



**CELT**

Prifysgol Bangor University

Canolfan Gwella Addysgu a Dysgu

Centre for the Enhancement  
of Learning and Teaching

## **CELT Learning & Teaching Conference 2023:**

# **ENHANCING OUR EDUCATION**

**11th September 2023 - Pontio**

**Hosted by the Vice Chancellor  
Professor Edmund Burke**





# WELCOME!

Following the pandemic, the CELT Learning & Teaching Conference is back for 2023 and is bigger and better than ever.

Our University CELT Conference aims to bring together academic and professional services staff to engage in inquiry around research-informed teaching facilitated through presentations and discussion on three sub-themes: research-informed teaching, inclusive practices and evaluation of teaching impact.

We would like to extend a warm welcome to all delegates to our annual conference. The programme is designed to bring together colleagues from across the University, and the wider academic community, to draw inspiration from each other, and to celebrate our many achievements.



**Dr Tanya Hathaway**

Head of the Centre  
for the Enhancement  
of Learning and Teaching



**Professor Nichola Callow**

Pro Vice-Chancellor  
(Education)







## KEYNOTE

**Associate Professor  
Sue Beckingham**

Sheffield Hallam University

## How Artificial Intelligence is shaping learning and teaching in HE

3.45pm in PL5

### Biography

Sue is an Associate Professor, National Teaching Fellow, and Learning and Teaching Portfolio Lead in the Department of Computing at Sheffield Hallam University. She is also a Certified Management and Business Educator, a Senior Fellow of the Higher Education Academy, a Fellow of the Staff and Educational Development Association, and a Visiting Fellow at Edge Hill University.

Her research interests include social media for learning and digital identity, groupwork, and the use of technology to enhance learning and teaching. She has published and presented this work nationally and internationally as an invited keynote speaker.

She is a co-founder of the international #LTHEchat 'Learning and Teaching in Higher Education Twitter Chat' and the Social Media for Learning in HE Conference @SocMedHE.

### **10:00 Pre-conference workshops**

- What's new and what's coming in Blackboard Learn Ultra - Digital Services - PL2
- Developing staff-student relationships for cultural understanding - Sam Jackson-Royle - PL5
- Evaluating educational impact: A case study approach - Prof Nicky Callow and Prof Caroline Bowman - Studio

### **11:00 Tea and coffee break - Outside PL5**

### **11:15 Walkshop - Starts at Level 2**

A sense of belonging: Forming deeper connections with the university - Dr. Aled Singleton, Swansea University.

### **12:30 Registration, Lunch and Networking - Outside PL5**

### **13:30 Conference commencement - PL5**

Vice Chancellor's Welcome: Professor Oliver Turnbull (Deputy Vice-Chancellor) on behalf of Professor Edmund Burke (Vice-Chancellor)

### **13:50 CELT Update - PL5**

Dr Tanya Hathaway - Head of CELT

### **14:05 Parallel sessions**

#### **What is Research-Informed Teaching? How do you embed research in teaching? - PL2**

- A student-oriented approach for overcoming the barriers to research-informed teaching and learning.
- Inspiring students through deep learning and the impact of live research
- A concept-based curriculum for Midwifery Education
- Producing what the business world has always wanted from business schools

### **Designing inclusive learning environments and provision - PL5**

- Steps to inclusion and accessibility for digital resources at Bangor.
- Generative Artificial Intelligence and supporting additional learning needs.
- Easy wins for accessibility and the benefits for all (including you!)
- Bridging cultures through virtual exchanges

### **Evaluating the impact of teaching and learning - Studio**

- Embedding employability at course level
- How can I put a positive spin on this? Demonstrating impact to support career progression
- Redefining Higher Education, unlocking student employability with AI-driven authentic assessments
- Embedding Bangor's graduate attributes

### **15:05 Presentation by the Students' Union - PL5**

Enhancement Themes: Student perspectives and considerations for teaching and learning enhancement

### **15:30 Tea and coffee break - Outside PL5**

### **15:45 Keynote - PL5**

Associate Professor Sue Beckingham: How Artificial Intelligence is shaping learning and teaching in HE

### **16:30 Walkshop - Starts at Level 2**

A sense of belonging: Forming deeper connections with the University - Dr. Aled Singleton, Swansea University. (Repeat)

# CONFERENCE SUB-THEMES

## Designing inclusive learning environments and provision

Preparing university students for learning, and engaging them in inquiry and the pursuit of knowledge, have involved embedding inclusive learning in all aspects of the curriculum in both formal and informal learning contexts and a variety of learning spaces.

In these sessions, colleagues are invited to discuss their attempts to build learning environments that provide engaging spaces for diverse students, educators and professionals, and provide enhanced access to the University's learning resources.

## Evaluating the impact of teaching and learning

Evaluating teaching and the student learning experience is fundamental to developing enhanced practice, establishing impact and supporting career progression.

In this session, we invite talks which explore the evaluation of the impact of the education process at a variety of scales and the range of sources of evidence which can be drawn on to evaluate teaching including learner analytics: continual self-reflection, formal and informal student feedback, statistics, peer observation and assessment. Evaluating the impact of the teaching and learning process will be considered from the perspective of different disciplines, different modes of teaching and the perspective of individuals.

This session offers an opportunity for staff to share examples of the evaluation impact which may have been used to support an application for HEA fellowship, a teaching awards or promotion.

## What is research-informed teaching? How do you embed research in teaching?

The positive interplay between research and teaching is one of the defining aspects of higher education and the University. RIT can increase student satisfaction, engender student engagement, and develop students' intellectual curiosity as well as research and communication skills. RIT combines the valuable contributions of both research and teaching to the University and enables students to become co-researchers with their teachers, yet research and teaching are often treated as separate activities which place conflicting demands upon staff time. In this theme, we unpack the different forms of research-informed teaching (RIT) and look at the practical ways colleagues have brought research and teaching together to foster active and exciting learning environments.

This session offers the opportunity for presenters to share their RIT successes and methodologies to support the dissemination of good practice across the University and disciplines.

## **S U B - T H E M E : Designing inclusive learning environments and provision**

**PL5 14:05 - 15:00**

**Chair: Dr Thandi Gilder**

### **1) Steps to inclusion and accessibility for digital resources at Bangor**

**Sian Edwardson-Williams & Bethan Wyn Jones (Teaching and Learning Support Team, Digital Services)**

The Teaching and Learning Support Team would like to provide a presentation that provides some background to the steps taken to ensure that staff are supported in their provision of accessible and inclusive digital resources within a bilingual environment. Our presentation will focus on two key developments and their wide-ranging effects on inclusive digital provision at Bangor:

1. Development of the Lecture Capture Service Panopto. This system is now widely used by all academic schools with a Panopto policy in place. To provide a more inclusive service, the automated speech recognition service (ASR) was switched on to provide captions for all English Language resources in Panopto in 2020. ASR for Welsh language resources will be available in Panopto by September 2023.

2. In early 2018, IT Services (now Digital Services) took part in the JISC accessibility snapshot service, with accessibility expert Alistair McNaught. This snapshot reviewed the Bangor website, the Blackboard learning environment and the library webpages. Proposals were made to help Bangor move towards compliance with The Public Sector Bodies (Websites and Mobile Applications) Accessibility Regulations September 2018

The presentation will discuss:

- a) The benefits and limitations of Automated Speech Recognition (captions) in Panopto.
- b) The inclusion of Automated Speech Recognition (captions) for Welsh language materials in Panopto.
- c) The use of Microsoft Accessibility checker and immersive reader.
- d) Supporting Inclusivity in Blackboard including the Ally tool, course templates, choice of pronouns, and name pronunciation.
- e) Presenting bilingual materials and challenges for inclusion and accessibility.
- f) Training for staff to develop inclusive digital skills.
- g) Resources to ensure students have access to the skills to use the tools available.

The aim will be to encourage discussion about how to move forward to ensure further inclusivity and compliance and develop support for staff and students.



## **S U B - T H E M E : Designing inclusive learning environments and provision**

**PL5 Chair: 14:05 - 15:00**

**Dr Thandi Gilder**

### **2) Generative Artificial Intelligence and supporting additional learning needs**

**Dr Dylan Jones (School of Health & Medical Sciences)**

The integration of Generative Artificial Intelligence (AI) in the education landscape has opened up new possibilities for educators to support students with additional learning needs in completing assignments effectively. This presentation explores how Generative AI can be harnessed as a powerful tool to provide tailored assistance, foster inclusivity, and promote independent learning among students facing diverse challenges.

Generative AI technologies, such as chatbots and language models, offer personalised assignment support to students with additional learning needs. Through interactive conversations and real-time feedback, these AI-driven tools can understand individual difficulties, preferences, and learning styles. By customising the assignment guidelines and providing step-by-step instructions in a way that suits the student's specific needs, Generative AI empowers them to approach tasks with greater confidence and clarity.

One of the key benefits of Generative AI is its ability to simplify complex concepts and ideas. For students who struggle with information processing or have cognitive challenges, AI-powered tools can break down assignments into more accessible formats. This ensures that they can grasp the core concepts and requirements, ultimately enhancing their comprehension and academic performance. Furthermore, Generative AI promotes independent learning by encouraging students to solve problems on their own. Rather than providing ready-made answers, AI-driven support tools can offer hints, suggestions, and prompts that stimulate critical thinking and problem-solving skills. This approach fosters a sense of accomplishment and self-reliance, allowing students to take ownership of their learning journey.

While Generative AI offers promising advantages, educators must be cautious about potential ethical considerations. Ensuring data privacy, security, and confidentiality is essential when employing AI systems for assignment support. Moreover, educators need to strike a balance between AI assistance and human guidance, ensuring that students still receive personalised attention and feedback from teachers to foster a comprehensive learning experience.

## **S U B - T H E M E : Designing inclusive learning environments and provision**

**PL5 14:05 - 15:00**

**Chair: Dr Thandi Gilder**

### **3) Easy wins for accessibility and the benefits for all (including you!)**

**Esther Griffiths and Stephanie Horne (Disability Services, Student Support and Wellbeing)**

During our short, interactive session we will use the social model of disability and the principles of universal design to look at some accessibility “easy wins”. We’ll discuss the barriers students might experience and talk about our legal duty to provide Reasonable Adjustments. We’ll also explore the benefits of embedding accessibility at the design stage, for you and your students. Having discussed the overarching principles we will look more closely at a range of Teaching and Learning activities, and close with a Q & A session.

### **4) Bridging Cultures through Virtual Exchanges**

**Dr Azlina Amir Kassim (School of Human and Behavioural Sciences)**

Cultural exchanges play a crucial role in shaping students' intercultural skills, nurturing them into being global citizens. While student exchange programmes such as the ERASMUS programme provided enriching study exchange opportunities, recent changes like Brexit have limited access to such experiences, leaving only a select few able to participate in traditional cultural exchanges.

In response to these challenges, Collaborative Online International Learning (COIL) emerges as a transformative alternative. COIL presents an innovative approach to intercultural learning, breaking down barriers of distance and accessibility through virtual exchanges. By leveraging technology, COIL widens the scope for students to participate in cross-cultural collaborations, equipping them with essential skills, such as intercultural competencies, effective cross-cultural communication skills, and expansion of horizons, including realisation of diverse perspectives. These skills hold significant value for graduates in an increasingly globalised world, enhancing their employability.

This presentation focuses on establishing a virtual exchange program in educational contexts, giving students the opportunity to interact with, and discuss important issues with students from different countries. One example of a potential COIL program will be highlighted, linking students from Bangor University to their counterparts in Japan and Taiwan. This connection bridges students from across the world, creating a significant opportunity for mutual cultural learning.



## **S U B - T H E M E : Evaluating the impact of teaching and learning**

**Studio 14:05 - 15:00**

**Chair: Professor Caroline Bowman**

### **1) Embedding employability at course level**

**Aled Williams (School of Computer Science and Electronic Engineering)**

Have you ever found yourself pondering the question: "How will studying on this course prepare me for a career?" Recently presented on behalf of Bangor University at the Advanced HE's HEFCW Employability Symposia, this case study not only sheds light on effective strategies for seamlessly infusing employability skills at the very core of a course but also emphasises the evaluation of its profound impact while concurrently empowering students.

Spanning a decade and more, the case study unveils a continuous evolution of the program, culminating in the attainment of unparalleled benchmarks in terms of both employability rates and student contentment. At its heart, the presentation revolves around the meticulous construction of a clear and effective pedagogical framework. This framework, underpinned by a shared ethos and versatile teaching methodologies, serves as the bedrock for the entire approach.

However, the case study's insights extend beyond the classroom. It draws attention to the pivotal role played by collaborations with external stakeholders, a synergy that bridges the theoretical realm with real-world predicaments. This dynamic connection not only enriches the academic experience but also equips students with practical, problem-solving acumen.

Central to this success narrative is the recognition of the voices of students and stakeholders alike. This inclusive approach fosters an environment of active engagement and ensures that the curriculum remains relevant and responsive. Additionally, the study underscores the significance of adaptability in course development, reflecting the agility needed to align with the swiftly evolving professional landscape.

Amidst these multifaceted strategies, a prominent highlight is the implementation of a shared vision. This cohesive aspiration serves as the guiding star, navigating the course through uncharted territories and steering it towards triumph. In summary, the captivating case study not only answers the crucial career-preparation question but also offers a holistic blueprint for cultivating a course that resonates with the needs of the students, the demands of industry, and the aspirations of academia. As it narrates a saga of innovation, collaboration, and educational excellence, it beckons future educational endeavours to follow suit.

## **S U B - T H E M E : Evaluating the impact of teaching and learning**

**Studio 14:05 - 15:00**

**Chair: Professor Caroline Bowman**

### **2) How can I put a positive spin on this? Demonstrating impact to support career progression**

**Professor Graham Bird (School of Natural Sciences)**

Being able to demonstrate the impact of teaching and learning activities is a key enabler for success in reward and recognition schemes associated with career progression. The ideal ('pre-planned') world sees an impact plan developed at the outset of a given teaching and learning intervention or development. However, it is not uncommon to need to evaluate impact 'retrospectively', including attempting to identify the measures and evidence through which impact could be demonstrated.

This talk focuses on how impact can be evaluated and evidenced both in a 'pre-planned' and 'retrospective' context, and exemplifies this particularly in relation to reward and recognition (e.g. application for an Advance HE National Teaching Fellowship and promotion), but also in relation to the institutional leadership of teaching and learning projects. The talk identifies how impact can be evaluated and evidenced using quantitative data (e.g. in relation to key performance indicators) and also through developing a qualitative narrative.

### **3) Evaluating employability: using graduate attributes as measures of wider learning**

**Dr Nia Young (School of Education)**

The Bangor Graduate Attributes broadly describe the higher-level skills and abilities every student in Bangor University should develop by the time they have graduated. The extent to which each student embodies these attributes may vary but the key is that students should leave not only with a degree but also as a rounded individual with the tools to develop throughout their career. The Graduate Attributes are: Challenge, Inquiry, Collaboration, Application and Self-Direction. Embedding opportunities for students to reflect on how their studies are supporting their development of these attributes helps the student to recognise their own employability. It can also help lecturers to design and review their modules and programmes to strengthen the wider learning of students so that they have not only the knowledge for their chosen career but the skills to keep that knowledge up to date, to recognise their own developmental needs, and to plan to address these as they move through their careers. This talk will outline the Bangor Graduate Attributes and suggest ways in which they can be utilised to both support students and evaluate the efficacy of our teaching of these wider skills.

## **S U B - T H E M E : Evaluating the impact of teaching and learning**

**Studio 14:05 - 15:00**

**Chair: Professor Caroline Bowman**

### **4) Redefining Higher Education, unlocking student employability with AI-driven authentic assessments**

**Professor Fay Short (School of Human and Behavioural Sciences)**

In recent years, the redefinition of higher education has become a critical area of focus for educators aiming to equip students with the necessary skills for a rapidly evolving job market. This presentation explores the challenges, fears, and limitations associated with the integration of chatGPT, an artificial intelligence (AI)-driven conversational model, in teaching. While acknowledging the concerns surrounding the use of AI, this talk aims to shed light on the vast opportunities it presents for enhancing student learning and employability. Through a comprehensive analysis of the potential of chatGPT, this presentation will provide three real-world examples of how this technology can be effectively utilised for assessment purposes. These examples will illustrate the ways in which chatGPT can promote authentic and immersive learning experiences while fostering crucial employability skills.

By engaging in a dialogue around the challenges and fears associated with AI-driven assessments, this presentation aims to encourage a balanced understanding of the technology's limitations and potential. It will emphasise the importance of designing appropriate assessment frameworks that leverage the strengths of chatGPT while mitigating its shortcomings. Attendees of this talk will gain insights into the transformative possibilities that AI-driven authentic assessments can offer within the context of higher education. They will be equipped with practical examples and guidance to effectively integrate chatGPT into their teaching practices, thereby empowering students to develop essential skills for the workforce of the future.

PS This description was written with the aid of chatGPT.



## **S U B - T H E M E : What is research-informed teaching? How do you embed research in teaching?**

**PL2 14:05 - 15:00**

**Chair: Dr Ama Eyo**

### **1) A student-oriented approach for overcoming the barriers to research-informed teaching and learning.**

**Charlotte Newell, Martyn Kurr & Mattias Green (School of Ocean Sciences)**

“Research informed teaching” can mean one of two things for a student. It can mean what the academics do – how they bring their research or that of their colleagues into lectures, tutorials, practicals and supervision – so called ‘research-led’ teaching. Or it can mean what the student does – how they are integrated into the research community, how data they generate is used, and ultimately how their efforts make a difference to their chosen fields of study. Both facets of RIT have worth, but whilst the former is certainly easier to deliver than the latter, students place a great deal of value on the more ‘research-active/research-oriented’ approach.

There are many barriers to improving the quality of RIT, and certainly the more active ‘research-oriented’ methods require careful planning and implementation so that all students can benefit – an increasingly difficult task, given growing cohort sizes and pressures on staff time. Engagement from students is also an issue, and whilst the more career-driven and committed learners can be expected to approach opportunities with a constructive attitude, the added complexity of research-oriented activities might be off-putting to some.

To help overcome some of these barriers and begin to identify opportunities to better integrate research into our teaching, the School of Ocean Sciences has appointed a placement student to explore both research-led and research-oriented teaching and learning in the school. Charlotte recently finished the third year of her bachelors in Marine Biology and Zoology, plays a vital role in University open days, and was a course representative throughout her time at SOS. As an aspiring academic she has decided to use her placement year to create a methodology for identifying areas of undergraduate teaching that can be consolidated with postgraduate research across all disciplines of Marine Science.

## **S U B - T H E M E : What is research-informed teaching? How do you embed research in teaching?**

**PL2 14:05 - 15:00**

**Chair: Dr Ama Eyo**

### **2) Inspiring students through deep learning and the impact of live research**

**Rhian Grace Lloyd (School of Medical and Health Sciences)**

#### **What students need to learn? (What are we measuring?) (Sewell, 2022)**

Live research informed teaching is incorporated in the module Research Process by demonstrating the impact of live research and findings on current social work practice. First assignment task for the students is: 'Critically discuss the impact of research on the development of evidence-based practice in social work.'

#### **What are the students learning? (How are we measuring?) (Sewell, 2022)**

Students are learning the importance of evidence-based research by embedding research findings to current social work practice. This reflects Developing Evidence Enriched Practice (DEEP) a co-production approach to gathering, exploring, and using different types of evidence in the development of social care policy and practice (Social Care Wales, 2023).

#### **What instructional approaches improve student learning? (What variables are we changing?) (Sewell, 2022)**

A new approach to improve and develop student learning that I am using is embedding research informed teaching into the module by relating my findings from my PhD research into action research in the classroom (Lloyd, 2023).

A cognitive learning approach (Winn et al, 2019) enables students to connect new information with current understanding, thus aggravating their retention and memory capacity. Cognitive learning involves long-lasting, constructive, and active involvement of students in educational practices. It makes learners completely engaged in the learning process which makes it easier to think, learn and remember things. This approach reflects deep learning; strengthens student learning to meaningful learning, how to learn and creating true understanding (Rosenshine, 2010).

#### **Research Lloyd and Davies 2023 Case study example:**

Main findings: Six different types of carers are introduced: Independent carer, occasional 'drop-in' carer; constant carer; an immersed carer; disenfranchised carer and hidden lost carer. The carer identity model introduced: To assess, analyse and evaluate the life experiences of a carer and deliver a unique bespoke assessment.

## **S U B - T H E M E : What is research-informed teaching? How do you embed research in teaching?**

**PL2 14:05 - 15:00**

**Chair: Dr Ama Eyo**

### **3) A concept-based curriculum for midwifery education**

**Julie Roberts (School of Medical and Health Sciences)**

Following the requirement for midwifery educators across the UK to develop and innovate a revised curriculum to meet the new Nursing and Midwifery Council (NMC) midwifery education standards, the midwifery academic team at Bangor University took this challenge to heart and worked to create an exciting and accessible approach that would aim to support Future Midwives in developing skills for deeper learning and critical thinking.

With contributions from students and other stakeholders, the team explored a popular North American pedagogical approach where the focus is on teaching concepts rather than facts. Concept-based (CB) learning approaches have been prolific in the provision of health care education and have been widely adopted in Canada and the USA. The evidence underpinning CB learning originates from the study of educational neuroscience supporting the idea that knowledge structures in the brain allows individuals to apply information and knowledge to any situation. Giddens' and colleagues present concept categories for nursing education that provides a framework in which to organise concepts (Giddens, Caputi & Rodgers, 2020). Through familiarisation with this approach and in partnership with stakeholders, we have adapted Giddens' concept categories to develop an organisational framework for midwifery education and have mapped key concepts from within the domains outlined in the NMC Standards of proficiency for midwives, to the adapted concept categories.

This session will outline the key strengths of concept-based learning, exploring the process of adapting Giddens' concept categories for midwifery education. We will share the curriculum framework that we have developed and will also briefly explain the delivery of a concept-based programme which utilises flexible pedagogical approaches including practice exemplars.

Giddens, J.F., Caputi, L., & Rodgers, B. (2020) Mastering concept-based teaching: a guide for nurse educators. (2nd ed.). Elsevier.



## **S U B - T H E M E : What is research-informed teaching? How do you embed research in teaching?**

**PL2 14:05 - 15:00**

**Chair: Dr Ama Eyo**

### **4) Producing what the business world has always wanted from business schools**

**Dr Edward Jones (Bangor Business School)**

Many students lack the necessary skills required by industry: a recent study found that nearly half of university students are unprepared for employment. This criticism is particularly applicable to business schools. This centres on how the creation of scientific research has become the focus of business schools, not the training of practitioners or to demonstrate practical uses of their research. Instead of measuring themselves in terms of the competence of their graduates, or by how well they understand important drivers of business performance, business schools measure themselves almost solely by the rigor of their scientific research. The problem is not that business schools have embraced scientific rigor but that they have forsaken other ways of knowing.

Business schools need to be transformed and reconnect with the business world. There is growing evidence that reconnecting with the business world can help address the issue of employability by ensuring students: gain exposure to industry, understand real-world application of the material taught in the classroom, and enrol on modules that teaches the skills required by the industry.

This presentation will begin by introducing my work with the business world: (1) PI for a Knowledge Transfer Partnership (KTP) with a FinTech start-up, and (2) Socio-Economic Lead for the construction of a tidal energy development zone off the coast of Anglesey. It will then explain how the knowledge developed during these projects were integrated into the course material available to students to allow them to understand the real-world application of the material taught in the classroom. The presentation will also explain how information was transferred to other academics on what skills and knowledge employers need from our students. It will explain the application of the McElroy knowledge management cycle and mentoring process in transferring knowledge from the projects to colleagues at the business school.