THREE RIVERS
THE NORTH EAST UNIVERSITIES CONSORTIUM

North East Regional Learning and Teaching Conference 2021

Knowledge Exchange for Learning and Teaching in HE

Advance HE

This event is recognised by Advance HE

Hosted by:

The University of Sunderland and the Three Rivers Consortium

25th June 2021

Forward

The conference programme celebrates the work of our teaching staff and the different ways in which ***students and academics are involved in Knowledge Exchange (KE) during learning and teaching in higher education***.

Our Working-Definition of Knowledge Exchange (KE)

Our working-definition of Knowledge Exchange (KE) and its associated sister-terms:
One of our hosting institution conference organisers/committee members (Claire Proctor); and her fellow researcher Dr Derek Watson have found that definitions of Knowledge Exchange (KE, also known as Knowledge Sharing) and its commonly interchangeable sister-term Knowledge Transfer (KT) have varied due to the complex and contested nature of these terms. The difference between KT and KE? One of Claire and Derek's favourite finds, which details the level of interchangeability between the usage of KE and KT terms, is a review paper from Polkinghorne, Bournemouth University, and the Institute of Knowledge Transfer (ITK) in 2011. Within this paper, a table is shown which Claire has interpreted to reveal that KE and KT are often perceived to be one and the same – a viewpoint which the authors of the paper share (Polkinghorne, Bournemouth University, and ITK , 2011, pp.3-5). However, generally speaking KT seems to be more likely to be defined as some variation of "the conveyance of knowledge from one place, person or ownership to another"- between individuals in a University setting ; and/ or between universities and businesses (adapted from Liyanage, Elhag, Ballal, and Li, 2009, p.122). In contrast, KE seems more likely to be regarded as a more symbiotic sharing and communicating of information between multiple people in these same settings (definition adapted from Reed, Stringer, Fazey, Evely, and Kruijsen, 2014, p.337). Either way, Claire and Derek would like for it to be noted that: the central focus of both KE and KT can encompass just about every activity that an academic does during their day to day teaching and learning schedule.

Examples:
What are some examples of KE and KT practices? For the purpose of providing examples of KT and KE within this conference we have adopted Claire Proctor's and Dr Derek Watson's working-definition from their research (which in itself is a combined and adapted version of definitions by Franco and Pinho, 2019, p.67; and D'Este and Patel, 2007, p.1296; and includes some sub-topics from a Higher Ed Partners training course Claire attended in 2020).

1. Lecturing / Teaching – including but not limited to:

    1a. Lesson management/ planning for classroom interactions;

    1b. Embedding knowledge sharing plans into the teaching curriculum and/ or research approaches;

    1c. Independent learning opportunities with external support (such as guest lecturing, visiting professorships, and opportunities for internships and placements with mentoring wrapped up in their offering);

    1d. Exploring how sharing knowledge and applying it can lead to transformations/ recognising KE contributors' efforts and promoting the benefits gained from KE;

    1e. Diversity in contributor attributes and the impact this has on the type of knowledge shared and how it is shared – i.e. demographic features, mental attributes, technological abilities, and many other diversity topics;

1f. Assessment of learning outcomes/ impacts;

2. Co-operation in collaborative projects;

3. Continuing Professional Development / Training (and Staff Development);

4. Consultancy / Business Support;

5. Problem Solving;

6. Joint Research;

7. Student Projects – involving working with other people in either a university or business setting.

References:

D'Este, P. and Patel, P. (2007). University–industry linkages in the UK: What are the factors underlying the variety of interactions with industry?. Research Policy, 36(9), 1295–1313. doi: https://doi.org/10.1016/j.respol.2007.05.002

Franco, M. and Pinho, C. (2019). A case study about cooperation between University Research Centres: Knowledge transfer perspective. Journal of Innovation and Knowledge, 4(1), 62-69. doi: https://doi.org/10.1016/j.jik.2018.03.003

Liyanage, C., Elhag, T., Ballal, T. and Li, Q. (2009) 'Knowledge communication and translation – a knowledge transfer model', Journal of Knowledge Management. 13(3), pp. 118–131. doi: 10.1108/13673270910962914.

Polkinghorne, M., Bournemouth University, and Institute of Knowledge Transfer (2011) Review of the use of the terms 'knowledge transfer' and 'knowledge exchange': undertaken in partnership with the Institute of Knowledge Transfer. Bournemouth: Bournemouth University (KTP Centre). Available at: http://eprints.bournemouth.ac.uk/17869/1/Review_of_the_Use_of_KT_and_KE_Terminology.pdf (Accessed: 11 February 2021)

Reed, M. S., Stringer, L. C., Fazey, I., Evely, A. C. and Kruijsen, J. H. J. (2014) 'Five principles for the practice of knowledge exchange in environmental management', Journal of Environmental Management, 146(1), pp. 337–345. doi: 10.1016/j.jenvman.2014.07.021.

For additional information about the Higher Ed Partners Training (2020/2021) Opportunities, Please see the website referenced below.

Higher Ed Partners (2021) Higher Ed Partners United Kingdom Wesbite [and contact details]. Available at: https://higheredpartners.co.uk/ (Accessed: 11 February 2021)

Thus, from the aforementioned research, we have deduced that ***students and academics are involved in Knowledge Exchange (KE) during learning and teaching in higher education*** in the following ways (which have become the sub-themes for our conference):

- **Planning KE engagement**
- **Embedding KE plans into the curriculum/ research approaches**
- **Independent learning opportunities with external support**
- **Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE**
- **Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities**
- **Assessment of KE outcomes/ impacts**

Ultimately, the aim of the conference is to engage academic members of staff in the concept of Knowledge Exchange through a range of presentations intended to provide practical examples of teaching practice that:

- develop the regional understanding of Knowledge Exchange in Higher Education;
- share effective learning and teaching practices;
- and demonstrate the value of designing Knowledge Exchange into the curriculum.

We encourage all staff to explore opportunities to develop their teaching practice.

The Three Rivers Consortium comprises of committee members from each of the five regional universities.

Sunderland	Mark Proctor	academic.development@sunderland.ac.uk
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Teesside	Samuel Elkington	s.elkington@tees.ac.uk

This event has been organised by the Three Rivers Consortium in collaboration with the conference presenters. This year, we are also delighted to have our welcoming remarks being offered by the University of Sunderland's Dr Abigail Moriarty (Pro-Vice Chancellor of Learning and Teaching). The event is recognised by Advance HE.

Welcome Remarks Speaker: Dr Abigail Moriarty

Pro-Vice Chancellor of Learning and Teaching at the University of Sunderland.

Dr Abigail Moriarty or 'Abi' is the newbie Pro-Vice Chancellor for Learning and Teaching at the University of Sunderland since August 2019. From 2013 to 2019 she was the Associate Director of Teaching and Learning, and then promoted to the Director of Teaching and Learning and Interim PVC (Academic) at De Montfort University (DMU), Leicester.

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Dr Abigail Moriarty or 'Abi' is the newbie Pro-Vice Chancellor for Learning and Teaching at the University of Sunderland since August 2019. From 2013 to 2019 she was the Associate Director of Teaching and Learning, and then promoted to the Director of Teaching and Learning and Interim PVC (Academic) at De Montfort University (DMU), Leicester. From 2001 to 2013 she held various academic roles within the Faculty of Health and Life Sciences DMU, including Teacher Fellow, Programme Leader, Head of Division and had a Faculty lead role in developing the student experience. She is a qualified nurse and midwife.

Her research interests span both student learning and professional practice. Much of her recent work has been on improving the understanding of how students succeed in Higher Education, and what barriers prevent them from reaching their full potential. Therefore ultimately designing a universally inclusive curriculum, that is student centric and inspiring. Abigail has given numerous invited key note presentations on Universal Design for Learning, to local, national and international audiences.

She completed her first degree at DMU and also holds a MA and PhD degrees in education from the University of Huddersfield. Dr Moriarty is a co-author of Transforming Higher Education through Universal Design for Learning (2019) and continues to influence and shape the student experience in her new role as PVC for Learning and Teaching for those students at the University of Sunderland, with campuses in London and Hong Kong.

Her downtime includes gardening (badly) and listening to audiobooks on her 123 mile commute. She lives in Yorkshire and is a loving mum to Margot-Rose the Beagle and has an array of other cats and rabbits and is also married to Chris. She is delighted and honoured to be the Welcome Remarks Speaker at the Three Rivers Conference 2021.

Internal Keynote Speaker: Professor Jon Timmis

Deputy Vice-Chancellor (Commercial) at the University of Sunderland

Jon is responsible for University of Sunderland recruitment, marketing and communications, knowledge transfer and exchange, regional development, work-based learning, partnerships, philanthropy and alumni relations, and international activity.

Jon is both the Deputy Vice-Chancellor (Commercial) and a Professor of Intelligent and Adaptive Systems at the University of Sunderland; and maintains an active research group in the area of swarm and evolutionary robotics, and computational biology.

After a career in catering, Jon studied Computer Science as a mature student at Aberystwyth University, staying on to study for a PhD in the area of artificial intelligence. In 2000 Jon moved to the University of Kent, becoming Senior Lecturer at the School of Computing. In 2005 he joined York, initially as Reader between the Computer Science and Electronic Engineering departments. He became a professor in 2008, then moved full-time to the Department of Electronic Engineering. He served as Head of the Electronic Engineering Department and then Pro Vice-Chancellor for Partnerships and Knowledge Exchange.

Jon is also a previous recipient of a Royal Society-Wolfson Research Merit Award and a Royal Academy of Engineering Enterprise Fellowship.

Jon co-founded Simomics Ltd in 2015 to commercialise his research.

External Keynote Speaker: Sandy Sparks

A professional / organisational development consultant with both UK and international experience.

Sandy has worked in both the private and public sector, with extensive Higher Education (H.E) experience.

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Sandy Sparks a professional / organisational development consultant with both UK and international experience. She has worked in both the private and public sector, with extensive Higher Education (H.E) experience. Since 1994, Sandy has run her own independent consultancy business. Sandy has a portfolio career which incorporates facilitation, mediation and she undertakes consultancy in a wide range of HR, OD and L&D areas.

Sandy is passionate about and committed to creating engaging learning and development, in order to build the capacity and capability of people. She has a proven track record of successful start-up and development of programmes / projects, delivering to budget, agreed time-scales and deliverables. Impact and evaluation of provision / programmes are important to Sandy to evidence the impact and that the initiative makes a difference.

Sandy supports people to enhance their capabilities, effectiveness and employability. Sandy has experience both as a lecturer, researcher developer and Organisational Developer. For over a decade Sandy was the Organisational Development Consultant for Research Active Staff (RAS) at the University of Warwick (circa 2200 RAS staff in 2019, from 300 in 2009). Sandy led the University of Warwick RAS Learning & Development Provision that covers the following thematic areas: Leadership Development, Career Development, Skills Development (e.g. Online Profiles, Academic Writing), and Equality, Diversity & Inclusion (e.g. Unconscious Bias, Dignity Training, Inter-cultural / Cross-cultural Training), Enterprise/ Entrepreneurship and Research Impact / Public Engagement.

Sandy has presented at academic conferences since 2008, she has been an invited speaker and trainer, she has produced specialist and generalist articles for practitioner and non-practitioner publications, blogs etc. Sandy has been an associate and facilitated on the British Council Researcher Connect Programme in Brazil, China, India, and Kenya. She has also presented at many Vitae conference.

The North East Universities (Three Rivers Consortium) Learning and Teaching Conference

25th June 2021 - Hosted by the University of Sunderland and the Three Rivers Consortium

Knowledge Exchange for Learning and Teaching in HE

KEYNOTE LIVE STREAM LINK:

9.15-9.30	**Conference Opening/Welcoming Remarks** by Dr Abigail Moriarty *Pro-Vice Chancellor of Learning and Teaching at the University of Sunderland*
9.30 – 10.00	**Keynote Address: The role of Knowledge Exchange in supporting HE Learning And Teaching** by Professor Jonathan Timmis *Deputy Vice-Chancellor (Commercial) at the University of Sunderland*
10.00 – 10.10	***Comfort Break***
10.10 – 10.50	**Keynote Address: Developing, Activating and Maintaining Your Networks: During Knowledge Exchange for Impact** by Sandy Sparks *A professional / organisational development consultant with both UK and international experience. Sandy has worked in both the private and public sector, with extensive Higher Education (H.E) experience.*
10.50 – 11.00	***Comfort Break***

11.00-	**Knowledge Exchange Live Stream Presentations (Part 1)**				
Live Streams	Live Stream chaired by The University of Sunderland	Live Stream chaired by Northumbria University	Live Stream chaired by Teesside University	Live Stream chaired by Durham University	Live Stream chaired by Newcastle University
LINK	Insert link here.	Insert link here.	Insert link here.	Insert link here.	Insert link here.
11.00 – 11.20	**1a. Troubling Knowledges and Difficult Pedagogical Moments for Students Learning.** By Sheila Quaid and Helen Williams	**1b. The Three Dimensions of a University – A trilogy model with knowledge-exchange at the core.** By T. E. Butt, N. Coates, N. Burnip, A. Alam and C. D. Beal	**1c. The Microsoft Innovative Educator Expert Experience: Lessons from a University Academic's foray into Multidisciplinary Mixed-Level Professional Learning Networks.** By Samantha Gooneratne	**1d. Rethinking the Flipped Classroom: Lessons Learned from the Online Pre-sessional.** By Fran Cettl and Joe Locke	**1e. Embedding the Sustainable Development Goals within first year biosciences skills teaching.** By Sara Marsham and Alison Graham
11.20 – 11.40	**2a. Developing a framework to integrate student-led Problem Based learning (PBL) with traditional faculty- driven approach.** By Tawfiq Elahi	**2b. The NSS takes care of itself – a personal reflective account exploring 5 years of brand led industry professional approach to programme leading at a UK based post-92 University.** By Michael Wood and Rick Hayman	**2c. Using Minecraft Education Edition to Create Meaningful Student Interactions.** By Helen Tidy, Helen Carney, Callum Anderson and Alex Wood	**2d. Coping with Covid; Understanding and Mitigating Disadvantages Experienced by First Generation Scholars Studying Online.** By Lewis Mates and Adrian Millican	**2e. Not just technology for technology's sake: Working collaboratively to explore, develop and embed technology enhanced learning.** By Michelle Barr and Gemma Mitchelson
11.40 – 12.00	**3a. The impact of digital pedagogy on knowledge sharing of learners in Higher Education: A multi-level analysis.** By Blanca Viridiana Guizar Moran, Royston Meriton, Flor Gerardou, Anthony Brown and Rajinder Bhandal	**3b. The Cinderella of knowledge-exchange: student placements.** By Kate Black and Russell Warhurst	**3c. Trauma-Informed Learning and Teaching - Why it Matters.** By Lynn Miles	**3d. Culture shock and the gendered teaching experiences of new academics.** By Helen Hooper, Emma Anderson, Kate Black, Lynn Mcinnes, Linda Allin, Susan Mathieson, Roger Penlington and Libby Orme	**3e. Numbas online assessment in Covid times.** By Chris Graham
12.00 – 12.10	***Comfort Break***				

12.10-	***Knowledge Exchange Live Stream Presentations (Part 2)***				
Live Streams	Live Stream chaired by The University of Sunderland	Live Stream chaired by Northumbria University	Live Stream chaired by Teesside University	Live Stream chaired by Durham University	Live Stream chaired by Newcastle University
LINK	Insert link here.	Insert link here.	Insert link here.	Insert link here.	Insert link here.
12.10 – *12.30*	**4a. Enhancing Employability and Building Science Capital through the FIRST® LEGO® League.** By Nigel Smith .	**4b. Benefits and challenges with the Royal Academy of Engineering visiting professors programme.** By Tom Prickett, Phil Brooke, Paul Johnson and Jaime M. Amezaga.	**4c. Paragogy as Knowledge Transfer: Using the Future Facing Learning Toolkit to Promote Student-centred Peer Learning.** By Jenna Clake	**4d. "To be at home wherever I find myself": peer mentoring as a tool to enhance student belonging.** By Megan Bruce, Lewis Mates and Adrian Millican	**4e. Using Microsoft Teams as an inclusive approach to embed and enhance employability across a diverse student population.** By Beth Lawry, Vanessa Armstrong and Marc Bennett
12.30 – *12.50*	**5a. The development of the Sunderland ESOL Hub.** By Michael Hepworth	**5b. 'Going against the norm'; Men studying Nursing, Primary Education and Social Work.** By Lucy Grimshaw, Sue Jackson, David Littlefair and Andrew Melling	**5c. The Use of Sketchnoting as a Revision Aide.** By Helen Tidy	**5d. Appropriate blend of Blended Learning - Foundation students' experiences of asynchronous activities in mathematics learning.** By Jean Mathias and Izabela Walczak.	**5e. It's not just about the science- attribute development and recognition via final year dissertations.** By Vanessa Armstrong, Jessica Jung, Ramandeep Dhanoa, Emily Jeffreys and Sophia Candy
12.50- *13.10*	**6a. Does assessment deadline time of day affect student behaviour and attainment?** By Sophie Cormack, Mark Davies and Laurence Eagle	**6b. '(Disruptive) Transitions': A case study of creative collaboration to facilitate Level 4 induction.** By Judy Thomas and Seton Wakenshaw	**6c. Authentic learning in healthcare: How to move forward.** By Paul Chesterton, Jennifer Chesterton and Jenny Alexanders	**6d. Digital Storytelling as a pedagogic and skills development practice for English undergraduates**. By Teti Dragas and Alistair Brown	**6e. NUMBAS for engineers - Unique assessments with automated marking.** By Christopher Pearson
13.10 – *13.30*	***Conference Closing:*** *Closing remarks by the chairs of the conference - on behalf of the Three Rivers Consortium* **LIVE STREAM LINK:**				

Keynote and Three Rivers Consortium Abstracts.

Keynote speech by Professor Jon Timmis

Deputy Vice-Chancellor (Commercial) at the University of Sunderland

'The role of Knowledge Exchange in supporting HE Learning And Teaching'

In this keynote speech Professor Jon Timmis will discuss knowledge exchange (KE) and how KE can support developments to support teaching and learning. KE is a broad area, but at its heart is collaboration and the exchange of ideas between parties, and can include a range of activities from co-development of the curriculum with businesses, to entrepreneurship and supporting students to create their own companies. He will explore the links between working with businesses and universities, and highlight some of the issues that this brings, along with benefits to be gained and challenges to overcome.

Keynote speech by Sandy Sparks

A professional / organisational development consultant with both UK and international experience.

'Developing, Activating and Maintaining Your Networks: During Knowledge Exchange for Impact.'

An exploration of the link between Networking for Knowledge Exchange and HE learning and teaching.

In this keynote speech Sandy Sparks will share her experiences of Knowledge Exchange. Sandy will explore the links between developing Knowledge Exchange Networks and a coaching developmental approach to support H.E. learning and teaching practices. Sandy will explore what benefits, opportunities, and challenges exist surrounding the building of Knowledge Exchange Networks for teaching purposes. Her key argument will be that networking for the exchange of knowledge is the key to personal and professional development, coaching and teaching success.

Live Stream Abstracts.

The following presentations celebrate the work of our teaching staff and the different ways in which ***students and academics are involved in Knowledge Exchange (KE) during learning and teaching in higher education, including***:

- **Planning KE engagement**
- **Embedding KE plans into the curriculum/ research approaches**
- **Independent learning opportunities with external support**
- **Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE**
- **Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities**
- **Assessment of KE outcomes/ impacts**

To support the exploration of Higher Education Knowledge Exchange (KE) practices, the conference organisers have **colour coded the following abstract titles to match the above KE categories they can be linked to.** Only one link has been mapped here; however, you may see multiple links.

As identified in the conference aims, the Three Rivers Consortium believe these practices will further our regional understanding of Knowledge Exchange in Higher Education, whilst sharing effective learning and teaching practices, and demonstrating the value of designing KE into the curriculum.

1a. Troubling Knowledges and Difficult Pedagogical Moments for Students Learning.

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Sheila Quaid and Helen Williams

Author keywords: Discomforting; Pedagogy; Emotion; Troubling Knowledge; Diversity; Difference

The student who enters the classroom to learn about the social world brings with him or her an existing set of ideas which often have not been challenged and are considered normal/ natural explanations. It is expected that our learning and teaching settings in HE will foreground critical thought, allowing students to consider the world in new and/or different ways. As HE professional educators in Social Sciences, we teach a curriculum which foregrounds inequalities. This includes differences of race, gender, disability and sexuality, underpinned by global approaches. In this paper presentation we address the difficult pedagogical moments faced by lecturers and the discomforting pedagogies experienced by the students. Tensions arise when our theoretical explanations for inequalities and power differentials clash with the students' existing knowledge of the social world. These difficult moments produce struggle for the student who is learning and pedagogical challenges for the lecturer. This paper captures a snapshot of some of the experiences of educators teaching diversity across a range of subject areas. We also reflect on the potential for professional development and possibilities for embedding best practice in preparing academic staff to deal with difficult moments.

References

Available on request (from the presenters).

1b. *The Three Dimensions of a University – A trilogy model with knowledge-exchange at the core*
(This session maps to 'Independent learning opportunities with external support')

By T. E. Butt, N. Coates, N. Burnip, A. Alam and C. D. Beal.

Author keywords: Knowledge exchange; Knowledge transfer; Student experience; Research informed teaching; Industry engagement; External engagement; Academic Citizenship; Internationalisation

Knowledge creation is a key function of universities, and the synergy between research and teaching underpins both undergraduate and postgraduate learning. In addition to interaction with existing knowledge, students should also be supported to create new knowledge, thereby experiencing a landscape where both knowledge-transfer/knowledge-exchange and knowledge-generation take place synergistically. A third key element of Higher Education is the role that an institution plays in external, industry engagement. The benefits of knowledge-exchange and research-centred teaching to the national economy have been recognised particularly regarding innovation, the ability to tackle major business challenges, entrepreneurship and growth.

This paper presents a model exploring how universities can operate more productively along the three dimensions of 'Teaching', 'Research', and 'Knowledge-exchange between universities and the Commercial, Enterprise and Consultancy (CEC) sector'. It will also outline some of the challenges in balancing these. The model is also individually and collectively mapped against TEF (Teaching-Excellence-Framework), REF (Research-Excellence-Framework) and KEF (Knowledge-Transfer-Framework) agendas.

The case-studies included in this presentation (come from both current and former students placed in the government/public and private/commercial sectors – national and international), illustrate how a university can use different approaches to simultaneously engage with this triad, enhancing the teaching impact of universities in several ways. For instance, multi- and inter-sectorial engagement; implications of on-campus and off-campus scenarios; and internationalisation via knowledge-exchange. The paper demonstrates how such a three-faceted model can more effectively contribute to student-experience and student-outputs in building students communication skills; professional confidence and welfare, overall, while knowledge-exchange is at the core of it.

References

Available on request (from the presenters).

1c. *The Microsoft Innovative Educator Expert Experience: Lessons from a University Academic's foray into Multidisciplinary Mixed-Level Professional Learning Networks*

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Samantha Gooneratne.

Author keywords: Professional Learning Network; Continuing Professional Development; staff training; technology-enhanced learning; digital skills

Trust, Krutka and Carpenter (2016) define Professional Learning Networks (PLNs) as "uniquely personalised, complex systems of interactions consisting of people, resources, and digital tools that support…professional growth". Whilst discipline-based PLNs are common in HE, pedagogy PLNs such as Advance HE Connect and #LTHEChat on Twitter are quite broad in their focus. By contrast, the Microsoft Innovative Educator Expert (MIE-Expert) community focuses on enhancing educator digital skills, but across disciplines and levels. This presentation highlights the author's experiences of being an MIE-Expert both before and during the COVID19 pandemic and explores the potential of mixed-level PLNs as an innovative platform for knowledge exchange.

MIE-Expert status is achieved via self-nomination and subsequent approval by the Microsoft Education team; the author has made two successful applications as part of a self-managed CPD plan. A key feature of this PLN is that its membership comprises educators and learning developers in Schools, FE Colleges and HEIs. This presentation covers the operation of the MIE-Expert PLN, explores what HE can learn from other levels, and demonstrates how despite not strictly being an education tool, this PLN satisfies the QAA's definition of Enterprise (2018).

The author's original motivation for seeking MIE-Expert status was personal; however, the dividends have been realised across the Engineering Department and the School of Computing, Engineering and Digital Technologies at Teesside University, proving vital during the recent pandemic-related transition to agile working. This presentation will detail the benefits thus gained and discuss the merits of maintaining similar networks in a post-pandemic climate.

References

Available on request (from the presenter).

1d. *Rethinking the Flipped Classroom: Lessons Learned from the Online Pre-sessional*

(This session maps to 'Embedding KE plans into the curriculum/ research approaches')

By Fran Cettl and Joe Locke

Author keywords: online learning; pre-sessional courses; flipped learning

In response to the Covid pandemic, Durham University pre-sessional programmes were transferred online at short notice. The move entailed a radical rethink and redesign of academic language and skills courses traditionally taught face-to-face. Curriculum designers, teachers and students were quick to take on unfamiliar technologies like Teams and Zoom, and enhance their use of existing platforms. A Flipped Learning approach (Abeysekera & Dawson, 2015) was adopted in which students were introduced to materials and tasks asynchronously before attending synchronous classes for further practice and knowledge consolidation through peer activities and teacher feedback. Learning outcomes were ambitious, yet little time was available to ground the course design more robustly in Flipped Learning research. Key findings from teacher and student feedback identified overheavy workloads which impeded effective student engagement, pedagogic scaffolding and teacher feedback; lack of clarity over the teachers' role in synchronous classes; and lack of incentive for students to complete pre-class tasks. In order to address these issues and improve the next iteration of the course, the Community of Inquiry framework for online learning based on the principles of teaching presence, cognitive presence and social presence (Garrison, Anderson and Archer, 2000), can provide a useful model for practical implementation, especially with support from the four principles of the Flipped Learning Network (2014), F-L-I-P: Flexible environment (pre-class, in-class, post-class); Learning culture (student-centered); Intentional content and Professional Educator (teacher role). This presentation will outline some of the challenges and lessons learned from migrating pre-sessional programmes online and give some tried-and-tested practical advice.

References

Available on request (from the presenters).

1e. Embedding the Sustainable Development Goals within first year biosciences skills teaching.
(This session maps to 'Embedding KE plans into the curriculum/ research approaches')

By Sara Marsham and Alison Graham

Author keywords: UN SGDs; Interdisciplinary; Skills teaching; Curricula integration

Universities play a key role in engaging future scientists with the UN Sustainable Development Goals (SDGs). Students undertaking biological sciences-related degree programmes are well-positioned to participate in cross-disciplinary research. Within the School of Natural and Environmental Sciences, students on programmes relating to Biology, Cell and Molecular Sciences, Ecology and Conservation, Marine Sciences, and Zoology undertake a first year Academic and Professional Skills for the Biosciences module. A key aspect of this module is developing approaches to locating, evaluating and communicating scientific evidence. The UN SDGs provide an opportunity to develop these skills around a degree-relevant topic.

We have embedded the SDGs within the module through timetabled workshops and tutorials. To scaffold understanding of relevant discipline goals, students select an SDG target from one of three goals to consider whether this target is achievable by 2030. By undertaking in-class and formative activities, students are supported in producing a written individual assessment and oral group assessments.

This links to the theme of Education for Sustainable Development and offers delegates the opportunity to gain an overview of how SDGs can be embedded from the start of a programme. The presentation provides delegates with ideas of how to utilise taught sessions and assessment tasks to engage students with the SDGs.

This presentation would be of interest to anyone seeking to engage students with the SDGs and foster interdisciplinary links between students on different degree programmes. Participants will leave with examples of approaches for taught sessions and different types of assessment.

References

Available on request (from the presenters).

2a. *Developing a framework to integrate student-led Problem Based learning (PBL) with traditional faculty- driven approach.*

(This session maps to 'Planning KE engagement')

By Tawfiq Elahi.

Author keywords: Problem Based Learning; Learning Gain Epistemic Curiosity; Contextual Ques

The importance of solving real-life problems was emphasized by many critics e.g., Porter & McKibbin (1998), Pfeffer & Fong (2002), Mintzberg (2004), Rubin & Dierdorff (2009). Problem-Based Learning (PBL) is focused on 'integrating skills and knowledge' (Ungaretti et al., 2015) and a promising approach to prepare students for employment.

Stinson and Milter (1996) discussed the effectiveness of PBL but raised concern on the implementation. As per Ungaretti et al. (2015), 'PBL is messier than teaching textbook knowledge.' Though significant literature published evaluating the importance of PBL, limited research exists that demonstrate the practical implementation of PBL through identifying the resources and the processes.

This research developed a framework to implement PBL based learning environment. This research demonstrated the reliability of practicing the student-led PBL approach in combination with faculty-driven traditional approach within two academic disciplines at both undergraduate and postgraduate level.

The researcher has taken a pragmatic philosophical stance, approached inductively through mixed method means.

To demonstrate the capabilities of the framework field studies been piloted in University of Sunderland London campus within the discipline of Post Graduate Business Management and Undergrad Top-up Health & Social Care. Academics peer reviewed the pilot commented that the Management teaching session 'enabled the students to acquire/apply the knowledge and skills suitable for a level 7 course which requires graduates to excel in problem solving, critical thinking and collaborative working skills'. In a survey, one Public Health student 'strongly agreed' with the statement – 'The session changed your attitude towards solving real life industry problems'.

References

Available on request (from the presenter).

2b. *The NSS takes care of itself – a personal reflective account exploring 5 years of brand led industry professional approach to programme leading at a UK based post-92 University.*
(This session maps to 'Assessment of KE outcomes/ impacts')

By Michael Wood and Rick Hayman.

Author keywords: Programme leadership; Quality enhancement; Strategic brand management

Research into the role of the programme leader predominately highlights the challenges faced in an increasingly important role, and the myriad of demands and metrics, not least the NSS. This paper reflectively explores the positive impact of strategic brand management to holistically enhance an undergraduate programme, adopted by a former strategic brand professional and late career academic.

By combining a brand management approach, alongside the creative soft systems methodology, an exploration of the ecosystem was undertaken. The accumulation of hard and soft data through feedback and research, alongside trend analysis allowed for a rich interconnected picture of value, and relationships to emerge. In parallel, collaborating with the teaching team, processing feedback from students and alumni, a programme identity created trust, and a shared purpose.

Ideas and initiatives were evaluated and prioritised against impact criteria and feedback, and measured against a dashboard of KPIs. Enhancements were planned and implemented at module and programme level, enriching the distinctiveness, establishing reciprocal relationships with partners and alumni, identifying research opportunities, raising aspirations and enhancing the student experience.

This approach delivered continuous improvement as marginal gains have accumulated. The programme achieved NSS results of 91.4%, 93.1% and 93.3% between 2018 - 2020. Retention improved. Placement attainment reached 100%. Student events raise thousands for charity. Applications and admissions grow, with improved points averages. And a newly established Sport Management Society will empower students as cultural architects.

This reflection provides a perspective and method for programme leaders to consider, to derive greater satisfaction and deliver value.

References

Available on request (from the presenters).

2c. *Using Minecraft Education Edition to Create Meaningful Student Interactions*

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Helen Tidy, Helen Carney, Callum Anderson and Alex Wood

Author keywords: Minecraft; Interactions; Online

Induction of students in 2020 posed a unique problem with the process being purely online. Induction represents an important opportunity for students to engage with their peers and staff in order to create a bond with their studies and the University. The ability to allow students to create this bond is hindered within a fully online environment where students have yet to meet fellow students or academic staff.

With this in mind, the Minecraft Education Edition working group looked at designing and creating an online interactive induction activity that would allow students to get to know peers as well as staff.

The activity designed was an interactive challenge, to cross a magma pit that had appeared on Teesside University campus. Students worked with other students to problem solve crossing the magma pit – the activity was non- course related and required no prior Minecraft knowledge enabling it to be inclusive to multiple students. The campus was chosen as the setting to allow students, who were unable to access campus, to become familiar with the University environment.

There was plenty of laughter and conversation in all the sessions as students were drawn into the task. Student feedback reflected this sense of fun and engagement with a student describing the experience as "really creative and fun. I was laughing quite a lot!" Other feedback focused on how helpful it was to get to know the people on their team and put names to faces.

References

Available on request (from the presenters).

2d *Coping with Covid; Understanding and Mitigating Disadvantages Experienced by First Generation Scholars Studying Online.*

(This session maps to 'Assessment of KE outcomes/ impacts')

By Lewis Mates and Adrian Millican

Author keywords: First generation scholars; Covid-19; Online learning

This talk examines the impact of Covid-19 and particularly the transition to online or blended learning for first generation scholars (FGS). We present preliminary findings of a mixed methods project that draws data from both in-depth qualitative interviews and a large quantitative survey of students at Durham University. We offer a comparative analysis of how FGS contrast to the general student body in relation to a range of key challenges that Covid-19 and the consequent 'online pivot' pose to university life including technological, social and resource based issues. Our findings demonstrate that FGS are particularly affected by this shift to online or blended learning. Given that these issues are highly pertinent in terms of any effective EDI agenda, they need urgent highlighting and addressing. We conclude by discussing a range of solutions available to university departments to attempt to mitigate the problems identified.

References

Available on request (from the presenters).

2e. Not just technology for technology's sake: Working collaboratively to explore, develop and embed technology enhanced learning.

(This session maps to 'Planning KE engagement')

By Michelle Barr and Gemma Mitchelson.

Author keywords: Technology Enhanced Learning, Blended Learning, Pedagogy.

Institutional Technology Enhanced Learning (TEL) services are well established across the Sector. TEL has provided HEIs with the opportunity to reconceptualise the design and delivery of teaching and learning, through an increase in flexible pedagogies and alternative modes of delivery (Gordon 2014).

Despite the commitment to TEL, there are mixed reviews on successful adoption (Flavin 2017). The UCISA (2018) TEL Survey highlights the main barriers to TEL as lack of time, institutional culture, lack of staff knowledge and digital capabilities. Other complexities include pedagogical challenges, implications of costs or simply a lack of infrastructural support, but ultimately staff members responsible for design, development and delivery of TEL face the greatest barriers (DfE 2019)

In support of these challenges, Newcastle University has committed a significant investment in staff support and resource. Our Education Strategy hopes to provide students with an educational experience supported and enhanced by technology. This approach is founded on student learning and not on technology for technology's sake. We aim to incorporate TEL in a way that strengthens and enhances both student and staff experiences, and to increase capacity and capability to deliver online, flexible and blended programmes.

This presentation will explore some of our holistic approaches to curriculum design, TEL and blended learning. It will highlight what we have achieved through collaborative projects that bring together technological, pedagogical, and content knowledge (Mishra & Koehler 2006), and reinforce our aim to avoid 'technology just for technology's sake'.

References

Department for Education (2019). Realising the potential of technology in education: a strategy for education providers and the technology industry. [online]. Available at: gov.uk/government/publications/realising-the-potential-of-technology-in-education

Flavin, M. (2017) 'Disruptive Technology Enhanced Learning'.

Gordon, N. (2014) Flexible Pedagogies: technology-enhanced learning. Higher Education Academy.

Mishra, P. and Koehler, M.J., 2006. Technological pedagogical content knowledge: A framework for teacher knowledge. Teachers college record, 108(6), pp.1017-1054.

Walker, R et al. (2018). 2018 Survey of Technology Enhanced Learning for Higher Education in the UK.. 10.13140/RG.2.2.21585.58723.

3a. The impact of digital pedagogy on knowledge sharing of learners in Higher Education: A multi-level analysis

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Blanca Viridiana Guizar Moran, Royston Meriton, Flor Gerardou, Anthony Brown and Rajinder Bhandal.

Author keywords: knowledge sharing; digitally-enabled pedagogy; e-learning

The pandemic has changed the status quo of higher education pedagogy, and many institutions have rushed to face this new reality. The university sector has been slow to adopt, if not adapt, tighter budgets and an international student market standing still provides an opportunity to take advantage of the flexibility that digital pedagogy offers (Luburić et al., 2021). The application of digitally-enabled pedagogy is often portrayed as a sideshow rather than a learning approach to teaching in its own right.

This proposal falls within the conference theme- Technology-enhanced learning. Our work focuses on a more embedded and systematic embrace of digital pedagogy based on improving knowledge sharing. Knowledge sharing amongst learners is an essential antecedent to engagement and academic performance (Aslam et al. 2013). We survey the literature with a view of capturing the enablers of knowledge sharing in a virtual or online setting. We aim to propose an inclusive framework for positive knowledge sharing behaviour by embracing a complete digital pedagogy, making recommendations for theory, practice and future research.

We are at the literature review stage examining the intersection of e-learning and knowledge sharing in higher education. The literature suggests that enablers are wide-ranging, including individual factors such as self-efficacy (Van Acker et al., 2014), contextual factors such as personal learning environment (Saz, Engel and Coll, 2016), technological factors such as web-based systems and pedagogical (Ebner and Taraghi, 2010 and Janson, Söllner and Leimeister, 2020).

References

Aslam, M. M. H. et al. (2013) 'Social capital and knowledge sharing as determinants of academic performance', *Journal of behavioral and applied management*. doi:10.21818/001c.17935.

Ebner, M. and Taraghi, B. (2010) 'Personal Learning Environment for higher education – A first prototype', *in EdMedia + Innovate Learning*. Association for the Advancement of Computing in Education (AACE), pp. 1158–1166.

Janson, A., Söllner, M. and Leimeister, J. M. (2020) 'Ladders for learning: Is scaffolding the key to teaching problem-solving in technology-mediated learning contexts?', *Academy of Management learning and education*, 19(4), pp. 439–468.

Luburić, N. et al. (2021) 'The challenges of migrating an active learning classroom online in a crisis', *Computer applications in engineering education, (cae.22413).* doi: 10.1002/cae.22413.

Saz, A., Engel, A. and Coll, C. (2016) 'Introducing a personal learning environment in higher education. An analysis of connectivity', *Digital education review.* Available at: http://files.eric.ed.gov/fulltext/EJ1106179.pdf (Accessed: 13 April 2021).

Van Acker, F. et al. (2014) 'The role of knowledge sharing self-efficacy in sharing Open Educational Resources', *Computers in human behavior*, 39, pp. 136–144.

3b. *The Cinderella of knowledge-exchange: student placements.*
(This session maps to 'Independent learning opportunities with external support')

By Kate Black and Russell Warhurst.

Author keywords: placements; assessment; knowledge exchange; boundary spanning

UK universities have an increasing role in stimulating a competitive, innovative knowledge-based economy through KE: from industry to academia and vice versa. Such KE was the essence of a traditional polytechnic education where practice-focused 'sandwich' and part-time courses dominated. However, with the transformation of polytechnics into universities, sandwich courses went into decline. Placements have though been re-gaining traction (HESA, 2021), meeting students' desires for value-adding degrees and enhanced employability (Jackson and Bridgstock, 2020). However, placements are a Cinderella area of KE and their huge KE potential is rarely realised. To achieve the potential of placements, students need to boundary-span, being capable of transferring or translating knowledge, skills and 'habits-of-mind' from the two activity-systems of academia to practice and also, crucially, back again (Asplund and Fening, 2021; Tuomi-Grohn and Engeström, 2003).

The failure to realise this exchange potential is largely down to how we assess our students' placements. Our critical review of the assessment mechanisms used on placement module/s at eleven UK universities is showing the dominant assessment to be portfolios with students' evidencing their development against university-defined competencies. We conclude that such assessments are unconducive of two-way KE. By contrast, assessments that encourage university-practice boundary-spanning (Weerts and Sandmann, 2010; Williams, 2011), could better engender collaborative knowledge generation, opening new alternative curricula and pedagogies. Such assessments might, for example, use action-learning methods whereby, through their social network, placement students collaborate on joint projects with others facing similar organisation-based challenges.

References

Available on request (from the presenters).

3c. *Trauma-Informed Learning and Teaching - Why it Matters*

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Lynn Miles.

Author keywords: Trauma-Informed; Student Success; Learning

Research suggests that half of adults in the UK have experienced at least one, potentially traumatic, adverse childhood experience before the age of 18 and 10% have experienced four or more. Also, the chances of exposure to these experiences in the north-east of England is likely to be much higher. Furthermore, the current pandemic has been called both a 'collective trauma' and a 'cultural trauma'.

Whilst many schoolteachers have known for some time the importance of understanding the impact of trauma on our students' ability to learn, their levels of engagement and dropout rates, those in higher education are only just becoming aware of this now. It is thought that in HE up to 70% of our students may already carry trauma histories and added to that, we have all in one way or another, been impacted by the trauma of Covid.

In September 2019 Teesside University launched a unique MA Education (Trauma-Informed Practice), that is delivered using trauma-informed approaches. It is, however, becoming increasingly apparent, that it is not just those of us teaching about trauma that need to do this - all educators do - especially as the repercussions of this collective and cultural trauma will be with us for many years to come.

This talk will explain the impact of trauma on students' ability to learn, highlight symptoms, share statistics and suggest strategies and tools for helping to engage our students and work with them in a way that will increase the likelihood of their success.

References

Available on request (from the presenter).

3d. *Culture shock and the gendered teaching experiences of new academics*

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Helen Hooper, Emma Anderson, Kate Black, Lynn Mcinnes, Linda Allin, Susan Mathieson, Roger Penlington and Libby Orme

Author keywords: Cultural Historical Activity Theory (CHAT); Staff induction into teaching; Staff development; Teaching culture shock; Gendered teaching experiences

We present findings from a project which explored how new academics are supported with their induction to teaching and learning, particularly in departments. The project involved collaboration between educational developers from 6 departments with a shared aim of enhancing new staff induction into teaching by understanding their experiences and the contradictions they face.

Cultural Historical Activity Theory (CHAT) was used as a research framework and analytical tool as it focuses on socially situated learning through engaging in everyday tasks – in this case how academics learn to teach- an advantage of this framework in analysing academic workplaces is that it allows for identification and understanding of tensions and contradictions.

Researchers collaboratively mapped the 'Activity System' for the induction of academics into teaching in departments; mapping informed the development of a semi-structured interview protocol which was used to conduct interviews with 13 new academics.

Interview transcript analysis focussed on surfacing typical patterns of experience and identification of key contradictions found within the Activity System between departments.

Key contradictions found within the mapped Activity System will be presented and some of the most interesting and unexpected findings about new staff induction experiences will be discussed, including gendered teaching experiences and the extent, nature and impact of the teaching and learning 'Culture Shock' reported by staff, such as the perceived 'power imbalance' resulting from student feedback.

Reflections on the 'expansive learning' promoted by researcher engagement with CHAT will be shared alongside recommendations for enhanced staff induction into teaching resulting from the research.

References

Available on request (from the presenters).

3e. Numbas online assessment in Covid times

(This session maps to ‘Assessment of KE outcomes/ impacts’)

By Chris Graham

Author keywords: e-assessment; mathematics; laboratories; computing; assessment

Numbas is an open-source e-assessment system developed at Newcastle University, which is used extensively for the assessment of mathematics. The randomisation of questions along with immediate marking and feedback make the tool very powerful, particularly for formative use. The applications however go far beyond the teaching of mathematics itself, with particularly innovative use during online teaching over the past year. This talk will look at some of the ways that the features of Numbas have been adapted to assess skills such as data analysis, computer programming and laboratory work. New models for assessment, used as part of online learning and assessment over the past year will be presented.

References

Available on request (from the presenter).

4a. Enhancing Employability and Building Science Capital through the FIRST® LEGO® League
(This session maps to 'Assessment of KE outcomes/ impacts')

By Nigel Smith

Author keywords: Employability; STEM; Capital; LEGO®

Levels of participation in STEM (Science, Technology, Engineering and Mathematics) education are an international, national and regional concern. Increasing and widening participation in STEM subjects is seen to matter in terms of economic development and social justice, and, in this context, there is a wide range of initiatives designed to influence students' aspirations, expectations, skills and knowledge of both higher education and STEM subjects. The FIRST® LEGO® League is one such initiative, aimed at engaging 9-16 year-olds in STEM activities. The league brings together school children and teachers with industry professionals and university students who volunteer as STEM Ambassadors. Drawing on 'science capital' as a conceptual framework - developed to explain how a young person's resources can support or enhance their attainment, engagement and/or participation in science - from a university perspective, the league offers the potential to influence school children's post-compulsory education and career choices. It also provides opportunities for current undergraduate students to enhance their employability through volunteering as STEM Ambassadors. This research study investigated 1. the perceptions of children, teachers, parents and STEM Ambassadors on the impact of participation in the league on children's science capital; and 2. the impact of participation in the league on the employability of STEM Ambassadors. The presentation will examine the initial findings and consider how the FIRST® LEGO® League can be used to engage more people, from more diverse backgrounds, in post-compulsory STEM subjects, as well as enhance the employability of undergraduate students

References

Archer,L., Dewitt,J. and Willis,B.(2014)

Archer,L., Dawson,E., DeWitt, J.,Seakins,A.and Wong,B.(2015)

(Full references are available on request from the presenter.)

4b. Benefits and challenges with the Royal Academy of Engineering visiting professors programme

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Tom Prickett, Phil Brooke, Paul Johnson and Jaime M. Amezaga.

Author keywords: Employability; Visiting Industrial Professors; Royal Academy of Engineering (RAEng); Cyber security Environmental engineering

The Royal Academy of Engineering (RAEng) supports a Visiting Professors (VP) programme to encourage the flow of industry experience into academia. VPs enhance teaching, learning and employability by enhancing knowledge of the process of engineering with contemporary real world content. VPs contribute at least twelve days per year over three years with additional days for networking and cooperation amongst the teams at RAEng events. The 2019/20 intake numbers 35 VPs nationwide.

We describe the early experiences of two VPs: an information security specialist visiting Northumbria University and an environmental engineering consultant visiting the University of Newcastle. We highlight areas where each collaboration aims to provide an impact. Employability is a common major feature where practical insights and informal mentoring can directly support career planning and professional development of learners.

We describe the approaches taken in these placements. For example, the BCS, The Chartered Institute for IT, defines five broad areas of coverage for information security / cyber security. Studies show practical approaches enhance learner engagement in this critical syllabus area and this collaboration focuses upon consolidating and enhancing this area. In the environmental engineering example, the aim is to use practical industry experience to aid curriculum development. This will enable students to take a more holistic view of integrated engineering design and delivery of major infrastructure projects and hence improve employability.

We briefly describe the successes and challenges encountered so far. We conclude by arguing that the RAEng scheme is of symbiotic benefit to learners, academics and visiting industrial professors.

References

Available on request (from the presenters).

4c. *Paragogy as Knowledge Transfer: Using the Future Facing Learning Toolkit to Promote Student-centred Peer Learning.*

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Jenna Clake

Author keywords: paragogy; digital capability; peer learning; learner-centred pedagogy

Upon beginning my role at Teesside University as a Lecturer in Creative Writing, I designed new modules as part of a validation of a new Creative Writing BA: Creative Writing Labs. These are a unique strand of modules that help students gain professional skills in writing, editing, publishing, and writing group facilitation. As I began my lectureship, the institution rolled out its Future Facing Learning Toolkit - a digital suite of software available to academic staff and students.

I present a case study from my teaching practice – the module 'Creative Writing Lab: Writing and Audience' – to discuss how implementing an embedded approach to digital technology fosters knowledge transfer between students through deep and active learning (Biggs and Tang 2011) and supporting diversity in learning environments (Beetham 2013). In providing examples of tasks with adaptable, broad criteria, and student feedback, I explain that use of the FFL Toolkit promotes paragogy – the practice of peer learning – (Banfield and Wilkerson 2014; Boud et al. in Lelis 2017; Topping 2009), learner-centred pedagogy (Ayres 2015), self-efficacy (Brown Wright 2011), and digital capability (Beetham 2013; JISC 2019). I explain how I have been able to adapt this approach to online and hybrid approaches, using Google Docs as synchronous and asynchronous seminar spaces (Nicholls 2020).

I establish that implementing the FFL Toolkit allows students to further develop their digital capabilities, and promotes an inclusive and diverse learning environment. I demonstrate that this approach fosters knowledge exchange through informal transfer and co-production between peers.

References

Available on request (from the presenter).

4d. *"To be at home wherever I find myself": peer mentoring as a tool to enhance student belonging*

(This session maps to 'Planning KE engagement')

By Megan Bruce, Lewis Mates and Adrian Millican.

Author keywords: Peer support; Mentoring; Belonging; Transition

It is widely accepted that a sense of belonging is essential for student attainment and progression. Transitioning to university and learning to belong in a new environment is challenging for everyone, but particularly those with non-traditional backgrounds such as mature students, first generation students and students on Combined Honours programmes studying a range of subjects. In addition to certain specific groups, learning to belong at university has been particularly challenging for the entire 2020 cohort of freshers who have started university during the Covid-19 pandemic with its concurrent lockdowns and social distancing measures.

In order to address some of the challenges of student belonging, this presentation explores the development and evaluation of a suite of peer mentor schemes which have been developed in different departmental contexts within the Faculty of Social Sciences and Health at Durham University in the academic year 2020-21.

Exploring some more established peer mentor schemes in the University, as well as those created in response to the Covid-19 pandemic, we will offer an overview and evaluation of our various peer mentoring schemes from the perspectives of staff leads, student mentors and first year mentees. Contrasting previous face to face and current online delivery of mentoring allows us an opportunity to reflect on an ideal blended mode for future years. We conclude by suggesting some aspects we believe are important to consider for any other institutions or departments who are hoping to establish their own peer mentor schemes.

References

Available on request (from the presenters).

4e. *Using Microsoft Teams as an inclusive approach to embed and enhance employability across a diverse student population*

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Beth Lawry, Vanessa Armstrong and Marc Bennett.

Author keywords: Embedding employability; Inclusivity; Accessibility; Technology enhanced learning

The use of technology is vital in embedding employability in an inclusive manner within undergraduate studies, and supporting the ever-increasing demand for extra-curricular experience.

Microsoft Teams was introduced within our institution, Newcastle University over the last academic year. As Academic Leads for Employability and Placements we have actively engaged with Teams, using it to deliver year-long and summer placement information, support, guidance and training.

Microsoft Teams provides a one-stop platform to host documents whilst integrating chat space, video meetings, web pages, and built in user analytics. One of the major benefits of using Teams is the accessibility of the software, with an easy to use App that allows a more student-friendly approach. Using the chat function to highlight opportunities, answer questions, and collaborate with current and returned placement students has proved invaluable and enabled an inclusive approach. Peer support has been easy to facilitate and successfully utilised, providing reassurance to current students.

Teams has been an excellent tool in embedding employability into the curriculum and improving accessibility for all students. Traditionally only a small subset of the student population would take advantage of these extra-curricular activities however, our use of Teams has increased engagement and improved the diversity of student uptake of these opportunities. Another success of using Teams includes students gaining experience of utilising software that is regularly used within the workplace.

We will share our experiences of building and using this resource, creating suitable content, using the integrated analytics, and provide student feedback of our approach.

References

Available on request (from the presenters).

5a. *The development of the Sunderland ESOL Hub*

(This session maps to 'Independent learning opportunities with external support')

By Michael Hepworth

Author keywords: Sunderland; ESOL Hub; Knowledge Exchange Partnership; Authentic; Teaching Practice; Shaping; Supporting; Co-ordinating

The Sunderland ESOL Hub is the result of a partnership between the Teaching English to Speakers of other Languages (TESOL) team at the University of Sunderland, the Connecting Communities Team at Sunderland City Council and Action Foundation. Its central aim is to play a key role in co-ordinating, shaping and supporting English language provision in Sunderland and the work of those organizations who support it.

The University's contribution was made possible through a successful bid to the University's Silver Fund. It centres on knowledge exchange in a number of forms, from sharing best practice through teacher education to information sharing around the availability of local English classes, support services, teaching and volunteering opportunities, research funding and conference opportunities.

The University's role in the partnership grew out of a need, well-supported by both student feedback and current research, to offer the opportunity for our university-based TESOL students to move beyond the artificial practice of peer teaching towards more authentic teaching practice in the community, where they might support, and learn from, more experienced practitioners.

We share the story of the development of the Sunderland ESOL Hub, from the launch event on campus, through the development of knowledge-exchange partnerships with key stakeholders, to current developments in the form of a social media presence and a local language learning database. Finally, we share our vison for the future and highlight plans for its development, including the provision of language classes for hard to reach students, teacher development sessions and training for volunteers.

References

Available on request (from the presenter).

5b. *'Going against the norm'; Men studying Nursing, Primary Education and Social Work*

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Lucy Grimshaw, Sue Jackson, David Littlefair and Andrew Melling.

Author keywords: men; undergraduate; student journey

There is a gender imbalance in Higher Education in the UK at undergraduate level where women outnumber men (UCAS, 2019); achievement and retention figures are generally better for women than men (Hillman and Robinson, 2016; HEA, 2011). This is the case in Nursing, Social Work and Primary Education courses male students are a small minority. Hillman and Robinson (2016) claim that these types of courses account for the substantial increase in women in higher education; they suggest that increasing the number of men in these subjects could redress the gender imbalance in Higher Education.

We will present findings from a research project which aimed to (i) understand the experiences and support needs of male undergraduate students on nursing, social work and primary education undergraduate degree courses; and (ii) examine how we might provide effective support to male students to improve their satisfaction with their studies, reduce attrition and identify potential barriers to recruitment. Based on data collected during focus groups with male undergraduate students we will discuss the experiences of our participants throughout the student journey, from access and recruitment; teaching and learning environment on campus and placement; to future career prospects. We will make recommendations about creating a more inclusive learning and teaching environment for male students. We hope this presentation will be of value to those teaching in a similar context and that it will initiate further conversation about increasing gender equality in traditionally female occupations and programmes across the North East.

References

Available on request (from the presenters).

5c. *The Use of Sketchnoting as a Revision Aide*

(This session maps to 'Diversity in KE contributors – i.e. demographic features; mental capacity/ attention span; technological abilities')

By Helen Tidy.

Author keywords: Sketchnoting; Revision; Learning and Teaching

The concept of Sketchnoting was first introduced by Mike Rhode as a means of capturing information in a visual form using a combination of visual and words. Within Higher Education a Sketchnote can be used to record or summarise key points from a body of information using a combination of words, simple pictures, layout and graphics. By undertaking a Sketchnote, it allows a student to be able summarise key facts from a presentation, journal article, book or practical session in a visual manner that is easier to recall at a later time.

This research looks at the use of Sketchnoting as a form of interactive revision during class time. A group of Forensic Science students were asked to Sketchnote their learning after each lecture to form a revision aide for their upcoming examination. These were then shared creating a subject specific revision area for each subject. Students described the task as "Helpful", "Refreshing" and "Creative" with approximately half the class stating they would be using this as a future revision process for exams.

References

Available on request (from the presenter).

5d. *Appropriate blend of Blended Learning - Foundation students' experiences of asynchronous activities in mathematics learning*
(This session maps to 'Embedding KE plans into the curriculum/ research approaches')

By Jean Mathias and Izabela Walczak.

Author keywords: online learning; mathematics; blended learning; asynchronous activities

When the Covid-19 situation prohibited face to face teaching at universities, a blended learning approach, a combination of asynchronous and synchronous sessions, was designed for Foundation Mathematic modules at Durham University for 2020/2021 academic year (Chaeruman et al. 2018). The design of the modules used a range of tools, including Blackboard Ultra, MyMaths, Microsoft OneNote and textbooks available online via University library. Blended learning approaches, in particular the asynchronous activities, often have a positive influence on students' cognitive, affective, and soft skills (Birgili, B., Seggie, F. N., & Oğuz, E. , 2021). However, some studies show that overall differences between blended and conventional classroom teaching are small (Müller and Mildenberger, 2021). Here, we present the results of a survey and focus group meeting conducted among Foundation Programme students, who took one of the mathematics modules. This paper discusses the impact of asynchronous activities in the course on student personal development including study skills, student engagement. The questionnaires, completed by thirty students of non-traditional backgrounds, found that 67% of participants believed that asynchronous activities improved their independent study skills. The challenges faced by tutors during delivery of the modules will also be discussed, this hopefully offers other academics insights when designing Blended learning. A subsequence study has been proposed to assess the effectiveness of Blended learning in 2021/22 academic year.

References

Birgili, B., Seggie, F.N. and Oğuz, E., 2021. The trends and outcomes of flipped learning research between 2012 and 2018: A descriptive content analysis. *Journal of Computers in Education*, pp.1-30.

Chaeruman, U.A., Wibawa, B. and Syahrial, Z., 2018. Determining the appropriate blend of blended learning: A formative research in the context of Spada-Indonesia. *American Journal of Educational Research*, *6*(3), pp.188-195.

Müller, C. and Mildenberger, T., 2021. Facilitating Flexible Learning by Replacing Classroom Time With an Online Learning Environment: A Systematic Review of Blended Learning in Higher Education. *Educational Research Review*, p.100394.

5e. It's not just about the science- attribute development and recognition via final year dissertations.

(This session maps to 'Assessment of KE outcomes/ impacts')

By Vanessa Armstrong, Jessica Jung, Ramandeep Dhanoa, Emily Jeffreys and Sophia Candy.

Author keywords: Graduate attributes; Dissertation; Skills; Employability

Within SBNS the final year research project is seen as a capstone experience within an active research driven institution and is one of the key elements that differentiates the degree from other providers. However, it is not fully understood whether the benefits of this are recognised by current undergraduates. The 40 credit project significantly contributes to the final degree mark and it is believed that students are primarily concerned with the mark awarded for this piece of work, tending to overlook the additional skills and attributes developed through the process of undertaking their projects.

Student interns have been central in co-ordinating this research project. Surveys via OMBEA (aligned to the revised Newcastle University Graduate Framework) were carried out at times where the majority of final year students were present and student focus groups and interviews have been utilised to gain a wider perspective. From the 2 surveys that have taken place (May and October 2019) there were approximately 100 respondents and these, alongside feedback from the first focus group, are currently being analysed by the team. Information has been gathered on prior experiences, the impact of the project on attributes and subject knowledge, and the perceived opportunities to develop skills. Understanding the terminology of the graduate attributes is a key issue high-lighted in the first focus group. Based on the findings of the study, workshops and additional resources will be devised as appropriate to enable further development and recognition of skills from the Graduate Framework, and understanding of terminology.

References

Available on request (from the presenters).

6a. *Does assessment deadline time of day affect student behaviour and attainment?*
(This session maps to 'Assessment of KE outcomes/ impacts')

By Sophie Cormack, Mark Davies and Laurence Eagle.

Author keywords: procrastination; circadian cycle; learning analytics; assessment; academic performance

Using records of all marked electronic assignment submissions over a 9 year period across all disciplines in a university, the aim of our research in progress is to examine whether there is an ideal time of day to set assessment deadlines, in terms of optimising student attainment. It has already been recognised that 80-95% of students procrastinate (Steel, 2007), and this can be observed in the pattern of assignment submissions, which show a gradual increase which becomes increasingly steep as the deadline approaches (Howell et al., 2006). Over half the students in our data set submitted their assignments in the last 24 hours before the deadline (Cormack, Eagle & Davies, 2020). However, if these students have a morning deadline, they will either have to plan to finish the day before, or they will have to work through the night, which risks detrimental effects to cognition and mood (Pilcher & Huffcutt, 1997; Schmidt et al. 2007) which could impact on their marks. In this presentation we will first look at the choice of deadline times by staff, and whether this varies by discipline. Secondly, we will show how patterns of student assignment submissions vary with deadline time, and what this can tell us about how the choice of deadline time affects student behaviour. Finally, we will test whether average marks vary depending on deadline time, to see if we can make any recommendations about when to set deadlines.

References

Available on request (from the presenters).

6b. '(Disruptive) Transitions': A case study of creative collaboration to facilitate Level 4 induction

(This session maps to 'Exploring KE Applications/Transformations/ Recognising KE contributors' efforts and promoting the benefits gained from KE')

By Judy Thomas and Seton Wakenshaw.

Author keywords: Transition; Induction; Research-rich learning; Student access; Retention; Attainment; Progression in higher education

Every year we welcome thousands of students to creative programmes across the UK, more often than not, they arrive having studied subjects not directly related to their higher education choices. This raises the question how do we encourage Art and Design students to think differently and take risks in a way that they have not been required to do before?

'(Disruptive) Transitions', an official event of the 2019 Big Draw, aimed to address some of these issues and turn them into positives through a series of collaborative drawing workshops between Fine Art, Interior Design, Fashion and Graphic Design students and staff at Northumbria University. Intentionally, these took place under the gaze of the hundreds of people that pass through the Design School foyer each day.

Aims:

1. To support student transition through innovative learning and teaching;

2. To generate collaborative, cross-disciplinary, creative engagement through drawing focussed curriculum activities and external partnership.

Upon workshop completion and exhibition of artworks, students completed questionnaires and discussed reflections. The findings are useful to inform wider access considerations, Level 4 retention, inclusion, attainment and induction into higher education.

The session discusses the primary research outcomes. We identify the value of drawing as a conversation, a point in time that represents an idea that is then improved upon (or not) by another and enables a growing sense of information and communication. We invite colleagues to explore collaboration, risk and research rich learning as crucial elements that enhance access and positively support student transition.

https://www.northumbria.ac.uk/about-us/teaching-excellence/great-practice-at-nu/

References

Available on request (from the presenters).

6c. *Authentic learning in healthcare: How to move forward*
(This session maps to 'Assessment of KE outcomes/ impacts')

By Paul Chesterton, Jennifer Chesterton and Jenny Alexanders.

Author keywords: Healthcare education; Online learning; Hybrid mode; Graduate competency

COVID-19 has transformed the delivery of healthcare courses. Physiotherapy pre-registration curricula has traditionally been delivered in a face-to-face environment. COVID-19 has presented key challenges to maintain standards of practical skill development and competence during the transition to integrated online delivery.

Through the lens of bridging the gap between theoretical knowledge and practical application, our national body of research, aimed to understand physiotherapy student's perceived competence upon graduation. We have aimed to understand the challenges and opportunities afforded by a hybrid delivery both from the students and faculty perspective. Finally, we have considered how this may impact on professional development for graduates and the continuous importance of pre-registration education.

Outcomes have included;

• The identification of areas students felt they were not 'well' prepared for clinical practice.

• Curricula specific areas and teaching strategies requiring development.

• Important learning outcomes for online student engagement, including the need to engage the student body and offer partnership opportunities.

• Faculty perspectives on the online learning process and its place within a future educational model.

We will identify key outcomes and learning opportunities which have widespread considerations across the healthcare education sector and beyond. The session will reflect upon all these facets, including the challenges of online learning, which are still faced in healthcare education. Conclusions will be drawn upon what this means for the healthcare graduate of the future.

References

Available on request (from the presenters).

6d. Digital Storytelling as a pedagogic and skills development practice for English undergraduates.
(This session maps to 'Embedding KE plans into the curriculum/ research approaches')

By Teti Dragas and Alistair Brown.

Author keywords: digital storytelling; skills development; employability; reflection

Digital Storytelling (DS) is a practice in which individuals use media (pictures, voice, possibly music) to produce a 2-4 minute audio-visual piece that tells a personal story about a (transformational) experience. This paper presents the findings of two years of Digital Storytelling workshops conducted with undergraduate students within Durham University's Department of English Studies, led by Dr Teti Dragas (Durham Centre for Academic Development) and Dr Alistair Brown (English Studies).

While our programme drew on core DS methodologies, it was adapted to enable students to think about the potential for knowledge transfer from their disciplinary specialisms (such as the study of narrative, creativity, and information management) into the creative industries (where the fusion of arts and humanities and digital skills are increasingly important, and where intellectual property licencing needs to be managed). As well as finding that DS is an effective technique to enable students to think about their transferrable skills, we confirmed that DS in general has benefits for students' resilience, meta-cognitive awareness, sense of integration into a learning community, and confidence. These benefits also flowed back from the students to the instructors in a KE-like manner, enabling us as teachers to understand the ways in which student identity shapes their experiences of the classroom and curriculum and the challenges that students face in overcoming threshold (or transformative) moments in learning.

References

Available on request (from the presenters).

6e. *NUMBAS for engineers - Unique assessments with automated marking*
(This session maps to ‘Assessment of KE outcomes/ impacts’)

By Christopher Pearson.

Author keywords: Assessment; Marking; Maths; NUMBAS; Online

The NUMBAS e-assessment system was used in the academic years 2019-20 and 2020-21 for summative assessments of students on engineering-based degree courses. NUMBAS facilitated the successful replacement of a paper-based assessment and the development of numerous new remote exams during the COVID-19 pandemic. The assessments consisted of a series of math-based questions covering various topics within surveying. Using online assessments allowed 200+ students to be given individual questions with unique solutions to reduce opportunities for plagiarism. Questions were automatically and instantly marked to provide accurate, quick and fair feedback to all students. Automated marking also allowed follow-through marks to be awarded when previous answers were incorrect. Comparisons to marks from previous years for the replaced assessment showed little change in the overall average mark. However, when looking in detail at one replaced assessment the marks for the easier Q1 increased, although the most likely cause of this was the similar practice question offered to the students before the assessment. Conversely the marks for the harder Q2 and Q3 reduced, suggesting that e-assessment did reduce opportunities for potential plagiarism or the reduced opportunity for method marks resulted in lower marks. Surveys of the students upon completion found over 75% found using NUMBAS straightforward and over 60% preferred the online assessment to paper-based assessment. This project has shown the potential of NUMBAS to revolutionise the way in which math-based assignments can be assessed when dealing with large class sizes or when required to undertake assessment remotely. It can improve feedback and significantly reduce staff marking time, while also increasing marking accuracy, consistency and reducing the potential for plagiarism.

References

Available on request (from the presenter).

We hope you have enjoyed the Three Rivers Conference 2021 and appreciate you taking the time to support the Three Rivers Learning and Teaching Conference. If you have any comments to make then we will be pleased to hear them, you will be emailed a link to a brief survey once the event has concluded to ask for your opinion.

With Sincere Thanks, from the Three Rivers Consortium Committee: Mark Proctor & Claire Proctor (Sunderland) | Jean Mathias (Durham) | Sue Gill (Newcastle) | Susan Mathieson (Northumbria) | Samuel Elkington (Teesside)

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The Three Rivers Consortium would like to say a special thank you to one of the committee members, Miss Claire Proctor, for leading on many aspects of this conference which has been instrumental in enabling the conference to run smoothly. Claire is a current KE researcher who led on the creation and agreement of the working KE definition as well as the KE thematic structure which the committee agreed to use. This information formed the foundations onto which this year's conference was built. Claire is also the Official Three Rivers Consortium Secretary for the 2020- 2021 academic year with responsibilities for co-ordinating the internal Three Rivers communications; for giving advice on and updating the website content; for writing documentation and agreeing the content with the committee; for advising on marketing strategies and writing the marketing information used during the Call for Abstracts; for configuring the Easychair abstract submission system; and for updating the Eventbrite conference booking system.

The consortium would also like to thank the plenary speakers and other presenters who have made this conference into the success it is, as well as the staff in a supporting role who have enabled the information technology to work during this conference.

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