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HE Teaching Development Conference

Exploring best practices for inclusive education

Tuesday 4th June 2024



THESIS

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HETDC24 - Meeting Programme

Time		
10:15	<i>Registration (Moore Building Foyer)</i>	
11:00	<i>Welcome and Introduction to HETD24</i> <i>Nuno Nodin and Victoria Bourne</i> <i>(Moore Auditorium)</i>	
11:10	Keynote: Danijela Serbic (Royal Holloway) <i>Breaking Barriers: Empowering Early Career and Teaching-Focused Academics</i> <i>(Moore Auditorium)</i>	
12:00	Inclusive Education and Student Identity Chair: Dee Birtles Moore Auditorium	Wellbeing, Academic Skills and Engagement Chair: Matt Talbot Moore 0-02-3
	Enhancing Equality, Diversity, and Inclusion in Online Cybersecurity Education: A Multi-Layered Approach <i>Maher Salem</i> King's College London	Co-creating and co-producing student initiatives <i>Beatrice Hayes</i> Royal Holloway
	'Chat GPT is my little helper': Understanding Student Experiences and Attitudes Towards Generative AI from an EDI Perspective <i>Sophie Hodgetts</i> Durham University	Well-being in Higher Education: Principles and recommendations from a large systematic review and meta-study of well-being theories <i>Salvatore Di Martino</i> University of Bradford
	From fearing 'Orchestra Assessments' to embracing 'Assessment Orchestras' <i>Daniel Bickerton</i> Cardiff University	Improving inclusivity at Royal Holloway International Study Centre <i>Jen Warry</i> Royal Holloway
	Perspectives on embedding inclusive pedagogy within a BSc psychology curriculum <i>Salim Hashmi</i> King's College London	A qualitative exploration of university Students' Perceptions of Wellbeing, Academic Engagement, and Access to Services: Implications for Mental Health Support and Curriculum Development <i>Vanita Chamdal</i> Royal Holloway
	A multi-site naturalistic controlled trial of a psychologically-informed teaching intervention to balance students' learner and consumer identities <i>Louise Taylor</i> Oxford Brookes University	Online journal club in an Open University science module: Does this help students develop employability skills? <i>Lorraine Waters</i> The Open University

	Discussion and questions for the panel	Discussion and questions for the panel
13:00	<i>Lunch Break (Moore Building Foyer)</i>	

13:45	Short Presentations Chair: Beatrice Hayes Moore Auditorium	
	Inclusive Curriculum Student Consultancy Initiative Amélie Gourdon-Kanhukamwe King's College London	
	"Where everyone can get involved": What helps widening participation students feel included? Sian E Jones Queen Margaret University	
	Accessibility of online tutorials and forums in biological sciences at The Open University Sarah Daniell The Open University	
	Co-production in curriculum development through student-staff collaboration Damien Williams University of Strathclyde	
	Real World Application of "Authentic" Themed Meeting Plan Assessment from L4 Module Professional Development in Science (ProDS) Jason Chu University of Westminster	
	Learning through Teaching Katja Brodmann King's College London	
	Enhancing online STEM education through data-driven learning support and AI intervention Dhouha Kbaier The Open University	

	<p>Designing learning and assessment to promote a sense of ownership: a co-design process</p> <p>Vari Wileman King's College London</p>
	<p>Hate the game, not the player? Exploring student opinions on gamification reveals a concern for fairness</p> <p>Aysha Bellamy Royal Holloway</p>
	<p><i>Discussion and questions for the presenters</i></p>
14:45	<p>Workshop: Developing EDI Initiatives Convenor: Sam Fairlamb</p>
15:50	<p>Keynote: Jane Sedgwick-Müller (King's College London) <i>Inclusion teaching and learning for university students with Attention Deficit Hyperactivity Disorder (ADHD): Is it just 'woke washing?'</i></p> <p><i>(Moore Auditorium)</i></p>
16:30	<p><i>Concluding Thoughts</i></p> <p><i>Nuno Nodin and Danijela Serbic</i></p>
16:40 – 17:30	<p><i>Drinks Reception</i></p>

Abstracts for Keynote Speakers

Breaking Barriers: Empowering Early Career and Teaching-Focused Academics

Danijela Serbic

Royal Holloway, University of London

In the current dynamic yet uncertain landscape of higher education, early career academics face many challenges in navigating their roles, particularly within teaching-focused positions. This keynote discusses the importance of fostering supportive environments for these educators and outlines practical strategies contributing to their career development, recognition, and inclusivity, developed within a research-oriented department in the UK. Through collaborative initiatives like the pedagogic group THESIS (Teaching in Higher Education: Supporting and Inspiring Students), early career and teaching-focused academics have gained access to structured career support pathways, fostering their growth and success. Projects and strategies like the THESIS Early Career Teachers Symposium and strategic leadership roles within THESIS exemplify the tangible impact of this approach. Moreover, this collaborative framework not only supports early career and teaching-focused academics but also nurtures a holistic approach to education, wherein they actively engage in co-creating educational initiatives with students. By creating inclusive career support systems, we can elevate the professional development and standing of these academics. Ultimately, these efforts enhance the educational experience for all stakeholders involved.

Inclusion teaching and learning for university students with Attention Deficit Hyperactivity Disorder (ADHD): Is it just ‘woke washing?’

Jane Sedgwick-Müller

King’s College London

Woke washing refers to the act of using inclusive practice themes to create a positive image for institutions of higher education (HEIs) without any taking meaningful action. Inclusive education makes the claim that all university students are entitled to learning experiences that values their diversity, enables their participation by removing barriers, anticipating and respecting different ways of learning and developing. But is this just ‘woke washing?’ I argue the question is a valid one because university students with ADHD continue to be marginalised and disadvantaged under current systems of education and healthcare. I will speak about my research and experience of supporting university students with ADHD. I intend to also call for meaningful action because inclusion education must also work for university students with ADHD. Prevailing notions within HEIs about ADHD being a specific learning difference (or difficulty)/SpLD need to stop. The focus must also be tackling the urgent need for university students with ADHD to have timely access to appropriate academic support, reasonable adjustments and medical treatment.

Abstracts for Panel Session 1 (Moore Auditorium)

Enhancing Equality, Diversity, and Inclusion in Online Cybersecurity Education: A Multi-Layered Approach

Maher Salem

King's College London

Aim: This paper introduces a novel initiative aimed at enhancing Equality, Diversity, and Inclusive (EDI) aspects within online cybersecurity education for professionals from several industrial sectors. The primary objective is to improve the EDI learning environment within the cybersecurity online modules.

Methodology: The initiative employs a multi-layered approach, incorporating various strategies such as real-life scenario provision at the beginning and during the delivery, hands-on practical labs with step-by-step demonstration style, online interactive scenarios, gamification elements presented as competitions, and additional guidance based on ongoing feedback. Staff and students were involved through voluntary participation, and data were collected via quantitative and qualitative questionnaires post-module delivery.

Results: Feedback from over 25 participants indicated strong support for the initiative, citing its effectiveness in promoting inclusivity. Both quantitative and qualitative data highlighted positive responses, emphasizing the need for expansion across all online modules. The findings underscore the importance of EDI initiatives in online cybersecurity education.

Implications/Relevance: The success of this initiative suggests its potential for broader application across higher education contexts, with implications for improving the inclusivity of online learning environments.

'Chat GPT is my little helper': Understanding Student Experiences and Attitudes Towards Generative AI from an EDI Perspective

Sophie Hodgetts and Henry Ip

Durham University

Higher Education is amidst a discussion regarding students' engagement with generative AI, such as ChatGPT, and its potential for supportive use (and misuse). While pedagogical efforts have predominantly focused on neurotypical students' interaction with ChatGPT, the experience of neurodiverse students remains unexplored. Given the challenges neurodivergent students often face at university, ChatGPT holds promise as a supportive tool that may help reduce the awarding gap between neurotypical and neurodivergent students. In this project, Durham University's Psychology Education Track Staff (PETS) are conducting exploratory research to understand how ChatGPT is currently being used among diverse student types. The study investigated the engagement of neurodiverse and neurotypical UK university students with ChatGPT, employing prominent pedagogical theories as a framework. Through focus groups and interviews, insights were gathered on how these students use ChatGPT in an academic setting. Reflexive thematic analysis identified six main themes, including the development of knowledge pursuit, AI dependency, disparities in intrinsic motivation, feedback's impact on self-efficacy, navigating ChatGPT inaccuracies, and future directions. Both neurodivergent and neurotypical students exhibited similar patterns in ChatGPT use, recognising numerous pedagogical benefits. However, neurodiverse students demonstrated a lower awareness of ChatGPT's limitations and a greater reliance on it compared to neurotypical peers. This dichotomy raises concerns about effective ChatGPT utilization among neurodiverse students in the future. This collaborative project involves Northeast partners and DART-P, funded by DCAD, aiming to shed light on the current engagement of neurodiverse students with ChatGPT and address potential benefits and concerns for their future utilisation.

From fearing 'Orchestra Assessments' to embracing 'Assessment Orchestras'

Daniel Bickerton

Cardiff University

Aims: (1) Facilitate inclusive assessment opportunities in diverse cohorts of home and international students. (2) Enhance sense of learning community, improve wellbeing and transform the stigma associated with group assessments. (3) Model traditional 'ensemble functionality' in the classroom and in-group assessments. (4) Champion individual skills/strengths, 'harmonising' them for the benefit of truly inclusive assessments simulating post-university employment scenarios.

Methodology: Timeline 2016-2019 (phase 1) 2020-2022 (phase 2) 2023-present 'now policy'. Objectives: (1) Developing a new suite of assessments (e.g., student 'showcases' and 'conferences') supported by focused skills-driven L&T practices. (2) Promoting a culture of empathetic collaboration in classroom/assessments. (3) Creating inclusive assessment commitments, balancing proactive and reactive collaboration, individual empowerment (leadership) and independence. (4) Fostering long-term continuous professional learning commitments.

Results: (1) Less 'group assessments' fear, relishing collaboration, promoting 'learning community'. (2) Improved engagement and attainment, with 'skills-driven L&T' enhancing CPD commitments. (3) Improved NSS satisfaction scores, and integration of international/home students (CU School of Music first in the Russell Group for 'Learning Community' in Music (2022, 87%) and PTES 'skills development' result trajectory (2015-19) consistently improved (56-93%). (4) Now policy, implemented in modules with group activities, all modules achieved 84% or higher in end-of-year module evaluation surveys.

Implications/Relevance: Initiatives adopted/applied in various Schools, particularly through the "Liberal Arts" lens, notably modelling assessments on 'real life' scenarios. A wider university policy now in development for 'group assessment' practice – embracing the opportunity to be truly inclusive and sympathetic to a diverse range of student learning styles, to improve wellbeing and self-worth.

Perspectives on embedding inclusive pedagogy within a BSc psychology curriculum

Salim Hashmi

King's College London

Creating an inclusive experience for students in Higher Education is important for their engagement, belonging, and attainment. There are multiple ways of approaching inclusive teaching and there are specific considerations to be addressed when considering a Psychology curriculum. Although pedagogical resources discuss the benefits and abstract processes of creating inclusive curricula, there are little concrete examples of how to meaningfully engage in this process.

In this talk, I will present a summary of a paper colleagues and I have published in which we have presented six case studies focusing on subject areas in psychology as well as specific approaches that have been adopted. In reflecting on our approaches, we offer the following suggestions to colleagues and give examples of concrete ways in which we have adopted them: (1) Consider and acknowledge your own positionality, and provide a framework for students to do the same; (2) Integrate lived experiences to content, particularly those with an applied focus; (3) Acknowledge that certain groups are underrepresented but strive to include research and theories from these groups where it is available; and, (4) Create diversity-centred learning objectives to structure an inclusive approach to content and assessment. I will also briefly discuss other initiatives on-going at our university that centres on promoting inclusion within psychology. We hope these reflections present a starting point for rich discussion about best practise in inclusive education as well as a resource for other educators.

A multi-site naturalistic controlled trial of a psychologically-informed teaching intervention to balance students' learner and consumer identities

Louise Taylor

Oxford Brookes University

Aims: In marketised higher education contexts, students' sense of belonging and inclusion may be compromised if they have strong consumer identities and weak identities as members of their discipline or 'learners'. This study evaluated a psychologically-informed teaching intervention to test the hypotheses that students could develop stronger learner identities and reduce their consumer identities, and thus potentially support inclusion.

Method: An innovative teaching workshop (available at www.brookes.ac.uk/SIIP) was trialled with over 700 students studying Psychology or related disciplines across 5 institutions in England and Wales. All students could take part in the workshop, which was offered as part of formal scheduled teaching, and they could additionally opt-in to complete the online research questionnaires before and after the workshop. The questionnaires assessed learner and consumer identities using pre-existing validated instruments, and included open-ended questions to explore identity change after the workshop. An additional 60 students comprised a control group who completed the identities questionnaires before and after a normal teaching session.

Results: As predicted, students' learner identities significantly increased after the workshop, and to a greater extent than in the control group, where they also increased slightly. However, in contrast to the hypothesis, some students' consumer identities also increased after the workshop, and their qualitative responses suggested that this helped them to make the most of their university opportunity.

Implications: This workshop helps students to understand their learner and consumer identities and given them the opportunity to reflect on how to get the best 'value' from their higher education experience.

Abstracts for Panel Session 2 (Moore 0-02-3)

Co-creating and co-producing student initiatives

Beatrice Hayes

Royal Holloway, University of London

In recent years, the emphasis on student wellbeing and academic engagement has become increasingly crucial within higher education institutions. Annually, through co-creation and co-production, we collaborate with a team of student volunteers and staff to design two student-led initiatives, Wellbeing Day and To Academia and Beyond, aiming to address these pressing concerns. The primary aim of these initiatives is to promote holistic student development by fostering a supportive learning environment. Co-creating and co-producing with student volunteers brings several advantages. It promotes inclusivity by incorporating diverse perspectives, tailors initiatives to meet specific student needs, offers practical skills in project management and collaboration, fosters a sense of belonging, and enhances motivation. The events are structured to include a diverse range of activities, such as workshops, panel discussions, and interactive sessions, strategically scheduled throughout a day to cater to different student preferences and schedules. Feedback from participants indicates a positive impact on student wellbeing and academic/career engagement. Evaluation data reveal high levels of satisfaction with the events, with attendees reporting gaining greater awareness of mental health resources, valuable insights, and guidance on future studies and career plans, improved study skills, and enhanced social connections. These initiatives underscore the significance of collaborating with students in promoting student wellbeing and academic engagement. By actively involving students in the design and implementation process, higher education institutions can create more inclusive and supportive learning environments. The implications of these initiatives extend beyond individual student outcomes to broader institutional policies and practices.

Well-being in Higher Education: Principles and recommendations from a large systematic review and meta-study of well-being theories

Salvatore Di Martino

University of Bradford

Aims: Despite growing interest in well-being across multiple contexts, uncertainty remains about how post-secondary education has theorized this construct. To bridge this gap, a team of four researchers systematically screened a total of 34,212 records from bibliographic databases and supplementary sources.

Methodology: A meta-study was applied to 59 included studies to extract and analyse theorizations of well-being in higher education.

Results: Results from the meta-data analysis revealed four main theories of well-being in higher education, namely flourishing as PERMA, thriving, healthy universities, and flourishing as capabilities. The meta-theory classed them under three approaches, namely Positive Education, Healthy Settings, and the Capabilities approach. The meta-method showed that the included studies used primarily a research-based qualitative design. Lastly, results from the meta-synthesis generated a framework of the higher education system and four principles: Context, Organisation, Relations, and Equality and Diversity (CORE).

Implications/Relevance: The proposed principles serve as a guide for future developments of more robust theorizations of well-being in higher education and as a tool for the promotion of better conditions for university students, staff, and leaders.

Improving inclusivity at Royal Holloway International Study Centre

Jen Warry

Royal Holloway, University of London

Aim: The purpose of this working group initiative was to identify approaches, methods, and techniques that we could use in centre to improve how we support students with Learning Differences, Health issues and Disabilities (LDHD) both inside and outside the classroom. The working group produced a set of recommendations for implementation at RHUL ISC.

Methodology: The working group was composed of representatives from teaching staff and Student Experience, as well as management. Bi-monthly meetings were held through Nov, Dec and Jan 2024. Focus groups were then held with Student Reps to measure LDHD provision before and after recommendations implemented.

Results: Five recommendations for enhancement were made:

1. "Inclusive Classroom Checklist". Incorporate into staff training and induction.
2. Short "Info Packs" for staff and students. Packs include summary of condition, easy classroom adjustments, tips for student self-study and links to further resources.
3. 10 min "Getting to know you" 1-1 conducted at start of term to identify LDHD needs. "Check-in" Form sent out later to increase opportunities for disclosure.
4. Fidget toys are allowed (as are noise cancelling headphones) -have them on offer in the Wellbeing office.
5. Three CPD sessions to be shared with staff to sign up to, free of cost.

Focus Group held on 8th Feb with Student Reps to analyse current state of LDHD provision. When asked to rate overall LDHD provision at the ISC, students gave an average rating of 3.67 (1= poor, 5= excellent). Another Focus Group and survey will be held on 9th May at the end of their course, to measure the impact of the enhancements.

A qualitative exploration of university Students' Perceptions of Wellbeing, Academic Engagement, and Access to Services: Implications for Mental Health Support and Curriculum Development

Vanita Chamdal

Royal Holloway, University of London

Objectives: How university students perceive their integration in the curriculum and access to higher education services can provide an understanding of the challenges and assets that contribute to student mental health. An understanding of how university students perceive these elements is largely unexplored. This study aimed to explore how university students understand wellbeing, access to university services and engagement in the curriculum.

Design: Audio recorded qualitative semi-structured interviews was used to collect the data and a thematic analysis was conducted.

Methods: A total of six university students (3 undergraduate and 3 postgraduate) aged 22-25 were interviewed. The schedule explored learning experience, university services, social integration and wellbeing.

Results: A total of five themes and eighteen subthemes were developed. The themes included: 1) Disconnected within the university; 2) Social community; 3) Academic learning; 4) Life skills; and 5) Diversity, equity, and inclusion. The themes captured experiences of satisfaction from support available and self-growth in students' academic and life skills. Challenges in integration, perceived challenges in communication and inclusivity within the curriculum was unpacked.

Conclusions: Psychological safety when engaging with course material, open communication between staff and students and scaffolding in the form of academic support contributed to a positive university experience. On the other hand, a lack of awareness in support and course content that lacked representation contributed to a sense of isolation. These findings can inform curriculum and policy development among university services to encourage a sense of cohesiveness and positive wellbeing for university students.

Online journal club in an Open University science module: Does this help students develop employability skills?

Lorraine Waters

The Open University

During production of a new science module (Investigative approaches in biology and chemistry) an online journal club (OJC) activity was embedded to develop employability skills. The premise was to enhance students presentational/Digital Information Literacy (DIL) skills in readiness for final year study and develop their sense of community. The aim of this study was to evaluate the OJC as a means of developing transferable skills relevant to the 'OU Employability Framework', a sense of community and determining if accessibility was a barrier to this. A small cohort of students were invited to complete diary entries during the OJC activity and participate in a focus group (3 students) to gain a deeper understanding of students' perceptions. We also analysed reflective data from the assessment linked to this activity. Students identified several skills were developed including communication, DIL, self-management and resilience, commercial and/or sector awareness. Many students recognised the benefits of completing the activity and noted an improvement of perceived skills. The type of skills developed was broadly similar irrespective of disability or IMD Quintile, suggesting accessibility was not a barrier for development of skills. Students did not feel the activity developed a sense of community, although recognised they were supportive of each other during the presentations and had a sense of achievement following completion. Online journal club as an activity can help develop a range of employability skills. These are broadly similar irrespective of disability or IMD quintile, suggesting accessibility is not a barrier to development of these skills.

Abstracts for Short Presentations (Moore Auditorium)

Inclusive Curriculum Student Consultancy Initiative

Amélie Gourdon-Kanhukamwe

King's College London

Student success is related to student engagement, which is influenced by factors such as supportive learning resources, environmental support, learning and thinking ability, teacher-student relationships, and teacher behaviour (Li & Xue, 2023). A curriculum which treats the diverse student populations with respect will enhance the feelings of inclusivity and belonging and integrate these values into students' experience.

The Inclusive Curriculum Student Consultancy project is a staff-student partnership which puts students in charge of reviewing the BSc Neuroscience and Psychology curriculum in the broad sense (i.e., including teaching delivery methods) to offer recommendations to the teaching team. Four focus areas will inform this review: decolonisation, neurodiversity, disability and first-generation attendance.

In the first instance, student consultants will identify curriculum improvement opportunities (starting May 2024), and create a report which will be used subsequently to implement the improvements. Eight student consultants will choose an area of focus, and will meet monthly with the whole team to work on their review, supported by teaching team members, as well as work independently. In a second phase (2024-25), new student consultants will support teaching staff in implementing the recommendations of the first team. At the end of phase two, students will be invited to present their work in a programme and/or department meeting.

Collaboratively improving the curriculum will ensure that our learning resources and education are inclusive for students from minorities and diverse backgrounds, which will improve their experience. This talk will present our detailed plans as well as our experience starting the initiative.

Li, J., & Xue, E. (2023). Dynamic Interaction between Student Learning Behaviour and Learning Environment: Meta-Analysis of Student Engagement and Its Influencing Factors. *Behavioral Sciences*, 13(1), Article 1. <https://doi.org/10.3390/bs13010059>.

"Where everyone can get involved": What helps widening participation students feel included?

Sian E Jones

Queen Margaret University

In spite of a recruitment drive in Scotland, little is known about where and whether widening participation [WP] students see their inclusion in the university setting, nor what helps Education students from a WP background to feel included. The current project explored Education students' perceptions of inclusion at a Scottish university. A total of N=68 students responded to a survey (n = 57) or took part in a focus group (n = 9) to determine firstly their individual definitions of inclusion and then perceptions of inclusion both inside the university classroom and within the student body more generally. Thematic analysis was used to explore themes in participants' responses. Definitions of inclusion typically focused on the inclusion of all students, rather than the view of inclusion as the placement of marginalised students in the mainstream classroom. Following this conception, findings revealed that inclusion (and lack of inclusion) happened at different levels within the university. There were positive experiences of inclusion, and a sense of belonging, with themes of classroom engagement, lecturer engagement, and peer relationships all contributing to participants' own feelings of inclusion within their courses. Students also identified areas where they felt a greater sense of inclusion and belonging to the university student body could be achieved. We discuss the implications of these findings in terms of support for WP Education students going forward.

Accessibility of online tutorials and forums in biological sciences at The Open University

Sarah Daniell and Lorraine Waters

The Open University

Despite different initiatives to encourage tutorial attendance, few students attend live online tutorials in many areas of the university. Similarly, forum use is also unpopular, with many students only using forums for activities related to assessment, rather than for building a sense of community. This raises the concern that students may not engage due to a lack of confidence and fear of the online classroom environment. Students experiencing mental ill-health may be particularly sensitive to these issues, potentially impacting collaborative studies, assessment, and retention.

This study furthers our understanding of students' perceptions of and barriers to synchronous and asynchronous support on two biology modules. Students were sent online questionnaires to evaluate their use and perceptions of the tutorial and forum facilities. Students who self-declared mental ill-health during their studies, and a willingness to participate further, were contacted and invited to interview to gain a more in-depth understanding of their experience and accessibility issues. Our findings highlighted that students with anxiety are more likely to attend live tutorials or make use of tutorial recordings. Although teaching practices within these tutorials often put students at ease, they can still feel anxious about the online environment. Additionally, forum use can be problematic for students experiencing mental health issues. These students are less likely to post on forums or engage with group discussion and activities, although they value regular notices from their tutors. Consideration of students' mental health needs to be taken into account when using online facilities and appropriate strategies developed.

Co-production in curriculum development through student-staff collaboration

Aimee Ferguson, Kate Preston & Damien Williams

University of Strathclyde

Aims: To co-produce a new final year module in Human Factors Psychology through collaboration between students and staff.

Methodology: The approach was bottom-up, driven by a gap/need in the BA Psychology at Strathclyde identified by two BA graduates/PhD researchers. Each member of the team (two students*, one staff) contributed ideas to all aspects of the curriculum plan: Title, intended learning outcomes, topics, teaching and learning activities, assessment, and readings. In addition, the students consulted with the Professional Membership Organisation (Chartered Institute of Ergonomics and Human Factors) regarding its accredited curriculum, and the Strathclyde Careers Service in order to integrate employability into the curriculum.

Results: The output from the collaboration was a curriculum plan for a 10-credit, 13-week, final year module. The module was underpinned by constructive alignment; incorporated flipped, blended, and active learning; involved individual and group teaching and learning activities, promoting peer-learning; involved individual and group (formative and summative) assessment techniques, including authentic assessment; addressed emergent curriculum priorities (e.g. diversification of the curriculum, education for sustainable development); and integrated consideration of employability.

Implications/Relevance: Meaningful approaches to student-staff collaboration offers opportunities for innovation in curriculum development and student learning regarding of principles of good pedagogical practice. Through a form of peer learning, whereby the curriculum is co-produced by peers (i.e. graduates of the BA) it increases the likelihood that a module is better aligned with the needs and expectations of students.

Real World Application of “Authentic” Themed Meeting Plan Assessment from L4 Module Professional Development in Science (ProDS)

Jason Chu

University of Westminster

Aims: As part of the Life Sciences curriculum at the University of Westminster, an employability-focused core module (ProDS) was established, which includes an assessment to generate a “Themed Meeting Plan”, where students work in small groups to create a proposal for an event like a scientific conference. This student co-created project is aimed to develop a feedback loop to address whether this assessment provides an authentic learning experience and if a student co-created alumni event can be planned using the assessment brief to enhance employability.

Methods: Phase one (pre-event) includes developing a survey to be deployed to all previous ProDS module students to analyse their perceptions of the “Themed Meeting Plan” assessment. Phase two (event preparation) involves the co-design, co-promotion, and co-delivery of an alumni event for current Biological Sciences students using a similar format to the “Themed Meeting Plan” assessment brief. Phase three (post-event) will be in-depth interviews with student co-creators on their skills analysis and reflections to compare the real-world application to the assessment experience.

Implications/Relevance: The student insights will feed into the module design to modify as appropriate to make it more authentic and relevant to enhancing student learning and employability. Additionally, course leaders can evaluate whether an alumni event is beneficial to students in highlighting different career paths, further studies, or expanding their professional circles by meeting their diverse alumni, sense of belonging, and engagement with the University.

Learning through Teaching

Katja Brodmann

King's College London

Aim: Peer teaching is an active learning experience that improves learning, supports personal and professional growth, and trains soft skills, benefitting both student teachers and learners (Tanveer et al., 2023). I wanted to explore whether peer teaching by senior students would improve research skills for both student cohorts and foster community feeling in our undergraduate students.

Method: We recruited third-year students who wanted to learn how to teach second-year students EEG data collection in a research-led module this year. Eight students, selected based on their marks in the same module, went through a one-day workshop, refreshing their memory on EEG data collection and getting teaching instructions. Each student taught 5 small groups of second-year students under supervision. We shared pre- and post-teaching surveys with the student teachers and second-year students at the end of the term.

Results: Student teachers reported deepened knowledge about EEG research and improved teaching skills. Moreover, feedback indicated that they valued the responsibility and the opportunity to share their knowledge and that it positively impacted student-teacher relationships. Second-year students reported that they learned from their senior peers, enjoyed their involvement in the course, found them more approachable than the lecturers, and that being taught by their peers contributed to the community feeling within the programme.

Discussion: The results suggest that the learning-through-teaching scheme benefits student teachers and learners and has several positive side effects on student experience across the years. Such an initiative allows students to shape their pathways by learning skills beyond the curriculum.

Enhancing online STEM education through data-driven learning support and AI intervention

Dhouha Kbaier

The Open University

In an era marked by rapid technological advancement, STEM education faces evolving challenges in fostering student success and engagement. The OELAssist project emerges as an initiative in online laboratories aimed at enhancing the student experience within the Open Engineering Lab (OEL) through innovative data-driven learning support mechanisms and advanced AI interventions.

With a focus on addressing the hurdles encountered during experimental activities, OELAssist aims to reduce attainment gaps, bolster student retention, and promote progression in OEL modules. Leveraging cutting-edge machine learning techniques and generative AI models, the project delves into real-time problem detection and personalised feedback provision, tailored to the unique needs of engineering students.

The project's structured framework encompasses two pivotal stages: identification and diagnosis, followed by intervention and remediation. Through meticulous data collection, analysis, and algorithm evaluation, OELAssist aims to discern patterns indicative of successful experiment completion. Subsequently, a robust feedback mechanism will be devised, enabled by generative AI models, to offer timely support and instructional resources to students navigating experimental challenges.

Aligned with the strategic objectives of The Open University, OELAssist not only contributes to enhancing student outcomes but also embodies a commitment to innovation in teaching and learning. The anticipated outcomes span beyond the institution, with dissemination efforts poised to share insights and best practices in STEM education across broader academic and professional communities.

To conclude, OELAssist has the potential to redefine the landscape of STEM education by synergising data analytics, AI-driven interventions, and student-centric approaches, within the context of online laboratories and distance education.

Designing learning and assessment to promote a sense of ownership: a co-design process

Vari Wileman

King's College London

Aims: When students are actively involved in designing their learning experiences, they often feel a greater sense of ownership, which is linked to increased achievement, satisfaction, and a positive attitude towards learning. This abstract reports the evaluation of a co-design process.

Methodology:

38 MSc Health Psychology students were invited to participate in a co-design process facilitated by module leaders (Lecturers VW & LH). Suggesting a revised assessment process for a Systematic Review assignment, the cohort reviewed the perspectives of previous students, and considered the proposed alternative approach. Student confidence in completing the assignment was assessed pre and post co-design process, and students were invited to submit open feedback about the co-design process.

Results: Students openly shared and resolved different views, reaching a shared decision within the session. Students' confidence in completing the assessment improved after the co-design session.

	Pre co-design (%)	Post co-design (%)
Not at all confident	41	5
Not very confident	38	50
A little confident	21	40
Quite confident	0	5
Very confident	0	0

Feedback about the process was generally very positive with ideas for improvement. Students commented on their satisfaction that previous students' feedback was translated into the current process, making them feel student perspectives were valued. Students suggested that the co-design session could be extended to two sessions to allow more time for reflection.

Implications/Relevance: Student acknowledgment that their feedback has been taken seriously and implemented demonstrates a genuine commitment to student-centered education. The co-design process could be improved in future by providing materials ahead of the session to allow students more time to consider the options.

Hate the game, not the player? Exploring student opinions on gamification reveals a concern for fairness

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Aim: Gamification (teaching via game-based elements) is believed to increase motivation. However, research ignores (i) gamification is not a homogenous concept and (ii) students are not a homogenous population. Neurodiverse students' opinions on gamification have been overlooked. We aim to explore whether their opinions differ to neurotypical students.

Methods: Fourteen participants (5 identifying as neurodiverse) were recruited via opportunity sampling. They stated positives and negatives for various gamification elements in open-ended questions on an online, anonymous survey. These gamification elements were: leaderboards (ranking students' summative performance); badges (awarded for reaching milestones); narrative (story-building across lectures) and rewards/consequences for engagement.

Results: Thematic analysis identified 4 key themes: positive themes of Motivation and Fun, and negative themes of Competition and Fairness. Motivation consisted of the sub-themes: engagement, attention, and tracking self-progress. Fun consisted of interest and enthusiasm (particularly for narratives). Neurodiverse students with ADHD (N=3) mentioned feeling of reward. Competition consisted of negative comparison, jealousy, and reduced collaboration (particularly for leaderboards and badges). Finally, students concerned with fairness highlighted the stress and time demands that students face outside university and expressed concern over targeting those who struggle to achieve due to factors beyond their control (particularly for rewards/consequences).

Implications: Gamification elements were not all rated equally positive. Both neurodiverse and neurotypical students were concerned about fairness for low-performing students affected by factors beyond their control. Future gamified materials must incorporate this concern for fairness at their core; for example, by not penalising low-performing students who may experience learning difficulties or time-demands.