

**Institution: University of Wales Trinity Saint David**

**Unit of Assessment: 23**

### 1. Unit context and structure, research and impact strategy

#### Research Centres in Education

The University is committed to research in education across its constituent disciplines. This activity is multidisciplinary with interdisciplinary aspects drawing on staff within two of University's three Institutes (Education and Humanities, and Management and Health). This structure supports focused areas of research in Pedagogy and Education Policy, Work based learning, and Education, Health & Wellbeing. This structure was initiated in 2014-15 following the merger of UWTSD and Swansea Metropolitan University late in the previous REF cycle, in which neither institution submitted its educational staff. The submission therefore reflects the strong institutional investment in educational research during the census period. The research centres within this structure are as follows:

Institute	Research Areas	Research Centres
<b>Institute of Education and Humanities (IEH).</b>	Pedagogy and Education Policy	<ul style="list-style-type: none"> <li>Centre for Research in Education and Pedagogy (CREP)</li> <li>Centre for Education Policy Review and Analysis (CEPRA)</li> <li>International Institute for Creative Entrepreneurial Development (IICED)</li> </ul>
<b>The Institute of Management and Health (IMH).</b>	Work based learning	<ul style="list-style-type: none"> <li>Wales Academy for Professional Practice and Applied Research (WAPPAR)</li> </ul>
	Education, Health & Wellbeing	<ul style="list-style-type: none"> <li>Wales Academy for Health and Physical Literacy (WAHPL)</li> <li>Centre for Healthy Aging (CHA)</li> </ul>

**Table 1: Institutes and Research Centres**

#### Research objectives

In order to establish a firm basis for sustainable educational research within the University, the strategic research objectives since the 2014 have been to build capacity through a) the alignment and clustering of research, and b) investment in staff development in order to achieve greater depth, critical mass and impact. Specifically:

1. to build centres of research activity and expertise that serve as strategic units and, as they become established, draw down funding to ensure their long term sustainability;
2. to increase staff capacity and capability to undertake applied research in the field of education that has relevance for the communities we work with, such that are specific to the Welsh education context and with global significance;
3. to generate effective and robust knowledge transfer arrangements that align practice based research to areas of need within the Welsh education context and to establish knowledge transfer programmes in these areas to deliver significant research impacts.

#### Objective I: Establishing Research Centres

Significant investment has been made in establishing and consolidating the six educational research centres, as detailed in Table 1, and each now has an excellent track record in partnership working, applied research, contract research and grant capture.

#### Centre for Research in Education and Pedagogy (CREP).

Work in CREP focuses on six education-facing research strands comprising groups of research active staff. These strands are defined thematically, include research activity currently underway and direct planning for future research activity. CREP also includes Canolfan Peniarth, one of

the leading creators and publishers of Welsh and bilingual educational books and resources in Wales. Stand 1, *Arts, Creativity and Education* is led by Dr Alex Southern, exploring both notions of creativity within the new national curriculum for Wales and professional learning to support creative pedagogies (e.g. AS01, 03, 04). Strand 2, *Curriculum and Progression* focuses research on enhancing understanding about progression in learning, with specific reference to the new national curriculum for Wales, and relevance internationally (e.g. JW 05,10). The 'CAMAU project' (see section 4) sits in this strand. Strand 3, *Early Years* research, led by Associate Professor, Dr Jane Waters with Natalie MacDonald, focuses on early learning and attachment, and issues of professional learning and policy for the ECEC sector, and engages with practice-facing partners to ensure direct impact on pedagogies adopted across the region (e.g. NMac01 JW09). Strand 4, *Professional Learning and Pedagogical Enquiry in Education* involves a research programme tied to the multiple school-based partnerships that are part of this stream of activity in which professional approaches to pedagogical enquiry in school settings are developed. Ongoing work explores change in initial teacher education (ITE), and the development of metacognition in the primary years (e.g. SVH01, 02). Strand 5, *Languages, Literacy and Communication* is led by Professor Mererid Hopwood, recognised recently for the Emyr Humphreys Award (2019) for her essays in language and identity. Professor Hopwood publishes widely across the fields of language, poetry and expression (e.g. MH01, 02, 05, 06) and advises regularly on matters of language, communication and bilingualism nationally and internationally. She has been instrumental in the bilingual development of the new curriculum for Wales. Professor Elin Haf Gruffydd Jones works in the field of European minority languages, focussing on media, the creative and cultural sectors, translation and language policy and practice (e.g. EJ04). She directs the work of Wales Literature Exchange and works closely with Literature Across Frontiers and with Wales PEN Cymru. Strand 6, *Social Justice and Wellbeing*, led by Dr Nicola Welton and Dr Caroline Lohman-Hancock; explores well-being through a social justice lens, promoting equitable and sustainable societies and communities. Practice-facing research partnerships are local and international, having impact in both contexts; for example, research undertaken with Harvard University PEARS institute in a bilingual secondary school in Wales was used to underpin the school's programme of well-being and resilience with pupils (e.g. CLH02, JB02).

#### **Centre for Education Policy Review and Analysis (CEPRA)**

CEPRA was established in August 2018 to contribute meaningfully to the development and debate of education policy in Wales. Led by Gareth Evans, the Centre offers considered and constructive commentary on policy developments that is supported by commissioned research (principally from Welsh Government), rapid reviews and consultancy on a range of topics, including professional learning in Wales, curriculum development and attainment gaps (e.g. GE01). The Centre's knowledge-transfer activities add new depth to the discussion of education in Wales; currently this is informed by two international projects, one funded by the British council, and one by Erasmus+ (Key Action 2), that bring together international voices to comment upon aspects of education policy pertinent to developments in Wales.

#### **International Institute for Creative Entrepreneurial Development (IICED)**

Led by Professor Andy Penaluna and Associate Professor Kath Penaluna, IICED was established within UWTSD to be an international focal point bringing together a distinguished group of international experts in entrepreneurial education to engage in high-level discussions and to consider global perspectives that can impact, or have impacted, on policy-making. The Institute researches and is actively engaged in developing international best practice in enterprise, entrepreneurship and entrepreneurial teaching, learning and evaluation. The team are acknowledged experts in developing learning environments that enhance innovation and creativity capacity within learners. Research focuses on creativity and innovation in enterprise and entrepreneurship education, from primary school level to the HE sector, including work on pedagogy, andragogy, heutagogy, creative thinking, motivational constructs and the disposition of learners and educators which have impacts at Welsh, UK and European levels (e.g. A&KP11, 8, 1, 13). This includes contributions to the Welsh Government's National Curriculum for Wales Areas of Learning Experience (2020) and the European Union's EntreComp Framework (2016) (see REF3).

**The Wales Academy for Professional Practice.**

Work in professional learning and leadership is closely allied to work in the Wales Academy for Professional Practice and Applied Research (WAPPAR), which has become an established leader in the field of professional doctorates and work based learning. Work here centres on research into approaches to pedagogy and curriculum development for work-based learners and practice researchers from levels 4 to 8, approaches to change and development in work for the individual through coaching and mentoring progressing to organisation-wide coaching interventions (e.g. AFT06). Theoretical and ethical aspects of practice-based studies including conceptualising change in work with innovative and responsive methodologies for practitioner-research. Professor Fillery-Travis is currently Co-I on a large Horizon 2020 project on this area (FNS Cloud) establishing communities of practice linking data scientists and food scientists.

**Wales Academy for Health & Physical Literacy (WAHPL)**

WAHPL focusses on interdisciplinary research into physical literacy and its relationship to education and public health, drawing on early childhood development, education, physiology, psychology and health. The strategic aim is to understand how to support physical literacy across life and maintain health from policy to practice. Research spans the life course by working with parents, pre-schools and schools to support physical development in early childhood and maintain functional movement in old age. In early childhood, Wainwright and Williams A. researched the impact of playful pedagogy on children's physical development, developed and evaluated a professional development programme to support early years' physical development (SKIP Cymru, detailed in REF3 and NW03, 12, AW04, 05). This work is being further extend by three fully funded collaborative PhDs with Sports Wales and Football Association Wales, two evaluating different models in both schools and the community and the third implementation of this in response to changes in the Physical Education curriculum. The team are also researching the use of technology and gamification approaches with key stage 3 pupils to address the challenges of adolescent motivation and engagement in physical activity. Research also addresses the ability to maintain physical activity through injury prevention, which plays a small but not insignificant role in supporting physical literacy across the lifespan (e.g. KW01). Williams' (Simon) research is focused on the epidemiology of obesity and physical activity and the identification of barriers to physical activity in socially disadvantaged people (e.g. SW02), while he was co-founder of the Active Healthy Kids (Wales) report card (e.g. SW01). The Centre for Healthy Aging, located within the Academy for Health and Physical Literacy, has a strong international profile for research in physical education and literacy at the later stage of the life-course. Work led by Herbert has investigated how to support physical activity in older age and developed programmes supporting an aging population to maintain functional movement (e.g. PH 15, 16, 17).

**Objectives 2 & 3: Staff capacity, applied research and impact**

Staff in each research centre are involved with applied research and knowledge exchange programmes, designed to support the achievement of impact, in partnership with education providers at international (see IICED, WAHPL) national (e.g. CREP, CEPRA), and local levels including with 18 lead and 136 partner schools in the Athrofa Professional Learning Partnership. We also seek to achieve impacts at European and International level through targeting funding and partnership working. Our strategy in this has been to support collaboration through grant funded projects and contract and consultancy work from a variety of sources (e.g. HEFCW, European Commission, Welsh Government, charitable sources, Arts Council Wales, UNESCO, World Bank). Examples are included in section 4, detailing the impact of our work on the new Curriculum for Wales, and on early childhood provision in communities experiencing disadvantage. Further, research into the nature and practice of creativity (Southern) associated with the Regional Arts and Education Network (NAWR! hosted by UWTSD and funded for 4 years by the Arts Council Wales) has contributed to impact within the curriculum development community. Learning from our research activity is taken directly into programmes of professional learning such as ITE, MA [Ed] and the Professional Doctorate in Education (Ed D) both of which feed the knowledge and skills of the education sector in Wales and beyond. At the European level the research centres have pursued a very successful strategy of participation in European cooperation and knowledge transfer through engagement in the EU's Erasmus + programme,

under Key Action 2 Strategic Partnerships (Cooperation for Innovation and Exchange of Good Practices) and Key Action 3 Support for Policy Reform (Forward Looking Cooperation) projects. Since 2014 we have secured £220k in funding, participating in 7 projects.

### **Relationship to Impact Case studies**

Impact work at an international level has been most successfully pursued by research in both the areas of Entrepreneurship Education (IICED) and physical literacy (WAHPL) which are detailed in REF3. In field of entrepreneurship education, the majority of this research developed in the context of policy work with organisations such as the UK Government (BIES), Welsh Government (Education and Skills Department), United Nations, OECD, World Bank, British Council and the European Commission (Joint Research Centre). Work in physical literacy has been conducted on a collaborative basis with researchers in the Ohio State University, University of Bedfordshire, University of Strathclyde, with funding and applied outcomes with Welsh Government, Sports Wales and Football Association Wales (also see section 4).

### **Strategy 2020-2025.**

Looking into the future, the research centres are keenly aware of the shifting national and international context for collaboration and cooperation, and the likely disruption to funded impact opportunities in a post-Brexit context. In this regard, we are developing local, regional, national and international partnerships that will support collaborative working beyond 2021. Our focus remains on undertaking interdisciplinary research that creates insight and knowledge that is directly relevant for the local context and in support of the Wales Education Mission, as well as having a national and international dimension. For example, working collaboratively with two other HEIs in Wales Dr Waters and Professor Hopwood have secured funding for exploratory studies into the impact of Covid-19 on a) disadvantaged learners, and b) learners in Welsh medium settings whose home language is other than Welsh. Such collaborations support activity across a number of research strands within CREP, namely early years, language, literacy and communication, curriculum and progression and pedagogical enquiry. Dr Barnes has secured funding from the national education research association, BERA, to explore the use of remote learning pedagogies for ITE professional learning within the HEI sector. This activity is directly relevant for our education partners and is readily shared through professional learning programmes, seminars and the blog pages associated with our professional learning communities. By 2025, each research centre aims to have secured at least two funded programmes of practice-relevant research.

### **Open Research**

The Centres have each made good progress in completing the transition to an open research environment since the University adopted its Open Access and Research Data Management policies and repositories in March 2016 (detailed in REF5A). While we are still working to full compliance with the requirements of the open access publishing policy, there are very few exceptions with more than 80% of outputs within the scope of UoA23 compliant with REF2021 policy. Ongoing training and awareness is continuing in this regard, with a programme of advocacy and support from the Library and Learning Resources and open access champion in each Institute who works closely with the Academic Liaison Librarian and Head of Collections to drive this activity. WAPPAR are leading this activity across the Centres, which has seen significant investment and injection of resource and expertise through participation in a Horizon 2020 Innovation Action (FNS Food Cloud). The project involves food scientists and data scientists from 35 organisations who are working to develop an infrastructure and services to exploit food, nutrition and security data for a range of purposes, and integrate with the European Open Science Cloud (EOSC). Fillery-Travis leads on the training and mentoring work package which will develop a community of practice and continuing professional development framework and programme for partners and the wider research community. Currently CREP, CEPRA and WAHPL share research at regional, national and international conferences, use social media and blogs and produce resources free for use by professionals, parents and members of the community. IICED share insights through a wide range of blogs, podcasts, international keynotes and through invited international presentations, e.g. the European Commission have commissioned 7 video presentations; other contributions include book chapters, including one



written in collaboration with the United Nations Conference on Trade and Development for the UNESCO Learning Cities initiative.

### **Research Integrity**

As outlined in REF5A, UWTSD has a code of conduct for research ethics and integrity, which is fully compliant with the 2019 Revised UK Concordat to Support Research Integrity. As appropriate to our disciplines, all research and knowledge transfer activity conducted within the research centres is screened for compliance with the appropriate professional body guidance, for example, British Educational Research Association Ethical Guidelines for Educational Research, and must be granted approval by the University's central ethics committee before work commences. This applies to both staff research and that of PGR students, the latter for which ethical approval is a set milestone in the Quality Assurance process which is administered by the Academic Office, and for which approval of the full research proposal must be obtained within 6 months of enrolment. The research centres are well represented on the central ethics committee covering the main strands of expertise required, and attendance at centrally managed ethics training events is good. Given the elevated risks in the centre's work with children, schools and physical exercise, the Institute of Education and Humanities also has an Institute level ethics committee. While work here concerns taught provision and non-research partnerships, this further embeds the culture of research integrity within the Institute's staff and ensures high levels of compliance and awareness. The knowledge transfer activity undertaken within the education community in Wales extends to ensuring awareness of ethical practices in education research extends to school-facing communities. The UWTSD education research team designed and produced the ethical guidance that sits bilingually on the Education Workforce Council website and to which all teacher researchers, and ITE student researchers, nationally are directed. At a HE level, following on from their Erasmus KA2 project into best practice in supervision of modern doctorates WAPPAR was asked to contribute to the UK Council for Graduate Education pilot scheme for accreditation of doctoral supervisors, for which the UKCGE Recognised Research Supervisor framework is now established.

## **2. People**

### **Staff**

#### **Career Pathways**

One of the central aims of the education research strategy (objectives 2 and 3) has been to develop skills and knowledge specific to the Welsh education context and with global significance. We adopt the notion of a 'research track'; this recognises development in research expertise and engagement moving from developing one's research literacy, attending research seminars, building into participation in research activity, writing blogs, presenting at seminars, joining research projects, writing working papers, presenting at conferences, writing journal articles, and leads to seeking and securing research funding. Staff are supported as they develop along this track by research mentors.

In this regard, the University has centrally funded engagement with colleagues from the University of Glasgow to work on the Knowledge Exchange Wales (KEW) project. This professional development project has supported knowledge exchange visits between the universities and their ITE partnership staff, to explore and develop the research engagement of ITE staff with the body of evidence about effective ITE provision internationally. This activity has underpinned the research-informed and newly accredited ITE programmes at the university, and the design of the professional mentor development programme for ITE partnership staff. The KEW funding also supported sessions that have been provided across the university in relation to impact planning and research strategy development. The partnerships formed as a result of the KEW and CAMAU project (section 4) have led to collaborative research activity, research mentoring and considerable research skill development for the education researchers, including the opportunity for collaborating staff to disseminate the research at key international fora including the British and the Australian Education Research Association conferences. The KEW project has recently come to an end (2019), however the outcomes of this investment in staff

research development will support the five-year plan (see above) and has already resulted in joint publications (SVH01, 02). The CAMAU project has high international relevance and at least five more publications are planned as a result of the project and the contribution this is making to international understanding of progression in learning across statutory schooling.

More generally, academic staff use a planning and workload management tool, which is negotiated and agreed with the line manager and is aligned to the Performance and Development Review Scheme (see REF5A). It acknowledges that the role of a full-time or part-time member of staff involves a range of activities, including study and development activity. The university provides financial support for conference attendance for professional learning and dissemination purposes, and for doctoral fees. There is recognised time allocated in the academic activity profile for research activity, and regular dedicated research development days in the annual calendar (at least three a year, consistently well attended by over 75% of the staff involved in CREP) at which staff can opt for workshops to support research skills. Other forms of support for staff engagement in research activity include financial support for research centres as a seed fund; promotion to Associate Professor for appropriate staff; and appointment of 9 Professors of Practice across the education-related disciplines to bring specific practice expertise together with our research staff. Fifteen staff are currently being supported to undertake doctoral level qualification, with three doctoral awards since 2018. Newly research active staff are also supported to publication (e.g. Hughes, MacDonald, Barnes). These professional development opportunities are equally available for all members of staff regardless of whether full-time, part time, fixed term or hourly paid members of the academic community.

## **Research students**

### **Programmes and recruitment.**

The institutes and their research centres have pursued a successful strategy in developing the postgraduate research environment and have established new profession-facing research programmes and in recruiting research students. Since 2014, 85 students have joined our programmes and 21 research degrees were awarded. Completers are increasing with 14 or 67% in AY19/20 and we expect this trend to continue in line with our growing recruitment profile since 2014. The University has validated new study programmes that help to maintain a strong recruitment of postgraduate students. These help students to access new support (from 2019) from the Welsh Government for Postgraduate Doctoral Loans. Among the newly validated Professional Doctorate Programmes a bilingual Professional Doctorate in Education (Ed D) was established at UWTSD with first entry in 2017-18; this programme is flourishing, with eight students having progressed to thesis stage in 2020-21, and recruitment of 15 into the first year. The development of Welsh medium education-facing research projects is especially valuable in a bilingual nation since the availability of relevant research through the medium of Welsh is currently very limited. A second programme, the Doctorate in Professional Practice (DProf) integrates part-time doctoral-level study with continuing professional development and is designed for senior professional to obtain a doctorate whilst maintaining professional commitments. Developed by Fillery-Travis in the Wales Academy for Professional Practice and Applied Research (WAPPAR) the programme is one of the few generic DProf programmes in existence worldwide and is uniquely placed to cater for a wide range of senior professional backgrounds and research topics. Since its launch in 2015 we have seen 29 students enrol, with 7 completers (6 in AY 19/20).

We also continue to offer traditional PhDs and this aspect of our provision continues to grow, with 40 students undertaking studies throughout the REF period, and 10 completers. A key priority in this regard has been to develop collaborative and funded projects with the third sector, which are aligned to our strong practice-facing research and knowledge exchange strategy. In this regard, we have awarded 5 Knowledge Economy Skills Scholarship (KESS) PhD scholarships with funding (£269k) from the European Social Fund, offering students full bursaries at UKRI rates, fee waiver, a £9k training allowance and access to collaborative training with other universities in Wales (Cardiff, Swansea, Bangor, Aberystwyth, South Wales and Cardiff Metropolitan). These are collaborative projects with students working with key partners in

physical literacy in WAHPL (Sports Wales, Football Association Wales), and Children's literacy and literature in CREP (Books Council Wales) and culture (National Eisteddfod). Two UWTSD bursaries have also been awarded, and further support is available for Welsh domiciled Prof Doc. candidates who are eligible to receive a fee-waiver bursary worth £7000. WAPHL have established a PhD scholarship (19/20) to fund a part time student. Further priorities in this regard are to secure further partnership funding from additional charitable / third sector sources, as well as from established funding sources such as UKRI (in particular ESRC) and Leverhulme. As Wales' access to EU structural funding ends, the unit will also look carefully at opportunities though the UK proposed shared prosperity fund, Welsh Government and any ongoing opportunities through Horizon Europe / Marie Skłodowska-Curie Actions to grow and support our postgraduate environment.

### **Supervision and Training.**

As noted in REF 5A, the University has an exceptional record in research supervision and training, as evidenced in the 2019 Postgraduate Research Experience Survey, ranking 17th overall (out of 103 institutions), with scores in the top 10% of institutions for supervision (1/103), research skills (6/103), professional development (8/103). Upon acceptance by the UWTSD PGR Applications Sub-Committee PGR students are enrolled within the relevant research centre, and all have access to university wide opportunities for training and researcher development (see REF5A), as well as to locally arranged programme specific provision. Students on the EdD and DProf programmes are required to undertake mandatory accredited research training in, for example, research methods, professional learning, research design and management in education and developing critical skills as leaders, while those on the PhD route are encouraged to establish personal development plans using Vitae's online RDF planning tool. To support this all PhD students are invited to attend the termly research days held within the institute at which staff and research students come together to share, critique and discuss their research. This is a supportive forum at which research students often rehearse their presentation skills prior to presentation for a wider audience.

The majority of the forthcoming RDP provision will be delivered online using expertise gained through Wales Academy for Professional Practice and Applied Research experience in developing communities of practice. This reflects strong student preference for remote opportunities, as well as the current experiences of online provision with COVID19, and a commitment to flexible provision in support of equality and diversity considerations. UWTSD has an effective student support system in place on every campus, which is equally available to research students. They are supported by the Learning Support Team within the Student Services which provides comprehensive support for students at all levels with specific learning difficulties including one-to-one support for disabled students.

All students are invited to present at the annual Summer Graduate School and the Postgraduate conferences which also offer the possibility for distance-learning students to present via online facilities. Students in education are encouraged to share their work at local, national and international fora, and EdD students take part in the university-wide NEXUS conference in July that brings together scholars from a multi-disciplinary perspective. This provides students with a valuable first opportunity to write and present a paper at an academic conference. International experts from Australia, Scotland, Wales and the USA have attended the university and provided a guest lecture to PGR students in the last few years. Some research students also have the opportunity to develop teaching skills and to gain teaching experience. The University runs a PG Cert in HE Teaching which is offered to research students on teaching contracts. PGR students, upon completion, are supported to draft a post-doctoral publication and research plan. The result is an impressive employability rate for our research graduates. For instance, two PhD graduates secured senior lectureship positions within a year of completion in 2018-19, another secured a prestigious post with the Children's Commissioner for Wales in 2019 as she completed her studies and another lectures across two institutions in Wales.

**Equality and diversity**

The Unit's approach to supporting and managing the well-being of staff is focused on prevention and early intervention strategies. The implementation of 'family friendly' and flexible working policies enables people to balance work and caring responsibilities, and the principles of equality and diversity are fully embedded across all employment related policies and processes. Flexible working arrangements, including working primarily from home (facilitated by VPN connection to the IT network) and job-sharing, have enabled colleagues with carer roles to adapt work patterns to diverse personal circumstances, thus ensuring retention of experienced staff. This flexibility has been essential to ensure continuity of research projects during the periods of national lockdown in 2020/21. The University offers all staff, regardless of mode of employment or FTE, the same support for research activities (e.g., grant application, training, conference support), time for which is considered in annually activity profiles.

In preparing its submission to UoA23, the University has complied with the processes detailed in the REF Code of practice, in order to ensure that equality and diversity responsibilities are fully considered. This has included regular reporting through the University's governance process, a University wide process in activity profiling, a full staff briefing programme, ongoing opportunity to declare personal circumstances, an appeals process and data analysis to undertake equality impact assessments. The assessments confirm that UoA23 has a significantly higher proportion of female academics (81%) in a general context of the entire cohort of submitting academics where 58% are female and 42% are male. The selection of outputs is consistent with this distribution (22% male, 78% female). There is no evidence of discrimination between any age group with a near even distribution of staff between 35-44 (40%), 45-54 (31%) and 55 -64 (43%). Given staff tend to enter research careers in the area from a background in the teaching professions, an absence of ECR staff below 35 is not unexpected, although ongoing recruitment practices will seek to support ECRs in this age group. No staff are from BAME backgrounds, which is nearly consistent with the University's entire submitted cohort, in which 89% of all submitting academics have declared their ethnicity as White. Within the new Strategic Equality Plan the University will consider appropriate actions to increase the diversity of its workforce and this will include a review of recruitment and selection policy, process and practices.

**3. Income, infrastructure and facilities****Income (Research and Knowledge Exchange)**

In line with the University's strategy (see REF5A) the centres place equal emphasis on research and impact. A key focus of activity in the assessment period has been to support and develop the research base in order to build partnerships with academic colleagues in other institutions, locally, nationally and internationally through research funders such as Welsh Government and Qualifications Wales (£979k), Horizon 2020 (£340k), Foundations, Charities and Trusts (£69k) and consultancy (£210k). Welsh Government, Local Authority and Regional Consortia funding is strategically targeted for research and knowledge exchange activity within the school-sector facing education research unit. We have been successful in drawing down £1.6m in funding projects since 2014 from these funding sources, each of which has had some impact on this practice community. For example, Welsh Government projects (18 in total, £923k) include research on the impact of COVID 19 on ITE Provision (PI Waters, £45k), the National Professional Enquiry Project (PI Evans, £308k), five Rapid Review projects (PI Evans, £28k) and WAHPL's grants to research and develop work regionally to support physical literacy in schools through the Successful Kinaesthetic Instruction for Pre Schoolers in Wales (SKIP-Cymru) project (Wainwright, Williams £510k, See REF3). Other client facing research included three Educational Regional Learning (ERW) consortium projects on research leadership, rural advantage, and place-based education (PI Waters £39K) and multiple contracts with local authorities and third sector bodies in Wales (£122k). Internationally, funding from Horizon 2020 has been secured by WAPPAR in the area of developing communities of practice for the Food Nutrition Security Cloud project (PI Fillery-Travis £340k) while research awards for ICCED include work on embedding entrepreneurship education in national curricular in the Balkans through the South East European Centre for Entrepreneurial Learning (PI Penaluna, £5K) and the Ministry of Education & Science, North Macedonia (PI Penaluna, £29.5k).



A key strategic priority for developing research impact has also been to develop funded collaborative research and knowledge transfer opportunities with industry, the public sector and communities. A total of £2.67m in funding has been secured, including £680k from EU programmes (Erasmus +, Creative Europe, Rural Development Programme), £1.2m from Arts Council Wales, £199k from the British Council, Welsh Government and the funding council, and £478k from consultancy and commercial contacts. A key strand in this regard is though building strategic alliances for the exchange of good practices with educators across Europe, which has been supported through a large scale Erasmus + Key Action 3 Policy Experimentation Project *EntreComp for Teachers* (Penaluna £77K) led by IICED, which is working to develop and evaluate teacher training and CPD aligned to the EU's EntreComp Framework across more than 20 countries (see REF3). This builds on IICED's previous work on Erasmus + Key Action 2 Strategic Partnerships through the *ECO-SystemApp*, (Penaluna £38.2K, also led by IICED) and *Practical Entrepreneurial Assessment Tool for Europe* (Penaluna £11k). Other strategic partnerships in CREP include *Think Global* (Southern, £15.2k), *Sustainable Development Goals for Universities* (Hopwood £29.2k) *Pushing Educational Equity Forward* (Stewart £14k) and *Culture of Learning* (Edwards £35k), each with partners across Europe including France, Belgium, Italy, Spain, Portugal Finland, Sweden, Iceland, North Macedonia, Slovakia, Croatia, Romania and Bulgaria). Edwards is similarly working with the British Council's Global Leadership Programme (£19K) supporting international development of education, while Jones has successfully secured funding (£124k), from the EU's Creative Europe programme for two international literature projects, *Literary Europe Live + and Ulysses Shelter*. These have additional co-financing from the Arts Council Wales (£124k). The large Arts Council Wales project, based in CREP, *Creative Learning through the Arts – an action plan for Wales; regional arts network* (NAWR!, Waters £1.2m) worked on behalf of Welsh Government to implement the recommendations of Professor Dai Smith's report on the review of Arts in Education in the Schools of Wales (2013), as well as the objectives of the Welsh Government's Qualified for Life: an education improvement plan for 3 to 19-year olds in Wales which reassert the value of the arts, and creative approaches to teaching and learning. These are likewise core themes in the *Innovation in Digital Heritage Interpretation*, *Yr Egin Engagement* and *Troy Boys* projects (£490k).

A further £3.05m has been secured for research informed continuing professional development programmes. Projects in the area of Work Based learning, run by WAPPAR include *Safe Workplaces Sustainable Workplaces* and *Elevate* (European Social Fund, £360k), and £392k in CPD fees from industry, third and public sector organisations. WAHPL has likewise conducted over 34 programmes based on implementing the SKIP programme, along with other aspects of physical literacy with a contract value of £108k (See REF3). Canolfan Peniarth has secured more than £475K in Welsh Government tenders to develop Welsh Medium learning resources, with a further £1.49m in Welsh Medium CPD run through *Cynllun Sabothol*, and *Gofal Cymdeithasol Cymru*, the Welsh Language Commission and the Educational Regional Learning consortium. School based CPD work in CREP has attracted a further £222k. The key targets for each research centre, over the next five years, are to increase income through research funding from trusts, charities and foundations, Welsh Government, and UKRI sources; to consolidate and grow research collaborations; and further develop contract and consultancy research opportunities.

### **Organisational, operational and scholarly infrastructure**

The submitting unit has increased its research infrastructure during the assessment period by arranging its research activities around research centres and academies. CREP was formed in 2016 to coalesce the research areas into the Institute's strategic plans for research, while CEPRA was established in 2017, encompassing the work of the former centre for Wales Centre for Equity in Education following the appointment of Evans (and departure of Egan). This now provides a wider policy related focus. IICED was established in partnership with 32 country experts plus representatives from the UN, EU and the Commonwealth on 25<sup>th</sup> June 2014, to provide an international focal point bringing together international experts in entrepreneurial education to engage in high-level discussions and to consider global perspectives that can impact, or have impacted, on policy-making. The Wales Academy for Professional Practice and

Applied Research (WAPPAR) was established in 2019 following the appointment of Fillery-Travis who leads on research in coaching and mentoring. This took over the work of the former Wales Institute of Work Based Learning (on former Director Wilson's retirement), to establish a greater emphasis on doctoral level provision through the Doctorate in Professional Practice. The Wales Academy for Health and Physical Literacy (WAHPL) was formerly established as the Wales Institute for Physical Literacy in the previous REF cycle, and relaunched as the Academy in 2019. Significant investment has been made in Cynefin – the UWTSD Centre for Outdoor Adventure Education, and in equipment in the high performance laboratory, sports therapy laboratory, nutrition laboratory and physical literacy studio, each of which supports the development of research in pedagogical models and physical literacy.

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

##### Partnerships

The CAMAU project was a collaboration between UWTSD and University of Glasgow, grant funded in part by Welsh Government (£200k) and in part by UWTSD (£300k). This project represents some of the significant investment by the University in the development of research capability. The project ran between February 2017 and December 2019, and typifies the University's approach to partnerships, impact and collaboration. It was designed to support the Welsh education system in the implementation of Donaldson Review (2015), and the recommendations in the Welsh Government's national strategy (*A curriculum for Wales* 2015). The CAMAU team worked with a national network of 64 Pioneer Schools, researchers and policy makers to use empirical research evidence to describe learner progression in the new curriculum. The applied research activity, and associated reports, have had direct impact on the articulation of progression for learners aged 3 to 16 in the Curriculum for Wales.

Staff working in CREP have been involved in several prominent European funded Erasmus+ projects, funded under Key Action 2 (Strategic Partnerships for School Education) and Key Action 3 (Support for Policy Reform). For example, *EntreComp for Teachers* (2017-2020) (Penaluna, Barnes) worked with colleagues at the Lappeenranta University of Technology (Finland), University in Skopje (North Macedonia), Chalmers University of Technology (Sweden), Vrije Universiteit Brussel (Belgium), Belgium school networks (Go!), educational consultants and business incubators in Spain and Italy to design and pilot a professional learning framework to develop entrepreneurial education pedagogical skills in teachers under the EU's Entrepreneurship Competence Framework (EntreComp). The Erasmus+ *Think Global!* (2019-2021) (Southern) project likewise brings together seven organisations, including schools, local authorities and universities, from Catalonia, Belgium, and Wales to explore pedagogies and develop classroom activities to support the skills, knowledge and dispositions inherent in the PISA Global Competence framework. The *Sustainable Development Goals for Universities project* (Hopwood) is working with two French and one Spanish university and the Welsh Centre for International Affairs to implement a capacity building strategy to help universities to translate the SDGs challenges into local strategies, and to promote new skills for students who are willing to tackle these challenges. The *Culture of Learning* project (Stewart) brought together universities, schools and local authorities in Wales, Poland and Latvia to develop a framework and interventions to strengthening the quality of leadership, pedagogy, communities and policy in school education. International collaboration is reflected in the ongoing production of international texts using local empirical work such as Dr Southern's inclusion in the critical review of 'teach for all' programmes; Dr Waters' lead editorial role in the international special issue of *Professional Development in Education* (early years), 2017, and an ongoing project developing an international text focussed on empirically founded outdoor pedagogy in the early years generated from an international special interest group (SIG). Such collaborations present opportunities for future research and funding bids and are wholeheartedly supported by the university.

**Impacts and relationships with key research users, beneficiaries and audiences**

All research active staff contribute to practice-facing networks through advisory roles and as steering group members, e.g. nine staff are members of Welsh Government expert panels. The research and knowledge transfer activity in each research centre is practice-focussed, applied in nature, and designed to inform professional practice. Collectively the Centres work with a very wide range of research users, collaborators and audiences to generate research impacts. Examples include: Professor Mererid Hopwood leads research into Welsh language and culture through creative expression in poetry, libretto and the spoken word, disseminated across the country in Eisteddfodau, literary festivals, cultural events and via academic language conferences. *Hwn yw Fy Mrawd* (MH05) and *Cantata Memoria* (MH06) were both commissioned by S4C (Welsh language national broadcaster) with premiers in the Wales Millennium Centre, Cardiff. The latter was recorded and distributed by Deutsche Grammophon. The work has been awarded national prizes every year from 2015 – 2020. Hopwood has been heavily involved with advisory activity supporting the bilingual development of the new Curriculum for Wales. Prof. Elin Haf Gruffydd Jones has secured funding from the EU's Creative Europe Programme, and Arts Council Wales through the *Literary Europe Live+* project to bring together a range of European partners, literary festivals and venues from around Europe to encourage programming that reflects the richness and diversity of the European literary landscape. Grounded in the Literature Across Frontiers platform, partnerships include a network of key national institutions and organisations engaged in the international promotion of literature, books and translation.

Dr Waters and MacDonald undertook research with Early Years advisory staff in Swansea local authority to explore gaps in provision for vulnerable children. This work led to strategic changes in professional learning provision as well as pedagogic changes for all the children attending Flying Start centres. Shared at one of the biennial early years research/practice conferences hosted by the university, this became part of a BERA symposium series cross the four nations (October 2019) and involved further research into the tensions within the new curriculum for Wales for ECEC provision; outcomes due to be published as a BERA research report in 2021. Dr Waters presented an international keynote for the Early Childhood Development Agency in Singapore in 2019 as a result of this work. MacDonald's work on attachment with colleagues in the University's Psychological Evaluation and Research Consultancy Hub (submitted to UoA04), engaged with Carmarthenshire local authority and led to changes in the authority's strategic planning, training priorities as well as practice.

The *Enabling Children's Rights project*, a collaboration with the Children's Commissioner for Wales and the governments of Wales and Jersey provided evaluation of programmes designed to support practitioners to enact the United Nations Convention on the Rights of the Child (UNCRC). The research outcomes (e.g. Welton, Lohmann-Hancock) have informed practice in developing the skills, knowledge and understanding required for all duty bearers of the UNCRC within Wales and the State of Jersey. In similar fashion, training and evaluation programmes have been undertaken with the Hafan Cymru Spectrum Project (2014-19, Lohman-Hancock) leading to collaborations with Dyfed Powys Police Commissioners and Hywel Dda Health Board impacting upon provision for domestic abuse and positive relationship development work. The Erasmus + project, *Pushing Educational Equity Forward* (section 3), likewise led to the development of a framework and programme to assess and build equity in schools (Welton).

CEPRA works closely with a range of research users and regularly provides commissioned research, for example, for the National Academy for Educational Leadership and Welsh Government. Research reports by Evans contributed to the strategic context of professional learning in Wales. The work of the centre directly supports the five-year education strategy 'Education in Wales: Our National Mission', not least through the provision of the National Professional Enquiry Project (NPEP), working with over 100 'Pioneer Schools' in Wales, to develop a culture of enquiry in the nation's education system. CEPRA leads the Global Leadership Programme in Wales, in collaboration with British Council Wales, bringing together international education leaders and government advisors across Wales, Canada and the Netherlands to inform the ongoing education reforms in Wales.

Research and knowledge transfer activity in IICED (as reported in REF3) has included collaborations with UK Quality Assurance Agency (QAA), AdvanceHE, European Commission, World Bank, United Nations, Organisation for Economic Co-operation and Development (OECD), UK Government (BIS / BEIS) and Welsh Government (Education and Skills Department). For example, IICED research led the development of new Welsh Curriculum's 'Skills Integral to the Four Purposes', IICED staff chaired the QAA Enterprise and Entrepreneurship Group, and led Innovation and Enterprise education curriculum development in 8 Balkan countries. IICED also led the development of three sections of the 15 section European Framework 'EntreComp'.

WAHPL have developed strong collaborative working relationship with schools and pre-school settings in the region, working closely with early years support teams and sports development teams, community clubs and organisations as detailed in REF3 (Skip Cymru). Collaborative research (including funded PhD scholarships) is undertaken with national bodies such as Sports Wales, and Football Association Wales, while work on diet and nutrition has been conducted at an international level with the Active Healthy Kids Global Alliance (Williams, S. co-founder of the Welsh Score Card), and locally with local authorities. The latter for example, in collaboration with Ceredigion County Council through the EU LEADER Cynnal y Cardi programme, worked with parents on the Jig-So project to participate in cooking activities which broaden understanding of nutrition, budgeting and preparing healthy food for families. Dr Wainwright has also researched the health impacts of the Daily Mile initiative, considering the health outcomes of children living in areas of socioeconomic disadvantage.

#### **Responsiveness to national and international priorities and initiatives**

The work of CREP, CEPRA and WAHPL respond directly to the priorities set out in the Welsh Government's National Mission and the Wellbeing and Future Generations Act. Dr Waters sits on the advisory group for the development of the Wales' National Strategy for Education Research and Enquiry, and the university is one of those that is pro-actively involved in a collaborative fast-track grant award process that allows Welsh Government to seek empirical evidence through research undertaken by the HEI sector. The £45K awards made in 2020 to explore the impact of Covid-19 on learning are an example. International recognition for WAHPL's work led to inclusion in collaborative research grant applications including the \$500k Duke Endowment Foundation project SKIPPING with PALS (an integrative gross motor and physical activity intervention for parents and their preschool-aged children from rural, low SES settings).

#### **Contributions to the disciplines**

Staff from across these research centres engage in and contribute to the wider research community as active members of recognised academic associations, for example, Dr Waters is co-convenor of the European Early Childhood Education Research Association Outdoor Play and Learning Special Interest Group. All submitted staff are reviewers for a wide range of national and international academic journals including e.g. British Education Research Journal, European Early Childhood Education Research Journal; Journal of Adventure Education & Outdoor Learning; Professional Development in Education Journal; International Journal of Education and Literacy Studies; Youth and Society; Journal Social Studies Research. Dr Waters was guest editor for International Professional Development Association Journal Special issue in Early Years; she sits on the editorial board for the Wales Journal of Education. Dr Fillery-Travers' work developing the pedagogy of the professional doctorate led to her editing a special edition of the journal Studies in Higher Education (see AFT06).

Dr Southern was appointed Film Education Expert, Education, Audiovisual and Culture Executive Agency (EACEA), for the European Commission 2016-7; Archive Film Education Consultant for National Screen and Sound Archive Wales 2015-8. She has also served on the Advisory Committee of a Heritage Lottery Fund 2014-5. Professor Elin Haf Gruffydd Jones was appointed in 2017 member of the Council of Europe's expert group on Media for the European Charter for Regional or Minority Languages and is a member of the Board of the National Eisteddfod of Wales. Dr Wainwright is Member of Canada sport for Life research team, and



external expert on Australian Sports Commission physical literacy project. Professor Hopwood was awarded six national prizes in the census period, including the National Eisteddfod Prose Medal, 2019, and Chair, 2015; and Tir na n-Og Children's Writing Prize, 2018.

Eight staff have been invited to offer keynotes at national at international research conferences, Professor Hopwood, Professor Penaluna, Dr Wainright and Dr Waters on multiple occasions. Evans is regularly a panel member on various policy fora. Staff from within the unit are regularly called upon to undertake PhD examination across the UK, across the fields of, for example, Welsh language (Jones, 3; Hopwood 2), language planning (Lewis, 1), early education (Waters, 11), entrepreneurship education (Penaluna 17).