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From 2008-11, ADMIN (Administrative Data – Methods, Inference and Networks) (Director: **Dearden**) developed a set of statistical frameworks for combining data from different sources, which has been a key element in the deployment of ‘big data’ in the development of social science. Colleagues working in the field of the economics of education, including through our Department for Quantitative Social Science (QSS) and our Centre for the Economics of Education (with the Institute for Fiscal Studies and London School of Economics (LSE)), have taken forward highly influential research in this area (see below).

From 2011-14, MODE (Multimodal Methodologies for Researching Digital Data and Environments) (Director: **Jewitt**) is developing systematic ways to investigate representation and communication in digital environments. Highlights to date include publications explicating elements of a multimodal approach (**Bezemer, Flewitt**). Related work within our Centre for Multimodal Research includes a highly innovative strand of work on social semiotic approaches to analysing communication and learning (**Kress**). Collaborative research with Imperial College has brought together expertise in education and surgery to advance theories and methods in the field of education and practical resources for improving surgical training (**Bezemer, Korciakangas**).

NOVELLA (Director: **Phoenix**), also 2011-14, is using participatory and narrative methods to examine the everyday habitual practices of families (in relation to food and ‘environmentally friendly’ behaviour). Specifically, it seeks to understand the ‘disconnect’ between behaviour and constructed meaning, to get beneath the difficulty of changing habitual practices.

Other notable contributions to our methodological innovation encompass network ethnography (**Ball**), critical realism (**Bhaskar**), mixed methods policy research (**Brannen**), use of administrative data (**SimonA**), ‘realist’ randomised control trials (RCTs) (**Bonell**), citation analysis (**Thomas**), systematic review (**Gough, Schucan Bird**), biography (**Oakley**), research with children (**Rosen**), dialogical self and vignette methodology (**Crafter**), self-concept research (**O’Mara**) and psychoanalysis in social research (**Bibby, Lapping** – also co-ordinator of our Psycho-social Perspectives SIG), as well as extensive methodological work in longitudinal studies (see below). Our research on technology enhanced learning has itself made innovative use of new technologies as part of the research design (e.g. **Price**). Our work in educational neuroscience is developing new ways of integrating behavioural and neuroimaging data, which has led to new models of the relationship between tacit and explicit knowledge in learning (**Tolmie** – also Co-ordinator of our Centre for Educational Neuroscience, with Birkbeck and University College London (UCL)). There is innovative research on public engagement in research, including specific studies on incorporating patients’ views at the level of complex interventions and national research agenda (**Liabo, OliverS, Rees**). In 2012 we were one of just eight providers to receive an RCUK Catalyst award to support the embedding of public engagement across our research activity.

5) Quantitative approaches across the life course and systematic review. We are the major UK centre for the quantitative analysis of education data – for England, the UK and advanced industrialised countries in general. The creation of QSS has been very successful in strengthening the profile of this strand of our research activity. Research outputs include innovative work linking, variously, data from the Higher Education Statistics Authority, National Pupil Database (NPD) and School Workforce Census, and from international education tests such as the OECD’s PISA (Programme for International Student Assessment), to address a range of substantive and methodological issues (e.g. school choice, widening participation and survey response) (**AllenR, Dearden, Goodman, Micklewright**). We currently lead three Education Endowment Foundation (EEF) evaluations (with partners in the UK and US), in relation to mathematics and literacy learning and the role of arts education (**Dockrell, Jerrim, Saunders**). We are also a partner (with the University of Bristol) in the DfE-funded Centre for Understanding Behaviour Change, whose research covers areas such as school expenditure and teacher labour markets (**AllenR**). Other research from QSS colleagues over the assessment period includes high profile papers by **Jerrim** on the measurement of class differences in cognitive ability over time and on trends in England’s performance in PISA and TIMSS (Trends in International Mathematics and Science Study). There is a detailed, authoritative mapping of the linguistic diversity of London school children, based on School Census data (**WigginsD**). **Sullivan** uses the Oxford Admissions Study dataset to re-contextualise the issue of the correspondence between cultural capital and HE admission. **Chatzitheochari** provides one of the first studies to examine the social determinants of sleep duration, based on data from the UK Time Use Survey. Quantitative methodologies have been embedded in other centres, for example LLAKES, with analyses of lifelong learning (**Evans**) and the effects of private schooling (**GreenF**).

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The UK is home to the world's largest and longest-running longitudinal studies and in RAE2008 we stated that we would remain at the heart of discussion about the continuation and development of existing and new cohort studies. We continue to house the 1958 National Child Development Study (NCDS), 1970 Birth Cohort Study (BCS70) and Millennium Cohort Study (MCS), work that is led by our Centre for Longitudinal Studies (CLS) (Director: **Elliott**) in QSS. Over the assessment period we have been awarded renewed ESRC Resource Centre funding for the CLS and the cohort studies leadership team, and funding for MCS Sweeps 5 and 6 and biosocial enhancements. In 2013, the ESRC awarded us a further cohort study – the Longitudinal Study of Young People in England (LSYPE) – which we will be reinstating as the 'lost cohort' between BCS70 and MCS. We were also successful in securing funding for the Cohorts and Longitudinal Studies Enhancement Resources programme (CLOSER) (Director: **Elliott**). CLOSER launched in 2012 as a collaboration with the British Library and UK Data Service. It brings together the NCDS, BCS70 and MCS with six other national cohort studies and aims to maximise their use, value and impact, both at home and abroad. Its priorities are to stimulate interdisciplinary research, develop shared resources, provide training and share expertise. This is a £5m investment by the ESRC and Medical Research Council (MRC) over five years. The central role we have played in the programme demonstrates our leadership in the development of world-class data resources to support research in education and the social sciences. We have deposited six cohort study datasets to the UK Data Archive over the assessment period: NCDS Sweep 8, NCDS: Social Participation and Identity, BCS70 2008/09, BCS70 Arithmetic Test 1986, MCS Sweep 4 2008 and an MCS teacher survey (**BrownM, Calderwood, Dodgeon, Elliott, SmithK**). These are highly esteemed datasets that are collected to the highest methodological standards, rightfully known internationally and very widely used. Research publications that utilise cohort study data cover topics ranging from early childcare and development and generational belonging to sophisticated cross-cohort study of cognitive ability in early and adult life (**Elliott, Gutman, Hawkes, Schoon**), all published in high impact, influential journals. Using the 1958 and 1970 cohorts, **Macmillan** provides innovative analysis on intergenerational persistence in social class and the impact of parental worklessness on child outcomes. **BrownM, Calderwood, Elliott** and **Hansen** have each provided reflection on the methodological potential of the cohort studies, including on the unique additionality provided by more qualitative strands of cohort data, such as the samples of children's essays on future career aspirations from the NCDS (**Elliott**).

We have a leading role internationally in supporting the use of systematic reviews in decision-making in policy and practice – led by our Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI), based in SSRU (Director: **Gough**). EPPI has published 75 systematic reviews over the assessment period. Major strands of new activity include work with DFID and an EU-funded Europe-wide programme. Highlights include reviews in the areas of healthcare (**Caird, Kwan, Sutcliffe**), public health (**Bangpan, Bonell, Kavanagh, Rees**), social policy (**Brunton, Dickson, HargreavesK, Newman**) and international development (**Tripney**), including an assessment of the impact of micro-finance in Sub-Saharan Africa that has challenged accepted thinking on these provisions (**Stewart**). Our work on systematic reviews is typically interdisciplinary; ongoing reviews on smallholder farming in Africa, for example, encompass agricultural specialists as well as social scientists and international development teams. EPPI is also involved in developing reviewer tools and capacity nationally for systematic review, which we support institutionally (see section d). SSRU also works extensively with the National Institute for Health and Care Excellence (NICE), leading the NICE Methods Support Unit and creating NICE guidance as part of the NICE National Collaborating Centre for Social Care.

Future strategic aims for research and priority areas for development

The above review underscores the sheer breadth and depth of our research activity and its growth through increasingly encompassing collaborative and interdisciplinary approaches that permit suitably complex approaches to complex issues. Our future aims are founded on further development of this strategy, extending it to new opportunities and challenges. We have identified four key foci for the future: development, achievement and wellbeing across the life course; cultures and identities in changing societies; the learning and social dimensions of ubiquitous technologies; education performance and system development. These foci will be driven by three cross-cutting priorities: methodological innovation and interdisciplinary activity; public engagement and impact; the long-term vibrancy of the discipline through ambitious PGR provision.

Development, achievement and wellbeing across the life course. Educational neuroscience offers the most complete understanding to date of learning processes and the range

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of neural, cognitive and environmental factors that affect individual variation in trajectory and outcome. Our research in literacy, numeracy and science learning greatly extends our ability to explain both atypical and, increasingly, typical learning in a coherent fashion and to identify novel pedagogical strategies that will support these most effectively. The translational nature of this work requires collaboration between researchers and educational practitioners, and the IOE is uniquely well-placed to meet these challenges. For instance, funded work with UCL brings together research and practice expertise to examine combined behavioural and imaging data on bilingual language processing, with direct benefits for the future assessment of language proficiency in young deaf children.

Cultures and identities in changing societies. Our work on the relationships between language and identity in and beyond formal education settings will expand. We will increasingly use perspectives from museology, anthropology and intersectional analyses to understand the ways in which individuals and groups negotiate and define identities in complex societies. The place of religions in education in largely secular societies will be a further area of research for us. We will develop our work on education in global cities.

Another strand of work here is citizenship and education and employment trajectories at a time of economic downturn, with all the implications for identities. This work will encompass longitudinal, comparative, mixed method, qualitative and survey research. It will make a vital contribution to understandings of young people's transitions to work and adulthood, skills inequalities and trends in 'job quality'. It will investigate the impact of intergenerational factors and longer-term societal changes on those transitions, life chances and attitudes and behaviours, drawing on a variety of disciplinary perspectives and encompassing family case studies. To support this work, at the IOE and elsewhere, LLAKES has secured ESRC funding for wave 6 of the Citizens in Transition Survey and a follow-up to the Skills and Employment Survey.

Our cohort studies will provide additional evidence on the relationships between individual life course trajectories, society and the economy: over the next five years, key areas of analysis will be the secondary school years (MCS), the transition to work and HE (LSYPE) and lifelong learning and ageing (BCS70, NCDS), including the consequences of different types of schooling in later life.

The learning and social dimensions of ubiquitous technologies. Research on digital technologies will continue to grow in importance, reflecting technology's increasing role as an ambient enabler of teaching, learning, assessment and support. We will explore the implications for learning across the life course (such as young people's use of new media, and knowledge mobilisation across professions) and for existing distinctions between formal and informal learning, pedagogy and curricula and teacher and learner roles. This will involve new methodologies to deal with technologically-mediated evidence (such as multimodal data or learner analytics) as well as programmes of applied research and development. A likely development here is the use of various forms of simulated environment to model the use of ambient technologies in near to real world contexts. We will also utilise new technologies across other research (e.g. the use of geospatial technologies to capture children's physical activity and its impact on learning and health).

Education performance and system development. We will exploit growing opportunities to link large datasets on pupil performance and on teachers to better understand the relationships between learner characteristics, teacher behaviours and educational performance. We will establish a centre for quantitative research on education to lead in this area, continuing our major engagement with the EEF. We will expand our work on RCTs and intervention analysis. We have been contracted by the DfE to serve as the national study centre for England for the OECD's TALIS (Teaching and Learning International Survey) for 2013 and for England, Wales and Northern Ireland for PISA for 2015; we have recently secured a further contract for TIMSS for 2015. Innovative analyses of these surveys for the national reports will link the survey data to information in administrative registers such as the School Performance Tables and NPD. We will support the use of 'big data' nationally through our involvement in the new ESRC-funded Administrative Data Research Centre for England, which will enable information routinely collected by government departments and other agencies to be shared with researchers. Existing cohort studies will bring new evidence to bear on the impact of streaming, teacher qualifications and classroom environment on learning, which may help to inform schools of what practices are best for different types of pupils. We have just started a teacher cohort study of PGCE trainees to obtain vital information on early career decisions and a prototype for a possible national study.

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We will continue to lead research in education policy and leadership, in the foundation disciplines of education, and in subject-based curricula, pedagogies and assessment. We will explore the ways in which inequalities are shaped by and reshape education, in formal and non-formal or non-conventional settings, including through our newly-established Centre for Education in the Criminal Justice System. We will explore issues of policy transfer in the context of rapidly accelerating globalisation in schools and HE.

Methodological innovation and interdisciplinary activity. We will continue to lead methodological innovation, building on the work of our successful quantitative and qualitative innovations over the assessment period. In 2012 we formalised our strategic partnership with UCL in order to achieve a step change in education and social science research, and particularly interdisciplinary work. We are using internal funding to support collaboration (e.g. to investigate the scope for biomedical enhancements to existing cohort data, examine inter-professional practice and develop learning interventions). We will develop our relationships with peer institutions globally, and especially Melbourne, Toronto, (Ontario Institute for Studies in Education, OISE) and Wisconsin, to build global research partnerships.

Public engagement and impact. We are one of the few universities developing the study of research uptake and impact. Our leadership role in the National College R&D initiative across Teaching Schools in England and our own plans for a London schools R&D network will make a reality of our commitment to research-informed professional practice in education. Our UCL partnership is progressing our work on knowledge mobilisation, in volume and scope. In partnership, we have recently won a National Institute for Health Research (NIHR) project to support the translation of research evidence into practice in the National Health Service (NHS), and an ESRC- and College of Policing-funded partnership programme to support the new What Works Centre on crime reduction. We will build on our RCUK Catalyst public engagement award to ensure that public engagement is embedded across our research – from public input to what research we do through to support for public engagement with research findings to influence policy, practice or personal lives. In October 2013, we were invited to plan for a four year £850k award under the ESRC's Impact Acceleration Account scheme, which we will use to develop bold research engagement methodologies.

PGR provision. We have ambitious plans to grow the range and volume of our PGR provision. Our Doctoral School's tight strategic organisation and achievements over the assessment period (see section c) provide a strong basis for these aspirations. We envisage that over the next decade students will often want to make a speedier transition to PGR study. We were recently awarded £500k by the Higher Education Funding Council for England (HEFCE) through its Postgraduate Support Scheme (PSS) to introduce a new form of 'pre-doctoral programme'. This will be a more concentrated and tailored version of traditional research training, initially directed at mature students in work, but with the intention to roll it out more widely. This provision will enable participants either to take well-honed abilities back into their work setting within a short timescale or to make the transition to PGR level more quickly and successfully. The PSS award also includes funding for innovative research on PGR students' entry profiles and onward career progression, which will significantly enhance our own and others' ability to target recruitment and training effectively. We will develop our flexible mode provision, adding an online MPhil/PhD and mixed mode options within our EdD programme. We will expand opportunities for collaborative, interdisciplinary PGR provision (e.g. in educational neuroscience and international development). Our Doctoral School has a leadership role regionally through its membership of, for example, the Heads of London Doctoral Colleges grouping. It has a growing profile nationally and internationally, both through its active membership of organisations such as the European University Association's Council for Doctoral Education and through its consultancy to other HEIs on PGR matters. We have recently provided seed funding to grow this activity. The Doctoral School also aims to attract substantial funding under Horizon 2020 to support doctoral and post-doctoral researchers. Global collaborative doctoral training programmes with Melbourne and OISE have begun and will develop.

c. People, including:**I. Staffing strategy and staff development****Staff profile and rationale**

Our objective is to have as high a proportion of colleagues as possible working as independent researchers who are engaged in attracting external funding, supervising research students and

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regularly producing outputs of world-leading quality. We have also focused in our corporate and research strategies on recruiting the next generation of leading academics. We have made substantial investment in early career researchers and succeeded in recruiting leading researchers at all career stages; many have been awarded prestigious research council fellowships.

Since January 2008, we have made 177 new academic appointments; 87 are recent, following a major recruitment drive in 2011/12. Across the assessment period 17 appointments have been at professorial level (Blandford, **Bonell**, **Callender**, Charman, **Fitzsimons**, **Fuller**, **Goodman**, Greany, **GreenF**, **Harris**, **Marginson**, **Micklewright**, **Newton**, **O'Brien**, Platt, **ScottP**, **Wyse**), 15 of whom held professorial posts prior to their appointment at the IOE. Key appointments among emergent researchers include **AllenR**, **Domingo**, **Farran**, **Jerrim**, **Macmillan**, **O'Connell**, **Pellicano**. Over 90% of the appointments made in the 2011/12 recruitment drive were below professorial level, as part of which we funded eight 'John Adams Career Development' Research Fellows (**Ali**, **Brewis**, **BrownC**, **Chatzitheochari**, Hordern, **Pan**, **Souza**, **Twamley**). Partly as a result of this recruitment strategy, 41% of our academic staffing (37% of Category A staffing) is under the age of 45, a younger age profile than is typical for education departments in the UK. New investments have been particularly concentrated in relation to: learning and school effectiveness (**BrownC**, Greany, **Higham**, **Newton**) (replacing Hopkins); further and higher education (**Callender**, **Fuller**, **Marginson**, **ScottP**) (replacing Watson); applications of neuropsychology to education (**Annaz**, **Farran**, **Marshall**, **Pellicano**); economics of education (**GreenF**, **Jerrim**, **Macmillan**, **Micklewright**) (replacing Vignoles); longitudinal analysis (**Fitzsimons**, **Goodman**) (replacing Platt); children and families (**Cameron**, Munro, **O'Brien**); and health (**Bonell**).

Research fellowships awarded to IOE staff include 19 research council fellowships, across AHRC, ESRC, EPSRC (Engineering and Physical Sciences Research Council) and RCUK, including post-doctoral, Future Leader, Early- and Mid-career awards and a professorship (**AllenR**, **Carr**, **Edge**, **Flewitt**, **Higham**, **MossG**, **Jerrim**, **Jewitt**, **Keating**, **Luckin**, Manches, **Pollard**, **Porayska-Pomsta**, **Price**, **Rees**, **Stewart**, **Sullivan**, **Twamley**, **Winters**). **Pellicano** was granted an MRC New Investigator Award. Other research fellowship awards include British Academy, ERC, Leverhulme and National Academy of Education/Carnegie awards (**Domingo**, Exley, **Jenkins**, **Marshall**, **O'Connell**, **Oakley**, Platt).

Career development

We ensure that all staff engaged in research are fully integrated into our research community and have opportunities to develop and progress their careers. We have a strong record in supporting all colleagues in their professional development.

In our RAE 2008 submission we identified nine colleagues – all in receipt of IOE- or research council-funded post-doctoral fellowships – as central to our future research strategy. Of those, six have progressed at the IOE: **Jewitt** now holds a professorial post and is a head of department; **Parkes**, **Suissa** and **Winters** hold readerships; and **Janmaat** and **Woodin** hold senior lectureships. Other examples of colleagues who have progressed at the IOE from PGR or post-doctoral appointments include **McCowan** and **O'Connell**. These individual examples reflect the relatively low turnover rate among our researchers, the large majority of whom are able to transfer to new projects as their current project ends, or to progress within the organisation. In total, we have promoted 164 academic staff over the assessment period.

In the current assessment period, our policy has been to support virtually all our academic staff at grade 8 (lecturer) and above with personal research time funded from our QR income to enable them to produce outputs that are world-leading or internationally excellent and to write research bids. Our internal promotion processes give especial weight to the quality of applicants' research. All academic staff receive annual feedback on the quality of their research outputs through a rigorous, anonymous internal system of evaluation, and meet with an appraiser at least once a year where all aspects of their research are discussed. We operate an incentivisation scheme in which individuals are encouraged to build up funds to cover conference costs and enhanced ICT equipment. Conference funding is available for newly appointed staff and others who do not have such funds. We aim to secure a long-term inclusive research environment that rewards the highest quality.

A considerable amount of professional development support is provided within centres or at departmental level, particularly in the form of mentoring and specialised workshops. Our Staff Development Unit provides dedicated support. Over the assessment period, it co-ordinated over 80 different training sessions relating to research, including coaching sessions, workshops and longer

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programmes. Topics included research ethics, grant applications, writing for publication, project management, doctoral supervision, intellectual property, research impact, career development and leadership and management. Additional provision supports international research activity (e.g. EU funding workshops). Current and potential leaders at the IOE have the opportunity to join our Leadership Programme, which offers coaching by senior leaders from outside the HE sector.

Our commitment to supporting early career researchers is reflected in the award, in 2012, of the European Commission HR Excellence in Research Award. Our Research Careers Advisory Committee, established in 2000, develops and evaluates institutional policy in relation to research staff; its work is informed by our Research Staff Association of c120 members. Our good practice guides for research staff and those responsible for leading them are underpinned by the principles outlined in the Vitae Concordat and the British Educational Research Association (BERA) Charter for Research Staff. Each informs central, departmental and research centre provision for researchers. Mentoring, including guidance on journal selection and manuscript submission, revision and acceptance is a vital part of our support for new researchers. **Brewis** and **Freeman** are members of the AHRC's Research Careers and Training Advisory Network.

We expect all academic staff to take part in and help organise research events run at the IOE and elsewhere. We typically host over 230 seminars each year – the equivalent of one every working day – with international as well as national speakers.

We award study leave to colleagues at all career stages to support them in developing their publication record and international networks. From 2008, we have awarded 61 periods of study leave, typically of one or two terms' duration. All staff have access to the EC ERASMUS staff mobility scheme. Over the assessment period we have organised 114 outward visits by IOE academic staff and hosted 65 visits by academics from across Europe, from 35 institutions.

Support for equalities and diversity

We have a fundamental commitment to equal opportunities. Of our academic staff, 65% are female, 9% are from BME groups, 7% have disclosed a disability and 34% are employed part-time. More than half of our professoriate is female, the fourth highest proportion of any UK HEI. An important initiative for us over the assessment period has been our Work Recognition Enhancement programme (WREP), which places BME colleagues with mentors from the IOE and partner institutions. In 2013 the programme won an Employers Network for Equality and Inclusion (ENEI) award, which recognised our commitment to achieving a representative workforce profile.

We have embedded equalities considerations in our management of the REF. Of those colleagues reporting special circumstances, 81 have worked part-time during the assessment period, 30 have taken maternity leave, eight have taken unpaid leave, a secondment or career break and 27 reported complex circumstances. We are submitting 39 Early Career Researchers.

As outlined in section b, our commitment to equality and diversity extends to our PGR provision, which includes an expanding range of opportunities for students with professional commitments and others who wish to study part-time or at a distance.

Maintenance of research quality and integrity

We have long-established arrangements for ensuring the quality of our bids, which is reflected in bid success rates that are significantly above the national average. Across the assessment period, our success rates averaged 51% for all bids, and 38% for research council bids (against a national average of 25%). We attribute this to the depth of expertise at the IOE, which is supported by:

Extensive use of advisory groups and user engagement. We encourage colleagues to engage with stakeholders, user groups and international collaborators – and to consider ongoing stakeholder communications and research impact – at the bid writing stage. This is informed by the TLRP user engagement framework designed to enhance research quality.

Effective demand management and peer review processes. Since 2005, we have required that all research council and strategic grant applications are formally reviewed by at least two referees prior to submission. As indicated, extensive training is available on bid writing; our Business, Enterprise and Short Course team provide additional day-to-day support, and specialist support is available for European funding applications (see section d). We have in place similar systems for the peer review of publications by IOE colleagues. For both grant applications and publications we make extensive use of mentoring for junior staff by senior staff.

Robust governance of research ethics. We require that all staff adopt the Code of Ethics of their relevant disciplinary or professional association and that all staff and student research

proposals undergo an ethics review before work commences. Our practice is informed by the ESRC-funded online ethics guidebook, which was developed at the IOE (Boddy, Jennings).

c. II. Research students

We are one of the most intensive centres of PGR provision nationally, the largest in the field of education and one of the largest in the social sciences. Through this provision we seek to develop the next generation of leading researchers as well as practitioners who will make an outstanding contribution to their sector, workplace and community.

At any one time we have over 900 students registered with our Doctoral School. The majority, 75%, are over the age of 30 and experienced professionals studying part-time; nearly 40% are from countries outside the UK. They study MRes and research-focused MSc programmes, MPhil/PhD and EdD programmes (home, international and, with NIE Singapore, dual award) and DEdPsy programmes. Our online MRes programme is unique, providing a pathway into research degrees for students studying at a distance. Our integrated MPhil/PhD programme similarly offers greater flexibility for those wishing to pursue a PGR qualification. In 2011/12 we awarded 2.47 PhDs per academic staff cost, the fifth highest level nationally across any subject area.

From 2008/09 to 2010/11 we had full recognition for the receipt of ESRC studentships at 1+3 and +3 stages, in both full- and part-time modes, and received five studentships per annum. We also received ESRC CASE and ESRC/DFID studentships during this period. In 2011, the ESRC recognised our strong record with the award of Doctoral Training Centre (DTC) status, worth c£12m over six years and one of just 21 such centres nationally. We lead the DTC in partnership with fellow University of London (UoL) colleges Birkbeck, LSHTM and SOAS. The DTC receives 26 full-time doctoral studentships per annum, 10 of which fall under the IOE-led strands of education and quantitative methods. As a strategic priority we have continued to serve an important role nationally in capacity building in quantitative skills at PGR level, making a strong contribution to filling the national deficit in this area of education and social science research methods. Our DTC has been commended for the strength of its training in quantitative methods, and we have attracted a large number of Advanced Quantitative Method studentships (eight for 2013/14 entry). This is a major feature of our provision both internally within the DTC and externally via the ESRC's Advanced Training Network. The AHRC awarded us Block Grant Partnership Capacity Building funding in 2011 (10 full-time studentships for 2011/12 to 2013/14; four doctoral, six masters), and continues to recognise us for the receipt of collaborative MPhil/PhD studentships. Our DEdPsy programme is approved by the Health and Care Professions Council and accredited by the British Psychological Society (BPS) and enables its graduates to practise as chartered educational psychologists.

We received funding for 145 PGR students from overseas governments during the assessment period. Our own Centenary Scholarships scheme, funded through both external and internal philanthropic donations, supports outstanding international students to study postgraduate programmes with us (nine new PGR entrants from 2008). We are a member of the Bloomsbury Colleges consortium (with Birkbeck, LSHTM, SOAS and RVC), which each year funds at least 10 interdisciplinary PGR scholarships.

The range of research training available to our students is considerable. Alongside our core doctoral research methods training programmes (MPhil/PhD, EdD and DEdPsy), all students have access to over 20 specialist/advanced courses on methods. They are able to enrol, throughout their study, on a wealth of courses to develop their generic academic skills and personal transferable/employability skills, including public engagement and research impact. This provision is overseen by the Director of Postgraduate Research Programmes (**Vorhaus**) and Programme Leader for Researcher Development (**Freeman**). Over 70 IOE academics contribute. Our students also access provision through the Bloomsbury Postgraduate Skills Network (a collaboration with eight other UoL colleges) and the UoL Specialist Institutions' Careers Service.

We operate rigorous procedures for upgrading from MPhil to PhD, involving appraisals by two independent assessors and an upgrading interview. All doctoral theses are reviewed prior to submission by an independent reader. At any one time some 185 colleagues are involved in supervising doctoral students. The Doctoral School runs a variety of courses for new and experienced supervisors (from across the DTC), with further materials made available online through our Doctoral School Network website. Faculty Directors of PGR (**Lapping, Lucas**) and departmental Research Tutors (**Han, Jones, Kambouri, Perryman, Potter, OliverS, Riley, Sullivan, Woodin**) have an important role in promoting good supervisory practice and awareness of standards. Specialist academic leads in qualitative and quantitative research methods provide

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additional sources of advice for PGR students. As a major PGR centre we make particular efforts to involve early career academic staff in doctoral provision, providing them with a more senior academic mentor to support them. We are making greater use of larger supervisory teams - enhancing support for PGR students (exposure to a wider range of expertise and continuity of supervision should staff move) and providing early career colleagues with further opportunities for supervision experience.

Research students have the opportunity to participate in and run seminar series, join SIGs, and make use of our excellent library (see section d); they also participate in a variety of activities involving other leading institutions worldwide, such as shared online courses with the University of Melbourne and OISE and an exchange scheme with the University of Hong Kong. They benefit from our online peer-reviewed journal *Educate*~, which is run by and dedicated to the work of doctoral students. Since January 2008, its website has received 151,000 unique visitors from 196 countries. The most downloaded papers to date have each received around 25,000 downloads. We also run an annual Graduate Seminar, where recent graduates discuss their PGR experience with current students, along with a Poster Conference and a Summer Conference, to which all Bloomsbury DTC students are invited. The conferences typically attract over 60 posters and 60 oral presentations, respectively. The Doctoral Students' Consultative Committee and Doctoral Students' Society facilitate student input to the design and delivery of our PGR provision. The Annual Director's Thesis Prize recognises outstanding work by our PGR students.

Over the assessment period we awarded a total of 403 doctoral degrees.

	Doctoral degrees awarded		
	PhD	EdD/DEdPsy	TOTAL
2008/09	39	6	45
2009/10	60	31	91
2010/11	59	29	88
2011/12	54	41	95
2012/13	49	35	84

(The discrepancy between our data and the 2008/09 HESA data is largely attributable to a recently identified error in the data provided in the 2008/09 HESA Student Return, where students who were awarded a PhD were incorrectly coded as obtaining a lower qualification.)

Our PGR alumni take up senior academic and leadership and management roles in universities, colleges and schools and galleries, museums and other cultural institutions around the world. They also serve in senior and advisory roles in local and national government, national agencies and international organisations (e.g. UNESCO, World Bank).

d. Income, infrastructure and facilities

Research funding and investments

We remain one of the most research-intensive HEIs nationally. Our priority is to make a major contribution to knowledge and the development of our field and to policy and practice, and we have therefore focused on pursuing research council and other peer-reviewed sources of funding that enable us to conduct fundamental and cutting-edge research. Our levels of research council funding, in particular, have been consistently strong, and we have had growing success in our objective of generating a larger proportion of our research funding through large grants.

In 2011/12 our level of research grants and contracts income per academic staff cost was the third highest of any UK HEI (HESA metric of 5.93; £66k per academic staff fte). Our research council funding has risen over the past three years, and totals £31.5m for the assessment period. We received funding from four research councils – AHRC, EPSRC, ESRC and MRC. We secured 17 grants of over £1m – from the ERC, ESRC, DfE, DFID, DH, NIHR and Office for National Statistics (ONS). Over the assessment period our research funding peaked at £21.9m (2008/09). In a challenging funding context for education research our overall level of research funding has stabilised at £13.3m (2012/13).

We have put in place clear strategies for broadening our sources of research income. In 2010 we launched our Business Development Initiative to assist colleagues in responding quickly and effectively to funding opportunities and to facilitate new partnerships and collaborations with external organisations. This grew into the Business, Enterprise and Short Course team (BES). Over the 18 months to July 2013 it supported successful research contracts to the value of £1.4m, with local, national and international funders. We have also expanded our Research and Consultancy Services (RCS) team to bring in further support for EU research activity. In 2012/13

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our success rate in applications to European funding programmes reached 25%, compared to a typical rate across Europe of 8-10%. Across the assessment period our European research income was £4.8m, £1.5m of which was in 2012/13 alone, due to our enhanced focus on this source of income. Research funding from non-EU sources totalled £2.1m over the assessment period, including awards from the US National Science Foundation and other overseas research councils.

Investments over the assessment period have supported strategically-important academic appointments as outlined in section c and our involvement in national and international partnerships as listed in sections c and e. To fund this we hold back a proportion of QR money each year for our Director's Strategic Fund. Strategic academic appointments are typically subsidised on a sliding scale over three years. We have received £12.3m (2008-13) from HEFCE to support capital funding for research and teaching. These funds have supported major investments in the refurbishment and extension of our estate to provide improved accommodation for our research activity, including an expanded RCS team. This space also accommodates the BERA and Universities' Council for the Education of Teachers (UCET) executive teams. Across the assessment period we have contributed £5.5m to further improve teaching, library and archive space and IT facilities for staff and PGR students. We have made a significant level of investment in the development of IOE Press.

Infrastructure and facilities supporting a vital and sustainable research environment

Professional services. A central RCS team of 15 colleagues (14.1 fte) provides technical expertise and support on contractual and ethical matters as well as financial administration for research projects. They also ensure compliance with IOE, funder and stakeholder regulations. Local teams (46.7 fte) support the preparation of bids and management of projects. RCS colleagues run cross-IOE training and briefing for all research support staff. They are active members of the Association of Research Managers and Administrators, designing and delivering training sessions and serving on its Training and Development Committee. Over the assessment period they have themselves conducted consultancy to support the development of research management in African universities. Professional support for our research activity, particularly in the preparation of grant applications, is also offered through the BES team of seven (4.9 fte). Our Doctoral School and PGR provision is supported by a dedicated administrative team of 13 (11.8 fte). A central team of four provide press and communications support, with further teams attached to major research centres (12 fte) (see Impact template).

Information holding. We have invested in a new database, 'Pure', which holds records of all our research proposals and projects since 2000 and of staff and their publications since 2001. The next stage in 2014 is to add records of our research students. The database is linked with our institutional website, ensuring that details on the site are complete and up-to-date. We have commenced work on refreshing our website to make the most of these facilities.

Open access. In 2007, we launched our institutional repository, Eprints, to allow academic staff to make their research outputs freely available over the web via a searchable database. During the assessment period there have been 579,613 downloads from the database. In 2012, we received £150,000 from the ESRC to help pump-prime the transition to RCUK policy on open access. We have shifted to electronic submission of the final version of PGR theses, so that these can be made available through Eprints. In due course, PGR students at the IOE will be able to use Pure to ensure their publications are visible on individual profile pages. Research council-funded PGR students who have completed their PhD will be able to utilise open access funds.

IOE Publications/IOE Press. IOE Press published 152 books over the assessment period, and we have a five-year development plan to further grow our publications activity. In 2012, IOE Publications became IOE Press, supported by a team of seven (5 fte). It retains the same remit: to serve as a specialist university press that publishes books (including ebooks) to meet the needs of UK and international scholars, practitioners and students, while complementing our mission to pursue excellence in education. In the same year, we acquired Trentham Books as an imprint of IOE Press. Known for its publishing programme that underpins equality, inclusion and social justice values for academic and professional markets, Trentham has brought synergies and economies of scale to our existing activity. We facilitate academic involvement in governance and publishing decisions through a Publications Sub-Board (Chair: **Reiss**). Since 2010 our publications have been included and indexed in the Education Resources Information Centre (ERIC) bibliographic database. IOE Press attends the major research conferences in education, including the American, British and European Educational Research Association annual conferences.

Library and archives. Our Newsam Library and Archives provides access to some 400,000 catalogued volumes and 5,000 subscribed serial titles. There are also 27 special collections that each focus on a particular subject or period. The archive encompasses 1,000 metres of some 135 deposited collections dating from the 18th century (e.g. the archives of the College of Preceptors and the National Union of Women Teachers). The library typically receives over 250,000 visits a year (and provides as many book loans and article downloads); this includes 23,000 external visitors from all over the world – the highest for any single subject HEI library. The service's rapidly growing digital presence encompasses subscribed electronic books and journals, digitised materials, born-digital publications and innovative archives. Through our UK Digital Education Resource Archive we provide a unique digital archive of documents published electronically by government and other relevant bodies in the areas of education and training and children and families. Other projects include the development of a unique research resource of c250,000 examination records from the 19th century through to the 1990s linked to c40,000 textbooks. In addition, the library provides study space and dedicated PCs for postgraduate students; it also delivers sector-leading enquiry services and information literacy training to both its in-house and virtual users, as well as specialist advice on copyright matters in relation to open access. The library was short-listed in the Outstanding Library Team category of the 2013 *Times Higher Education* Leadership and Management Awards. Its head has been elected to the Governing Body of the International Federation of Library Associations, and its archivist is a peer reviewer for the national Archive Service Accreditation Scheme. In addition to our library facilities, IOE staff and research students have free access to the UoL's Senate House library, as well as the collections of the University's specialist research institutes. The British Library is located nearby.

Events space and other specialist facilities. The IOE is a leading centre of academic and wider public debate in education. Our on-site facilities for conferences and seminars include five large halls (the largest seating 930), more than 20 lecture rooms and four committee rooms. We also maintain art and design, drama and music studios. We have installed a first-class bespoke research observation suite (including four main rooms and a family waiting area) for research on learning, cognition and technology enhanced interactions. This includes a large observation room and gallery space for viewing and an electrically-shielded lab space for electroencephalography research. All rooms are fully-equipped with built-in visual and audio recording capabilities and one includes a state-of-the-art Tobii eye tracker.

IT support. We provide dedicated IT server and software development support for research centres. This includes, for example, the SSRU's work in developing reviewer tools for all types of literature review (systematic reviews, meta-analyses, 'narrative' reviews and meta-ethnographies) and the data management requirements of the CLS. Alongside data analysis packages, we have invested in software to support research incorporating psychological tests and virtual reality software for research. A major upgrade of our IT facilities commenced in 2013. This will enable us to extend our network to support leading-edge services, such as internet connectivity for mobile devices and multimodal learning.

Facilities for research students. Our research student rooms provide a physical base with study and storage space for each student. We provide 90 dedicated PGR computer workspaces and wifi access. We have invested in cloud email solutions, allowing students to access very large amounts of online storage, from any number of devices. Our Doctoral School Network site allows convenient access to a research intranet for document sharing and asynchronous conferencing. It is being replaced with a Moodle site that will also include openly accessible profile entries for each PGR student, to add visibility to their research. We have a dedicated Mac room for students following art, design and museology programmes and researching in these fields, and have invested in accompanying software (e.g. for animation, design and photography). A music IT suite provides a dedicated and integrated facility alongside more traditional equipment.

e. Collaboration and contribution to the discipline or research base

Support for research collaboration and interdisciplinary research

During the assessment period our research has encompassed project collaborations with over 500 universities and research institutes worldwide, including over 120 UK HEIs. This partnership working frequently extends across more than one project. The collaborative nature of our research activity is evidenced in particular by the networks we have established through our major research programmes and centres, including CLOSER, CWRC, EPPSE, LLAKES, MODE and NOVELLA.

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The TLRP Technology Enhanced Learning research programme alone involved collaboration with over 30 HEIs. Other important partners over the assessment period include the British Film Institute, British Library, Institute for Fiscal Studies and National Institute for Economic and Social Research. Through the London Knowledge Lab in particular, we are increasingly working with industry partners (e.g. Microsoft, Nokia). Our work with schools and colleges is extensive. For example, the Cornerstone Mathematics project involves collaboration with 100 secondary schools across England. Museum and cultural collaborations have included the Globe Theatre, Imperial War Museum, Royal Botanical Gardens Kew and Science Museum London.

Strategic institutional partnerships include the Bloomsbury Colleges group of UoL colleges, LIDC and UCL. As indicated, these partnerships are heavily interdisciplinary in nature, across research and PGR activity. Our internal structures also play their part in supporting interdisciplinary research: the IOE has strong disciplinary traditions (economics, history, philosophy, psychology, sociology) that we retain and indeed lead in, with our research centres and SIGs providing an important framework for both facilitating new ways of thinking about the disciplines and cultivating synergies across them.

One of our international strategic partnerships is the 'Four Deans' collaboration, with the Universities of Melbourne, OISE and Wisconsin-Madison. We have a long-standing partnership with Beijing Normal University and have co-hosted a biennial conference since 2006. This is held alternately in London and Beijing with typically over 20 IOE academics presenting papers. The conference has grown in scale and reach as the 2010 and 2012 events each attracted contributors from 40 countries. We are a founder member of the International Alliance of Leading Education Institutions (IALEI), a global think-tank created to bring a global perspective to issues in education.

We also provide a base for collaboration with and between researchers from around the world. During the assessment period we awarded the title of Visiting Professor, Visiting Professorial Fellow and Visiting Fellow to 284 leading researchers from 34 countries on the basis of their eminent international reputations and collaborations with our research. Visiting Professors included: Franklin (Utah State), Goldthorpe (Oxford), Hargreaves (Boston College), Rabe-Hesketh (California, Berkeley), Robinson (Auckland), Schuller (Longview), Wolf (King's College London). Thousands of other researchers have made use of our research facilities, and many have used them over a sustained period to benefit from our expertise, including, since January 2008, 219 Visiting Academics and 196 Visiting Research Associates.

Funded visiting professorships over the assessment period included Franklin (Utah State) (**McCulloch**), Haythornthwaite (British Columbia) (**Andrews**) and Reissman (Boston College) (**Phoenix**), all Leverhulme-funded, and ESRC-funded collaboration between Lenning (City University New York) and **Joshi**. The University of Umea funded Visiting Professorships for **Dockrell** and **SimonS**.

At least 70 Category A colleagues have been appointed as a Visiting Professor or Visiting Fellow during the assessment period, at 81 institutions worldwide.

Senior staff secondments undertaken for over a year during the assessment period include to NIE Singapore (**BrownA**) and the University of Malaya and Welsh Assembly Government (**Harris**).

Indicators of wider influence or contributions to the discipline or research base

Our wider contribution to the discipline and research base – through service to learned societies, journals and research councils, doctoral examining, keynotes and events and advice to governments and agencies – has been considerable. It embraces a large number of researchers at all career stages and reflects the collective and individual merits of IOE colleagues' work.

Throughout the assessment period we have worked extensively with BERA and UCET in analysing trends in education research funding and related issues. Through the Strategic Forum for Research in Education, **Pollard** and Whitty explored how the UK could improve the creation, mediation and application of evidence about education. In this way, IOE colleagues have made leading contributions in taking stock of the discipline of education in contemporary contexts.

Memberships of learned and research societies. Over the assessment period, Category A colleagues have been members of some 164 societies. This include societies representing education research nationally and internationally, the most prominent associations in specific areas of research in education, as well as associations representing social research more generally – for example: American Educational Research Association (AERA); Association for Child and Adolescent Mental Health; British Association for International and Comparative Education (BAICE); BERA; BPS; British Sociological Association (BSA); European Education Research Association; International Sociological Association; Royal Economic Society; Society for

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Educational Studies (SfES); Social Policy Association; Society for Research into Higher Education (SRHE) – as well as many subject-based associations.

Service to learned societies. Category A colleagues have served as President or Vice-President to nine societies since January 2008: Association for Learning Technology (ALT) (**OliverM, Laurillard**); BAICE (**Unterhalter**); British Science Association (**Reiss**); Geographical Association (**Lambert**); International Association for Science and Religion in Schools (**Reiss**); SRHE (**ScottP**); International Congress for School Effectiveness and Improvement (**Stoll**); International Society for Music Education (ISME) (**Welch**); Society for Longitudinal and Life Course Studies (SLLCS) (**Joshi**). **Hoyles** is President-elect of the Institute of Mathematics and its Applications (IMA).

A further 62 Category A colleagues have served as chairs or members of executive committees and sub-committees, across 49 societies. **Husbands, McCulloch, MossG, Taggart** have been BERA council members; **Hallam** has served as treasurer, **Taggart** as chair of its Conference Committee. Other examples of executive committee membership include: Academy of Social Sciences (**David**); Association of Teachers of Mathematics (Clark-Wilson); History of Education Society (**Woodin**); Human Development and Capabilities Association (HDCA) (**Peppin-Vaughan**); IMA (**Hoyles**); ISME (**Creech**); Philosophy of Education Society (**Heilbronn**); SfES (**Evans**); SRHE (**Locke**). **Schoon** is treasurer for the International Society for the Study of Behavioural Development; she was a founding member of the SLLCS and continues to serve on its executive board. **AllenR, Clark-Wilson, Loo** and **Wyse** are convenors of BERA SIGs (Educational research and policy making; Mathematics in education; Post-compulsory and lifelong learning; Curriculum, assessment and pedagogy). **O'Connell** and **Twamley** are convenors for BSA groups (Food Study Group; Early Career Forum). Other examples of service include: **Pachler** as chair of the ALT's Research Committee; **Hallam** as chair of the Psychology of Education Section of the BPS; **Tolmie** as chair of the BPS's Editorial Advisory Group. **Dearden** is a member of the Royal Economic Society's Committee for Women in Economics. **Gourlay** is vice-chair of the SRHE's Research and Development Committee.

Journal editorships. Category A colleagues have been editors of 26 leading peer-reviewed journals over the assessment period, including: *Autism: International Journal of Research and Practice* (**Pellicano**); *British Journal of Educational Psychology* (**Tolmie**); *Cochrane Consumers and Communication Review Group* (**OliverS**); *Compare* (**Evans, Morris**); *Curriculum Journal* (**Wyse**); *Higher Education Quarterly* (**Whitchurch**); *International Journal of Computers for Mathematical Learning* (**Noss**); *International Journal of Development Education and Global Learning* (**Bourn**); *Journal of Education in Museums* (**Reeve**); *Journal of Education Policy* (**Ball**); *Journal of Mixed Methods* (**Brannen**); *Journal of Philosophy of Education* (**StandishP**); *Journal of Social Policy* (**David**); *Journal of Vocational Education and Training* (**Unwin**); *Language and Intercultural Communication* (**O'Regan**); *Learning, Media and Technology* (**OliverM**); *Music Performance Research* (**Hallam**); *Reflecting Education* (**Pachler**, founding editor); *School Leadership and Management Journal* (**AllenT**, deputy editor); *Sex Education* (**Reiss**, founding editor); *Technology Knowledge and Learning* (**Noss**); *Visual Communication* (**Jewitt**, founding editor). **Parkes** is reviews editor for *Compare*, **Foster** for *Holocaust Studies*.

Guest editorships. Category A colleagues have also been guest editors to 66 journals, including: *British Journal of Educational Studies* (**Evans, McCulloch, Pollard**); *Community, Work and Family* (**O'Brien**); *International Journal of Assessment in Education* (**Newton**); *International Journal for Science Education* (**SimonsS**); *International Journal of Science and Mathematics Education* (**Reiss**); *International Journal of Social Research Methodology* (**Jewitt**); *Oxford Review of Education* (**McCulloch, Sullivan, Woodin**); *Research in Learning and Technology* (**OliverM**).

Editorial board memberships encompass 261 journals, including: *European Journal of Special Needs Education* (**Dockrell**); *Developmental Psychology* and *Journal for Adolescence Research* (**Schoon**); *Globalisation, Societies and Education* (**GreenA**); *Health Education Journal* (**Warwick**); *International Journal of Quantitative Research in Education* (**Tolmie**); *International Journal of Training and Development* (**GreenF**). Non-professorial staff who have been members of journal editorial boards include: **Bezemer** (*Visual Communication*); **Crafter** (*Children and Society*); **Farran** (*Developmental Neuropsychology*); **Marshall** (*First Language*); **Sullivan** (*American Educational Research Journal, British Journal of Sociology of Education, International Studies in the Sociology of Education*); **Woodin** (*History of Education*).

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Book series edited from the IOE include: *Education, Economy and Society* (Palgrave) **GreenA, Unwin**; *Foundations and Futures in Education* (Routledge) **Reiss** (with Aggleton, New South Wales and Power, Cardiff); *Secondary Education in a Changing World* (Palgrave Macmillan) **McCulloch** (with Franklin, Utah State).

Service to research councils. Over 20 colleagues are members of ESRC review panels; 34 are currently members of the ESRC Peer Review College. **Meecham** is a member of the AHRC Peer Review College; **Laurillard** and **Luckin** are members of the EPSRC Peer Review College. **Marshall** is a reviewer for the Biotechnology and Biological Sciences Research Council (BBSRC) and MRC. Memberships of research council boards and advisory panels, across the AHRC, ESRC and EPSRC, have been extensive. Colleagues have been particularly closely involved in training and skills, methods infrastructure and cohort study strands of work. Specific examples include: AHRC Strategic Review Group (**McCulloch**); ESRC National Strategy Committee for Longitudinal Data (**Joshi**); ESRC Research Resources Board (**Brannen**); ESRC Training and Skills Committee (**Micklewright**); EPSRC Computing College (**Luckin**). Other memberships include **Elliott, Flouri, GreenF, Unwin, WigginsD. Tolmie** was an invited contributor to the ESRC benchmarking exercise on UK Psychology. This service extends to major research foundations – e.g. Leverhulme Trust (**Pelletier**); Nuffield Foundation (**Candappa**).

Service to research councils and related bodies internationally encompasses research councils in over 20 countries (**Bezemer, BrownA, Bubb, David, Dockrell, Flouri, Griffiths, Husbands, Jewitt, Kress, Levinson, Marshall, Morris, Oakley, Pachler, Phoenix, Reiss, Schoon, ScottP, SmithM, Starkey, Tolmie, Welch, Winters, YoungM**), as well as the ERC (**Marshall**) and organisations such as the Association for the Development of Education in Africa (**Oketch**) and Royal Society of New Zealand (**Evans**).

Doctoral examining. During the assessment period, Category A staff served as external examiners for hundreds of PhD/EdD theses, for at least 100 HEIs worldwide. While employed at the IOE, staff have acted as doctoral teachers and supervisors at 60 other universities worldwide. They have acted as external examiners for five EdD programmes.

Conferences and events. IOE staff regularly organise major conferences, much of this activity being driven by our research centres and SIGs. The majority of our conferences have included national and international keynotes and have often focused on opening up dialogue between researchers, policy-makers and practitioners. Examples of IOE-run conferences include: 'Outcomes in clinical research: whose responsibility?', 2008 (Perspectives, Participation and Research SIG); 'Pornification? Complicating the debates about the sexualisation of culture', 2011, ESRC Research Seminar Series Competition (**Ringrose**); LLAKES conference 'Lifelong learning, crisis and social change', 2012 (**GreenA**); European Association for Research on Learning and Instruction SIG conference: 'Education and Neuroscience', 2012 (**Marshall, Tolmie**); 'Knowledge, mind and understanding: aspects of contemporary educational practice in critical perspective', 2013 (**Derry**); 'Alcohol consumption in adolescence and early adult life: what are the consequences?', 2013 (**Elliott**), which explored the unique perspective provided by longitudinal studies; 'The offender learning journey: where to, how far?', 2013 (**Hurry, Vorhaus**); 'Museum futures in an age of austerity', 2013 (**Meecham, Reeve, Robins**). There were also international conferences held as part of the Leverhulme-funded 'Japan and East Asia National Identities Education Network (**Morris**) and regular consultative conferences to inform surveys conducted as part of the national birth cohort studies. ESRC research seminars included 'New forms of doctorate: the influence of multimodality and e-learning on the nature and format of doctoral theses in education and the social sciences' (2008-10) (**Andrews**).

The IOE continues to be a regular host of the BERA annual conference, most recently in 2011 and next in 2014. Since 2008, we have worked in partnership with the Association for the Study of Medical Education to support the annual Researching Medical Education conference, attended by over 150 delegates. In November 2012 we spearheaded and hosted the first London Festival of Education (see Impact template).

Keynote lectures. IOE staff have delivered at least 750 keynotes since January 2008. Invitations have come from international professional and subject associations, international bodies, governments and universities overseas, national research and practitioner associations, government departments and parliamentary groups, research foundations, think tanks, charities, local authorities and schools. Keynote contributions are made to academic and practitioner conferences, research seminars, summer schools and public lectures. The following examples

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indicate the range and significance of these invitations: AERA SIGs (**Guile, Jewitt, Reiss, Tolmie**); Australian Society for Autism Research (**Pellicano**); BPS Education Section Conference Vernon Wall Lecture (**Hallam**); British Library ('Taking a Long View: the Social Sciences and Impact') (**Oakley**); Campaign for Social Science (**Joshi**); Canadian Council on Learning and Social Science and Humanities Research Council (**Gough**); German Educational Research Association (**Brannen**); International Sociological Association (**GreenA**); Higher Education Academy (**Callender**); International Association for Critical Realism (**Bhaskar, O'Regan**); International Congress on Mathematical Education (**Hoyles**); Philosophy of Education Society of Great Britain (**Suissa**); Professional Association of Teachers of Students with Specific Learning Difficulties (**Marshall**); Royal College of Speech and Language Therapists (**Radford**); United National Alliance of Civilisations (**Panjwani**); Williams Syndrome Foundation (**Farran**); World Association for Arts Education (**Welch**); World Health Organisation (WHO) symposium 'Health Assets for Young People's Wellbeing' (**Schoon**). Examples of keynotes by our early career researchers include contributions to the European Association for Research in Learning and Instruction (**Crafter**) and Mixed Methods Festival, Basel (**O'Connell**).

Advice to external organisations – national. The majority of our senior academic staff regularly provide advice to external organisations based on their research expertise – to government departments and agencies, parliamentary committees and groups, think tanks, local authorities, charitable foundations, awarding bodies, learned societies and professional associations, international charities and NGOs, industry, museums and galleries and individual universities, colleges and schools. Colleagues have advised 11 government departments over the assessment period: Cabinet Office (**Husbands, Hawkes**); Department for Business, Innovation and Skills (BIS) (**Callender, Dearden, Guile, Laurillard, Micklewright, Noss, Reiss, Unwin, Vignoles**); Department for Communities and Local Government (**Foster**); Department for Culture, Media and Sport (DCMS) (**Burn, Reiss**); DfE (**AllenR, Burn, Chapman, Dockrell, Foster, GreenA, Hansen, Hoyles, Husbands, Lambert, MossG, Mostafa, Noss, Phoenix, Pollard, Reiss, Siraj-Blatchford, SmithM, Stuart, Wiliam**); Department for Environment, Food and Rural Affairs (**Reiss**); DFID (**Bourn, Carr-Hill, Kingdon, OliverS**); DH (**Bonell, Gough, HargreavesK, SmithM**); Department for Transport (**Tolmie**); HM Treasury (**Duckworth, GreenA, Unwin, Vignoles**); Home Office (**Ringrose, WigginsD**); Ministry of Defence (**Foster**). **Burn** was DCMS-nominated representative on the EC's Media Literacy Expert group. **Pachler** was President of the European Baccalaureate on behalf of the DfE for the EU. **Duckworth** was seconded to the PM's Strategy Unit to advise on policy on young people's skills development; **Phoenix** was a member of the Government Office of Science's Foresight Lead Expert Group (Future of Identities); **Ringrose** provided advice to the Government Equalities Office and Scottish Executive on body image; **Hodgson** advised the Welsh Assembly on 14-19 qualifications reform.

Numerous IOE colleagues have served as **advisors to key national agencies** and on commissions and review panels, including: Education Endowment Foundation (EEF) (**Husbands**); Higher Education Academy (HEA) (**OliverM**); Office for Standards in Education (Ofsted) (**AllenT, Husbands**); Office of Qualifications and Examinations Regulation (Ofqual) (**Newton**); Office of the Children's Commissioner (**Parkes**); UK Commission on Employment and Skills (UKCES) (**Callender, Unwin**); Independent Review of Mathematics Teaching in Early Years Settings and Primary Schools (**Hoyles**); Pearson/Royal Society for the Arts commission on Academisation (**Husbands**).

Eleven Category A staff were invited to give evidence to parliamentary committees over the assessment period (**AllenR, Ball, Dearden, Dockrell, Hodgson, Husbands, Joshi, Kingdon, Siraj-Blatchford, Unwin, Wyse**). **Unwin** served as special advisor to the House of Commons BIS Select Committee, **Husbands** and Whitty as advisors to the Education Select Committee.

Advice to external organisations – international. Staff who are recognised experts on education in other parts of the world include: **Carr-Hill, Oketch, Parkes, Pridmore, Unterhalter** (various countries within Africa); **GreenA** (Singapore); **Kingdon** (India); **Lall** (India, Myanmar, Pakistan); **McCowan** (Brazil); **Pachler** (Austria); **Pherali** (Nepal); **Wiborg** (Denmark). Over the assessment period colleagues have provided advice to the governments of 13 countries (**David, Evans, GreenA, GreenF, Hodgson, Joshi, Kingdon, Lambert, Laurillard, MossG, Taggart, Tunnicliffe, Welch**). Advice to overseas agencies and international bodies includes: Campbell Collaboration, EU/EU agencies (**OliverS**); National Institute of Health, Mozambique (**Pridmore**); CECEFOP (European Centre for the Development of Educational Training), CRELL (Centre for

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Research on Education and Lifelong Learning), ETF (European Training Foundation) (**GreenA, Jenkins, Mostafa**); OECD (**GreenA, GreenF, Jewitt, Unwin**) UNESCO (**Fransman, Lucas, Unterhalter**); UNICEF (**Ehren, Pridmore**); World Bank (**Carr-Hill, Kingdon, Lall, Siraj-Blatchford, Taggart, Unterhalter, YoungM**). Service to international organisations includes to the International Commission on Mathematical Instruction (**Hoyles**) and the WHO Expert Advisory Panel on Clinical Practice Guidelines (**OliverS**). **Kingdon** has served as nominated expert for the UK DFID, EU and World Bank. **MossG** served on a DFID/UNESCO task force on learning metrics. **O'Brien** served on the UN Programme on the Family expert committee. **Carpentieri** has been rapporteur for the EC-facilitated EU High Level Group of Experts on Literacy. Colleagues have advised governments and research councils around the world on longitudinal cohort studies and systematic review (**Gough, Joshi, WigginsD**).

The significance of our contribution to the discipline is demonstrated in the large number of **honours and awards** received by IOE colleagues. Examples include: **Kress**, MBE for services to scholarship; **Hoyles**, inaugural Royal Society Kavli Education Medal; **Hoyles** and **Noss**, made Foreign Fellows of the Union of Bulgarian Mathematicians; **McCulloch, MossG, Thomas**, SfES National Award (2011). There were honorary doctorates for **Ball** (University of Leicester), **Bhaskar** (Orebro), **David** (Bedfordshire), **Hoyles** (Loughborough, Sheffield Hallam), **Kress** (Honorary Arts Fellowship, Bournemouth), **Pollard** (Edinburgh, St Mark and St John), **ScottP** (Leicester).

Ten IOE professors have been named Academicians by the Academy of Social Sciences over the assessment period, taking our total to 32, including 25 Category A staff. Other Fellowships include: Association for Educational Assessment – Europe (**Newton**); BPS (**Freeman, Parkes, SmithM**); British Science Association (**Reiss**); HDCA (**Peppin-Vaughan; Unterhalter**); Institute for the Study of Labor (**Dearden**); IMA (**Clark-Wilson, Hoyles, Noss**); Institute of Physics (Chapman); Royal Historical Society (**McCulloch**); St George's House (**Reiss**); SfES (Grace, Whitty); SRHE (**Callender, Shattock**); Society of Biology (**Levinson, Reiss, Tunncliffe**).

We have continued to enjoy a strong record of SfES annual book awards. Over the assessment period recipients were: **Unterhalter** (2008); **Ball, Vincent** (2009); **YoungM** (2009); **Fuller, Unwin** (2010); **Hodgson, Spours** (2010); **Candappa** (2011); **MossP** and **Fielding** (2012). **Wyse** was shortlisted for the 2013 UK Literacy Association Academic Book Award.

Many IOE staff have received awards for journal articles, dissertations and conference papers. Best article awards include: **Ball, Braun, Vincent** (*British Educational Research Journal*); **GreenF** (*British Journal of Industrial Relations*); **Maxwell, Warwick** (Emerald Literati Network); **Unterhalter** (*Cambridge Journal of Education*). Examples of best conference paper awards include: **Luckin** (International Conference on Mobile, Hybrid, and On-line Learning); **Mintz** (ED-MEDIA World Conference on Educational Media and Technology). 'Most cited' and 'most downloaded' articles include: **Ehren** (*British Journal of Education Studies*); **Maxwell** (*Health Education*); **Morris** (*Curriculum Journal*); **Spours, Hodgson** (Routledge Class of 2011), **Stoll** (*Journal of Educational Change*); **Wyse** (*British Educational Research Journal* for 2009, 2010, 2011). Routledge Authors of the Month include **Ball, Gillborn, McCulloch, MossP, Slee, Whitchurch, White, Wyse, YoungM**.

There were learned society/professional association awards and nominations for: **Himnides, Welch** (Royal Society for Public Health, Excellence in Research); **Schoon** (American Sociological Association Pierre Bourdieu Award, nomination); **SmithC** (British Society for Research into Learning Mathematics, Janet Duffin Award for Most Outstanding Contribution). **Remington** was awarded the BPS Neil O'Connor Award for Research on Developmental Disability.

Early career researchers at the IOE have performed strongly. Recipients of the annual BERA Dissertation Prize include **Barzano** (2008) and **AllenR** (2009), while **Jerrim** received the prize for the best presentation at the BERA Early Career Researcher conference in 2012. **Bradbury** received the AERA Dissertation Prize in 2011. **O'Mara** received awards for best presentation based on a doctoral dissertation (Global SELF Research Network) and best poster presentation by an early career researcher (20th Cochrane Colloquium). **AllenR, Jerrim, Keating** and **Manches** have all been recipients of ESRC Future Leader awards. In 2013, **Jerrim** received the ESRC's Outstanding Early Career Impact prize.

This service to the community and these marks of esteem reflect the outstanding quality of the IOE's research, recognised globally as an exceptional asset for the field as a whole.