

Institution: Oxford Brookes University

Unit of assessment: 4 Psychology, Psychiatry and Neuroscience

a. Overview

This submission comprises 14.7 researchers from psychology. Two additional researchers are being returned to Education (de Abreu) and Allied Health Professionals (Lonsdale).

During the REF period the University has undergone a major restructuring to create four faculties from eight schools. Psychology now sits in the Faculty of Health and Life Sciences as part of the Department of Psychology, Social Work & Public Health. This new structure places psychology in the most research-intensive faculty of the university, alongside biomedical science, sport and health science, and public health. Within psychology, staff are organised into three research groups: Developmental Psychology; Adult Cognition; Applied Social Psychology.

Developmental Psychology is the largest of the three research groups and contains nine staff who are included in this submission, (Barnett, Connelly, Gonzalez-Gomez, Harris, Jones, Joseph, Sumner, Wiggs and Wilmut). There are three main strands of research: (1) Cognitive & Social Development - the nature of mother-child interactions (Harris), children's interactions with their peers and explanations for school bullying (Jones); (2) Language & Literacy - the development of speech and reading (Harris, Joseph, Gonzalez-Gomez), spelling and writing (Connelly & Sumner) and handwriting (Barnett); (3) Developmental Disorders - children with hearing loss (Harris), Specific Language Impairment (Connelly), Dyslexia (Sumner, Connelly & Barnett), Developmental Coordination Disorder (Barnett & Wilmut) and sleep disorders (Wiggs). Several staff work with professionals from other disciplines including health (Harris, Wiggs, Barnett) and education (Connelly, Barnett, Harris). A strong theme for the group is the production of practical assessment tools and the evaluation of intervention approaches to help children achieve their full potential. The Institute for Research in Child Development acts an externally-facing identity for the group's research and consultancy for commercial enterprises.

The Adult Cognition group comprises seven members of staff (two of whom are also members of the Developmental research group). They are Gellatly, Pilling, Anderson, Kumar, Rathbone, Wilmut, and Barnett. There are three dominant research strands in this group: (1) Visual Cognition (Gellatly, Pilling, Anderson, Kumar) - exploring mechanisms of selective attention, attentional orienting, object formation, and the representation of information in visual short term memory (2) Perception and Action (Wilmut, Barnett, Kumar) - looking at the cognitive processes associated with processing of stimuli containing action possibilities (affordances), and with the preparation and execution of everyday actions such as reaching & grasping towards objects and walking; (3) Autobiographical memory (Rathbone) - research looks at identity processes and the phenomenon of the 'reminiscence bump' in recollection of autobiographical memories. A variety of methods and techniques are employed in exploring these areas. These include psychophysical techniques such as masking, eye-tracking technology, movement analysis equipment, use of Neuropsychological instruments, and Event Related Potential (ERP) recordings.

The Applied Social Psychology group includes two additional members of staff who form part of this submission (Barbosa Boucas and Burgess) and two returned to other Units of Assessment (de Abreu and Lonsdale). Members of this group share research interests in the psychological processes that underpin significant life transitions and changing identities (Abreu, Burgess) and human cognition, self and identities (Abreu, Burgess, Lonsdale). The work of recently appointed Barbosa Boucas links work in adult cognition to consider behavioural intentions and behavior change in health settings, including patient adherence to treatment and rehabilitation. The Applied Social Psychology research group has also broadened in another direction, to encompass the psychology of electric vehicle use (Burgess and Harris). Although a range of research methods are employed by staff in this research group, there is considerable expertise in the use of qualitative analyses of interview data.

b. Research strategy

In line with the mission statement of Oxford Brookes University to develop research excellence in all its faculties, psychology research has continued to develop since RAE 2008. The overarching



aim has been to consolidate research groups by strategic appointments to ensure critical mass in key areas. The specific research objectives for psychology are to:

- increase the amount of external research grant funding
- enhance the research outputs of existing staff through mentoring
- appoint and develop young researchers in a supportive research environment
- increase the number of full-time PhD students

These objectives have guided our 5-year rolling research strategy to strengthen the Developmental and Adult Cognition research groups and to create a third area of research expertise, in Applied Social Psychology. This has produced a critical mass of researchers with overlapping research expertise who can support each other in planning and conducting research, developing research grant applications, engaging in national and international collaborations and providing strong supervisory teams for PhD students.

Psychology has been successful in each of the above objectives. Research grant funding has risen significantly and over £2.5 million has been won since RAE2008. (This compares with a total of just over £1 million won in the previous period.) The number of researchers gaining grants has also increased and a total of nine staff were successful in gaining external funding. Grant success has been reflected in promotions, with four members of staff being promoted to Professor and five to Reader in the REF period. Within the same period, two lecturers were promoted to Senior Lecturer and two Early Career Fellows progressed to internal lectureships. The total number of Early Career Fellows has increased from one to four.

A number of staff have left over the REF period but new appointments have strengthened existing research areas in Developmental Psychology and Adult Cognition. In addition, appointments have been made to develop research expertise in Applied Social Psychology. Psychology has seen a major benefit from its position in the Faculty of Health and Life Sciences in the provision of internal funding for PhD studentships, provided from a combination of QR and royalty payments to the faculty as well as central funding from the university. There has been a marked increase in the number of registered PhD students, peaking in 2012/13 at 13. (This compares with a range of 3 - 6 in the period of RAE2008.) There has also been significant investment in research facilities with improvements to the EEG lab, the creation of an infant eyetracking facility in the Brookes BabyLab, the purchase of two eye trackers for research with adults and children, and the setting up of a Perception and Motion Analysis (PuMA) laboratory. Funding for equipment has increased significantly because of the greater availability of equipment funds in the new faculty. The research culture is maintained by weekly seminars from external speakers throughout semester time. The research groups also have their own programme of meetings that are attended by lecturing staff, research staff and PhD students. These provide a supportive environment for presentation of work in progress and discussion of new research proposals. Other special interest groups (e.g. Health Psychology, PuMA) also organise programmes for staff, postgraduates and undergraduates.

The international standing of staff can be seen in the number of international keynotes given in the REF period (see section e). Staff have also hosted national and international conferences at the university (e.g. 2007 BJEP Teaching Writing Conference with 8 international keynotes, 2009 BPS Developmental Section Conference with 240 delegates from 15 countries). **Connelly** & **Barnett** have run three writing conferences for teachers and researchers, **Barnett** led two workshops on handwriting for teachers and researchers, **Barnett & Wilmut** hosted two meetings on Developmental Coordination Disorder (DCD) for parents, teachers and researchers. Staff have also helped to organise conferences and training elsewhere. For example, **Wiggs** was on the organising committee for the International Pediatric Sleep Association Scientific Meeting (Manchester, December 2012) and has co-organised on-going training in delivering CBT for insomnia to NHS psychology staff from across the South of England. De Abreu has been on the organising committee for three conferences on Learning and Teaching in culturally diverse settings, **Barnett** has co-organised two national conferences on DCD.

Within Oxford Brookes, multidisciplinary research is promoted by joint supervision of PhD



students across departments e.g. with Education and Clinical Health Care. External grant funding has also involved extensive interdisciplinary collaboration. Harris and Burgess have collaborated with university colleagues from engineering on research into user experiences of electric vehicles, Harris has an internal collaboration with a colleague in healthcare on health visitor assessments of mother-infant interaction. Some members of staff also have external multi-disciplinary collaborations. Harris collaborates with colleagues in education and language sciences on deaf children's literacy. Wiggs has collaborations with colleagues in medicine (paediatrics, neurology), allied professionals (occupational therapists) and clinical psychology services on a number of projects concerned with sleep problems. Connelly and Barnett have external collaborations with education for research in writing. Rathbone has an external collaboration with a colleague in psychiatry at Oxford University.

c. People, including:

i. Staffing strategy and staff development

The University embraces the Concordat to Support the Career Development of Researchers, of particular relevance to SET disciplines and recently, having reviewed its policies and practices and presented a gap analysis and action plan, received the EU HR Excellence in Research Award. The Implementation of the Concordat is overseen by the University Research & Knowledge Exchange Committee (RKEC) and Faculty RKECs and the University's HR Excellence in Research Action Plan is a standing item in University RKEC agendas and is reviewed annually. The University's commitment to the development of all staff is demonstrated by the achievement of Investors in People (IiP) Gold Status, which was reaffirmed in 2012 and 2013.

The Faculty recognises the importance of recruiting, selecting and retaining researchers with the highest potential to achieve excellence in research. In the REF period all new academic staff were recruited from research-intensive universities in the UK and abroad. Recent appointments have included **Joseph** and **Kumar** (University of Oxford), **Gonzalez-Gomez** (Université Paris Descartes), **Barbosa Boucas** (University of Southampton), and **Anderson** (University of Birmingham). A key element of training and support specifically for new research-active staff is the 'First three years' programme. This provides training in teaching and research supervision as well as research management. The latter includes good practice and success in grant writing, and managing projects, project finances and staff. **Anderson**, **Lonsdale**, **Sumner**, **Jones** and **Rathbone** have all participated and/or are participating in this training. Early Career staff benefit from dedicated research funding (£2000 for each of their first 3 years) and from a Research Mentoring Scheme, supported by teaching relief for both mentees and mentors.

In addition to the scheme for young researchers, effective development and support of research is provided in a variety of ways. The psychology 'Research Lead' is responsible for ensuring that research-active staff (including new research staff) are mentored appropriately to develop a five-year research plan, which aligns to the research strategy of the University and Faculty. The positive effects of mentoring can be seen in **Rathbone**'s and **Wilmut**'s recent success in securing significant ESRC research funding and in **Wilmut**'s recent promotion to Reader and **Barnett's** recent promotion to Professor.

Through the appraisal and personal development review (PDR) processes, staff members are given an annual research allowance that forms part of their total workload. For staff, who are fully research active, this allowance is equivalent to 2 days per week. All early career staff are automatically given an allowance of 2 days per week for research and additional time to complete a formal teaching qualification in their first two years. This is equivalent to 50% of their total workload. The level of teaching support has been maintained with three full time demonstrators who assist in the delivery of practical classes and the marking of associated coursework, and there is funding for postgraduates to assist in marking and small group teaching. The total amount of assessment has been limited, in line with University policy to maintain staff time available for research.

A number of policies support the continued career of research staff, including a Redeployment Scheme, bridging funds to support staff between contracts, increasing use of openended contracts and internal promotion to Research Fellowships and then to Lectureships. For example, Bridging Funds to **Connelly** allowed a graduate and a post doc researcher on fixed



contracts to move between a Leverhulme and then an ESRC grant. The experience gained on these two contracts led to the graduate researcher winning an ESRC doctoral funding scholarship and the post doctoral researcher to securing a lectureship. Contract Research staff can also enroll for higher degrees at the university. A recent graduate researcher completed an MRes part time in 2011 and is now a PhD student at the Institute of Education in London. A large number of our graduate contract research staff (circa 90%) have gone on to secure higher degrees and/or PhD posts at research intensive departments or secured places on highly competitive clinical and educational psychology training courses.

All staff members enjoy a fully networked office with online access to major databases and key journals, and access to a well-stocked library. Funds are available for individual staff development, including research skills training and conference attendance. In addition, within the Faculty of HLS, QR funding is used to supplement Staff Development funds to enable research staff to attend and present data at scientific conferences and networking events. Staff are supported to attend international conferences on a regular basis. They are also encouraged to take up positions of international research responsibility (e.g., **Connelly**, Co-ordinator for EARLI Special Interest Group in Writing, **Barnett**, Chairperson for the International Society for Research in DCD). The university provides funds and time for international research visits (e.g., **Connelly**, Portugal; **Barnett**, Brazil) as well as encouraging staff to host international visitors (there have been 4 in the REF period: Rosenblum, Israel; Koyama, Japan; von Hofsten, Sweden; Sadeh; Israel). Contract Research staff and PhD students are also supported with recent attendance at EU sponsored training schools as well as international conferences.

The importance of researchers' personal and career development and lifelong learning is clearly recognised and promoted at all stages of their career. New research staff, with limited PhD supervisory experience, undertake training in supervision (organised by the Graduate Office) and are paired up with experienced supervisors in supervisory teams. The Faculty Grants Panel provides mentoring and quality control for all external funding applications, with each prospective Principal Investigator (including staff new to this role) being allocated a designated mentor and given advice and feedback on their proposal. New research staff are encouraged to be involved in funding applications led by more experienced staff where appropriate. They are also encouraged to develop their teaching skills and to take a formal teaching qualification, the Postgraduate Certificate in Higher Education.

Clear criteria for career progression are provided on HR web pages. Promotion pathways have recently been revised to ensure that all types of career pathway are equally valued, respected and rewarded. The University has open calls for promotion. In order to support researchers in career development, whether within the University or through moving to other institutions, the University Careers Service run two Saturday 'careers focus' events for researchers annually, which includes CV writing and the job application process for academic and non-academic careers. The Careers Service also provide one-to-one careers advice, CV feedback and interview practice for researchers applying for academic and non-academic jobs internally or externally. The University has also established a new career development website, run by the Oxford Centre for Staff Learning & Development, which provides a focus for career advice and development opportunities.

As noted above, the effectiveness of the HR strategy can be seen in a number of promotions during the REF period. Another indicator is the high rate of retention. Over the REF period only five permanent staff have left. Two of these have been promoted to research intensive professorial positions and two have been promoted to senior lectureships in research intensive universities after starting their careers at Brookes as ECR's and moving to lecturer posts.

Diversity and equality is promoted in all aspects of the recruitment and career management of researchers. The University has a strong ethos of equality, which is embedded in management, HR policies and procedures and in all aspects of University life. We have a high profile female Chancellor, Shami Chakrabarti (Director of Liberty, the National Council for Civil Liberties) and Vice Chancellor, Professor Janet Beer (Co-chair of the Equality Challenge Unit) and women are well represented in the majority of senior research management roles. The University hosts the Centre for Diversity Policy Research & Practice, which was established in 2004 as an interdisciplinary, cross-institutional centre that specialises in research in the area of equality and diversity



management in the workplace. The university conforms to the Athena SWAN Charter and recognises and celebrates good employment practice for women working in science, engineering and technology (SET) in higher education and research. The university received the Athena SWAN Bronze award in recognition of this in May 2013.

The majority of psychology staff returned in the UoA are female. Psychology has supported both equality and diversity by providing part-time working, job sharing following maternity leave (Wiggs), and partial retirement (Gellatly). During 2012/13, the Centre for Diversity Policy Research and Practice hosted a special seminar on the issues concerning women returning to work after maternity leave. Contract Research Staff have also been provided with the opportunity for part time working and job share while also retaining the same opportunities for staff development as their full time colleagues (e.g., On Connelly's ESRC grant a 0.6 FTE had equivalent training and conference attendance to a 1.0 FTE employee). Workload planning (WLP) is managed via a new University-wide transparent WLP policy and system to ensure consistency in workloads across the University. In the Faculty of HLS, research allocation is assigned before the rest of the academic workload. Part-time staff receive *pro rata* research allowances on the same criteria as full-time staff.

ii. Research students

Since the RAE 2008 research student training has developed around two Doctoral Training Programmes: DTP in Psychology and DTP in Children & Young People. Both programmes received substantial internal funding. This resulted in a marked increase in the number of registered PhD students, peaking in 2012/13 at 13. During the REF period, 6 PhDs have been awarded but a number have recently been submitted or are close to completion.

The Graduate College organises training and continuing development opportunities for research supervisors, including a core training programme for those new to research student supervision as well as experienced supervisor updates and training in research degree examination. Less experienced supervisors are supported by the presence of an experienced supervisor on the supervisory team from within the department and all members of the team receive an allowance in their workload plan. The progression of research students is supervised at department and faculty levels by the postgraduate tutors and at University level by the Research Degrees Committee. Additional support for research students is provided by the Graduate College, which organises a range of university research training events (e.g. research design, project management, presenting research) in addition to Faculty, Department and subject specific training as required. PhD students maintain a skills diary and planner and key points from supervisory sessions are summarised in an email.

The DTP Children & Young People was approved by the University in 2009 and awarded funds of about £325,000. This funded scholarships for seven full time students and specialised training. The DTP prepares students to analyze and investigate developmental psychological, health and educational questions in a multidisciplinary context. Key features of this DTP include (i) multidisciplinary supervisory teams (Psychology with Health and Psychology with Education); (ii) hands on training workshops on theory and methods. For example funding has been provided for workshops on the IPA method and interdisciplinary working. With the restructuring into faculties a DTP in Psychology was set up so that all PhD students were in a named DTP. This new structure facilitates the development of systems for supporting students' training and research, at various levels, including, disciplinary training in Psychology, wider science and social science training at Faculty level, and general skills at University level.

Each DTP has a Postgraduate Tutor with responsibility for admissions, fostering and promoting the training and professional development of research students, and monitoring of the students 'progress. They both sit on the Faculty Research Degree Sub-Committee.

PhD students attend and participate in the Psychology seminars and research group meetings, as well as the Faculty's postgraduate symposia. They are encouraged and funded to attend conferences of relevant academic associations and to present papers when they are sufficiently advanced. For example, PhD students have recently presented papers at national conferences in the UK (e.g. BPS Annual Conference, BPS Developmental Section Conference, BPS Cognitive Section Conference, BPS Psychology of Education Conference, British Educational



Research Association Conference), at European conferences (e.g. European Conference on Developmental Psychology, European Early Childhood Education Research Association Annual Conference, European) and at international conferences (e.g. International Journal of Art & Design Education Conference, World Association of Sleep Medicine Congress, International DCD Conference).

d. Income, infrastructure and facilities

Staff from the University's Research & Business Development Office (RBDO) support academic staff in the planning, writing, costing and submission of research grant applications. All research grant applications above £10,000 are assigned an academic mentor who works with applicants to improve the quality of the application. For less experienced staff the mentor plays a more extensive role in helping to guide them with their application. Recent applications have been strengthened by staff with complementary skills working together (for example Harris has worked with colleagues in health care, Wilmut & Barnett and Barnett & Wiggs have been joint applicants). A Research Grants Officer and Research Manager review all grant applications to ensure that they meet the requirements of the funding body and/or specific funding call. The Faculty Finance Office reviews and approves the costs prior to submission. All research by staff and postgraduate research students involving human participants or human data or material is reviewed and approved by the University Research Ethics Committee (UREC). This includes a review of procedures to ensure data protection and security and appropriate plans for the dissemination of findings. Approved research is monitored by UREC to ensure compliance with ethics procedures. All externally-funded research is also monitored by the Faculty of HLS. This includes ensuring that investigators are undertaking their research as agreed with the project funder and in accordance with the procedures set down by the UREC/National Research Ethics Service and the Code of Practice for Academic Integrity.

Research income awarded in the REF period totalled over £2.5 million. Over £1.1 million was generated from the **Developmental Psychology** Research Group. This included funding for **Connelly's** work on writing development (Leverhulme Trust, £105,600; ESRC, £93,400), **Harris's** work on reading in deaf children and adolescents (ESRC, £80,270 in 2009 and £316,500 in 2013), **Wilmut** and **Barnett's** work on Developmental Coordination Disorder (ESRC, £166,515 in 2012 & £280,261 in 2012; The Waterloo Foundation, £59,341), **Wiggs's** work on sleep in children with autism (Research Autism, £36,360) and Harris's work on health visitor assessment of mother-infant interactions (Burdett Trust for Nursing, £13,920).

The **Adult Cognition** Research Group generated over £200,000 research income. This included funding for **Rathbone's** work on memory and the self in ageing (ESRC, £139,301) and **Gellatly's** work on visual representations in object substitution masking (ESRC, £80,270).

A substantial amount of the income generated by the **Applied Social Psychology** Research Group came from funding from the Technology Strategy Board (TSB) to fund **Harris** and **Burgess's** work on user expectations and experiences of electric vehicles (TSB £400,800 in 2009 & £640,100 in 2010).

Much of the work carried out by the Developmental Psychology research group takes place in schools and homes. Research conducted on site at Oxford Brookes usually takes place at the Institute for Research in Child Development in the Buckley research building, where there is a BabyLab with specialist facilities including an eye-tracker and an observation room. The building also houses a specialised Perception and Motion Analysis (PuMA) Lab with equipment for the detailed analysis of movement. The Buckley building provides a safe and comfortable area to accommodate young children and their families during research visits. Facilities for the Adult Cognition research group include a Visual Perception Lab and EEG lab. The PuMA lab is also used for work with adults. Recent purchases include new eye trackers for research with adults and children and portable motion analysis equipment. Several staff also conduct research in laboratory facilities shared with other institutions. These include Oxford University (Anderson, Gellatly, Pilling), Birmingham University (Anderson), Oxford Gait Laboratory and Nuffield Orthopaedic Centre (Barnett & Wilmut), Royal Holloway (Wilmut).



e. Collaboration and contribution to the discipline or research base

Members of staff contribute to the research base of the discipline in a variety of ways. They sit on committees of learned societies (e.g. **Pilling** – Cognitive Section of the BPS; **Barnett** – International Society for Research on DCD; **De Abreu** – EARLI). They contribute to research council activities such as the ESRC peer review panel (**Gellatly**, **Harris**, **Wilmut**, **Rathbone**), the ESRC seminar competition committee (**Gellatly**), and the ESRC Future Leaders Commissioning panel (**Harris**).

A number of staff have senior positions on journal editorial boards. **Harris** is editor-in-chief of the *British Journal of Developmental Psychology* and is an associate editor of the *Journal of Deaf Studies and Deaf Education* and *Mind & Language;* **Barnett** is on the editorial board of *Adapted Physical Activity Quarterly* and the National Handwriting Association journal, *Handwriting Today.* **Wiggs** is Associate Editor for the *Journal of Sleep Research.*

The research of some staff relates directly to national and international priorities and initiatives. For example **Rathbone**'s ESRC grant is focused on lifelong health and wellbeing and targets dementia – a national strategic priority. Some members of staff contribute directly to the discipline through expert panels and advisory boards. For example in May 2011 **Wiggs** was one of 20 world-wide experts invited to contribute to a closed meeting - Research Needs for the Problems of Children with Developmental Disorders in Vancouver, Canada to define research agendas for the future (funded by the Casting Foundation). **Barnett** was invited to Brussels in 2009 to participate in the European Academy of Childhood Disability (EACD) panel to draft European guidelines on the assessment of Developmental Coordination Disorder (DCD).

Members of staff review grant applications for a range of research councils and other national funding bodies (e.g. ESRC, EPSRC, MRC, Wellcome Trust, NIHR/RfPB). Members of staff also review international research. For example **Wiggs** has reviewed for The Hospital for Sick Children Foundation, Canada; Nova Scotia Health Research Foundation, Canada; Apex Foundation for Research into Intellectual Disability Foundation, Australia; The Israel Science Foundation, Israel and **Harris** has recently reviewed for the Austrian Science Fund. Senior staff are regularly invited to present keynotes at international conferences. **Wiggs** has many invitations to speak at conferences on sleep (e.g. International Conference on Child and Adolescent Psychopathology, 2009; National Autism Today conference, 2009 & 2010) **Connelly** has also given several invited talks on writing (e.g. International Graphonomics Society, 2011). **Barnett** has given keynotes on motor assessment (International DCD Conference, 2008 & 2013; National Paediatric Physiotherapy Conference, 2009) and **Harris** has given a number of keynotes, including the Hallpike Symposium (2102) and the 4th International Conference on Education and Educational Psychology (2013).

Funding is available through the University to support international research collaborations through the Santander and other schemes. In Psychology funds have been secured by staff to undertake collaborative work with researchers from the University of Porto, Portugal (Connelly), Universidade Federal de Minas Gerais, Brazil (Barnett) and Haifa University, Israel (Barnett). Other national and international collaborations involve **Connelly** (Potsdam University, Germany: Washington University, USA; University of Auckland, New Zealand); Gellatly (University of Hull, University of Tartu, Latvia); Barnett (Goldsmiths & Institute of Education, University of London, University of Leeds, University of Hertfordshire); Wilmut (University of South Wales, UK; University of Victoria and Deacon University, Australia); Harris (City University, University College London (UCL) and Georgia State University, USA); Wiggs (Guy's & St Thomas' NHS Trust, London, University of Liverpool, University of York, Pittsburgh, USA); Rathbone (University of Oxford, University of Cambridge, University of Reading, University of Southampton, University of Leeds, University of Bourgogne, France, Aarhus University, Denmark, Ohio State University, USA); Anderson (University of Oxford, University of Birmingham, University of British Columbia, Canada): de Abreu (UCL. The Open University, Universat Autonoma de Barcelona, Spain: University of Gothenburg, Sweden; Utrecht University, The Netherlands) and Burgess (Grant McEwan University, Canada; Technical University of Chemnitz, Germany).