

# Heriot-Watt University Learning and Teaching Conference

6-8 June 2023

**Book of Abstracts** 

Tuesday 6/06/2023	HW LTA Conference: Creating Global Changemakers		
	Welcome and Keynote Session 1		
08:45-09:45 UK 11:45-12:45 Dubai 15:45-16:45 Malaysia	Welcome to the Conference Professor Malcolm Chrisp (Deputy Principal Education and Student Life) & Keynote Session 1		
	Inquiry-based learning and hybrid spaces: Co-design of spaces and pedagogies.  Speaker: Professor Susan M. Bridges (University of Hong Kong)		
	In a hybrid era, employers are increasingly seeking graduates who can collaborate productively in distributed teams. At the University of Hong Kong, in our brief experiment with synchronous hybrid delivery in 2020, we identified this as one of the most challenging approaches for teacher orchestration and classroom support services. Drawing on past research on dialogic approaches to teacher facilitation in blended, inquiry-based learning in medical education (Bridges et al 2020), we envisaged our <i>Learning Lab</i> as a flexible and interactive physically-digitally 'entangled' <i>imaginarium</i> able to accommodate a range of pedagogies and to address the particular challenges of synchronous hybrid group collaboration. Featured as an exemplar project under "Hybrid Learning Spaces in Practice" in the <i>2022 EDUCAUSE Horizon Report</i> , the new space was the result of a two-year physical co-design process. Our ongoing experimentation in co-designing synchronous hybrid pedagogies with academic teachers is surfacing new approaches to teacher orchestration in university environments. This talk will share our enacted design principles and examine the potentials of new learning environments to support effective hybrid teamwork.		
	Contributed Session 1		
	Effectiveness of assessment exemplars in a business management course.  Andrew Hock Cheong Lee (Global College)		
10:30-12:05 UK 13:30-15:05 Dubai 17:30-19:05 Malaysia	Examples of past and present students work which are of a high standard shouldn't just be kept away in the faculty drawers, cabinets or simply stored in the digital space. There are many benefits from these valuable pieces of work that can be shared with their peers and future students. This action research explores the use of assessment exemplars and its effectiveness on student learning in a Business Management course in the Malaysia Foundation Programme at Heriot-Watt University Malaysia campus. This study is beneficial to understand students' perception on the use of exemplars in the pre-university context.		
	By sharing and showing these exemplars, students learn what is expected to gain good grades for their own work. They not only learn to benchmark their work against their peers and understand the assessment requirements better but most importantly exemplars provide them guidance when undertaking a piece of assessment. A total of 64 students from the April and September 2022 intakes of this Business Management course responded (92% respond rate out of 69 students) to this study. Generally, from the survey questionnaire and discussion forum conducted, students viewed the use of assessment exemplars in their Business Management course positively.		

Creating authentic and inclusive assessment with industry engagement.

Christa Searle (SoSS incl. EBS)

Industry engagement in assessments may enhance the employability of students as they learn valuable skills required in the workplace. These university-industry collaborations may allow for authentic assessment whereby students develop critical thinking, as well as communication and problem-solving skills as they apply knowledge and skills taught in complex, open-ended situations. It is, however, also important to ensure that such an assessment is inclusive to promote fairness and equity when evaluating the student learning.

The aim of this scholarly inquiry is to capture the considerations when designing an authentic and inclusive assessment where industry engagement plays a key role. It is important to consider how to engage with the industry partner and the diversity in real-world problems presented to the students in the assessment. The assessment may involve groupwork which may require the course leader to consider the group formation in light of enabling an authentic and inclusive assessment. Similarly, consideration should be given to the medium of the deliverable as well as the approach to the assessment evaluation. Finally, including some form of recognition or reward may further enhance the overall learning experience of the student.

10:30-12:05 UK 13:30-15:05 Dubai 17:30-19:05 Malaysia

Improving assessment workflow for the Scottish graduate apprenticeship. Odin du Plessis Love, Alan Faulkner-Jones, Liu Jing & Christie Etukudor (EPS)

The Graduate Apprenticeship design and manufacture (D\&M) mechanical and electronic degree is a graduate-level apprenticeship route that blends university teaching with work-based learning (WBL). It applies high-level academic quality to real-world applications. The large WBL projects, which constitute the main assessment, are supported by smaller class tests (CT) which make up the remainder of the summative assessment, and which aim to prove Graduate Apprentice (GA) understanding of a wide range of course learning outcomes. A lack of class test and project deadlines has historically been implemented to give flexibility to busy work-place schedules but generally leads to last-minute GA application to the assessments. A critical review is undertaken in order to improve the assessment workflow in a Scottish Graduate Apprenticeship course. The case is made of altering the frequency and nature of the class tests to better guide the apprentices in their work-based learning endeavours.

# **ROUNDTABLE EVENT**

Assessment for Learning at Heriot-Watt.

Chair: Alex Buckley (LTA)

12:15-13:15 UK 15:15-16:15 Dubai 19:15-20:15 Malaysia Heriot-Watt's 12 new Assessment for Learning principles are intended to capture, in a very high-level way, what it means to use assessments as educational opportunities. They were developed by a Special Interest Group made up of people from across the Schools and campuses with a passionate interest in the enhancement of assessment at Heriot-Watt, and are based on good practice from around Heriot-Watt, ideas from across the sector and research evidence.

While this set of principles is new for Heriot-Watt, there are already many fantastic examples around the Schools of how these principles can be made a reality. In this session, colleagues from around Heriot-Watt will share some case studies of how assessment and feedback have been used to support students' wider learning process.

#### Contributed Session 2

# How are academics thought of by society (HATS)?

Louise Delicato, M. J. Ewing, F. Abdulrahman, R. Doherty, L. Potter, & M. Cristea (SoSS)

We investigated how different social groups perceive academics using an established mixed methods approach to identify if and where there are misconceptions about academia. We want to know whether society's perception of academics is keeping up with academia's evolution to ensure our teaching, research and scholarship is accessible, trusted, and engaged with by industry and the public. Participants (n = 409) completed an online Free Association Task where they provided 5 words or expressions that came to mind when presented with the stimulus word 'academic' or one of 5 priming vignettes where the implied ethnicity or gender of the protagonist was manipulated (e.g., Dr Jane Smith or dir. Adebayo). We used Social Representation Theory to identify the central, stable elements of the perception of academics and the peripheral, flexible elements that vary by professional group (Academic, Student, non-Academic working in HE, Other Profession) or prime (gender / ethnicity manipulation). Results show that the central stable elements included associations of research, knowledgeable and dedicated for all groups. The association of teaching was notably absent for Students and Academics while Other Profession was the only group to associate societal contribution with academics. We consider these results in relation to our teaching practice.

# How to teach robotics to children and the general public?

Shivoh Chirayil Nandukumar (EPS)

14:00-15:30 UK 17:00-18:30 Dubai 21:00 -22:30 Malaysia The use of Robotics has the potential to improve the quality of life of humans. However, apart from the specialists in this industry, everyone else thinks of it as magic. This cluelessness of the general public on what makes the robot tick may lead to a decrease in trust in using these systems. Furthermore, there needs to be more exposure in the teaching curriculum of schools related to the fundamentals of robotics, hence, creating a highly skilled generation of users and developers of robots. In the long term, not addressing these issues will increase economic disparities between strata of societies worldwide.

Thus, there is a need to teach and create awareness of what makes a robot tick to the general public and children. However, the challenge here is the necessity of the prerequisite technical knowledge to understand robotics concepts which obviously lacks in children and the general public.

In this talk, the speaker shares his experience teaching the fundamentals of robotics to children aged 10-13 as a Brilliant Club PhD Scholar. Later, he provides suggestions on creating an intuitive understanding of the fundamentals of robotics for children and perhaps also for the general public that lacks the pre-requisite technical knowledge.

# Public engagement: Effective ways to enrich MBA students' teaching and learning experience'.

Claire Li (SoSS)

This study evaluates the effectiveness of three types of public engagement – online, offline, and blended – in MBA education to enhance MBA students' learning experiences. The inquiry also explores which way of public engagement is more effective in developing MBA students' crisis leadership competencies.

Through discussions and analysis, using a seven-dimension public engagement evaluation framework, this study finds that: first, the choice of effective methods of public engagement is largely dependent upon the aims of users and activities. The seven dimensions of the public engagement evaluation framework and the logic model are helpful for teachers to evaluate the effectiveness of the means and activities of public engagement. Second, in developing MBA students' crisis leadership, teachers are recommended to choose blended public engagement activities in teaching because this is more likely to enhance crisis leadership competencies, whilst online or offline methods can only affect part of the crisis leadership competencies.

Wednesday 07/06/2023	HW LTA Conference: Creating Global Changemakers		
	Panel Discussion		
08:30-09:45 UK 11:30-12:45 Dubai 15:30-16:45 Malaysia	Enabling 'purpose' at Heriot-Watt. Chair: Alex Buckley (LTA)		
	At Heriot-Watt we strive to enable our students to be Global Changemakers, to develop the capabilities, curiosity, and sense of purpose to make an impact on the global challenges of our time. We are committed to supporting learners to be purpose-driven, to be inspired to make positive impact within our local and global communities.		
	In this session we bring together a panel from across our community to give insights to a range of learning, teaching and development opportunities they have been involved with that enable students to make connections with their purpose and passions. Panellists will give an overview of the work they have been involved with before we open to a facilitated question and answer session, guided by the Chair.		
	Panel Discussion		
10:00-10:50 UK 13:00-13:50 Dubai 17:00-17:50 Malaysia	Getting to grips with scholarship: Experiences of running a QAA mini-project. Chair: Anne Tierney (LTA)  QAA Scotland Enhancement Themes have been running for twenty years. At Heriot-Watt University, we offer individuals and small teams small grants to take forward a project which benefits them, their students and/or the local community. But what is it like to run a project?  In this session, we have a panel of successful mini-project holders who are going to share their experiences - the highlights, the challenges, and maybe even some tips so you can also run a project.		
	Contributed Session 3		
11.00-12:15 UK 14:00-15:15 Dubai 18:00-19:15 Malaysia	Global Design Studios.  Alison Hamilton-Pryde, Nermin El-Wakad & Nikhil Varghese (SoTD)  The Global Design Studios projects follows the learning experiences of Interior Architecture & Design students through working collaboratively during Design Studio sessions between the UK and Dubai campus. Each student contributed towards developing ideas in person and through digital means to form a strong sense of global identity and community. This peer learning opportunity transcends other previous similar projects to drive community, global community, confidence, communication skills, professional skills, peer learning and support pathways for Go Global opportunities. The student groups used Miro, Teams and other collaborative software to communicate alongside traditional in-person design studio skills and equipment. The students also created 2-minute films capturing their resilience, adaptivity, struggles and benefits of working in this manner.  How to develop a WELCOMING Team: Communication, respect and sharing as key ingredients.  Anna Seda, Cakil Agnew & Zuhrah Beevi (SoSS)		
	We do not know much about what makes a diverse team a welcoming place: sharing the same values and being supportive seems key to success. However, this is the goal, not how to get there. In our project, using a qualitative approach, we asked colleagues about wellbeing, engagement, learning, collaboration, opportunities,		

mind-set, and professional development opportunities. Our data show the steps required to truly reflect on what it means collaborative practice in welcoming teams, and on the psychological factors that act as barriers or enablers of resilience in this context. The key ingredients for the development of a welcoming team are communication, sharing of the load and respect for others. These ingredients emerge independently from the location of participants (Edinburgh, Dubai or Kuala Lumpur), years of experience, and background. We wish to share with our community the data we collected, and the story they tell. The audience will be invited to learn the importance of taking other members perspective for key aspects when working in a team. We will show the audience that what is relevant is the ability to recognise we have a baggage, and to shift our perspective when needed.

What Advance HE can ever do for staff working in professional services? Mari Cruz Garcia Vallejo (IS)

Advance HE is a member-led charity based in the UK that works with partners across the globe to improve higher education for staff, students and society. This session is aimed at staff members working in professional services in roles that support learning and teaching, academic services and QA in learning and teaching. The session explores the resources and development programmes available at Advance HE to promote inclusion, fight discrimination and show commitment to professionalism and leadership in teaching and learning. The Fellowship programme, the different categories of fellowship and the benefits of gaining this accreditation for staff working in non-academic contracts will be discussed during the session.

### **ROUNDTABLE EVENT**

Artificially intelligent? The challenges and opportunities of AI for 21st century learners.

Chair: Rosemarie McIlwhan (LTA)

12:15-13:15 UK 15:15-16:15 Dubai 19:15-20:15 Malaysia This session will explore the opportunities and challenges presented by the increased availability and use of generative Artificial Intelligence for students and staff. We will consider issues such as how do we ensure that students have the necessary skills to operate in a world which uses Artificial Intelligence? How can we use Artificial Intelligence to support effective learning and teaching, whilst also ensuring academic quality and integrity.

#### Contributed Session 4

**Digital simulation games for learning, teaching and assessment: The pros and cons.**David Brown (SoSS)

14:00-15:15 UK 17:00-18:15 Dubai 21:00-22:15 Malaysia Many business schools use digital simulation games to bridge the theory-practice divide, contextualise learning, and facilitate the development of dynamic analytical skills and decision-making. Learners typically work in teams on longitudinal exercises, benefitting from a combination of software-generated performance data and tutors' qualitative verbal feedback. Through competition and the gamification of knowledge acquisition, learners can push themselves semi-independently through KPI 'checkpoints' which serve as formative or summative assessment devices. However, learners may be impeded by a lack of technological literacy, an aversion to group work, the delinquency of 'social loafing' and 'lone wolf' behaviours, and disbelief in the legitimacy of simulations as an LTA strategy. Furthermore, barriers to adoption of simulations may be presented by educators and institutions - for example, due to workload concerns, licence fees, training needs, and competition for resources. This exploration draws upon the speaker's experience of using Cesim's Simbrand simulation game throughout a core undergraduate 'Introduction to Marketing' course

to consider the many pros and cons of using simulations for learning, teaching and assessment.

Accelerating students' CPD through experiential learning: lessons from launching and running the EBS consultancy bootcamp.

Tom Pfefferkorn (SoSS)

Business schools provide study programs designed to increase student employment prospects after graduation. However, according to the Chartered Institute of Personnel and Development (CIPD), UK graduates still struggle to find a job relevant to their studies due to lack of experience. The EBS Consultancy Bootcamp provides students with practical consultancy experience, with real clients, solving real business problems. We follow Biggs's framework (1999) to gradually transfer control of learning to the students through careful scaffolding, thus students achieve real understanding to their own terms (Perkins & Blythe, 1993). However, we found that a balanced relationship between trust and responsibility (i.e. social control) between academic staff and students is a crucial enabler for personal and professional development in this setting.

# The potential of Gradescope as a teaching tool.

Matteo Capoferri (MACS) & Beatrice Pelloni (MACS).

The use of technology represents a key instrument at our disposal in shaping our post-pandemic teaching and assessment strategy. In this talk, we will showcase the huge potential of Gradescope as a teaching tool across our global university. Based on a pilot conducted within the department of mathematics, we will show evidence for both the pedagogical advantages of Gradescope, in terms of meaningful and useful feedback to students, as well as for efficiency advantages, cross-campus cooperation, and cross-campus consistency of outcomes.

Thursday 08/06/2023	HW LTA Conference: Creating Global Changemakers		
00/00/2023	Keynote Session 2		
08:30-09:030 UK 11:30-12:30 Dubai 15:30-16:30 Malaysia	Enablers and obstacles to sense of belonging and student success: A personal journey and lessons learned for learning and teaching.  Speaker: Professor Susie Schofield (University of Dundee)		
	How a student feels about belonging at university is important in shaping their experience. With increasing research in this area there is evidence that enabling a strong sense of belonging is associated with a range of positive outcomes including retention, engagement, and good mental health. The concept of a sense of belonging is complex and there are multiple factors interacting to support or diminish 'belonging'.		
	This presentation draws on my personal experiences, making use of the game 'Snakes and Ladders' to the tell the story. As part of this I will examine enablers and barriers to my sense of belonging and how these shaped my and others' success. I will connect this account with evidence informed suggestions for things we can do as teachers and supporters of learning to enable belonging. I hope to unravel something of the complexity of belonging to advance the questions:  • What enhances or constrains a sense of belonging?		
	How can we support feelings of belonging?  Contributed Session 5		
10:00-11:00 UK 13.00-14.00 Dubai 17:00-18:00 Malaysia	The more-than-human student.  Allyson Noble (IS), Nermin El-Wakad (SoTD) & Nikhil Varghese (SoTD)  The title takes its inspiration from sociologists and cultural geographers that have been influenced by Actor Network Theory. It has encouraged us to contextualise the study of human practices within the frame of more-than-human assemblages. As such, this paper will outline how we understand Generation Z from a non-technologically determinist stance. It will critique the idea of the digital native, whilst also considering the rapidly changing technological landscape in which our students have to negotiate.  The majority working in the field of education argue for the worthy pursuit of a coproduced pedagogy between students and educators, but if we are to make this a meaningful endeavour, we need to critically examine the power that sits behind the drive for ubiquitous computing.  Reshape the future of construction education with immersive learning. Cheng Siew Goh (EGIS)  The project aims to integrate Virtual Reality (VR) as an innovative learning solution for construction education. Construction students can engage and have more		
	interactive dialogues with learning subjects via VR. This project will develop an interactive VR content that enables construction students to learn without limits. The generated VR environment that replicates a sustainable building project would enable students to delve deeper into the concept by being able to see, hear, sense and experience theoretical concepts of sustainability in a 3-dimensional world. The project outcomes will enhance the existing learning and teaching landscape in construction education.		

Engineering minds: unlocking critical thinking skills through interactive workshops. Shieela Kalib, Chia Ping Lee (EPS)

Engineering education is crucial in preparing students for professional success. In addition to technical skills, critical thinking abilities are equally important for engineers to solve complex problems and innovate solutions. As an academic study of the factors that influence the development of critical thinking skills, this project aims to enhance critical learning in engineering students through an interactive workshop at the higher education level.

The workshop focuses on cultivating critical thinking skills by guiding students through the steps of problem identification, analysis, evaluation, and synthesis. Through interactive activities and discussions, students engage in active learning to apply critical thinking skills.

Participating in the workshop will give engineering students a deeper understanding of critical thinking and how it applies to their field. The study also measured the effectiveness of the workshop through a student report, which assessed the students' understanding of critical learning. The results showed a significant increase in students' ability to display their understanding of critical thinking. This project contributes to the development of critical thinkers in engineering education and prepares students for future success.

# Kaggle completion in course assessment.

Neamat Elgayar, Kayvan Karim (MACS)

Kaggle is a public online platform for bringing together practitioners from the machine learning and data science community together. The platform hosts a wealth of information to support learners in the field and above all hosts competitions on real data science and AI applications.

In this session we present our experience in organizing for the second year a Kaggle competition as part of the course F20AA / F21AA Applied Text Analytics. The competition is designed to evaluate the machine learning models that the students develop for their coursework to predict product review ratings of a large Amazon data set. The data set consists of text reviews and the corresponding ratings provided by the user. The ratings score different outdoor and sports products from 1 (the lowest rating) to 5 (the maximum rating).

The coursework accesses student practical skills in building text processing, representation, analysis and categorization tools. We show how organizing the competition has supported the learning experience of the students by:

- allowing them to appreciate a real sized data set and the challenges involved
- adding some fun and competitiveness which encouraged students to go an extra mile to explore more advanced model to achieve better results
- allowing them to learn key practical lessons and support them in expanding their research and troubleshooting skills
- increasing their team engagement and time management skills
- expanding their experience and introducing them to the community of Kaggle and establishing a visibility in this professional network. This is very important for their employability record.

We end by summarizing the student feedback from this experience and our final recommendations.

	Showcase Panel		
11:00-12:15 UK 14:00-15:15 Dubai 18:00-19:15 Malaysia	Enhancing learning spaces at Heriot-Watt. Chair: Rosemarie McIlwhan (LTA)  This session explores the use of learning spaces across our global Heriot-Watt campuses. It will critically evaluate how our learning spaces can be utilised for effective teaching and inspiring learning, as well as exploring how they facilitate global and inclusive teaching. It will put forward recommendations for how we can enhance our spaces to support inspiring learning.  The session showcases work by participants on the PG Certificate in Teaching and Learning (PGCertTL) and situates it within the wider context of critical use of learning spaces.		
	ROUNDTABLE EVENT		
12:15-13:15 UK 15:15-16:15 Dubai 19:15-20:15 Malaysia	Reflections on the National Teaching Fellowship Scheme. Chair: Joanna Drugan (SoSS)  The National Teaching Fellowship Scheme (NTFS) is run by Advance HE to recognise, reward and celebrate individuals who have made an outstanding impact on student outcomes and the higher education teaching profession. This is an annual national competition for which Heriot-Watt University can put forward three nominees.  In this session we bring together our 2023 Heriot-Watt University NTF nominees to share their insights. The panellists will provide an overview of their experiences of applying for the NTF award, the expected and unexpected challenges, and the rewards, before we open to a facilitated question and answer session.		
	Edinburgh Campus Events		
13:30-14:00 UK	Interactive problem solving @ Creative Studio.  Thomas Wong (MACS)  A 20 min demonstration of how the Creative Studio (GRID Building, Edinburgh Campus) can be used.  The Creative Studio in a flexible learning space in the GRID suitable for a wide range of learning experiences. Using the moveable whiteboards in the space, the Creative Studio hosted problem-solving tutorials for a first-year engineering mathematics course. In this session, I will demonstrate how the space can deliver a student-led interactive sessions. Come along and experience how you could leverage the Creative Studio for your next teaching innovation.  No mathematical knowledge is required for this session.		

#### Edinburgh Campus Events

Challenge based learning; employability and skills.

Clare Thomson (LTA)

One of the HWU Graduate Attributes is Creative which states that a graduate is one who "Demonstrates curiosity, imagination and intellectual agility to drive the discovery and innovation required to meet contemporary challenges." Proposed benefits of creativity in education include promotion of good mental health, generation of new knowledge, promotion of entrepreneurial activity, building skills required in future employment (Cropley, 2012).

However, for educators barriers remain to introducing creative activities and assessment within higher education, such as lack of value placed on creativity in education settings, lack of resources, lack of training, focus on high stakes assessment, unsupportive culture/leadership (Collard and Looney, 2014).

This hands-on LEGO Serious Play workshop (James, 2015; Roos and Victor, 2018) will afford the space to explore these benefits and barriers within participants' own context and collaborate with colleagues to build solutions and ideas for navigating any barriers. Exemplars of methods for introducing creative opportunities within teaching, learning and assessment will also be provided.

14:15-15:45 UK

#### References

Collard, P. and Looney, J. (2014) 'Nurturing Creativity in Education: Nurturing Creativity in Education', European Journal of Education, 49(3), pp. 348–364. Available at: https://doi.org/10.1111/ejed.12090.

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Roos, J. and Victor, B. (2018) 'How It All Began: The Origins Of LEGO® Serious Play®', International Journal of Management and Applied Research, pp. 326–343. Available at: https://doi.org/10.18646/2056.54.18-025.

## **Video Blogs**

Unlocking students' engagement through collaborative formative assessment. Ooi Wei Lim, Adjei Nyarko, Diana A (Global College)

Student involvement is crucial for improving learning outcomes, but many educators have troubles motivating their students in the classroom. Although collaborative formative evaluation has become a potential remedy for this issue, little is known about how it affects students' engagement and improves their involvement in their studies. Consequently, it is important to examine the effectiveness of collaborative formative assessment in enhancing students' engagement in educational settings.

This study seeks to identify how formative assessment unlocks students' engagement in an Economics course. Focus group interviews with semi-structured questionnaires among six groups of students from both Malaysia and Edinburgh campuses have been conducted online. The findings from this study revealed that supportive team members have influenced students' engagement positively in completing the formative assessment. Teamwork also enhances students' engagement to be resilient in facing challenges to complete the assigned formative assessment. Additionally, the reflective summary is an acquaintance tool to develop an effective mutual learning dialogue between the lecturers and students. This will lead to the improvement in the design of the effective formative assessment to engage students actively in the Economics course. Finally, an effective formative

assessment can serve as a powerful driving force to promote behavioural, cognitive and emotional engagement among students.

Lights, Camera, Education! Bringing theory to life for students through media.

Lucy Bolton, Greg Fantham & Cakil Agnew (SoSS)

Media in university education has become increasingly popular in recent years as a tool to enhance student engagement and learning outcomes (Abdulrahaman et al., 2020). Media, such as videos, animations, and moving graphics can be used to illustrate and connect complex concepts and theories, bringing them to life for students. The addition of videos to existing teaching, as opposed to replacing teaching, have been found to show strong learning benefits (Noetel et al., 2021). This is especially important for those who are learning independently, such as students on our existing and future HW Online programmes.

This video blog showcases some of the media development that is currently being carried out by the IDL MSc Business Psychology team at HWU...taking us to the desert, Edinburgh city centre, and even letting us work with a gorilla puppet! Our academics work closely with the media team to enliven psychological theories, balancing authenticity and outcome-focused instruction in order to help students relate to and apply these concepts. This work demonstrates effective collaboration between academics, media experts and learning designers, resulting in dynamic and stimulating materials that can cater to different learning styles, both on and off campus. When used effectively, media is a highly powerful tool for enhancing student education.

#### References:

Abdulrahaman, M. D., Faruk, N., Oloyede, A. A., Surajudeen-Bakinde, N. T., Olawoyin, L. A., Mejabi, O. V., Imam-Fulani, Y. O., Fahm, A. O., & Azeez, A. L. (2020). Multimedia tools in the teaching and learning processes: A systematic review. Heliyon, 6(11), e05312. doi.org/10.1016/j.heliyon.2020.e05312.

Noetel, M., Griffith, S., Delaney, O., Sanders, T., Parker, P., del Pozo Cruz, B., & Lonsdale, C. (2021). Video improves learning in higher education: A systematic review. Review of educational research, 91(2), 204-236. doi.org/10.3102/0034654321990713

#### **Digital Posters**

**Expanding Horizons: Supporting International Students in Learning and Teaching in New Environments.** Tatyana Ivanova (EPS)

With the increasing number of international students enrolling in universities and colleges worldwide, it is critical to understand the challenges they face as they adapt to new learning environments. The experience of international students adapting to a new learning environment is a complex and multi-dimensional process that requires careful consideration from educators and researchers alike. We will explore the challenges and opportunities that international students face when learning in a new environment, and to provide a forum for discussion and collaboration among educators and researchers to develop effective teaching practices that support the needs of these students.

We will focus on several key themes, including cross-cultural communication, language acquisition, academic integration, and community building. We aim to promote a deeper understanding of the challenges faced by international students, and to develop effective teaching practices that support their learning and academic success. I believe that together we can share experiences, and strategies for supporting international students in their learning journeys.

Application of Challenge-Based Learning in Higher Education: Architectural Design Studio. Rana El-Dabaa (EGIS)

Challenge-based learning (CBL) is a pedagogical approach that relies on transferring knowledge to students through engaging students in real-world challenges. This study is presenting a framework for the application of challenge-based learning (CBL) in higher education specifically in Architecture school. Architectural Design Studio [2] at Heriot-Watt university is a project-based course that emphasizes on learning by doing approach and CBL. In

this study, the CBL values and methodologies are being evaluated against students' project proposals, in addition to revealing the challenges given to the students and how it is manipulated to reach a coherent design project.

During the course, some challenges were given to all the students, however, through the design process, each student approach it differently revealing a diverse solution. Throughout the design process, students develop their research processes by creating individual approaches and implementing ideas using different hands-on mediums such as model making, sketches, posters, etc. Moreover, the design studio as one of the main learning and teaching environments helps in developing creativity as well as collaborative working among students. This leads students to develop a higher level of communication skills through the use of media production techniques, to create and share the solutions they come up with.