**SAPs Scheme 2022-23 Projects**

The following projects are alphabetised by title. Although other staff members may be involved in the projects, only the names of the project leads are included for brevity. Please contact the project lead for further information about each project.

**Ability House Case Study Project** **– Project lead: Dr Sophie Knight,** **School of Allied Health & Community**

This project focuses on developing case studies for use within Ability House (AH) that reflect occupational therapy (OT) students' experience in community practice. Also development of related online resources both for student learning (MSc and BSc OT) and for course applicants. This project develops AH as a sustainable learning environment for future generations of OT students.

AH is an incredible resource but as student numbers increased its usability (in original layout) decreased. Students investigated what did or did not work for learning in AH and recommendations were implemented. Two more students are developing case studies based within the home environment of AH as part of a 10-week placement. These case studies will enable students at different levels of learning to consider the person, the environment in which they are living (AH ‘staged’ representing the individual’s home) and their occupations. Whilst student development so far of AH has been from a ‘hands on’ perspective there is also significant scope to develop digital resources for use by current students and course applicants. Use of branched story-telling and similar online activities could develop people’s understanding of the profession and engage people with the university.

OT students will be interested in this project however there is scope for other health and social care courses to find this a valuable teaching and learning environment. There has been significant shift to providing healthcare at home, with social care already embedded within community settings. Therefore, having opportunities to learn within a home environment is applicable to all health and social care courses.

This project has many aspects relating to the Teaching and Learning Excellence strategy. Partnership working with students, continued development of learning opportunities that challenge and inspire. Providing safe spaces for simulated learning, promoting personal and professional resilience and students’ development as members of the profession. Equality, diversity and inclusion are central to case studies and AH will provide a dynamic and supportive learning environment.

The project is important as it enables students to develop learning through case studies, additional to lectures, practical sessions and work placements; “….courses with multiple means of representation, expression and engagement… students will engage and …develop their skills as reflective, self‐directed, self‐regulating and… self‐determined learners….” (De George Walker & Keeffe 2010). Students engaging in experiential learning bring this to lectures, enabling them to advance learning in class “… focusing on application, analysis, synthesis, and/or evaluation (the higher forms of cognitive work) in class…” (Chen et al. 2017, Grant et al. 2021). Simulation as a valuable learning opportunity for health and social care students has been explored in research (Grant et al 2021).

Staff roles will involve guiding and overseeing case study development and providing opportunities to ‘test’ new resources with current students and applicants. Students’ roles within the project will involve continuing to develop case studies using a similar format to those already created and then developing these into online resources aimed at engaging applicants and students at different stages of learning. Timescales: to be able to use digital case studies by early spring next year for recruitment and at a similar time to have a minimum of 6 case studies to be used practically by students in AH.

**Baby Friendly Student Lead (BFSL)** – **Project lead: Sophie Layfield,** **Three Counties School of Nursing & Midwifery**

The midwifery course was accredited with UNICEF/Baby Friendly in 2019 and is due reassessment in 2023/24. As part of this reassessment the Baby Friendly lecturer lead (BFLL) will be preparing to apply for gold accreditation which is a process to ensure that the standards are sustainable over time and that as a university, we support breastfeeding mothers. This process involves a university wide approach to embedding UNICEF/Baby Friendly standards; ensuring breastfeeding mothers (students, staff and visitors) are given supportive environments to feed and be close to their babies, ensuring we comply with the International Code of Marketing of Breastmilk Substitutes and being involved with raising awareness of infant feeding national campaigns and events, moving towards a baby friendly approach to university education, in line with our competitors. The Baby Friendly student lead (BFSL) will have an active role in supporting the BFLL in moving towards gold accreditation, as well as providing ideas and input into curriculums within the School of Nursing and Midwifery and other programmes which are required to embed baby friendly standards. The student will lead on awareness campaigns and events such as national breastfeeding week, with support of the BFLL. The BFLL is currently in the process of setting up student-ran infant feeding clinics/cafes which will be open to the wider local community. The student will work closely with this Green Impact Project lead for the infant feeding clinics. The student will attend regular meetings with the Baby Friendly senior team and feedback to students through appropriate channels. In terms of the graduate attributes, I believe this role fulfils all aspects including social responsibility as this role will develop students into being globally socially responsible, culturally aware and the role naturally supports the understanding of ethical decision-making. The student will also become reflective, of their own knowledge and those around them, developing intellectual curiosity and developing passion and enthusiasm for lifelong learning. The student will also develop problem-solving skills through the various challenges which arise from embedding university-wide cultural shifts and changes to working. The student will develop excellent teamwork and communication skills by working with senior members within the department of midwifery and the School, such as the Head of Department, as well as communicate that information back to the student body. The student will also develop digital capabilities as they will be involved with social media platforms and will be involved with developing online resources for student education within the curriculum. The project also reflects the learning and teaching strategies as students will view the midwifery curriculum as inspiring and forward-thinking, lecturers and students working in partnership to create a sustainable curriculum. Even though the midwifery curriculum embeds Baby Friendly standards the teaching can develop further to enhance personal and professional development and develop wider community engagement such as the infant feeding clinics and this role can support that movement. This project can lead to further opportunities such as research and poster submissions at the UNICEF UK Baby Friendly conference.

**Co-authoring simulation case studies and resources with student-nurses - Project lead: Kirsty Wedgbury, Three Counties School of Nursing & Midwifery**

Simulation is intended to build students confidence aptitude, skill and experience in order to further develop their problem-solving and clinical judgement. It is the aim to develop safe and competent clinical practice by exploring and experimenting with deliberate practice, conscious decision making and focused feedback and reflection (Schon, 1987, Lasater, 2007a, Sunderland et al 2017).

The Simulation and Skills Team lead the practice modules across the BSc Nursing Programme. With the new practice modules there is an opportunity to further develop and refine the simulation provision in the semester 2 modules.

Currently module teams write and resource simulations, however if simulations are to be reflective of current, local healthcare needs and placement learning opportunities students should be involved in writing and resourcing simulations based on their clinical experiences.

Students would be in mixed year groups but within their fields of practice, these groups will be facilitated by Simulation and Skills Team staff. The SCIP model of coaching would be used to ensure that students are appropriately supported and ensure that the case-study and resource co-authoring will also be a learning opportunity in and of itself and fit for purpose in simulation sessions.

The aim of this project would be to produce relevant simulation case studies that are reflective of our local populations healthcare needs, across a variety of settings including community, acute and specialist settings.  These will then be used in the practice modules within semester 2 of the nursing programme.

In co-authoring case studies and resources students will be given the opportunity to explore and reflect upon their own placement experiences and make sense of a variety of different scenarios. This will enable 'our students to ‘find their voice’ through engagement with the broad range of learning opportunities in subject disciplines, professional training and skills-based learning' (University of Worcester, 2020, p. 5). This will encourage the further development of the five graduate attributes, social responsibility, reflective and resilient life-long learners, problem-solving, teamwork and effective communication and digital citizenship (University of Worcester, 2021, p.1).

Dissemination will be via the simulation sessions that are generated, the UoW Learning & Teaching Conference and potentially national learning & teaching conferences as appropriate.

**Embedding Education for Sustainable Development (ESD) in the curriculum** **– Project lead: Heather Barrett,** **School of Science & the Environment**

Rationale:

In March 2021, QAA and Advance HE launched revised guidance intended to help UK higher education institutions incorporate ESD within their curricula, reflecting recent developments in understanding about the global challenges facing the world and the role of education in addressing these.  National surveys undertaken by HEA/NUS (now SOS-UK) indicate student demand for engagement with ESD on their courses has been increasing.

The goal to develop socially responsible and sustainability literate graduates ready to face the environmental, social and economic challenges of the 21st century has been incorporated into the University’s Learning and Teaching Strategy and Principles and Guidance for Undergraduate Course Design for a number of years.  The University’s Learning and Teaching Strategy 2020 – 2025 has ‘Education for Sustainable Futures’ and one of its five areas of focus and impact and ‘Social Responsibility’ is one of the five Graduate Attributes to be embedded in all university courses and curricula, which reaffirms the University’s commitment to embedding ESD.

However, whilst there is a clear institutional steer to embed ESD, feedback from students and staff at UW indicates that students do not clearly recognise ESD within their curricula and are unclear on how they are developing, and can articulate, their ESD knowledge and competencies.  Equally, staff indicate that they would welcome more examples and guidance in embedding ESD knowledge and competencies into their courses in a way that is meaningful to students.  

Project focus:

The aim of the project is to examine how courses are currently engaging with ESD within their curricula and to evaluate students’ current awareness, understanding and experience of ESD on their courses and the impact that this has had on their learning and their future aspirations.   
   
Project roles and methodology:

Students will play an active role in the project.  They will undertake an audit of the programme specifications and short module descriptors for a selection of courses across the University to map evidence of engagement with ESD knowledge and competencies.  The students will also help design and then administer a questionnaire survey of students at different levels on the selected courses to assess their understanding and experience of ESD on their course. They will also be responsible for data analysis, the report writing and the presentation of findings to the UW Learning and Teaching Conference. The role of Dr Barrett will be to oversee the project, providing guidance on the development of the project methodologies and training in ESD curriculum mapping, the analysis of data collected and the writing up of the report.    
   
Expected outputs and monitoring and evaluation:

Dissemination of project outcomes will be at the UW Learning and Teaching Conference 2023, and via other internal and external avenues.  In particular a report of the findings will be posted on www.susthingsout.com, the University’s own sustainability website.  Additionally, we hold Responsible Futures (RF) accreditation and will report on this work through meetings and events in order to demonstrate our RF actions.

Currently the University’s work on ESD is monitored and evaluated through a number of channels, including annual evaluation and audit of ESD targets within the UW Sustainability Strategy, the UW LTQE Action Plan and the Responsible Futures Audit Action Plan.  Outputs from this project will feed into those evaluation channels to demonstrate impact and also will hopefully provide new resources to support embedding ESD across the University.

**Employability Adventures: A Student Anthology – Project lead: Dr Louise Martin, School of Sport & Exercise Science**

Graduate employment is a key marker of student success and a metric in University rankings. Therefore, it potentially influences student choice of university and courses to study. A primary initiative in the redesign and revalidation of the BSc Sport & Exercise Science course in 2018 was the development of an employability and professional skills strand. This was in response to the findings of a nationwide consultancy project with SES employers which highlighted that many graduates were not sufficiently prepared for the curriculum and there was more to be done by universities (Pringle, 2018). Employability modules are often rated lowest by students due to their lack of authenticity (Waltz, no date). Discussion and simulation of professional and industry skills within a classroom is too far removed from the workplace for students to recognise their value and importance for the future. Indeed, student evaluations on these modules would confirm this and contrasts with the work-based learning (placement) where students learn in the workplace and at a timepoint nearing the completion of their course.

Kornelakis and Petrakaki (2020) offer examples of small-group teaching activities that can be used for embedding the development of employability skills. These include student presentations, problem-solving case studies, debates and role play which feature in our modules, but students report they do not see the relevance. The most impactful sessions are where former students from the SES course share their early career journeys with current student offering a current insight and top tips for gaining employment. This study proposes to use the ‘student voice’ by adopting a narrative methodology to enable current and former students to tell their employment story in their own words. It is anticipated that the development of an anthology of lived experiences will be stimulating and inspiring for undergraduate and prospective students in sport and exercise science.

Four to six recent graduates from Sport & exercise Science will be invited to participate in the project by telling their personal journey to graduate employment. Stories will be translated in various creative media (video, animation, cartoon strip, prose etc) to stimulate awareness, discussion and evaluation of employment and employability.

The project will be disseminated at the University Learning & Teaching Conference, the BASES professional magazine and other appropriate outputs. 

**Enhancing Education for Sustainable Futures: Creating a Responsible Business Treasure Hunt - Project lead: Dr Kay Emblen-Perry, Worcester Business School**

This project, embedded in UW L&T Strategy’s area of focus, Education for Sustainable Futures (EfSF), will develop a Responsible Business Treasure Hunt for BMGT2223 (Responsible Business). This self-guided campus trail, which can be undertaken individually or in a group, takes students to examples of UW's environmental and social business practices. Students then collect evidence (e.g., performance ratings, photos, etc) and decide if the business practice is responsible and sustainable or not, and why. It provides a mini fieldtrip in a relevant learning environment that promotes knowledge and knowledge retention. Returning to the classroom, students will research the impacts and implications of what they saw during the Responsible Business Treasure Hunt, how these business practices contribute to the Sustainable Development Goal(s) and propose improvements. This will immerse students in real-world responsible and sustainable business practices in a fun activity that also offers them training for their assessed sustainability audit (Assignment 1).

The Responsible Business Treasure Hunt will contribute to UW and WBS priorities; L&T and RKE excellence and the Graduate Attributes (GA) of Social Responsibility (GA1), Digital Citizenship (GA3), Problem Solving (GA4), and Teamwork and Effective Communication (GA5) by providing:

• EfSF, which is central to WBS’ PRME accreditation and an area of focus and impact in UW's L&T Strategy.   
• Student-centred active, experiential, real-world problem-based learning to promote sustainability knowledge, critical analysis, employment skills, and personal values that universities must deliver for graduates’ work-readiness.    
• Opportunities to further develop EfSF pedagogic research, which aligns to RKE Area of Challenge: Sustainable Futures. Project dissemination:     
     o Student-led project blog.   
     o Presentation to the 2023 UW Learning and Teaching Conference.   
     o Conference presentation - World Symposium on Sustainable Development (2024).    
     o Research and professional journal articles.

The Responsible Business Treasure Hunt provides a teaching tool that offers active, multidimensional learning required for EfSF and skills required for successful assessed audit outcomes and GAs. It is transferrable to other WBS subjects, used for EfSF within other Schools and shared with wider HE communities. It could also be developed as an app, a sustainability training tool for partner organisations (e.g., SMEs) or a community learning tool (e.g., town trail).  

**Enhancing skills and simulation provision for mental health and foundation degree student nurses** **– Project lead: Helen Ford,** **Three Counties School of Nursing & Midwifery**

Fifty percent of mental health nursing students’ course is in clinical placement, including in skills and simulation modules delivered at the University. Module evaluation highlights that mental health nurses and mental health- based nursing associates would like skills and simulation to be tailored more to their learning needs. The curricula for skills delivery are defined by the NMC (2018a, b) Future Nurse Standards. These standards have been criticised by mental health professionals for being too generic and adult nursing focussed (eg Connell et al., 2022). Also, staff within the pre- registration nursing team are predominantly adult nurses. These factors may have led to the student evaluation responses.

This project aims to talk to stakeholders in mental health nursing to identify the skills that student mental health nurses need by the end of each year of their course. Stakeholders include fellow nursing students on mental health pathways, clinical assessors and supervisors, lecturing staff, service users via IMPACT. This will inform skills and simulation teaching and support practice learning. The outcomes will primarily be of interest to the skills team, student mental health nurses, trainee nurse associates, and placements as future employers.

Two to four mental health students/mental health specific trainee nurse associates will work alongside the project leads to plan and carry out the project. The expected outcome of the project will be a report (produced in any suitable format) that outlines what skills student mental health nurses/ trainee nurse associates need in each year of their programme. Student mental health nurses/mental health specific trainee nurse associates are ideally placed to carry out this project as they have insight into the experiences they need in order to become registered nurses/nurse associates.

Students will develop:    
• skills of problem- solving as they will have to devise a suitable methodology for data collection and dissemination    
• team-working skills as they will have to work alongside academic staff to develop the data collection   
• negotiation skills as they access (via existing networks) participants to inform their curriculum.

The project will run over six months, finishing at the end of May 2023. The project will be disseminated to the Learning and Teaching conference. Results will be used to inform the skills curriculum for 2023- 2024, be used in any forthcoming course reapproval events. The report will be shared with all stakeholders plus course leads and senior management of the school.

**Hearing student nurses, midwives and nursing associates experience of placement allocation processes** **- Project lead: Jenny Pinfield,** **Three Counties School of Nursing & Midwifery**

Student nurses, midwives and nursing associates spend 50% of their education programme in practice settings. Students are allocated to up to 6 placements across their education experience to meet the requirements for eligibility to register with the Nursing and Midwifery Council. The NSS 2022 identified that students were satisfied that their placements were valuable in helping their learning (91.3% adult nursing; 100% mental health nursing; 100% midwifery) and that their placements have helped them to develop their skills in relation to their course (95.65% adult nursing; 100% mental health nursing; 100% midwifery). However, in relation to receiving sufficient support and advice about the organisation of their placements, students were much less satisfied (39.13% adult nursing; 53.85% mental health nursing; 66.67% midwifery). The aim of this project is to explore with student nurses, midwives and nursing associates their experiences of the process of placement allocation and how this is communicated.  The project aims to:

1. To understand nursing, midwifery and nursing associate students’ experiences of placement allocation, communication and processes.

2. To identify strategies in which these can be enhanced to improve the students’ learning experience.

The project will recruit 3 students.

Focus groups will explore students’ perceptions. There will be one focus group for each of nursing, midwifery and nursing associates, with each focus group recruiting students from each year of study. Focus groups will be facilitated by a student and academic. The student partners and academics will explore the data and identify themes, which will then be analysed to recognise strategies which may inform a review of the placement allocation process. In turn, this will add to wider work the school is completing to improve student experience, resilience and retention.

The findings of this project will be shared with the nursing, midwifery and nursing cohorts, and form the basis of wider discussions through SSLCs. Where ‘quick fix’ strategies are identified, these will be shared as ‘you said, we did.’

A report of the findings will be shared with the course teams, the school’s senior management team and the head of placement support. The findings will be presented at UW learning and teaching conference in June 2023.  

**Measures in Personal Academic Tutorial Systems Across the University of Worcester which Help Students Progress into Employment and Postgraduate Study** – **Project lead: Amy Cherry,** **School of Science & the Environment**

One of the four criteria being used for the TEF 2023 assessment is student outcomes. This will be partially judged by the Graduate Outcomes (GO) survey in which further study and highly-skilled employment, including managerial or professional employment, are deemed as positive outcomes. Whilst some courses in the University are highly vocational and therefore produce a high proportion of graduates who enter professional employment, outcomes from more academic courses may vary greatly. The Graduate Outcomes data from 2018/19 shows that 50% of Psychology graduates, 54% of Humanities graduates and 61% of Biological Sciences graduates were in full-time employment 15 months after course completion, with 20%, 21% and 26% respectively in further study.  39% of graduates from Single Honours Psychology, 45% of graduates from Single Honours Humanities courses and 61% of graduates from Single Honours Biological Science courses were in high-skilled occupations. The 2022 NSS results indicated that statement B15.2 “My institution offered activities and resources designed to prepare me for the next step in my career” is a weak area in the Schools of Psychology, Humanities and Science and the Environment, with relatively low proportions of students agreeing with the statement; Biosciences (73.33%) Psychology (53.85%) English (72.02%) Media and Journalism (48.66%) History and Archaeology (69.7%)   
  One of the purposes of the Personal Academic Tutor (PAT) System outlined in the University of Worcester PAT Policy is to “support students in academic, professional and career-related planning and development”. The proposed research will investigate the PAT systems used in the Schools of Psychology, Humanities and Science and the Environment and how they prepare students for employment or postgraduate education. The research will be led by Amy Cherry (Senior Lecturer in Biochemistry), Sharon Young (Senior Lecturer in English Literature) and Sarah Lloyd (Lecturer in Psychology) who are all members of the PATs forum which exchanges ideas about good practice. The research will be carried out by three students, one from each of the academic Schools taking part. Initially, student researchers will gather information from academic staff from their own School on how the PAT system is run and what elements are present to help with career-related planning. There may be multiple systems within each school and hence researchers may need to investigate multiple courses. This initial stage will run in December and January. Based on the information gathered, in February, the researchers will design a survey for students to find out how helpful the tutorial activities are and whether they would like additional career-planning guidance. The surveys will be disseminated in March and data collated and processed in April.    
  The outcomes of the research will be disseminated at the PATs forum meetings which occur once a month and also presented at the University of Worcester Learning and Teaching Conference. It is expected that the findings may lead to adjustments in the tutorial systems of the Schools involved to better facilitate students’ progress into employment. The impact can be measured by future graduate outcomes data and NSS responses to questions on this subject.

**‘Minding the gap’: Exploring the perceptions, preconceptions, and experiences of students undertaking an MSc Psychology conversion course by distance-learning** **- Project lead: Dr Sarah Davis,** **School of Psychology**

The MSc Psychology is an accredited, distance-learning (DL) course for non-Psychology graduates seeking a career change.  Since the course attracts graduates from diverse disciplines, our programme requires rapid learning/skills development to transition into level 7 study of a completely new academic discipline.  The MSc Psychology became DL in 2021; the first DL Master’s programme at the University.  This enabled growth in students, yet withdrawals have risen sharply, increasing support requirements, despite bespoke, academic support/interventions. Easing study transition for Psychology undergraduates is well researched, but the needs of Psychology conversion students are not.  This necessitates further study so that we can learn how best to support our PG/DL students and improve completion rates, in line with the University’s Teaching & Learning strategy 2020-2025 and School priorities (what works 'active, flexible learning'; supporting 'research inspired education'; developing research culture, RKE implementation plan).

Using a qualitative approach, we aim to explore key phases in the student journey, including motives for choosing a conversion course, and how these compare with their study experiences. Exploring a period of transition, our work will be guided by a resilience framework (e.g., Banerjee et al., 2001) to explore risk/protective factors (personal, social, institutional) students identify as success facilitators or barriers at each phase of their journey.  We seek the views of a cross-section of our cohort to allow us to understand how experiences may differ for PT/FT students, and international students.

Beyond the project report, this work will yield five outputs of interest to several audiences (external academic community, University staff, current students/prospective students):

1. Peer reviewed publication in BPS journal

2. Written piece authored by students for the Interpersonal Relationships and Wellbeing Research Group blog (edited by SD)

3. University Teaching & Learning conference paper: improving practice to boost recruitment, retention and success

4. Student led presentation at SoP Learning & Teaching Development workshop: discussing the PG student experience

5. Decision-making tool for applicants: posing a series of key questions that will help applicants understand the goals of the course, the learning experience, and whether this fits with their personal expectations/goals

Impact will be tracked and evaluated through online and offline networks (e.g., using altmetrics; feedback/adoption of outputs/materials).

Project team: Two part-time, Y2 students from the MSc Psychology programme, plus SD (current course leader) and BM (previous course leader).  Year 2 students will lead the project bringing valuable ‘insider’ perspectives, course content knowledge (including Research Methods), and competencies required for project management, research analysis, and delivery.  Students will develop several graduate attributes: problem solving, teamwork and effective communication; digital citizenship, with project work enhancing their employability, and feeding-forward into the development of their own level 7 dissertation.

**Mountain River Science Virtual Fieldwork:  Developing innovative course materials using 360° video** **– Project lead: Professor Ian Maddock, School of Science & the Environment**

Rationale for the project

It is well established that virtual fieldwork (virtual reality) in the geosciences can bring many benefits to the classroom. It enables students to familiarise themselves with environments before experiencing real fieldwork, it can provide an alternative to real fieldwork when the latter is not possible, e.g. to access remote environments (Peace et al., 2021; Bos et al., 2022) and can provide a more inclusive education for those who might be unable to undertake real fieldwork (Yorke et al., 2022).

Existing virtual fieldwork resources already developed by staff within the School of Science and the Environment typically consists of a series of web-based digital 360° panoramas (photos) that allows the user to look around a still image, with embedded hotpots to enable users to navigate to neighbouring locations (McDougall, 2022).

However, despite the improvements in the availability and resolution of 360° video in recent years, none of the virtual fieldwork resources use this technology. This is due to the lack of access to 360° cameras and technical knowledge by most academic staff who develop virtual fieldwork in how to edit, render and share the videos for viewing. I have developed this expertise and has created a virtual field trip for to the University of Worcester’s river monitoring stations (https://youtu.be/Db658sYOqq8) and a virtual river habitat assessment on a local stream (https://youtu.be/WiKKltaCuBQ). The advantages that make 360° video more immersive and realistic fieldwork experience are i) features, wildlife and people in the landscape are moving and ii) the video allows the user to move between locations seeing all aspects of the landscape and from any viewing angle, as opposed to just pre-determined stops.

Staffing, Methodology and Dissemination

The aim of this SAP proposal is to create a new virtual fieldwork resource using existing 360° video and delivered through the freely available Google Earth platform. This resource will be used in a 2nd year module to prepare students for real fieldwork and to provide an alternative to real fieldwork for those who are unable to attend.

The project team will consist of Professor Ian Maddock and one / two students. Students will gain experience of creating a virtual fieldwork resource using Google Earth, develop skills in manipulating 360° video and more general project management and teamwork skills.

**Optimization of in silico neuronal modelling - Project lead: Mathieu Di Miceli, School of Science & the Environment**

This project will optimise the existing practical (BIOS3109 genomics and Bioinformatics, level 6) entitled “Modelling of neurons and networks”. Currently, such a session is based on reproducing neuronal electrical impulses in a spreadsheet, mimicking how the brain transmits information. After modelling the different currents, students are asked to search what parameters can influence such electric impulses (time and/or magnitude of current). This is allowing for the rationale behind electric brain waves to be grasped by the 3rd year students.

  However, such a session needs to be optimised, as the other sessions in the module are focused on using a software called “R Studio” (R Core Team, 2013). Thus, the project will aim at:

(i) switching from a model in a spreadsheet to a model in R Studio,

(ii) increasing the model power by converting a 1-neuron model to a neuron network and

(iii) redesigning the practical session to account for these changes.

Applicants for this project need to demonstrate essential skills in using R Studio, as this will be a pre-requisite to conduct such a project. Students in the current academic year have already expressed their interest and passion for the subject, which is also a graduate attribute in biomedical science, as students are required to demonstrate how physiology is driven by data and experimental observations. Furthermore, being a research-led session, the project will be an excellent fit for the

Teaching and Learning Excellence within our School:

(a) publication of the model(s) could be achieved, which will be a novelty in the field.

(b) successful applicants will also use their own experiences of the modules to feedforward the design of such a new session, building on the potential of our students.

(c) Inspiration, challenge and learning will be at the core of this project, as this will be research-informed research/teaching, which will a great asset for the professional development of the successful applicants.

Thus, such a project is aligned with the University’s strategy on Teaching and Learning Excellence, but also on the RKE mission, via Digital Innovation. Indeed, our project is aligned with the latter, as such a project will allow us to better understand brain physiology and its underlying principles. An example of such digital innovation can be found in the article by Yamaura et al (2020), whereby big data handling and processing (in the context of brain physiology) are put into context.

Ideally, two students will be recruited for this project, to allow collaboration and discussions. The indicated timeline and methodology, based upon 12.5 h/week/student, would be:

(w1) one week for research and data gathering,

(w2-3) 2 weeks for coding in R and result acquisition,

(w4) one week for feedforward/feedback on results and methodology

(w5) 1 week for completion and practical optimization.

Following the completion of this project, the two successful applicants will have developed their communication skills, their ability to work independently but also collaboratively, as well as critically analysing their own approaches to modelling. The graduate attributes after completion of this project are aligned to the UoW LTS 2020-2025:

1. Problem solving, (b) Teamwork and (c) Digital Citizenship.

Students, or the lead investigator, will present the results at the L&T conference. Besides, as mentioned above, should the results be strong enough, publication could be warranted, which will benefit the wider Neuroscience community.

**Pedagogy Podcasts: Created by Students for Students – Project lead: Dr Ben Looker, School of Education**

Podcasts have increased in popularity in supplementing learning in higher education institutions (McGarr, 2009). Lee & Chan (2007) found that when podcasts were introduced to university students, all participants reported downloading over 90% of the material, with 89% of participants listening to episodes more than three times. Furthermore, the students treated the podcasts as important learning and did not multitask whilst listening (Lee & Chan, 2007). These findings have been echoed in a more recent study, which identified podcasts as a useful tool for social scholarship, again reporting that students engage with their learning on multiple occasions (Singer, 2019).

In light of this we would like to run a SAPs project, where a series of research-informed podcasts are created for use by Secondary Science PGCE students. The podcasts will be produced by students for use across the cohort and can be used again for future students. Hall & Jones (2021) have identified myriad occasions when podcasts have been produced by students for their peers as learning tools. Furthermore, it has been shown that podcast learning is an effective alternative to traditional approaches (O’Bannen et al., 2011; Hall & Jones, 2021).

Roles: The idea for this project has arisen from a focus group with current PGCE students. Students are attending a science education conference in January 2023, focused on research-informed pedagogy. Students will use this as a basis for ideas for their podcast episodes. We anticipate 10 podcasts being produced. Staff will help in the selection of topics and help guide towards relevant academic outputs which can be used to inform the content of the podcast. Each episode will include a brief description of the aspect of pedagogy being explored, an examination of how it relates to practice as teachers followed by practical implications for the classroom. As all students are postgraduates, we also believe this approach will help with the writing of their level 7 assignments.

**Peer Leadership of Social Learning Spaces – Project lead: Don Vinson, School of Sport & Exercise Science**

Considerable challenges have arisen in recent times, which require and agile and creative responses if face-to-face postgraduate courses such as the MSc Sport (Sports Coaching) are to remain valuable in the current climate. The consumerism of Higher Education, increasing busyness of modern life, and the ongoing ramifications of the COVID-19 pandemic have raised numerous challenges for those facilitating postgraduate study.  Furthermore, the inter-connectedness of modern occupations, and the resultant calls for graduates to be capable of working in inter and multidisciplinary teams compels postgraduate educators to think more broadly about how to create meaningful educational experiences at Level 7.  Wenger-Trayner and Wenger-Trayner’s (2020) theorisation of learning as a process of becoming of practitioners who care to make a difference represents a conceptualisation of potential promise to address some of these challenges.  Wenger-Trayner and Wenger-Trayner’s (2015) theory speaks profoundly to educators seeking to facilitate the learning of applied practitioners.  In this specific case, by considering the MSc Sport (Sports Coaching) cohort as a social learning space, numerous structural and pedagogic challenges arise which can be partially addressed through the provision of various guises of peer support.  Social learning spaces comprise practitioners who care to make a difference, pay attention to data and are willing to engage their uncertainty.  The leadership of such social learning spaces is a skill of rapidly emerging importance in contemporary learning discourse.  This project proposes to appoint a (student) social learning space facilitator as one of several mechanisms designed to enhance the value generated by the group.  In the case, the facilitator will:

• Facilitate the functioning of the established peer leadership groups namely: agenda activists, community keepers, and critical friends;

• Provide study skills support where appropriate and as requested by the learning group;

• Maintains bridging dialogue between students and model staff;

• Facilitate the continual modular review, supporting course representatives as a critical friend.

Student role: Social learning space facilitator (100 hours)

• Leadership group support (15 x 2 hours – Thursday afternoons between November and May)

• Meetings with module staff (10 x 1 hour – Friday afternoons between November and May)

• Study skill support (online or face-to-face, 15 x 2 hours (per teaching week) – between November and May)

• Planning meetings with peer leadership groups (10 x 1 hour – time TBC)

• Preparation of materials and reporting (20 hours – throughout the timeline of the project)

Staff role:

• Social learning space facilitator training;

• Meeting with social learning space facilitator on a regular basis to review and reflect;

• Operation of the ‘other’ leadership functions of the social learning space – beyond the scope of this element of the project.

**Putting academic writing skills on the radar: exploring radar charts to promote meta-cognition and understanding of academic writing - Project lead: Dan Whittaker, School of Education**

Rationale and objectives

The primary initial teacher education department (PITE) NSS and CES data was critical of how helpful and understandable assessment feedback was and this calls for urgent action. In response, we propose a method for students to access and compare results across modules to track areas of strengths, weaknesses and inconsistencies: radar charts.

Radar charts display multivariate statistics on axes radiating from a central point. Visually similar to spider webs, they chart domain-specific strengths and weaknesses (Donoghue, 2005). This study aims to explore whether students would consider radar charts valuable and how students might use or adapt a prototype tool.

Initially, we envisage students entering grades on the radar chart tool from Turnitin rubrics. PITE’s generic grade descriptor adoption will enable students to view grades for each descriptor on an individual radar chart axis and view variance across assignments (e.g. bit.ly/radarproto1). By using existing technology innovatively, we align with the university’s RKE strategy within the ‘digital innovation’ area of challenge.   
  We propose these questions:   
RQ1: how do students perceive the value of radar charts to their own academic writing practice?   
RQ2: what recommendations emerge about how a radar chart tool could be constructed and embedded into writing practice?

Other outcomes are to optimize student success across professional learning outcomes in PITE’s courses and upskill data handling skills to enhance students’ dissertations and employability.    
Methodology   
  We propose two phases using a Participant Action Research model (Cunningham, 2008), where students are considered equal co-researchers. The first will address RQ2 by employing our two student partners in co-constructing the radar chart tool from its prototype (bit.ly/radarproto1).    
   
The second will initiate a focus group addressing RQ1 and RQ2. Student and staff partners will co-construct a schedule and recruit a panel. Student partners will conduct the focus group without staff, mitigating any bias relating to power imbalance and allowing the student panel to speak freely about the radar chart tool.   
   
Roles   
Staff partners:   
• Hold project oversight; monitor progress and advise.   
• Co-construct radar chart tool and focus group schedule.    
• Support student partners’ writing up and dissemination.    
• Gain UoW ethical approval.    
Student partners (x2):   
• Co-construct radar chart tool and focus group schedule.    
• Recruit and conduct focus group.   
• Analyze data; write up and disseminate.    
   
Evaluation and impact; outputs and dissemination

If we that radar charts are valuable to students, they could become deployed departmentally; the PITE head, Dan Hughes, indicated support for this study and the potential for departmental adoption in PAT provision or innovative ‘developing self’ professional modules. We also anticipate future bids to explore impact and the value of deploying radar charts across the university.

We aim to co-construct a journal article (e.g. for ‘Student Engagement in Higher Education Journal’) and will disseminate findings at the university’s Learning and Teaching Conference. 

**Reviewing and developing digital administrative processes for visually impaired sports scholarship students at the University of Worcester – Project lead: Charlotte Beaman-Evans, School of Sport and Exercise Science**

Rationale

The University of Worcester takes great pride in its facilitation of students with additional needs. The University of Worcester arena was world leading at the time of opening, being the first indoor arena specifically designed to include the wheelchair athlete. Moving forward, the University is set to boast a state-of-the-art inclusive cricket education centre. It is anticipated the cricket centre will “change perceptions on inclusion for the good” (Green 2022). However, there is a distinct disparity between our world leading inclusive facilities and the administrative processes that support student participation within it. Visually impaired (VI) students face barriers on a daily basis owing to digital ‘environments’, and whilst extensive efforts are made to ensure learning and teaching digital support is appropriate, such as Blackboard Ally, the lesser-known systems that are self-designed by staff can cause heightened stress levels for VI students. Hochleiser & Lazar (2010) support the aforementioned notion by stating barriers in accessing information digitally are largely caused by poor design and development.

People

The project will involve the expertise of two staff members from within the School of Sport and one VI student who sits across two schools, studying Creative Writing and History. Lead staff include the expertise of sports scholarship programme lead, familiar with systems and processes required by students to access resources and services across the University and some of the challenges they currently impose. In addition, Dr Emma Richardson, viewed as an invaluable asset to the project with her breadth and scope of knowledge within the research provision of inclusive sport. Dr Richardson also has extensive external contacts with independent groups including those with visual impairments and is also involved with the Inclusion by Design Research Group that heads internal research regarding how best we can support students. The cross-University links and developments as a result of this exploratory study are potentially extensive.

Aligned to the learning and teaching strategy graduate attributes, the student engaged in this project will develop their social responsibility, digital citizenship, teamwork, communication and problem solving. The nature of the study will require the student to identify key issues and negotiate change through effective communication to ensure that adjustments made reflect the wider requirements of a range of students with additional needs.

Effective cooperation of staff and student in this project will instigate a systemic change in digital administration bringing processes up to date to match our state-of-the-art facilities.

The University invests in excess of £60,000 into the scholarship programme which typically recruits students from every school across the University. A range of stakeholders including pro vice and deputy pro vice chancellors, academic staff and support personnel including TEL and disability and dyslexia services would have invested interest in making processes more streamlined that will in turn act as additional recruitment and retention tools.

Key stages of the project outlined below.

1: Dec – Feb: Identifying the systemic administrative issues creating digital barriers to visually impaired students.

2: Feb – Mar: Creation of new digital documents

3: March – April: Project write up

Dissemination

The project will be presented at the Learning and Teaching conference.

Evaluation and Impact

Having a student who can advise on accessibility first hand will be significant in monitoring the success of the programme. This is an opportunity to be proactive and address systems and processes prior to major facility development increasing the breadth of student population with diverse needs. Success criteria will be the development of digital resources that are readily accessible to visually impaired students.

**Script Mentoring** **- Project lead: Simon Bovey,** **School of Arts**

The study of screenwriting intrinsically requires feedback. It has a reflexive benefit for both writer and reviewer. The writer profits from new ideas and the reader becomes more able to identify their own writing issues. Its value is espoused by David Jacques and Gilly Salmon ‘Peer tutoring is a way of harnessing valuable processes within the bounds of the curriculum.’ Benefits include personal contact, students as active learners and increased motivation and self-esteem.

In 2015 I successfully applied to the SAPS scheme with a Student Script Editors project. Students from L5 courses gave feedback on creative work in an L4 module. Many benefits came from this including high levels of engagement, enhanced student experience and positive feelings of community and course cohesion. The module, SCRN1000, in which the scheme took place was awarded ‘Outstanding Innovation in Teaching’ at the 2016 Students’ Choice Awards. The practice was developed into a module, SCRN2007 Script Development Professional Practice.

There have been structural changes since then and the opportunity for L5 and L4 feedback no longer exists. However the need for feedback and the desire for students to hone their script editing skills has remained. I propose building on the findings from the original scheme and reintroduce it, this time using students from L6 into L4 classes.

The Script Mentor scheme will involve myself and six to eight students from L6. These students have gained editing skills from SCRN2007 and SCRN3006 and are desirous to exercise these in a ‘live’ situation. Most importantly these skills will be reinforced just prior to students entering the work place. Previously students have found positions within companies as script readers or developers and their ability to evidence experience measurably improved their employment prospects.

The scheme will take place in semester 2 within the module SCRN1000, Scriptwriting: Ideas and Development. Half of the period is comprised of feedback of the students creative work from me, but now hopefully supported by L6 students. This is important as ‘Underperformance, and even withdrawal and failure, can result from students' reluctance to admit inadequacies to tutors, and some students prefer to turn for support to groups staffed by their peers.' (McLucklie and Topping. 2004).

Other than presentation at the L&T conference I will support the L6 students in creation of a live project blog. I hope to marry outcomes with findings from the 2016 scheme to prepare a paper for the Screen Research Network conference in 2023.

Ongoing evaluation through a journal form of questionnaire each week to gauge effectiveness from the recipient and from the mentors’ point of view. It is my hope that if successful it can be integrated into future teaching strategy within Screenwriting and Film Production.

**Student perceptions of Blackboard within SSE** **– Project lead: Sian Evans,** **School of Science & the Environment**

Blackboard is the main VLE in SSE. Current module evaluations include some indirect questions which assess elements of the VLE such as access to resources, and tracking data is useful, however this does not enable a comprehensive assessment of user satisfaction or perceived intrinsic value.

The VLE is the main conduit of information to students outside formal lecture times. Across the sector VLE’s have increased in sophistication with many students engaging daily with both content and their learning community. VLE's therefore have considerable importance to several L&T agendas including retention, belonging, digital competency, flexible inclusive learning and realising potential. This project thus links to the Resilience, Retention and Realising Potential Project and is supportive of many aspects of the University’s Learning and Teaching Strategy 2020-2025.

Whilst there has been considerable academic research exploring the role of VLE’s in the University sector e.g., see Farrelly, Costello and Donion (2020), and papers exploring specific sites such as Hamutoglu et al (2020), these offerings are either limited in scope (e.g. do not explore the value of the VLE as a method to enhancing engagement and belonging) and are arguably site and time specific (e.g. do not account for differences in types of VLE or transitions in attitudes due to COVID-19).

SSE needs to understand our student’s perceptions of our own VLE in more depth and explore their vision for this communication and learning tool.

Whilst there is SSE focus, the implications of results will be of interest across the university and more broadly. Learning from this exercise can be fed directly back to staff and lead to student-led improvements across the site. The current VLE is under review, it is anticipated that the research outcomes will be transferrable and speak to what is needed.

One staff and two students (L5 or above) will work on this project (<L5 required for research methods training). Preferably SSE based. Participation would enhance the SAP’s understanding of the Learning and Teaching agenda within the University, develop their teamwork, research and presentation skills and inspire their curiosity in digital learning.

Outcomes will be disseminated via the Learning and Teaching Conference and to SSE SMT. If time and ethics applications align, it is also anticipated that a journal article will be submitted.

The impact of the project will be to some extent determined by the outputs and how these are then acted upon. There is potential for significant benefit to our understanding of students’ perceptions of the VLE as it is and more understanding of how students envision improvements. It would be useful to run a simultaneous study in a school with larger cohorts to explore whether there are differences in perceptions across schools.