MINISTRY OF HIGHER EDUCATION

TAYLOR'S

TTLC

TAYLOR'S 16TH INTERNATIONAL TEACHING & LEARNING CONFERENCE

Higher Education in the Age of AI: Transforming Learning for Sustainable Futures

11 & 12 September 2025

Organized by

Centre for FUTURE LEARNING

Foreword by Professor Barry Winn, Vice-Chancellor and President of Taylor's University

A warm welcome to the 16th Taylor's Teaching and Learning Conference. This year's theme "Higher Education in the Age of AI: Transforming Learning for Sustainable Futures", invites us to reflect on the profound changes shaping education.

With subthemes on AI in higher education, sustainable development, and curriculum innovation, the conference provides a vital platform for dialogue and collaboration. We are honoured to host distinguished speakers from around the world and delighted to include student voice in the conversation.

Taylor's remains committed to purpose-driven education and impactful research. I thank the Conference Committee, and all contributors, for making this conference possible.

Professor Barry Winn
Vice-Chancellor and President
Taylor's University

Welcome Message from Conference Chair

It is a privilege to welcome you to the 16th edition of our annual conference, The International Conference on Artificial Intelligence and Education for Sustainable Futures. This conference has grown into a vital platform where ideas converge, collaborations are forged, and knowledge is shared across disciplines, institutions, and nations.

This year's theme, Higher Education in the Age of AI: Transforming Learning for Sustainable Futures, invites us to explore how AI is reshaping higher education and driving innovation across three intersecting tracks: AI in Higher Education, Education for Sustainable Development, and Curriculum Innovation.

This conference brings together keynote addresses, interactive pre-conference workshops, and dynamic forums enriched by diverse perspectives, including the unique voice of a student leader on the expert panel. Adding to this are peer-reviewed paper presentations that reflect rigorous international scholarship. The richness of this experience owes much to the dedication of our reviewers, session chairs, and moderators.

This year, we are delighted to welcome over 440 participants from 24 countries to TTLC 2025! I encourage you to take full advantage of the opportunities this conference offers: attend sessions beyond your own discipline, expand professional networks, and pursue collaborations that will extend beyond these two days.

On behalf of the organising committee, I express heartfelt gratitude to the Centre for Future Learning, our Schools, departments, and every contributor whose passion and commitment shaped this conference. May it inspire us all to dream boldly, collaborate widely, and lead purposefully in creating sustainable futures.

Assoc. Prof. Dr. Lydia Foong Yoke Yean
Chairperson, TTLC 2025

BACKGROUND

Teaching & Learning Conference marks its 16th edition this year. The theme this year "Higher Education in the Age of AI: Transforming Learning for Sustainable Futures", provides a platform for dialogue and innovation. The conference brings together scholars, industry leaders, and policymakers to explore three key tracks: **AI in Higher Education, Education for Sustainable Development, and Curriculum Innovation.**

SUB-THEMES

AI in Higher Education

- Human-AI collaboration in teaching and learning
- Impacts of AI in curriculum design
- AL for equitable and inclusive education
- AI and student well-being
- AI in pedagogical innovation

Education for Sustainable Development

- Innovative approaches for sustainability education
- Measuring the impact of ESD
- Empowering communities through ESD
- Technology-enhanced ESD
- Integrating sustainability across disciplines
- ESD in teaching, learning and assessment

Curriculum Innovation

- Future-focused education
- Reimagining the future of higher education
- AI and digital transformation in curriculum design
- Multidisciplinary, interdisciplinary, and interprofessional practices
- Transdisciplinary learning for global challenges

Keynote Speakers

Keynote 1: **Teaching for Tomorrow: Advancing Education for Sustainable Development**

Professor Charles Hopkins

UNESCO Chair in Reorienting Education towards Sustainability, York University, Canada

Keynote 2: **Shifting mindsets around learning and assessment in the age of generative AI**

Professor Danny Liu

Professor (Education-Focused), University of Sydney, Australia

Keynote 3: **AI and Gamification for Personalisation, Engagement, and the Future of Learning**

Professor Yew Soon Ong

President's Chair Professor of Compter Science, School of Computer Science and Engineering, Nanyang Technological University (NTU), Singapore

Forum topic: Higher Education in the Age of AI: Transforming Learning for Sustainable Futures

Professor Darren Bagnall

Pro Vice-Chancellor (Academic), Taylor's University, Malaysia
Moderator

Professor Ts. Dr. Zaidatun Tasir

Senate Member, Universiti Teknologi Malaysia
Head, Education and Human Development Cluster, Academy of Professors Malaysia

Associate Professor Dr. Logendra Stanley Ponniah

Head of School, School of Education, Taylor's University
Founding Director, Education for All Impact Lab

Associate Professor Dr. Lim Chee Leong

Senior Director of Learning Innovation and Development, Taylor's University

Ms. Tisha Amadea

Director of Events Management, Agents of Tech, Taylor's University

Pre-conference workshop 1: Education for Sustainable Development for Future Ready Leaners

Professor Charles Hopkins

UNESCO Chair in Reorienting Education towards Sustainability,
York University, Canada

Professor Katrin Kohl

UNESCO Co-Chair in Reorienting Education towards Sustainability,
York University, Canada

Pre-conference workshop 2: Optimising the Use of GenAI to Enhance Learning about Sustainable Development

Professor Diana Laurillard

University College London

CONFERENCE SCHEDULE

11th September 2025 (Day 1)

08:00 AM	:	Registration
08:30 AM	:	Arrival of Guests
08:45 AM	:	Arrival of Distinguished Guests
09:00 AM	:	Exhibition Tour
09:10 AM	:	National Anthem
	:	Welcome Remarks by Professor Barry Winn Vice Chancellor and President, Taylor's University
	:	Opening Remarks by Yang Berhormat Dato' Seri Diraja Dr. Zambry Abd Kadir, Minister of Higher Education, Malaysia
	:	Officiation of Taylor's 16th International Teaching & Learning Conference
10:00 AM	:	Coffee Break Exhibition Tour & Networking
10:30 AM	:	Cultural Performance
10:45 AM	:	Keynote Speaker 1: Prof. Charles Hopkins UNESCO Chair in Reorientating Education towards Sustainability, York University, Canada Q & A
11:45 AM	:	Keynote Speaker 2: Prof. Danny Liu Professor, University of Sydney, Australia Q & A
12:30 PM	:	Lunch
02:00 PM	:	Forum
03:00 PM	:	Parallel Session 1
04:00 PM	:	Coffee Break and Exhibition
04:30 PM	:	End of Day 1

12th September 2025 (Day 2)

09:00 AM	:	Keynote Speaker 3: Prof. Ong Yew Soon President's Chair Professor of Computer Science, Nanyang Technological University (NTU), Singapore
10:00 AM	:	Coffee Break
10:30 AM	:	Parallel Session 2
12:00 PM	:	Lunch and networking
02:30 PM	:	Parallel Session 3
04:15 PM	:	Closing ceremony and Best Paper Award Presentation
04:35 PM	:	Coffee break and exhibition
05:00 PM	:	End of conference

PARALLEL SESSIONS SCHEDULE

11th September 2025 (Day 1)
Parallel Session 1

Room : LT3
Moderator : AP. Dr. Anitha Ponnupillai

3:00 PM - 3:15 PM	**Teaching in the Metaverse: An AI-Powered Look into Virtual Reality among Diploma Students** Umi Kalsom Kassim[1], Jayasutha Matiah[1], & Cliftton Baba Nyepit[2] *[1] Taylors College, Malaysia; [2] Taylor's University, Malaysia*
3:20 PM - 3:35 PM	**Enhancing Learning in Mass Communication through AI Avatar Integration: A Case Study at Taylor's University** Nur Haniz Mohd Nor, Nurun Najah Tarmidzi & Kok Jia Wern *Taylor's University, Malaysia*
3:40 PM - 3:55 PM	**Enhancing Curriculum Alignment of Medical Programme Using Artificial Intelligence** Khine Pwint Phyu, Sook Jhee Yoon ,Ganesh Ramachandran & Win Min Thien *Taylor's University Malaysia*

11th September 2025 (Day 1)
Parallel Session 1

Room : LT4
Moderator : Dr. Shabana Anjum Shaik

3:00 PM - 3:15 PM	**Integrating AI-Driven Counselling to Address Habitual Failures in Medical Education** Soobia Saeed *Taylors University, Malaysia*
3:20 PM - 3:35 PM	**Pre-University Students' Motivation and Online Learning Engagement: The Mediating Role of Attitude in using Generative AI technology** Hanani Abd Ghani, Harunnisa Mohamad Ibrahim & Rabi'ah Abd Rahman *Taylors College, Malaysia*
3:40 PM - 3:55 PM	**Integrating Large Language Models in Course Content Development Aligned with Outcome-Based Education** Abdul Hadi Mohamad, Saliyah Kahar Siva Raja Sindiramutty & Akibu Abdullahi *Taylor's University, Malaysia*

11th September 2025 (Day 1)
Parallel Session 1

Room : LT6
Moderator : AP. Dr. Simerjit Singh

3:00 PM - 3:15 PM	**Teddy Bear Hospital as a Transformative Learning Model for Health Education and Community Empowerment** Yin Sear Lim, Khine Pwint Phyu, Siew Hong Neoh, Seok Chiong Chee & Ramakrishnan Revati *Taylor's University, Malaysia*
3:20 PM - 3:35 PM	**Augmented Reality for Inclusive Digital Literacy in Orang Asli Communities** Husna Sarirah Husin[1], Kin Meng Cheng[2] Suhazlan Suhaimi[3], Suriana Ismail[4], Afizan Azman[1] & Norhidayah Hamzah[1] *[1]Taylor's University, Malaysia; [2] Universiti Tunku Abdul Rahman, [3] Universiti Pendidikan Sultan Idris, Malaysia; [4] Universiti Kuala Lumpur, Malaysia*
3:40 PM - 3:55 PM	**Youth Behind the Lens: A Conceptual Framework for Understanding Student Perceptions of Biodiversity Conservation Through Photovoice in Environmental Education** Nurlida Ismail[1], Rabi'ah Abd Rahman[2], Amira Mas Ayu Amir Mustafa[1] *[1] Taylor's University, Malaysia, [2] Taylor's College, Malaysia*

11th September 2025 (Day 1)

Parallel Session 1

Room : LT7
Moderator : AP. Dr. Looi Chung Yeng

3:00 PM - 3:15 PM	**Adapt or Obsolete: The Provocative Imperative for Academia in the AI Era** Damaris Carlisle & Wolfgang Muench *LASALLE College of the Arts, University of the Arts Singapore, Singapore*
3:20 PM - 3:35 PM	**Playful Pedagogical Practices in Higher Education: Rethinking and Designing Meaningful Assessment** Subashini K Rajanthran *LASALLE College of the Arts, University of the Arts Singapore, Singapore*
3:40 PM - 3:55 PM	**Beyond Buildings: Community-Driven Learning in Heritage Architecture Education** Jing Hao Koh *Taylor's University, Malaysia*

Room : LT8
Moderator : AP. Dr. Prabal Bhargava

3:00 PM - 3:15 PM	**A Structured Two-Phase Approach to Transforming Drug Design Learning through Virtual Reality** Mei Qian Yau & Jason Siau Ee Loo *Taylor's University, Malaysia*
3:20 PM - 3:35 PM	**Exploration of Pre-Service Teachers' Experience Using Engagevr in a Virtual Classroom Environment.** P. Thivilojana S.Perinpasingam, Joseph Verlade & Shin Yen Tan *Taylor's University, Malaysia*
3:40 PM - 3:55 PM	**The Effectiveness of a Technical Communication Pedagogical Module for the Automotive Sector in a Skills Training Institute** Viji Ramamuruthy *University Malaya, Malaysia*

11th September 2025 (Day 1)

Parallel Session 1

Room : D2.03
Moderator : Dr. Bhuvanes Veerakumaran

3:00 PM - 3:15 PM	**Let us explore AI together** Rajamalar Sabapathy, Stephanie Nesam Steven Solomon & Min Chen Yap *Taylor's College, Malaysia*
3:20 PM - 3:35 PM	**Evaluating Custom GPT for ESD Integration in Programme-level Curriculum Review** Sook Jhee Yoon, Ching Lan Loke, Lydia Foong Yoke Yean & Shu Chien Den *Taylor's University, Malaysia*
3:40 PM - 3:55 PM	**DeepBeep: An AI-Driven Student Attention Detection Tool Using Electroencephalogram Data** Lim Eng Lye[1], Zixu Cheah[2], Wei Sheng Chan[2], Pui Shyn See[2], Jie Yu Tan[2], Kai Le Wong[2] *[1]Taylor's College, Malaysia; [2]Taylor's University, Malaysia*

Room : D2.04
Moderator : Dr. Murugan Thangiah

3:00 PM - 3:15 PM	**Student Perceptions and Pedagogical Implications of Generative AI in Digital Storyboarding: A Case Study at New Era University College (NEUC).** Khairul Yusri Zamri, Raha Jaafar & Huda Omar *New Era University College, Malaysia*
3:20 PM - 3:35 PM	**SonicLens: Visual Metaphors and Explainable AI for Formative Feedback in Sound Design Education** Razif Mohamed *Taylor's University, Malaysia*
3:40 PM - 3:55 PM	**Gesture-Driven Smart Door Access System Using Live Video Processing** Sarerusaenye Ismail & Zhang Zi Khang *Taylor's University, Malaysia*

11th September 2025 (Day 1)

Parallel Session 1

Room : D2.05
Moderator : Ms. Lim Con Nee

3:00 PM - 3:15 PM	**Promoting Sustainable Learner Engagement in English Listening through a Small Private Online Course-Based Flipped Classroom** LanLan Wei *Universiti Malaysia Sabah, Malaysia*
3:20 PM - 3:35 PM	**Transformative Practices in Education for Sustainable Development in Early Childhood** Mazlina Che Mustafa, Intan Farahana Abdul Rani, Noor Sharizad Rohaizad & Syazwani Aniyah Manja *National Child Development Research Centre, Sultan Idris Education University, Malaysia*
3:40 PM - 3:55 PM	**DSpaces of Belonging in Contemporary Fashion: Nurturing Diversity and Inclusion Through Adaptive, Human-Centred Design** Alshaimaa Alanadoly, Winnie T Sangueza & Joey H. Yie *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : LT3
Moderator : Dr. Toh Leow Bin

10:30 AM - 10:45 AM	**Personalising Learning at Scale: A Mixed-Methods Evaluation of AI-Generated Bilingual Avatars and Adaptive Feedback** Jasmine Anak Jain & Mindy Tay *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Inclusive Education Through AI: Translating Speech to Sign Language for Deaf and Mute Learners** Murugan Thangiah, Sharat Chandra Reddy Thimmareddy, Hrithvik Reddy Gajjala & Khujaev Muhammad *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Beyond the 9-to-5: Flexing HRM for Tomorrow's Learners** Jen Ling Gan, Li Liu & Md Shamirul Islam *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Empowering Student Expression: A HyFlex Innovation in Public Speaking Pedagogy** Deborah Raj &Yi Xue Fang *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : LT4
Moderator : Dr. Md Uzir Hossain

10:30 AM - 10:45 AM	**Assessment on Knowledge, Attitudes and Practice Towards Artificial Intelligence in Pharmacy among Pharmacy Students in Malaysia** Shin Chee Chin *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Empowering SME Resilience Through Predictive Analytics: A Transformative Educational Approach** Husna Sarirah Husin, Afrizan Azman & Norhidayah Hamzah *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**From Group Work to Great Work: Exploring how Generative AI, Walter Transforms Group Dynamics and Satisfaction in First-Year University Group Projects** Ernie Syahida Mohd Kamal & David Wong *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Empowering Innovation Through a Generative Artificial Intelligence-Integrated Design Thinking Framework for Value-Driven Product Development** Chockalingam Aravind Vaithilingam & Manee Sangaran Diagarajan *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : LT6
Moderator : Dr. Gan Chew Peng

10:30 AM - 10:45 AM	**Exploring ESD in Educational Action Research in Pre-service Teacher Education** Shin Yen Tan & Yee Ling Lee *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Exploring Sustainability Pedagogies in Postgraduate Tourism Studies: The Case of a Higher Education Institution in Kerala, India** Aji Divakar, Shantini Thuraiselvam & Kandappan Balasubramanian *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Bridging Cultural Heritage Through Interdisciplinary Collaboration: A Case Study of the Reminiscing Stadium Merdeka Project** Azim Sulaiman, Nur Haniz Mohd Nor, Nik Syawan Nik Abd.Wahab & Habizah Sheikh Ilmi *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Empowering Senior Citizens Through Generative AI: A Lifelong Learning Initiative at the University of Third Age** Chui Yin Wong *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : LT7
Moderator : Dr. Myzatul Aishah Kamarazaly

10:30 AM - 10:45 AM	**Diploma Students' Acceptance of Artificial Intelligence and Augmented Reality Tools in Creative Advertising Education: A Technology Acceptance Model Pilot Study** Jenny Heng *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**From Likes to Learning: Integrating Social Media Literacy for Sustainable Well-Being in Higher Education** Ai Ling Ong & Qiurong Lin *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Integrating International Academic Visits as a Pedagogical Strategy for Curriculum Innovation in Built Environment Education** Boon Tik Leong, Lam Tatt Soon & Chang Sa'ar Chai *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**AI-Powered Pedagogy for IoT: From Simulation to Smart Solutions** Sumathi Balakrishnan, Lim Eng Lye, Siva Raja Sindiramutty, WeeJing Tee & Wei Wei Goh *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : LT8
Moderator : Dr. Toh Gaik Theng

10:30 AM - 10:45 AM	**Exploring Music Video as Pedagogical Innovation in Higher Education Mathematics** Eng Hui Ng & Theresa Chiew *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Exploring Interest in Advanced Chinese Modules Amongst Undergraduate Students at Taylor's University** Fong King Yap *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**AI Driven Flexibility and Collaboration: A Mediated Model of Transformative Learning in Higher Education** Affezah Ali, Sook Wah Chan, Aqilah Yaacob & Yen Mee Leow *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Innovative Pedagogy for Immersive Learning: Virtual Experience Synchronization** Xia Sheng Lee *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : D2.03
Moderator : Dr. Nallammai Singaram

10:30 AM - 10:45 AM	**Enhancing Clinical Reasoning through Gamified, Team-Based Simulation in a Master of Clinical Psychology Programme** Allistair Adam Nelson *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Transforming Traditional STEM Education with XRIS and HoloLens** Kenn Jhun Kam, Zhermeica Tze Shwan Lim *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Management and Strategies of Inclusive Practices at Preschools in Malaysia** Bee Ling Lee *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Simulating Clinical Communication: Medical Students' Perspectives on Role-Play in Problem-Based Learning** Sapna Patil, Ameya Ashok Hasamnis, Narendiran Krishnasamy *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : D2.04
Moderator : Dr. Lee Kim Lian

10:30 AM - 10:45 AM	**Empowering Future Clinicians Through Experiential Leadership: A Classroom Action Research on the Psych Centre Take Over Initiative** Hooi Shan Lim & Jeng Mun Sam *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Combining the Pantser Method with AI Language Assistance to Support Non-Native English Writers in Creative Composition** Mark Beau De Silva & Annie Too *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Practice-Led Action Research on Gamified Intangible Cultural Heritage Learning: Motivating and Engaging Tertiary Students** Rui Li & Wei Wei Goh *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**Exploring Immersive Learning in the Metaverse for Python Programming Education** Wei Wei Goh, Yu Shi, Noor Zaman Jhanjhi & Hadi Ahmadi *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 2

Room : D2.05
Moderator : Dr. Nurul Lina Mohd Nor

10:30 AM - 10:45 AM	**AI-ScaffoldED: Bridging Pedagogical Theory and Practice for Future Educators** Yee Ling Lee & Vinothini Vasodavan *Taylor's University, Malaysia*
10:50 AM - 11:05 AM	**Embracing AI to Empower B40 Women: A Digital Platform for Learning, Awareness, and Affordable Menstrual Support** Sharala Subramaniam *Taylor's University, Malaysia*
11:10 AM - 11:25 AM	**Artificial Intelligence Generated Group Feedback And Action Plans For Reflective Learning From Clinical Teaching In Internal Medicine** Benjamin Samraj Prakash Earnest, Ashika Upadhyay Narendiran Krishnasamy, Anitha Ponnupillai, Gnandev Phutane & Prabal Bhargava *Taylor's University, Malaysia*
11:30 AM - 11:45 AM	**AI in the Classroom, But at What Cost? Student Teachers' Experiences and Practices in a Changing Learning Landscape** Mindy Tay & Keith Chin *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : LT3
Moderator : Dr. Nur Fatin Liyana

2:30 PM - 2:45 PM	**Adopting Artificial Intelligence in Enhancing Arabic Communication Skills to Non-Native Speakers: A Bibliometric Analysis** Abdallah Saleh Abdallah[1], Thanh Huyen Phan[2], Nur Afifah Binti Fadzil Fadzil[1], Muhammad Muthi'ul Haqq Fatah Yasin[1] & Abdulwahab Abdulaziz Kassem Al-Hadd[1] *[1]Universiti Islam Antarabangsa Tuanku Syed Sirajuddin, Malaysia; [2]University of Social Sciences and Humanities, Vietnam National University Ho Chi Minh City, Vietnam*
2:50 PM - 3:05 PM	**Guiding the Future: AI-Enhanced Mentoring for Real-World Public Relations Projects in Final Year Module** G Manickam Govindaraju *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Make a Difference Enterprise (MADE): Catalyzing AI-Driven Design Thinking for Transformative Student Learning** Manee Sangaran Diagarajan & Chockalingam Aravind Vaithilingam *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : LT4
Moderator : Dr. Fang Yi Xue

2:30 PM - 2:45 PM	**AI Tutor-Guided Role Play as a Pedagogical Tool for Teaching Web Design and Coding** Yeong Tsann Phua, Tin Wooi Wong & Yuen Ching Siow *Taylor's University, Malaysia*
2:50 PM - 3:05 PM	**Beyond the Couch: Using AI Simulations to Shape Future Clinical Psychologists** Jeng Mun Sam *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Designing a 21st-Century Curriculum: AI's Response to Generation Z and Alpha Learning Patterns in Indonesia** Nizirwan Anwar[1], Suriana Ismail[2] & Husna Sarirah Husin[3] *[1]Student Asia E University, Indonesia; [2]Universiti Kuala Lumpur, [3]Taylor's University, Malaysia*
3:30 PM - 3:45 PM	**Narratives of Year 1 Medical Students About Their Transitional Journey and Academic Performance in a Medical School** Narendiran Krishnasamy & Ganesh Ramachandran *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : LT6
Moderator : Dr. Jenita Kanapathy

2:30 PM - 2:45 PM	**Piloting an Interdisciplinary Sustainability Guidebook in Hospitality and Culinary Higher Education Curriculum** Jacqui Kong & Li Choo Chong *Taylor's University, Malaysia*
2:50 PM - 3:05 PM	**Cultivating Values for Global Sustainable Future: Integrating Affective Domain in Higher Education for Sustainable Development** Marzura Malek *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Evaluating the Tangible Impact of Curriculum-Integrated Sustainability Projects** Chockalingam Aravind Vaithilingam, Tamilselvi Mari, Victoria Ng Fong Lee, Herish Kovalan & Syed Muhammad Umar Bin Syed Mohd *Taylor's University, Malaysia*
3:30 PM - 3:45 PM	**Enhancing Purposeful Learning Through Reflective Journals in the Sustainable Living Module at Taylor's University** Siti Norzaini Zainal Abidin *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : LT7
Moderator : Dr. Linda Seduram

2:30 PM - 2:45 PM	**The Impact of Multitasking with Digital Devices on Working Memory and Sustained Attention in Year 1 Medical Students: A Questionnaire-Based Cross-Sectional Study** Saravanan Jagadeesan & Narendiran Krishnasamy *Taylor's University, Malaysia*
2:50 PM - 3:05 PM	**The Impact of Balanced Technology Use and Holistic Interventions on Mental Health and Focus Among Digital Native Students** Saravanan Jagadeesan *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Empowering Communities Through Education: An Innovative Community Outreach Approach in Medical Education for Sustainable Development** Prabal Bhargava & Shamala Retnasabapathy *Taylor's University, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : LT8
Moderator : Ms. Sumathi A/P Balakrishnan

2:30 PM - 2:45 PM	**Artificial Intelligence Meets Teamwork: Rethinking Group Assignments in Actuarial Education** Kee Huong Lai *Taylor's University, Malaysia*
2:50 PM - 3:05 PM	**AI Transformation of Tertiary Food Science Teaching and Learning with SPOON (Student-centered Pedagogy with Omnipresent Online Nurturing) Model** Siok Koon Yeo, Sze Ying Leong, Sook Wah Chan, Lye Yee Chew & Eng Tong Phuah | *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Empowering Chemistry Learning through Human-AI Collaboration: Integrating AI Agents with 5E Pedagogical Innovation** Wong Yau Hsiung *Taylor's University, Malaysia*
3:30 PM - 3:45 PM	**Empowering ESL Learners in the Age of AI: Educator Guidance Toward Sustainable, Quality Learning in Malaysian Classrooms** Min Chen Yap, Rajamalar Sabapathy & Stephanie Nesam Steven Solomon *Taylor's College, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : D2.03
Moderator : Dr. Janitha Kularajasingam

2:30 PM - 2:45 PM	**Implementation of the AI Assessment Scale: A Multi Institutional Analysis** Darius Postma[1], Mike Perkins[1], Jasper Roe[2], Craig Holcroft[3] & Susan Sisay[3] | *[1]British University Vietnam, Vietnam; [2]Durham University, United Kingdom; [3]University of Staffordhire, United Kingdom*
2:50 PM - 3:05 PM	**Enhancing Psychological Intervention Training through Artificial Intelligence Role-Play and Virtual Reality** Faeza Hasnan & Hooi Shan Lim *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Teaching Beyond Classrooms with Global Voices: AI Persona Lab** Galvin Kuan Sian Lee *Taylor's College, Malaysia*

12th September 2025 (Day 2)
Parallel Session 3

Room : D2.04
Moderator : Dr. Nur Nadirah Mohamad Ishak

2:30 PM - 2:45 PM	**From Assessor to Detective: The Evolving Role of ESL Instructors in Monitoring Collaboration and Integrity in Digital Assessment** Ameera Irdena Suyansah, Noraini Said & Esther Jawing *University Malaysia Sabah, Malaysia*
2:50 PM - 3:05 PM	**Exploring the Role of Artificial Intelligence in Supporting Student Well-being in Higher Education** Stephanie Nesam Steven Solomon, Min Chen Yap & Rajamalar Sabapathy *Taylor's College, Malaysia*
3:10 PM - 3:25 PM	**Enhancing Higher Education through Human-AI Collaboration in Teaching and Learning** Stephanie Nesam Steven Solomon, Min Chen Yap & Rajamalar Sabapathy *Taylor's College, Malaysia*
3:30 PM - 3:45 PM	**AI-Augmented Pedagogy for Sustainable Tourism: Developing Future-Ready Graduates** Watsida Boonyanmethaporn *Graduate School of Tourism Management, National Institute of Development Administration (NIDA), Thailand*

12th September 2025 (Day 2)
Parallel Session 3

Room : D2.05
Moderator : Ts. Dr. Kam Kenn Jhun

2:30 PM - 2:45 PM	**Seeing Through Their Eyes: A Malaysian Virtual Reality Simulation to Understand the Lived Experience of Autism** Mohd Akif Farhan Bin Ahmad Basri *Taylor's University, Malaysia*
2:50 PM - 3:05 PM	**Integrating Industrial Academies for Sustainable Technology-Related Education – A Case Study of AWS Academy** Siti Zainab Ibrahim, Azyyati Adiah Zazli & Siva Raja Sindiramutty *Taylor's University, Malaysia*
3:10 PM - 3:25 PM	**Exploring the Effectiveness of Vr in Enhancing English Writing Skill Demonstrating Project Based Learning** Parvin Sultana *Taylor's University, Malaysia*

Abstract

Track: AI in Higher Education

Implementation of the AI Assessment Scale: A Multi Institutional Analysis

Darius Postma[1], Mike Perkins[1], Jasper Roe[2], Craig Holcroft[3] & Susan Sisay[3]
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Despite the prevalence of Generative AI (GenAI) in higher education, concerns persist over student use of these tools in assessment. One response to this has been through the use of assessment frameworks that support the ethical integration of GenAI tools into assessment, and one tool used by more than 350 institutions worldwide is the AI Assessment Scale (AIAS); a framework for embedding ethical, transparent, and sustainable use of generative AI in assessment design. This study examines faculty perceptions towards the implementation of the AIAS across two institutions teaching the same degree programmes. Five faculty focus groups with shared questions were conducted across the two institutions with a total of 30 participants. Transcripts were coded in NVivo using a deductive thematic analysis approach informed by the Critical AI Literacy (CAIL) framework. This supported a systematic, cross-institutional analysis of faculty perspectives on AIAS adoption, training needs, and opportunities for embedding the framework into assessment and curriculum design. Preliminary analysis highlights the need to integrate the AIAS within curriculum and assessment design, address risks such as contract cheating, and clarify ethical boundaries. Findings also highlight perceptions of superficial student AI use of GenAI alongside a clear need for sustained, structured staff training on GenAI tools and assessment frameworks. These findings position the AIAS as both a safeguard for integrity and a driver of pedagogical innovation, underscoring the urgency for institutions to embed it similar frameworks into curriculum review, strengthen staff capability in CAIL, and adopt coordinated sector-wide approaches to the integration of GenAI into education.

Empowering Student Expression: A HyFlex Innovation in Public Speaking Pedagogy

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This paper presents a pedagogical innovation using the HyFlex model in the Public Speaking for Success (PSFS) module at Taylor's University. The approach was designed to increase student access, autonomy, and engagement without compromising learning outcomes. Unlike traditional delivery methods, the HyFlex model offers students the flexibility to participate face-to-face, synchronously online, or asynchronously. Over a 14-week period, students engaged in six contact hours per week (four online, two in-person), including AI-guided bite-sized lectures via myTIMeS, online workshops through Microsoft Teams, and weekly physical tutorials. Student feedback collected at the end of the semester measured perceived skill development before and after the course. Results indicated significant improvements across key areas: confidence (from 2.55 to 4.14), audience engagement (2.77 to 4.23), vocal and body delivery (2.82 to 4.09), and inspirational delivery and structure (improving by over one point). As the first public speaking module at the institution to adopt a HyFlex design, the PSFS module illustrates the potential of flexible, student-centred learning environments to enhance communication skills development in higher education. This paper contributes to ongoing discussions on hybrid pedagogy and demonstrates how innovative course design can lead to meaningful student outcomes in communication education.

Empowering Chemistry Learning through Human-AI Collaboration: Integrating AI Agents with 5E Pedagogical Innovation

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As artificial intelligence (AI) continues to reshape the educational landscape, its integration into higher education must transcend content automation toward deeper pedagogical transformation. This project investigates the implementation of Jotform AI Agents, including the AI Presentation Agent and AI Tutor Chatbot, within an undergraduate chemistry course. It emphasizes human-AI collaboration to enhance teaching and student involvement. Based on the 5E instructional framework (Engage, Explore, Explain, Elaborate, Evaluate), the study aimed to improve personalised learning, encourage independence, and boost cognitive engagement. The AI Presentation Agent helped design interactive self-paced learning modules with embedded Q&A and voice narration. The AI Tutor Chatbot offered support through guided practice, real-time feedback, and adaptable content delivery. To measure the educational impact, students completed pre- and post-surveys along with formative and summative assessments. Feedback was collected using structured questionnaires. Initial findings show significant improvements in understanding concepts, learner motivation, and perceived independence, highlighting AI's role as a co-teacher instead of just a tool. This innovation also improved teaching efficiency by automating content distribution and feedback collection, allowing teachers to concentrate on higher-level facilitation. The collaboration between AI technologies and evidence-based frameworks shows how careful AI integration can prepare STEM education for the future and support inclusive, student-centered learning. The study also emphasises the need for ongoing design, continuous feedback, and ethical practices in AI-enhanced teaching. The results of this project create a model for AI use in various fields and set the stage for future-focused curricula in higher education.

Assessment on Knowledge, Attitudes and Practice Towards Artificial Intelligence in Pharmacy among Pharmacy Students in Malaysia

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Artificial intelligence is becoming an important tool in changing the healthcare field. To adapt to these changes, future pharmacists must have adequate knowledge, positive attitudes, and good practice in AI. This study aimed to determine Malaysian pharmacy students' knowledge, attitude and practice towards AI tools and their applicability in academic activities and future pharmacy practices. A cross-sectional survey was conducted among Malaysian pharmacy students from private and public universities using a validated, structured online questionnaire. Demographic data and scores for knowledge, attitudes, and practice towards AI were collected. Among the 148 respondents, majority were female (77.0%) and were studying at private universities (87.2%). Most of the participants possessed good knowledge scoring above 60% (89.2%) and positive attitude as defined by a score of more than 5 out of 9 (77.0%). However, a relatively lower level of practice with a score of less than 60% was observed among the respondents (66.9%). Both knowledge ($X2=8.180$, $p=0.042$) and practice ($X2=12.046$, $p=0.007$) level were strongly associated with the year of study of participants, where senior students demonstrated better knowledge and practice of AI. On the other hand, students (83.8%) agreed that AI is necessary in pharmacy field and supported the inclusion of AI in pharmacy curriculum. This study showed that pharmacy students in Malaysia have favourable attitudes and interest in AI, although their practical experience are limited, particularly among junior students. Thus there is a need of integrating AI knowledge into the pharmacy curriculum

through well organised training and increased access to AI resources. Addressing these deficiencies would better train future pharmacists to address the changing needs of technology driven healthcare. artificial intelligence, pharmacy education, KAP, Malaysia

AI Transformation of Tertiary Food Science Teaching and Learning with SPOON (Student-centered Pedagogy with Omnipresent Online Nurturing) Model

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Artificial Intelligence should not be viewed as disruptive force in education but as collaborator to elevate teaching and learning. Therefore, we introduce SPOON (Student centered Pedagogy with Omnipresent Online Nurturing), a model that exemplifies purposeful humanAI collaboration in Food Science tertiary curriculum. SPOON does not treat AI as a substitute for educators but harnesses AI as a coparticipant, enhancing iteration, prompting deeper thought, and supporting emotional engagement while keeping pedagogy fundamentally human led. SPOON operationalises student centered pedagogy by integrating adaptive AI tutors like Noodle Factory to deliver tailored quizzes and flashcards, enabling students to engage with content independently outside classes. We as educators then analyse AI generated insights, including misconceptions, to make data driven and targeted in-class interventions. Here, AI supports educator role without displacing them. Collaboration with AI continues during project learning, where students use generative AI tools to brainstorm innovative food products, simulate diverse consumer personas, and explore packaging solutions. While AI generates ideas, we coevaluate outputs, emphasising feasibility and ethics. This synergy promotes scientific reasoning, creativity, and inclusive design thinking, which are essential competencies for future food scientists. SPOON also uniquely emphasised on AI assisted emotional learning and reflection. Students are prompted by GPT-based tools to articulate their thoughts and feelings about their learning journey. We responded with individualised feedback and emotional support. AI powered chatbot was used to support student reflection through guided conversations, with 84% students reporting engagement and over 85% acknowledging improved critical reflection and metacognitive skills. Overall, SPOON showcases how thoughtful humanAI collaboration can enrich food science education by fostering personalised learning, critical reflection, and emotional engagement while maintaining educators central to the teaching process.

Empowering SME Resilience Through Predictive Analytics: A Transformative Educational Approach

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Small and Medium-sized Enterprises (SMEs) are vital to global economic growth, yet they often face resource limitations, technical gaps, and external market pressures that challenge their resilience. This study examines the role of predictive analytics in strengthening SME decision-making and long-term sustainability, while simultaneously bridging gaps in applied data analytics education. Through a purpose-driven, impact-oriented pedagogical approach, students collaborated directly with SME partners to collect operational data, conduct predictive analysis using machine learning tools, and deliver practical recommendations. This real-world engagement offered students hands-on learning experiences while enabling SMEs to leverage data insights that would otherwise be inaccessible due to resource constraints. The initiative demonstrated dual benefits: enhancing SME operational capabilities and developing student competencies in data analytics and industry engagement. Thematic analysis identified four key themes: (1) student skill development through

experiential learning, (2) improved SME insights and operational efficiency, (3) meaningful academic-industry collaboration, and (4) scalability of the model for broader impact. This project serves as a replicable framework that aligns education with real-world impact, showcasing how data-driven learning can support sustainable economic development. By integrating predictive analytics into both business and education contexts, the initiative highlights the transformative potential of data as a strategic asset for SMEs and a practical tool for student development.

From Group Work to Great Work: Exploring how Generative AI, Walter Transforms Group Dynamics and Satisfaction in First-Year University Group Projects

Ernie Syahida Mohd Kamal & David Wong
Taylor's University, Malaysia

The integration of Artificial Intelligence (AI) in education offers transformative potential to enhance student learning through personalised, self-paced, and responsive support. Among these technologies, generative AI tools particularly chatbots powered by natural language processing enable individualised feedback and real-time guidance, addressing the challenges of providing tailored support to diverse learners, especially international students. At Taylor's University, Walter, an AI agent developed by Noodle Factory has been implemented across selected academic programmes, with early outcomes indicating enhanced self-directed and personalised learning. Building on these successes, this study investigated the role of Walter in supporting students' socio-emotional development within collaborative learning environments. Specifically, it explored the impact of AI-assisted group work on first-year university students' emotional intelligence competencies, including empathy, communication, teamwork, and leadership. Using a mixed-methods approach, the study combined quantitative measures of group performance and satisfaction with qualitative data from focus group interviews to provide rich insights into students' experiences. The findings aim to address how embedding AI into group processes can enhance group dynamics, emotional growth, group effectiveness and overall learning satisfaction. This research contributes to the growing discourse on AI's role in higher education, offering implications for designing emotionally intelligent, technology-enhanced learning environments that support sustainable futures.

Empowering Innovation Through a Generative Artificial Intelligence-Integrated Design Thinking Framework for Value-Driven Product Development

Chockalingam Aravind Vaithilingam & Manee Sangaran Diagarajan
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This work presents a Generative AI integrated into our in-house developed CODE© (Conceptualise, Organise, Deploy, Evolve) design thinking tool. This approach supports the learners right from the ideation stage to develop market adoptable products. With the AI aided design thinking tool as a digital mentor, it enhances the learners' critical thinking and creativity with every stage of the design thinking process. The framework offers learners a thorough path with practical relevance and entrepreneurial value by incorporating CODE© value-driven tools like the Value Proposition Canvas, Value Communication Canvas, and Value Management Canvas. This also serves as a resource for educational environments providing mentorship-like guidance through AI-enabled choices with the tools. Since 2024, the framework is used in workshops and academic projects and in the capstone projects of Engineering programme. The evaluation of the tool for the 2025 cohort revealed 100% recommend the tool in their projects with 50% use during the startup/entrepreneurship planning which is indicative of use of such tools for lifelong applications. This framework

develops long-term abilities like value creation, ethical reasoning, and ambiguity management while producing outputs that are pertinent to the industry.

Narratives of Year 1 Medical Students About Their Transitional Journey and Academic Performance in a Medical School

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Transitioning into medical school is often a challenging and emotionally demanding experience, and Malaysian students are no exception. This study explores the lived experiences of first-year medical students at Taylor's University, Malaysia, focusing on their academic transition and performance. Using a qualitative phenomenological approach, eleven students were selected through purposeful sampling and interviewed individually. Their narratives were analysed using a six-step narrative analysis method to uncover key themes. Five trajectories emerged: choosing a career in medicine, barriers affecting outcomes, self-coping strategies, support systems, and future aspirations. Students shared their motivations for entering medicine, the challenges they faced, and the strategies they employed to manage academic demands. They also reflected on the support they received and their hopes for clinical years ahead. These insights offer valuable implications for designing student-centered learning environments and future-ready curricula. The findings highlight the importance of understanding student transitions to improve engagement and academic success. Furthermore, they suggest potential for integrating artificial intelligence (AI) tools to support students during critical phases of their education, contributing to more sustainable and inclusive medical education practices.

Designing a 21st-Century Curriculum: AI's Response to Generation Z and Alpha Learning Patterns in Indonesia

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The accelerating evolution of artificial intelligence (AI) and digital ecosystems is reshaping the educational landscape, especially for Generation Z and Generation Alpha, cohorts defined by their digital nativity, multitasking abilities, and preference for personalised learning. This study aims to design a 21st-century curriculum framework that integrates AI to respond to the distinct cognitive and behavioural learning patterns of these generations within the Indonesian educational context. A mixed-methods approach was employed, combining qualitative interviews with educators and education technologists, and a quantitative survey of 500 students aged 10–22 across urban and rural regions in Indonesia. The curriculum design is guided by four AI-enabled pillars: adaptive learning systems, data-driven student profiling, gamified microlearning modules, and real-time formative assessments. Results show that AI-driven personalisation significantly improves engagement and comprehension, particularly among students with short attention spans and diverse learning preferences. The qualitative insights reveal strong demand for content that is culturally contextualised and emotionally intelligent, aligning with Indonesia's educational values and national identity. The discussion highlights the importance of balancing technological integration with pedagogical authenticity, ensuring that AI serves as an enabler rather than a replacer of human interaction. This research contributes a prototype curriculum model suitable for policy adoption and future longitudinal validation. The findings underscore the need for proactive educational reform, where AI is not merely a tool but a strategic partner in nurturing holistic, future-ready learners in Indonesia. The study concludes with recommendations for curriculum policymakers, including iterative AI curriculum

audits and stakeholder co-creation to ensure inclusivity and sustainability.

Guiding the Future: AI-Enhanced Mentoring for Real-World Public Relations Projects in Final Year Module

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The integration of Artificial Intelligence (AI) in higher education remains underutilised in project-based, service-learning modules, particularly in disciplines like Public Relations (PR), where professional communication and real-world engagement are essential. A key challenge lies in delivering effective mentoring that supports student creativity, client satisfaction, and industry relevance while managing academic workloads. This study addresses the gap by investigating how AI-enhanced mentoring can improve learning outcomes in the Final Year Project (FYP) module under the ProPassion student-led PR consultancy at Taylor's University. The objective of this research is to explore the effectiveness of AI tools in enhancing supervision, content quality, and student autonomy within a service-learning framework. Using a qualitative case study approach, the study analyses student reflections, project outputs, and client feedback from PR campaigns conducted between 2024 and 2025. Data was collected through focus group discussions, supervisor observations, and post-project surveys involving clients and students. Findings reveal that AI-assisted tools, such as voice generation for multilingual video content, content drafting aids, and analytics platforms have significantly improved content professionalism, communication clarity, and learner confidence. Students reported increased independence in managing timelines and producing high-quality, client-satisfying deliverables. Clients also noted improved brand presentation and message accuracy through AI-enhanced outputs. The impact of this study highlights a scalable teaching model that blends human mentorship with AI-driven efficiency, promoting inclusive and transformative learning. This innovation offers a replicable framework to future-proof experiential education in communication and related fields by aligning with the goals of service learning and industry readiness.

Beyond the 9-to-5: Flexing HRM for Tomorrow's Learners

Jen Ling Gan, Li Liu & Md Shamirul Islam
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Flex HRM is a future-ready teaching and learning innovation that leverages AI technologies to enhance flexibility, engagement, and relevance in the Human Resource Management (HRM) module. A key feature is the use of an AI Avatar, which delivers lecture content using the lecturer's facial features and voice. This allows for consistent and engaging content delivery while enabling students to learn asynchronously without losing the human touch of instructor presence. In parallel, students engage with a separate AI Tutor system, which acts as a personalised revision and feedback tool. The AI Tutor offers automated lecture summaries, intelligent prompts, and adaptive quizzes based on student performance and progress. This 24/7 virtual assistant empowers students to revisit concepts at their own pace, reinforcing understanding and supporting independent learning. Flex HRM integrates blended learning approaches with modular, micro-learning content such as video explainers, scenario-based quizzes, and interactive case applications. AI tools are used not only to deliver content but also to monitor learning patterns, track engagement, and provide both students and instructors with real-time analytics for timely intervention and support. The model is platform-agnostic and can be implemented across LMS platforms like Moodle or Blackboard. It is suitable for hybrid or fully online delivery, making it ideal for diverse learning environments. By combining AI-enhanced delivery, intelligent tutoring, and flexible access to

content, Flex HRM transforms traditional learning into an engaging, data-informed, and future-focused educational experience tailored to today's business learners.

Embracing AI to Empower B40 Women: A Digital Platform for Learning, Awareness, and Affordable Menstrual Support

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Menstrual health remains a very poorly debated and stigmatized topic in Malaysia, particularly among B40 income group women. That education about menstruation is not being imparted at schools, with limited budgets, results in a majority of women resorting to unsafe alternatives such as newspapers, tissues, and washable cloths, as they are unable to afford sanitary products. This period poverty is a harsh reflection of a gap in social justice, public health, and education. Pads4Less, the focus of this study, is an online platform seeking to empower B40 marginalised women by building awareness, educating them, and expanding access to affordable menstrual products. The website employs artificial intelligence (AI) to auto-generate the process of generating educational content and operates on a cost-recovery model that leverages advertising income and public subsidies. Users subsidise the price of menstrual items by watching ads, thus reducing their prices. By working with Sarawak-based non-governmental organization, P.A.D Project My, the website can maintain community focus, cultural sensitivity, and specificity to the actual needs and pricing realities of the target population. Additionally, the project employs the Empathy Map Canvas so that the platform's design and communication are user-centric in terms of being able to understand and address the practical and emotional demands of the B40 women. Apart from providing physical support, the platform further aims to break the stigma around menstruation through digital educational content and open conversations. Lastly, Pads4Less offers a socially responsible and scalable solution that leverages AI and community partnerships to combat period poverty and promote menstrual dignity through inclusive digital education.

Beyond the Couch: Using AI Simulations to Shape Future Clinical Psychologists

Jeng Mun Sam
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This study explores the use of artificial intelligence (AI)-enhanced interactive synchronous learning (ISL) to transform clinical training in a Cognitive Behaviour Therapy (CBT) module delivered to 52 Master of Clinical Psychology students. Through the Noodle Factory platform, students engaged in AI-driven role-play simulations designed to mirror complex therapist-client interactions. These simulations provided safe, repeatable opportunities to practise essential CBT techniques including Socratic questioning, cognitive restructuring, and behavioural activation. Grounded in transformative learning theory, this approach facilitated critical reflection, encouraged reassessment of pre-existing beliefs, and fostered the development of a more adaptive clinical identity. Compared to traditional face-to-face instruction, the AI-supported ISL method offered more consistent exposure to diverse clinical scenarios, reduced dependence on physical client availability, and enhanced flexibility in skill acquisition. Students reported heightened engagement, greater self-awareness, and improved clinical confidence, noting that the opportunity to "fail safely" in virtual settings contributed to deeper learning and professional growth. Structured debriefings and peer discussions further supported this transformation by reinforcing reflective practice and collaborative learning. The findings suggest

that AI-integrated ISL not only complements but surpasses conventional teaching methods by promoting learner autonomy, adaptive thinking, and readiness for real-world clinical demands. This innovation represents a scalable, impactful pedagogical model for preparing future mental health practitioners in increasingly complex healthcare environments.

AI Tutor-Guided Role Play as a Pedagogical Tool for Teaching Web Design and Coding

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The rapid advancement of Artificial Intelligence (AI) has brought transformative changes to teaching and learning practices. Among the emerging innovations is the use of AI-powered virtual tutors capable of simulating interactive and adaptive learning environments. Many students face challenges in understanding abstract coding concepts, maintaining motivation, and applying knowledge in real-world web development projects. Traditional instructional methods often lack interactivity and personalised feedback, leading to passive learning experiences and superficial understanding. This pilot study explores the integration of an AI tutor into web development education, specifically using role play scenarios to teach Hypertext Markup Language (HTML), Cascading Style Sheet (CSS), and responsive web design effectively to Diploma in Information Technology students. This study uses an AI tutor named Webby embedded in a virtual learning environment. The AI simulates guided one-on-one learning sessions in which students interact with the AI tutor by taking on learner roles in scripted or semi-scripted web design scenarios. Preliminary findings suggest that AI tutors had a substantial impact on the students' knowledge acquisition and skill application. Moreover, pre- and post-assessments show higher competency in HTML and CSS following the intervention. This research demonstrates how AI tutors can be leveraged to personalise technical education and make learning web design both interactive and practical. It supports the national agenda of digital transformation in education by fostering future-ready graduates with real-world technological skills.

Artificial Intelligence Generated Group Feedback And Action Plans For Reflective Learning From Clinical Teaching In Internal Medicine

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Reflection is a key process that promotes self-directed learning in medical education, encouraging students to modify their efficacy beliefs, core knowledge and competencies through constructive feedback. This review outlines a theoretical foundation of reflection in medical education and evaluates the use of AI-generated group feedback and action plan to enhance reflective learning during bedside teaching (BST) sessions in internal medicine postings. A literature review was conducted to layout the theoretical basis of reflection in medical education and the role of feedback during clinical teaching. Students in internal medicine postings were invited to a voluntary reflective activity on bedside teaching sessions. Following a briefing on reflective practice and self-assessment, students reflected on a bedside teaching session using Gibbs' reflective cycle. Their responses were synthesised and used to generate feedback and action plans using an AI application. Out of 23 invited participants, 17 students completed the reflective activity highlighting ways to improve their clinical knowledge, communication, and professionalism in bedside teaching. AI-generated feedback and action

plans were shared with the students, to support deeper learning and development. Understanding the conceptual framework underpinning critical reflection and integrating AI-driven feedback mechanisms empowers medical educators create more effective and meaning learning strategies. This approach helps students to become self-regulated learners and enhances beside learning experiences.

AI in the Classroom, But at What Cost? Student Teachers' Experiences and Practices in a Changing Learning Landscape

Mindy Tay & Keith Chin
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As artificial intelligence (AI) tools become embedded in higher education, their presence in teacher education programmes raises new questions about how future educators engage with emerging technologies. This mixed-methods study investigates student teachers' AI-related practices and perspectives within a shifting educational landscape. Drawing on survey data from student teachers and interview insights, the study addresses two key research questions: (1) How do student teachers use AI tools in their learning process? and (2) What are the perspectives of student teachers regarding the use of AI tools in their learning process? Survey findings reveal that AI tools are widely used for academic support tasks such as summarising content, generating ideas, and checking grammar. While student teachers reported increased efficiency and convenience, they also indicated varying levels of confidence in evaluating AI-generated content and understanding ethical boundaries. The qualitative data offer a more nuanced view: some student teachers valued the personalised assistance provided by AI, yet many expressed ambivalence, citing concerns about overreliance, reduced critical thinking, and the erosion of collaborative and reflective learning experiences. These findings suggest that while AI tools offer pragmatic benefits in teacher preparation, they also introduce pedagogical tensions that challenge traditional notions of professional learning. The paper concludes by advocating for a more balanced and critically informed approach to integrating AI into teacher education - one that foregrounds human connection, reflective practice, and pedagogical responsibility.

DeepBeep: An AI-Driven Student Attention Detection Tool Using Electroencephalogram Data

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Online learning has gained significant popularity in recent years due to its flexibility and accessibility. However, the shift from traditional classroom settings to online learning has introduced substantial challenges in maintaining learners' attention. Attention plays an important role in academic success, as sustained focus is closely linked to improved comprehension and academic performance. In online learning environments, learners are frequently distracted by external stimuli such as social media, device notifications, and environmental disturbances. Furthermore, the limited interpersonal interaction inherent in online platforms often constrains instructors' ability to observe and sustain learners' attentional states effectively. To address these challenges, this project introduces DeepBeep, an innovative attention-tracking system that leverages Electroencephalogram (EEG) data and artificial intelligence (AI)-driven analysis to monitor learners' attention in near real time. By optimising the signal processing techniques such as Fast Fourier Transform (FFT) and Independent Component Analysis (ICA), the system extracts relevant features from EEG signals that are indicative of cognitive engagement. A Gated Recurrent Unit (GRU) neural network is utilised to classify and predict

students' attention states, achieving a high prediction accuracy of 99.34%. DeepBeep is integrated with a user-friendly web-based interface that allows educators to monitor both individual and class-wide engagement through an intuitive dashboard. The insights include class performance summaries, individual attention trends, and average focus duration. These analytics allow instructors to adjust their teaching strategies to better suit the learners' needs. Overall, the project aims to empower educators with intelligent tools to enhance instructional effectiveness and improve learning outcomes in online learning environments.

Gesture-Driven Smart Door Access System Using Live Video Processing

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Many gesture recognition systems are constructed by relying on traditional computer vision or simple machine learning methods such as using template matching, SVM and KNN algorithm models based on hand information feature points. These methods have low recognition accuracy in the face of complex recognition background environments and lighting conditions with randomness and immediacy factors. In addition, recognition errors and low recognition sensitivity are also common problems. This research aims to develop a gesture recognition system and analyse the outcomes, based on two combination models between YOLOv4 and MediaPipe. After observed and analysed the results, research successfully identified the main problems faced by the smart door lock system in the process of user identification and proposed corresponding mature solutions in three different environmental conditions and maintain a high level of accuracy in many cases in terms of adaptability and stability. However, for the recognition accuracy and response speed, research found it is insufficient, and other limitations that has been discussed in this paper.

Adopting Artificial Intelligence in Enhancing Arabic Communication Skills to Non-Native Speakers: A Bibliometric Analysis

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This study aims to investigates the adoption of Artificial Intelligence (AI) in enhancing Arabic communication skills among non-native speakers, focusing on trends and research developments. The study incorporates findings from various research efforts to understand the effectiveness, challenges, and advancements in AI applications for Arabic language learning. Key areas of study include the use of AI tools like Duolingo and Arabits, which have shown potential in vocabulary acquisition and phonological training but face challenges in integrating complex language structures and cultural gradation. Thus, AI-enhanced platforms such as SUNO.AI and deep learning-based software have demonstrated significant improvements in listening and overall language skills, highlighting the benefits of personalised and adaptive learning experiences. However, issues such as dialectal variations, usability, and content accuracy remain significant obstacles. The researches employed a rigorous bibliometric methodology using the Scopus database as the main source of scholarly records. An advanced search strategy was developed using five keywords: Artificial Intelligence (AI), Arabic Language Learning, Non-Native Speakers, Adaptive Learning, Language Education. Moreso, this kind of study also emphasises the importance of culturally sensitive AI models and the need for a balanced approach combining traditional

and AI-driven methods to optimise learning outcomes. Thus, this recent work of analysis provides valuable findings and insights for educators, researchers, and policymakers aiming to clout AI in Arabic language education, promoting more effective and inclusive learning environments.

Artificial Intelligence Meets Teamwork: Rethinking Group Assignments in Actuarial Education

Kee Huong Lai
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This study presents an innovative approach to promoting collaborative learning and artificial intelligence (AI) literacy among actuarial students, who are often more introverted, by embedding a campus-wide Excel-based treasure hunt into a group assignment. Traditionally, actuarial coursework focuses on technical mastery and the use of Excel for simulations, often completed individually in remote or isolated settings. This initiative shifts the paradigm by requiring students to work in groups, physically explore the campus, and collect numerical clues from designated locations. These clues provide essential parameter values needed to complete their actuarial simulations. Beyond encouraging peer collaboration and hands-on problem-solving, the assignment also requires students to critically evaluate the appropriate use of generative AI tools. They must discern which parts of the task, such as decoding treasure hunt clues, validating formulas, or interpreting data, can be enhanced by AI assistance, and which aspects require human judgment, domain knowledge, and collaborative decision-making. This process fosters responsible AI use in actuarial contexts, an increasingly important skill in the modern workforce. The assignment reflects real-world actuarial practices, where Excel remains a key analytical tool and AI technologies are becoming more integrated into daily workflows. Scalable and adaptable, this approach has been previously piloted in a mathematics course and can be extended to other quantitative disciplines such as business statistics, engineering mathematics, and actuarial science. It offers a practical, engaging way to bridge academic learning with evolving industry demands.

AI-Powered Pedagogy for IoT: From Simulation to Smart Solutions

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Teaching the Internet of Things（IoT）, a technology that connects everyday objects to the internet for monitoring and improvement, is challenging in classroom settings. Integrating multiple technologies and resources within limited class time makes it difficult to holistically demonstrate IoT outcomes. Issues such as assembling components, configuring both wireless and wired connections, creating collaborative environments, training models, and implementing interfaces often disrupt the learning process. Networking, debugging, and coding take time and often cannot be completed in a two-hour class. This leads to students losing their confidence as the circuit is not working and is not completed. Utilising the AI technology for teaching simulation, an innovative teaching strategy for a holistic IoT learning and experience that ultimately encourages students to implement a growth mindset. The aim is to demonstrate comprehensive IoT learning for effective classroom participation in learning the technology. Additionally, it can foster risk-taking and sustainable learning. The near proof of concept of the solutions is implied through emulating hands-on experience with collaborative tools that can sivmulate the real environments. The outcome is a holistic understanding of how IoT networks function while encouraging risk-taking, resilience, and confidence among students.

Inclusive Education Through AI: Translating Speech to Sign Language for Deaf and Mute Learners

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Inclusive education plays a crucial role in providing equal learning opportunities for everyone, especially for deaf and mute students who often experience communication challenges in online educational environments. This research outlines the establishment of an AI-based speech-to-sign language translation system intended to foster accessibility and independence in digital classrooms. The primary aim of this research is to create a real-time intelligent agent—integrated with a virtual avatar— that can seamlessly convert spoken language into sign language, thereby eliminating the need for human interpreters. The system's architecture features a modular pipeline which includes an Automatic Speech Recognition (ASR) engine for transcribing speech, Natural Language Processing (NLP) for context and grammar analysis, and a Sign Language Generation (SLG) model that translates text into gesture-based language. The final output is generated through a 3D virtual avatar that can facilitate real-time sign language communication. Training and evaluation of the system are conducted using publicly available datasets such as Mozilla Common Voice (ASR), RWTH-PHOENIX-Weather 2014T (sign language), and specially fine-tuned custom gesture datasets. Preliminary findings reveal promising accuracy and real-time performance, underscoring the system's potential to foster inclusive education and enrich learning experiences for deaf and mute students in online learning environments.

Enhancing Psychological Intervention Training through Artificial Intelligence Role-Play and Virtual Reality

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Generative artificial intelligence (AI) and virtual reality (VR) are gaining momentum as innovative teaching tools in higher education, offering immersive and interactive learning experiences. However, their application in psychotherapy training within clinical psychology programmes remains underexplored. This classroom action research investigated the integration of AI-based role-play and virtual reality simulations into teaching psychological interventions to enhance student engagement, clinical insight, and applied learning. Twenty-nine Master of Clinical Psychology students first engaged with Noodle Factory, a text-based AI platform, to practise therapeutic communication strategies and receive immediate feedback. This phase supported scaffolded learning within Vygotsky's sociocultural theory, allowing students to trial different approaches in a structured, feedback-rich environment. Students also accessed the platform independently for additional practice, with performance automatically scored to provide an objective measure of experience. Building on this foundation, students participated in immersive VR sessions using Oculus Quest 2 headsets, simulating realistic therapy scenarios with AI avatars. These experiences aimed to enhance presence, emotional engagement, and confidence in applying clinical skills before real-world client interactions. Student experiences were assessed through role-play frequency and scores, an adapted version of the User Experience in Immersive Virtual Environments Questionnaire, and open-ended reflections. Descriptive findings showed high suitability and engagement, with moderate ratings for perceived usability and control. Qualitative responses indicated increased confidence and clinical readiness, with suggestions for improvement including reduced lag and more natural AI avatar responses. These findings highlight the potential of combining scaffolded AI role-play with immersive VR to enrich psychotherapy education and better prepare students for clinical practice.

Make a Difference Enterprise (MADE): Catalyzing AI-Driven Design Thinking for Transformative Student Learning

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In an era where AI is redefining education, the Make a Difference Enterprise (MADE) initiative was conceived as a collaborative learning platform to empower students as changemakers through AI-driven design thinking. Conducted in partnership between Taylor's University, Malaysia and participating institutions in India, MADE brought together diverse cohorts of students to co-create solutions addressing real-world problems aligned with the Sustainable Development Goals (SDGs). The programme combined immersive workshops on design thinking with hands-on sessions on generative AI tools, prompt engineering, and ethical use of AI technologies. Through interdisciplinary teamwork and mentorship, students engaged in problem discovery, user-centric solution development, and iterative prototyping. The workshop culminated in the development of functional AI chatbots, each addressing unique community-based problem statements—ranging from mental health support to environmental awareness and education accessibility. The initiative also integrated a blend of formative and reflective assessments (AfL, AaL, AoL) to support student learning and growth. MADE was guided by the imPACT framework (Innovation, Mobilisation, Partnership, Action, Co-Creation, and Transformation), encouraging student agency, empathy, and digital fluency. This abstract presents MADE as a scalable model for AI-enabled curriculum innovation that transcends institutional boundaries, fosters intercultural collaboration, and prepares students for future-ready, responsible leadership in a tech-driven world.

Integrating AI-Driven Counselling to Address Habitual Failures in Medical Education

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The study intends to develop a structured AI-enabled counselling cell model to identify and address repetitive academic failures in medical students. Integrating AI-driven analytics with psychological support systems, the model attempts to reach common root causes like personal motivation or parental pressure as well as academic stress that influence such students' decisions on pursuing medicine. Data from MBBS students, collected through stratified sampling, have been analyzed by means of SPSS, with significant insights being drawn from chi-square tests and odds ratios. Most interviewees said they felt regret about the career choice, mainly because it did not match their expectations or pressure was exerted on them. The new AI-empowered counselling system helps universities classify risky students through predictive analytics and provide tailored counselling using emotion recognition, sentiment analysis, and chatbot services. Findings hence elucidate that motivation drops sharply in the later years of studies, this being correlated with stress and burnout. Students who underwent selection and career counselling, especially those who were found ineffective in the career attainment, have shown greater acceptance to consider other medical courses. Being very flexible in its application, the expert system allows a very long-term intervention upon an evolving framework by means of continuous monitoring, risk assessment, and counseling. It thus supports both the mental well-being of the student, prevents dropouts by dropout prediction, and channels career choices on a combination of personal traits and stated goals through academic counseling.

SonicLens: Visual Metaphors and Explainable AI for Formative Feedback in Sound Design Education

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SonicLens is an AI-powered web application created to support design students as they begin learning sound design. Many find the technical language of audio difficult to grasp, while instructors cannot always provide the frequent and detailed feedback needed in large classes. This limits opportunities for students to experiment and refine their work through iteration, which is central to the creative learning process. SonicLens responds by combining automated analysis with explainable guidance, interpreting audio concepts through visual design metaphors that connect unfamiliar audio principles to familiar visual practices. These metaphors make complex ideas more approachable and encourage students to reflect with greater confidence. The system applies Explainable AI and the XAIxArts approach so that feedback is transparent, while also enabling instructors and peers to contribute feedback directly on the same interface. By offering AI-guided critique alongside human input, SonicLens extends the reach of formative feedback and makes it available whenever students need it. This helps ease the limits of classroom feedback and provides more opportunities for iterative learning while opening new possibilities for using AI in sound design education and other arts-based fields.

Student Perceptions and Pedagogical Implications of Generative AI in Digital Storyboarding: A Case Study at New Era University College (NEUC).

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Generative artificial intelligence (Gen AI) is reshaping creative workflows in media production, requiring new pedagogical approaches in creative education. This mixed-methods case study examines how 12 undergraduate visual communication design students at New Era University College (NEUC) engaged with Gen AI for digital storyboarding. Data from task-based assessments, validated questionnaires, and systematic observations were analysed using descriptive statistics and thematic analysis. Findings revealed that while 50% of students rated initial storyline creation as highly challenging, prompt formulation emerged as the most difficult stage (75% reporting high to very high difficulty), reflecting the emergence of a creative-technical literacy bridging artistic vision and computational communication. Conversely, 75% reported high to extreme benefits in workflow understanding, suggesting AI's value as cognitive scaffolding that enhances comprehension of production processes. Thematic analysis identified four key dynamics: AI as a creative collaborator, complexity of prompt formulation, efficiency–control tension, and enhanced workflow understanding. The study introduces the concept of translational cognitive load, highlighting the cognitive shift from manual execution to conceptual articulation in AI-mediated creativity. Pedagogical implications include structured prompt engineering curricula, AI literacy frameworks for creative disciplines, and assessment models recognising both process and product. While limited in generalisability due to sample size, this research provides foundational evidence for integrating AI into creative curricula in ways that preserve creative agency and foster reflective, skill-based learning.

Enhancing Learning in Mass Communication through AI Avatar Integration: A Case Study at Taylor's University

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Taylor's University, Malaysia

This study explores the integration of artificial intelligence (AI) avatars in teaching communication modules to a large cohort of 300 students in Taylor's University. Designed to enhance engagement and accessibility in a foundational communication course, the AI avatar functioned as a co-teaching tool, delivering micro lectures, facilitating discussion prompts, and simulating real world media scenarios. Preliminary findings reveal diverse student responses to the use of AI in teaching. While some students appreciated the AI avatar's ability to simplify complex concepts and provide an interactive learning experience, others expressed a clear preference for traditional lecturer led delivery. Notably, students who were more inclined toward the interpersonal and human centric aspects of communication studies found the AI approach less favourable, emphasizing the value of emotional presence, spontaneity, and authentic interaction during lectures. Furthermore, feedback highlighted that student receptiveness often depended on the teaching style of the lecture, some students were comfortable with the use of AI when integrated by dynamic and supportive instructors, whereas others preferred the lecturer to remain the primary focal point of the session. Students also feel the need of a human presence in the classroom, as to compared to a robot; therefore, their interest in the study could decline. These findings underscore the importance of instructional balance in large class environments. The paper discusses the design and implementation of AI enhanced teaching strategies, student perceptions, and the pedagogical implications of using emerging technologies in communication education. It concludes with recommendations for a hybrid teaching model that integrates AI tools without compromising the human connection.

Enhancing Curriculum Alignment of Medical Programme Using Artificial Intelligence

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Taylor's University Malaysia

Taylor's University has developed a customized AI agent named MQF 2024 to support academic staff in navigating the Malaysian Qualifications Framework 2024 (MQF 2024), which emphasises Education for Sustainable Development (ESD) and Values-Based Education (VBE). Aligning Programme Learning Outcomes (PLOs) and Course Learning Outcomes (CLOs) to these elements is a complex task, particularly within integrated medical curricula which is already very specific in terms of outcome. This case study explores the application of a generative artificial intelligence (AI) tool (ChatGPT) to support curriculum alignment with MQF 2024 in a medical programme. A structured protocol was followed: mapping PLOs to ESD and VBE with justifications; verifying alignment with MQF matrices; mapping CLOs to PLOs, ESD, VBE, and assessments; and suggesting alternative assessments where misalignment occurred. Key faculty members reviewed the AI-generated outputs and provided structured feedback, which informed the refinement process through collaborative discussion and continuous improvement. AI demonstrated satisfactory alignment accuracy (66.6% for PLO-ESD-VBE and 77.7% for CLO-ESD-VBE-assessment mapping). Challenges included processing complex Excel tables and inconsistencies between preclinical and clinical modules. Despite initial limitations, AI outputs improved significantly through manual uploads and faculty-guided adjustments. The AI agent also demonstrated adaptive learning, enabling a more streamlined alignment process when applied to other schools. With appropriate oversight, generative AI can serve as a valuable support tool for curriculum mapping, enhancing efficiency, transparency, and alignment with national standards such as MQF 2024.

Let us explore AI together

Rajamalar Sabapathy, Stephanie Nesam Steven Solomon & Min Chen Yap
Taylor's College, Malaysia

The present educational system advocates Artificial Intelligence (AI) into the planning and teaching practices, enhancing lesson design, student engagement, and instructional efficiency. AI-powered applications such as chatbots, grammar checkers, and personalised learning platforms can support differentiated instruction, allowing teachers to address diverse student needs more effectively. These tools provide real-time feedback, support speaking and writing practice, and foster greater learner autonomy. By integrating AI thoughtfully, educators can create more interactive, engaging and adaptive English language learning environments that prepare students for a technology-driven future. This proposal recommends piloting AI tools in selected classrooms and evaluating their impact. One of the most used AI platform, ChatGPT is introduced to a group of primary school students as part of an early exposure to AI integration. The educators will teach the students on using effective and working prompts in obtaining specific search and answers. Objectives are to understand the role of AI in modern English language teaching, explore and evaluate AI tools for lesson planning and language instruction, integrate AI applications into teaching practices to improve learning outcomes.

Teaching Beyond Classrooms with Global Voices: AI Persona Lab

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Global Voices: AI Persona Lab is an educational innovation that redefines the way theory heavy modules are taught by transforming passive knowledge consumption into interactive, experiential learning through AI powered global simulations. Originally designed for the MKT40504 Consumer Behaviour module, it combines the capabilities of GPT 4o (OpenAI), Voiceflow, ElevenLabs, and other AI tools to power a web based chatbot interface where students interact in real time with meticulously engineered, hyper realistic AI personas representing diverse generations, cultures, and consumer archetypes who “talk” like real people, “think” like consumers, and “respond” with emotional and cultural nuance. Grounded in Kolb’s Experiential Learning Theory, the pedagogy is scaffolded into a six step transformative journey: Step 1, Persona Interview, replaces scripted roleplay with unscripted voice/text conversation for authentic inquiry; Step 2, Persona Mapping, translates responses into visual maps plotting traits, values, motivations, and lifestyles using theory based templates; Step 3, Product Design Challenge, synthesises insights into tailored products or campaigns with theoretical justification; Step 4, ShopQuest Mall Simulation, gamifies learning as students explore a virtual mall, select products, and receive AI generated feedback; Step 5, Personify Yourself, students create and analyse their own consumer persona for self reflection; Step 6, ExpanSEA Challenge, tasks students to act as consultants for a Malaysian brand expanding into ASEAN, re-interviewing a persona to localise strategy. The plug and play solution requires no coding, hardware, or installations, accessible via web/mobile for educators and learners. Impact is evident through a 4.9/5.0 score on the Taylor’s Teaching Engagement Scale, ~10% growth in average grades, and reports of heightened engagement, stronger theory application, and greater cross cultural sensitivity.

Pre-University Students' Motivation and Online Learning Engagement: The Mediating Role of Attitude in using Generative AI technology

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This research focuses on determining the motivational factors that influence online engagement among pre-university students. Based on self-determination theory, the four motivational factors identified in this research include intrinsic and

extrinsic motivation, accomplishment and amotivation. This research extends the framework to examining the mediating role of attitude to generative AI technology in the relationship between the four motivational factors with online learning engagement. 103 data were collected online, demographic profiles were analysed using SPSS, and Smart-PLS was used to test the conceptual model and assess item reliability through CFA. The results show five supported hypotheses, highlighting attitude and intrinsic motivation as key predictors of online learning engagement. Attitude has the strongest direct effect on online learning engagement, while intrinsic motivation influences both attitude and engagement. Indirect effects via attitude are significant for accomplishment, amotivation, and intrinsic motivation, indicating partial mediation. This study highlighted the importance of using generative-AI tools in ensuring online learning engagement among pre-university students. Practical implications from this study include the need for training for academics and pre-university students to foster positive attitude towards using generative-AI technology.

Teaching in the Metaverse: An AI-Powered Look into Virtual Reality among Diploma Students

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Virtual reality (VR) and artificial intelligence (AI) are revolutionising traditional teaching methods in higher education by providing individualised and immersive learning experiences. This study explores the impact of Virtual Reality (VR) in classroom teaching and learning among university students in Malaysian Higher Education Institutions (HEI), with a particular focus on how artificial intelligence (AI) can enhance these immersive learning experiences. Through the prism of Bloom's Taxonomy, this quantitative study examines how AI-enhanced virtual reality affects student learning in class teaching and learning. A structured questionnaire was distributed to 150 students from different business courses who had previously participated in VR-based learning settings. The study employs quantitative cross-sectional survey design and utilises Structural Equation Modelling (SEM) to examine the relationships between the identified predictors and students' use of AI in their academic experiences. In addition to measuring students' impressions of engagement, usability, and technological problems, the tool assessed their reported learning outcomes throughout Bloom's six cognitive domains: remembering, understanding, applying, analyzing, and evaluating concepts. According to statistical analysis, students' higher-order thinking abilities were much improved by AI-driven virtual reality tools, which also increased their level of engagement and conceptual understanding. The results highlight the revolutionary potential of AI-powered virtual reality in improving cognitive learning outcomes in higher education and provide useful advice for higher education institutions looking to implement immersive technologies in accordance with Education 4.0.

AI-Augmented Pedagogy for Sustainable Tourism: Developing Future-Ready Graduates

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The rapid advancement of Artificial Intelligence (AI), in conjunction with global sustainability commitments, necessitates that higher education institutions (HEIs) integrate emerging technologies with transformative, sector-relevant teaching practices. This study investigates an AI-powered pedagogical intervention in a master's level Sustainable Tourism Policy, Planning, and Management course for international students, aimed at enhancing active learning, critical thinking and sustainability orientation. Employing an action research design, data were collected through pre/post surveys, learning analytics, and qualitative reflections to assess AI's impact on learner engagement, policy literacy, and collaborative

problem-solving in sustainable tourism contexts. The findings suggest that AI-scaffolded learning promotes learner agency, environmental awareness, and systems thinking pertinent to tourism's role in advancing the United Nations Sustainable Development Goals (SDGs). However, challenges related to digital ethics, inclusivity, and cognitive overload have been identified. Three ethical priorities - algorithmic bias, data privacy, and digital inequality - are prerequisites for equitable AI adoption. This study proposes a theory-based framework for AI-enhanced pedagogy in sustainable tourism education, offering practical recommendations for educators and policymakers aiming to prepare agile, ethical, and future-ready graduates capable of shaping sustainable tourism futures in both developing and global contexts.

Personalising Learning at Scale: A Mixed-Methods Evaluation of AI-Generated Bilingual Avatars and Adaptive Feedback

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The increasing use of artificial intelligence (AI) in education has shown strong potential to transform personalised learning, yet the application of AI tools in flexible, bilingual learning environments remains underexamined. Guided by the Self Regulated Learning (SRL) theory, the study examined how students navigated and engaged with an AI learning assistant. This study investigated the use of AI generated bilingual avatars, where lecturers provided only English scripts and AI, via Synthesia.io, automated the delivery of lecture content in students' preferred language—English or Chinese. Additionally, Noodle Factory an AI tutor personalised learning platform was used to personalise weekly quizzes by generating AI based feedback in students' chosen language and creating custom learning pathways responsive to individual performance. This exploratory mixed methods study, conducted over six weeks, involved 205 Bachelor of Education students from a Malaysian private university, with relvant quantitative data collected. Qualitative data were obtained from interviews with 8 purposively selected students across the performance profile. Findings revealed that students who engaged with the bilingual AI videos demonstrated improved quiz performance, particularly when their language choice aligned with comprehension preferences. The AI personalised quizzes and instant feedback were reported to support metacognitive strategies and foster greater student autonomy. Notably, students appreciated the ability to interact with content in their preferred language without requiring direct lecturer intervention, highlighting the role of AI in creating responsive, adaptive learning environments. This study provides novel insights into how AI tools can mediate language and learning preferences in real time.

Enhancing Higher Education through Human-AI Collaboration in Teaching and Learning

Stephanie Nesam Steven Solomon, Min Chen Yap & Rajamalar Sabapathy
Taylor's College, Malaysia

The integration of artificial intelligence (AI) in higher education has redefined traditional teaching and learning practices, paving the way for human-AI collaboration that fosters innovation, personalisation and efficiency. This abstract explores the evolving relationship between educators and AI in co-designing the lesson delivery, assessment methods and feedback mechanisms. Although administrative duties can be automated and AI can provide data-driven insights about students' performance, the human element is essential to comprehend the outcomes, use the pedagogical approach and foster ethical decision-making. Learning with the combining effect of human element and machine precision enhances the learning experience by enabling adaptive learning environments tailored to individual needs. Challenges such as

over-reliance on technology, data privacy and the digital divide are also addressed, emphasising the need for educators to remain at the core of instructional design. In addition to the possible enhancement of the process of learning outcomes, this type of collaboration is expected to realign the role of the educator as a facilitator, innovator and a critical thinker in a rapidly transforming educational environment.

Exploring the Role of Artificial Intelligence in Supporting Student Well-being in Higher Education

Stephanie Nesam Steven Solomon, Min Chen Yap & Rajamalar Sabapathy
Taylor's College, Malaysia

The rising demand for mental health support in higher education has prompted institutions to explore innovative solutions, including the use of artificial intelligence (AI) to enhance student well-being. This abstract examines how AI-driven tools are being implemented to identify at-risk students, personalise mental health interventions and foster emotional resilience through timely support mechanisms. From sentiment analysis in student communications to AI chatbots offering 24/7 counseling support, AI technologies present opportunities to complement existing well-being services while reducing pressure on human resources. However, this advancement raises concerns about data privacy, the limitations of emotional recognition algorithms and the potential for depersonalised care. The effectiveness of AI in promoting student well-being depends on its integration with empathetic human oversight, ethical safeguards and inclusive design. This collaborative approach can lead to more responsive and preventative mental health strategies, empowering students to thrive academically and personally in an increasingly digital learning environment.

From Assessor to Detective: The Evolving Role of ESL Instructors in Monitoring Collaboration and Integrity in Digital Assessment

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As the technological advancements in the modern age bring about digital collaboration and artificial intelligence (AI), which transforms education, the ability to discern the lines between ethical AI applications continues to get blurred. The shift poses a twofold challenge to English as a Second Language (ESL) instructors whereby it is necessary to evaluate group work effectively and at the same time to avoid violating academic integrity. In line with Sustainable Development Goal 4 (Quality Education), this paper presents an understanding of how ESL instructors in Malaysian higher education have transformed their role in digital assessments in being shifted as they move from the role of assessor to detective. This study employed a qualitative research design which utilised interviews and document analysis, involving 20 Malaysian ESL higher education instructors. Findings from this study indicate that instructors use several digital technologies and process-oriented evaluation methods; including monitoring the student contributions in real-time, reviewing document histories, and required recorded planning meetings. This is so that individual accountability can be attained and free-riding is discouraged. To positively counteract the new challenges of AI-assisted writing, the instructors have established a set of protective tools, such as the writing style identification, oral authentication, and emphasising educating students on ethical tool use. The research indicates the dynamic quality of digital assessment literacy and the need to keep the ethical standards through institutional support. It demands reasonable strategies that do not sacrifice academic integrity in anticipation of safeguarding the teaching strength of the collaborative learning experience during the digital age.

Empowering ESL Learners in the Age of AI: Educator Guidance Toward Sustainable, Quality Learning in Malaysian Classrooms

Min Chen Yap, Rajamalar Sabapathy & Stephanie Nesam Steven Solomon
Taylor's College, Malaysia

As artificial intelligence (AI) tools like ChatGPT become increasingly integrated into educational settings, questions arise regarding their impact on learning processes, particularly for English as a Second Language (ESL) learners. While these tools offer immediate feedback and linguistic support, concerns persist about overreliance, shallow learning, and the loss of social interaction that is vital to language acquisition. This study explores how educators can guide ESL learners in using AI responsibly and effectively to support sustainable and quality education, in line with the principles of Education for Sustainable Development (ESD). Anchored in the Malaysian ESL context, the research investigates learners' current usage patterns, perceptions of AI versus peer and teacher support, and their level of AI literacy. A mixed-method approach will be employed, combining surveys with ESL learners and interviews with educators to identify both opportunities and challenges in integrating AI tools in language learning. The study further examines how educators can teach students to craft effective prompts, evaluate AI-generated responses, and blend AI feedback with collaborative learning strategies. Findings are expected to inform a framework for responsible AI integration that promotes learner autonomy, digital ethics, and sustained engagement. Ultimately, this research highlights the essential role of human support in ensuring that AI enhances rather than replaces meaningful learning experiences in ESL education.

Evaluating Custom GPT for ESD Integration in Programme-level Curriculum Review

Sook Jhee Yoon, Ching Lan Loke, Lydia Foong Yoke Yean & Shu Chien Den
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Curriculum review often involves time-consuming manual checks of programme blueprints to ensure alignment between programme learning outcomes, module learning outcomes, and assessments. The updated Malaysia Qualification Framework (MQF 2024) requires all programmes offered by universities in Malaysia to integrate Education for Sustainable Development (ESD). In response, the authors developed a custom GPT, MQF 2024 for Taylor's, to assist programme directors in embedding ESD into their programmes. This presentation reports on an evaluation conducted by a group of curriculum experts who used the custom GPT to review the appropriacy of ESD integration in programme-level curriculum review, provide structured feedback, and automate alignment checks. The GPT was applied across multiple programme blueprints from different disciplines, and its analyses were benchmarked against expert reviewers' reports to examine accuracy, speed, and consistency. Findings indicate that the GPT reduced review time, flagged recurrent alignment gaps, and generated feedback that could be directly applied to curriculum improvement recommendations. At the same time, the evaluation highlighted the importance of balancing AI-driven analysis with expert judgement, particularly when interpreting disciplinary nuances and contextual requirements. The study suggests that custom GPTs can serve as effective first-pass reviewers for programme directors. By combining AI alignment checks with human expertise, institutions can improve efficiency in curriculum review while ensuring compliance with accreditation standards such as MQF 2024.

AI-ScaffoldED: Bridging Pedagogical Theory and Practice for Future Educators

Yee Ling Lee & Vinothini Vasodavan
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Key challenges in teacher education include limited real time interaction for clarification of concepts, lack of exposure to diverse classroom scenarios, and the need for a safe, hands on practices. Artificial Intelligence (AI) has the potential to revolutionise the way student teachers learn, monitor their progress, seek academic guidance and practice their skills through adaptive learning. Noodle Factory (NF) an AI tool that exemplifies this innovative approach offers instant, personalised responses and feedback to students and yet, its potential as a scaffolding tool is under examined. This exploratory study integrated two unique features of NF Chatbot and Role Play to scaffold student teachers' learning in terms of their content knowledge and pedagogical skills. Chatbot delivers content, assesses students' understanding, and offers tailored resources. Role Play serves as a practical, engaging way for student teachers to bridg e theory and practice, allowing them to apply their subject knowledge to real life classroom situations. Data was collected from 226 student teachers in a private higher education institution through a questionnaire with close and open ended questions as well as chat histories with the AI agent. The research findings showed that the majority of the student teachers agreed that NF was a helpful scaffolding tool. NF scaffolded the student teachers' content knowledge by explaining concepts, clarifying doubts, stimulating thinking and providing constructive feedback or suggestions. Role Play allowed the student teachers to practice instructional strategies, enhanced classroom communication and engaged in reflective thinking in a supportive environment to prepare for their future career. The findings showed pairing AI driven content delivery with simulated Role Play into teacher education can offer meaningful, adaptive support that bridges the theory-practice divide.

Integrating Large Language Models in Course Content Development Aligned with Outcome-Based Education

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In Malaysian higher education, preparing course documentation aligned with Outcome-Based Education (OBE) remains a predominantly manual and labour-intensive task. Ensuring compliance with the Malaysian Qualifications Framework (MQF) and the standards set by the Malaysian Qualifications Agency (MQA) requires the careful integration of elements such as Bloom's Taxonomy, programme learning outcomes, and graduate attributes. The process is often inconsistent, time-consuming, and susceptible to human error, which compromises the quality and standardisation of academic materials. Recent advancements in Artificial Intelligence (AI), particularly the use of Large Language Models (LLMs), offer promising opportunities for automating the generation of educational content. While prior research has demonstrated the potential of LLMs in creating learning materials and assessment items aligned with academic frameworks, their use in supporting governance and quality assurance within higher education remains underexplored. One of the key challenges is embedding domain-specific context, including MQF standards, into AI-generated outputs while maintaining accuracy, consistency, and regulatory compliance. Additionally, the absence of a standardised framework for evaluating the quality and usability of AI-generated course content presents a critical barrier to institutional adoption. This research aims to address these challenges by proposing a structured approach to integrating LLMs into the development of course content under the OBE model. The proposed framework includes mechanisms for automated compliance checks and expert validation, thereby supporting higher education institutions in ensuring that AI-generated materials meet both educational and accreditation standards.

Track: Curriculum Innovation

Beyond Buildings: Community-Driven Learning in Heritage Architecture Education

Jing Hao Koh
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This project redefines heritage architecture education by placing communities at the core of the learning process. While conventional methods often prioritise technical documentation skills, this approach emphasises the social and cultural dimensions of heritage, fostering meaningful connections between learners and the communities they study. Through a case study in Malacca's UNESCO World Heritage Site, students engaged in community-driven documentation—conducting fieldwork, interviews, and measured drawing to uncover the significance of heritage buildings. The process culminated in public exhibitions and the creation of scale models, which were gifted to local stakeholders. Among these, the model of the Cheng Hoon Teng Temple that was established in the 17th century now serves as permanent educational display in the temple's museum. Learning outcomes were assessed through a five-point Likert scale survey administered to three student cohorts (n=118). Results revealed significant improvements in architectural understanding and cultural sensitivity, validating the method's efficacy. By prioritising community collaboration, this model not only enriches education but also empowers communities to actively preserve their heritage. The project's tangible outputs, including museum exhibits demonstrate how pedagogy can bridge academia and society, fostering shared responsibility for the built environment's heritage. This transformative framework challenges traditional heritage education, advocating for an inclusive, place-based approach that connects learners, communities, and their heritage.

Exploration of Pre-Service Teachers' Experience Using Engagevr in a Virtual Classroom Environment

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This study investigates immersive virtual learning, an underutilised pedagogical approach in professional degree programmess, by exploring, applying, and evaluating its effectiveness. While Virtual Reality (VR) is acknowledged as a valuable instructional tool (Stavroulia, Christofi, Baka, Michael-Grigoriou, Magnenat-Thalmann & Lanitis 2019), its potential within higher education requires further exploration. The primary focus of this study is to investigate the use of the EngageVR platform as a key technology for facilitating immersive micro-teaching sessions. These sessions aim to provide interactive engagements using avatars within a virtual environment that is aligned with the principles of immersive pedagogy. Student evaluations through semi-structured interviews revealed that using this platform, had developed and maintained their confidence and preparedness for future practice-based environments, specifically in improving their understanding of classroom dynamics and student learning needs (Perinpasingam,Tan,Naidu & Mohd Fadzil, 2024). Furthermore, immersive simulated classroom settings are crucial for teacher training, especially considering the impact of the Fifth Industrial Revolution (5IR) on education as future teachers will need to be equipped with digital and extended reality (XR) skills to adapt to the evolving needs of immersive education trends on a global scale. This research seeks to address these needs by generating practical outcomes, fostering partnerships, and contributing new knowledge to the field of immersive learning in virtual classroom simulations.

Diploma Students' Acceptance of Artificial Intelligence and Augmented Reality Tools in Creative Advertising Education: A Technology Acceptance Model Pilot Study

Jenny Heng
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This pilot study explores how integrating Artificial Intelligence (AI) and Augmented Reality (AR) tools into the advertising curriculum influences Diploma in Communication students' acceptance and intention to use emerging technologies. As part of a curriculum innovation corresponding to the digital transformation of teaching and learning in the Malaysian Education Blueprint (Higher Education) 2015–2025 and in response to expectations of industry on digital competency, students were introduced for the first time to AI and AR applications for creative advertising content production. The study adopts the Technology Acceptance Model (TAM) to examine four key constructs: perceived usefulness (PU), perceived ease of use (PEOU), attitude toward use (ATT) and behavioral intention (BI) to use these tools. Data was collected from a quantitative survey from a purposeful sampling of 24 students who participated in the technological experiment. Descriptive statistical analysis reveals that most students perceived AI and AR tools as both useful and easy to use. Perceived usefulness highly influenced attitude towards use, while perceived ease of use had a moderate effect on perceived usefulness and attitude towards use, but less on behavioural intention. However, attitude towards use did not positively influence behavioral intention. These insights are significant for advertising curriculum educators seeking to align creative education with industry-driven digital competencies and provide direction for the inclusion of digital integration in future advertising and communication education.

The Effectiveness of a Technical Communication Pedagogical Module for the Automotive Sector in a Skills Training Institute

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Technical communication (TC) is crucial in the automotive industry specialising in high-tech-markets as it is significant to communicate technical information accurately. However, instructors in skills-based institutions offering automotive related programmes lack the technical and pedagogical skills in teaching TC.For this purpose, a Technical Communication Pedagogical Module (TCPM) to assist instructors in teaching TC was developed and then the module's effectiveness was evaluated. The TCPM was developed based on Technical Communication content development framework and hosted on a Google site. An automotive college was selected to implement the TCPM, and a single group quasi-experimental research design was employed to investigate the module's effectiveness for improving learners' technical communication skills. The module was implemented with 30 learners over 7 weeks. After the implementation, a semi-structured interview was conducted face-to-face with the lecturer for input on using the module. The paired sample t-test indicated that the TCPM seemed to have significantly increased learners' TC competency. The interview findings revealed that the module was technically and pedagogically appropriate to enhance learners' technical communication skills. Therefore, educators teaching technical communication in automotive colleges recommended to adopt TCPM to enhance learners' competency in technical communication.

A Structured Two-Phase Approach to Transforming Drug Design Learning through Virtual Reality

Mei Qian Yau & Jason Siau Ee Loo
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Traditional drug design education is often constrained by two dimensional interfaces, complex software interfaces, and individual work environments that limit engagement and understanding. This project introduces a structured two phase virtual reality (VR) learning approach to address these challenges. In Phase 1, students are introduced to VR to build familiarity with the VR tools and key drug design concepts. In Phase 2, they apply the knowledge and skills from Phase 1 to propose new drug candidates, simulating real world problem solving. A unique element of this innovation is the implementation of rotating roles within three person teams, where students alternate 20 minute VR sessions while teammates actively guide using reference manuals and engage in checkpoint discussions. This model not only minimizes VR fatigue but also encourages collaboration and makes the activity scalable. Learning is scaffolded to engage all three domains of Bloom's taxonomy: cognitive domain is activated through problem solving in drug design, psychomotor domain is engaged as students physically manipulate molecular structures in an immersive environment, and affective domain is fostered through teamwork and role rotation that enhance motivation and collaboration. The approach is grounded in Kolb's experiential learning cycle, constructivist learning principles, and social learning theory. Evaluation of the initiative showed a 30% increase in knowledge scores, 90% student satisfaction rate, and a learning experience rating of 4.6 out of 5. This structured approach is highly transferable to other disciplines, particularly those requiring costly equipment or the integration of complex foundational concepts, such as engineering and architecture. This immersive and collaborative method represents a forward thinking pedagogical shift, preparing students with future relevant competencies in pharmaceutical sciences while enhancing engagement, understanding, and teamwork.

From Likes to Learning: Integrating Social Media Literacy for Sustainable Well-Being in Higher Education

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Social media has become an integral part of university students' daily lives, offering platforms for connection, self-expression, and information sharing. However, while it fosters communication, social media also poses risks to students' mental wellness, particularly through excessive self-disclosure and constant social comparison. These digital behaviors can significantly influence self-esteem and emotional well-being, which are critical for students' overall success and personal development. This study investigates the relationship between social media self-disclosure, social comparison, self-esteem, and emotional well-being among Chinese university students, providing insights for curriculum innovation to support sustainable higher education. Using quantitative research design, data was collected through structured questionnaires from 200 students. The findings reveal that frequent self-disclosure is linked to lower self-esteem, while positive disclosures are associated with higher self-esteem. Upward social comparisons among frequent self-disclosers negatively impact self-esteem, whereas downward comparisons connected to positive disclosures can boost it. Demographic factors, perceived social support, and self-presentation also moderate these effects. From a communication perspective, the research highlights the complexities of online self-presentation and its psychological impact. These insights underscore the need for universities to integrate digital well-being and social media literacy into their curricula. By equipping students with the knowledge and skills to navigate self-disclosure and social comparison mindfully, educators can help cultivate healthier online behaviors. This study contributes to educational sustainable development by demonstrating how curriculum innovation that addresses digital behaviors can strengthen student

well-being, fostering resilience and supporting holistic development within higher education contexts.

AI Driven Flexibility and Collaboration: A Mediated Model of Transformative Learning in Higher Education

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Abstract The rapid integration of technology and flexible learning strategies in higher education has redefined how students engage and develop essential competencies. This study investigated the impact of AI driven HyFlex learning and Multidisciplinary Learning Experience (MLE) on student transformation, focusing on engagement, learning satisfaction, self-efficacy, critical thinking, collaborative skills, digital literacy, and adaptability. Guided by the Technology Acceptance Model, Self-Determination Theory, and Transformative Learning Theory, the study examined learning autonomy as a key mediator in this relationship. A quantitative approach was employed with 90 undergraduate students enrolled in a Cyberpsychology course that adopted both AI driven HyFlex and MLE approaches. Data were collected through structured online surveys and analysed using correlation, multiple regression, and mediation analysis techniques. The findings revealed that both AI driven HyFlex and MLE significantly enhanced student transformation outcomes. AI driven HyFlex experience demonstrated a strong effect on digital literacy and adaptability, while MLE had a greater influence on collaborative skills and critical thinking. Furthermore, learning autonomy played a significant mediating role, reinforcing the positive effects of AI driven HyFlex and MLE on engagement, learning satisfaction, and self-efficacy. This study contributed to pedagogical innovation by offering insights into how AI-driven flexibility and collaborative experiences foster transformative learning. These findings provide valuable implications for designing future-oriented curricula that integrate flexibility, autonomy, and interdisciplinarity to prepare students for dynamic, technology-driven professional environments.

Adapt or Obsolete: The Provocative Imperative for Academia in the AI Era

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The transformative potential of generative AI (GenAI) is not merely a trend; it has arrived, compelling higher education to fundamentally rethink its academic practices and pedagogical frameworks. This presentation critically examines the implications of GenAI through four evidence-based scenarios, presenting stark challenges: adapt or risk obsolescence. First, we confront the future of the essay, long regarded as the bedrock of academic achievement. With AI capable of producing coherent and sophisticated essays, the traditional output-based assessment model is increasingly untenable. We must pivot to process-driven evaluations that prioritise critical engagement with AI, iterative problem-solving, and research design over static final products. Next, we challenge the very notion of originality. As universities grapple with creativity as a collaborative endeavour between humans and AI, we must abandon outdated concepts of "romantic authorship" in favour of "creative navigation." This shift necessitates new policies addressing academic misconduct and ethical curation, compelling us to rethink how we assess conceptual framing and critical thinking. Institutionally, the integration of AI is a disruptive force. Predictive analytics and adaptive learning pathways demand that universities adopt agile systems, led by leaders who are both technologically adept and ethically grounded. Finally, the role of educators is undergoing a radical transformation. No longer mere content experts, they must become mentors, guiding students through the complexities of AI tools. New pedagogical models will emphasise experimentation, collaboration, and

evaluative judgment, ensuring that embodied, situated knowledge remains central. As AI reshapes higher education, institutions face a provocative choice: lead the charge or fade into irrelevance. Embracing AI as a collaborator and championing "collaborative creativity" is essential for universities to secure their future in this evolving landscape.

Combining the Pantser Method with AI Language Assistance to Support Non-Native English Writers in Creative Composition

Mark Beau De Silva & Anrie Too
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This research explores the methodology of combining the traditional 'Pantser' method of writing with AI writing tools (translation and editing) to support non-native English-speaking students in creative text composition. Non-native English-speaking students may struggle to express their creative ideas fluently. They focus on being grammatically correct rather than freely writing. There is also a tendency to use AI to generate their creative work, due to insecurity in the English language. This methodology combines a traditional way of writing while acknowledging the availability of AI endeavours to assist the students with this predicament. The Pantser method advocates for the spontaneity and authenticity of creative ideas in writing, while AI language assistance, such as translation and editing tools, helps translate these ideas without losing the writer's voice. The combined approach methodology proposes a systematic approach to creative writing that will guide the student from finding a stimulus for a story to preparing for the final draft. This research observes the implementation of this combined approach in a monologue writing assignment of the module Introduction to Creative Writing and analyzes student work using the module's assessment rubrics. Additionally, students are asked to respond to a survey at the end of the semester to gather insights into their experiences with this method. The findings suggest that this methodology can be a novel approach to creative writing for non-native English-speaking students.

Integrating Industrial Academies for Sustainable Technology-Related Education – A Case Study of AWS Academy

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The integration of industrial certification programs into higher education is increasingly recognised as a key strategy for enhancing the relevance, sustainability, and industry alignment of technology-related education. This paper proposes a structured framework for embedding AWS Academy modules into university-level curricula in Malaysia. AWS Academy offers cloud computing content and micro-credential pathways developed by Amazon Web Services that can equip students with in-demand skills aligned to current digital workforce needs. The proposed framework outlines a phased approach consisting of curriculum mapping, instructional alignment, and continuous feedback loops. It demonstrates how AWS Academy modules can be aligned with existing module learning outcomes, assessment strategies, and pedagogical approaches without compromising academic rigor. This paper also details faculty training, cross-departmental collaboration and industry engagement efforts required to support sustainable implementation. Although the proposed framework is rather hypothetical, it anticipates potential benefits such as enhancement of student engagement, improving industry readiness, and increasing value through embedded micro-credentials. The paper also identifies foreseeable challenges including instructional time constraints, resource adaptation, and alignment with institutional policies. It also proposes preliminary strategies to address them. This paper contributes a practical and

replicable framework for institutions aiming to bridge the gap between academic content and evolving industry expectations. It underscores the importance of strategic partnerships, agile curriculum design, and continuous stakeholder engagement in sustaining technology education that is both future-ready and inclusive.

Exploring Immersive Learning in the Metaverse for Python Programming Education

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This study investigates the integration of a metaverse-based educational platform for teaching Python's turtle graphics library, aiming to evaluate the effectiveness and engagement of immersive, game-like environments in enhancing programming education. The platform features a level-based learning system with embedded video tutorials, PPT resources, interactive quizzes, and avatar-guided instruction, designed to offer a novel online learning experience characterised by high immersion and virtualization. A cohort of 160 undergraduate students, predominantly first-time users (over 81%), participated in independent learning within the virtual environment. A detailed post-course survey completed by 155 students revealed strong student interest and motivation, with over 90% reporting increased enjoyment and better focus compared to traditional methods. Quantitatively, over 85% expressed high satisfaction with the platform's effectiveness, practical value, and ease of use. Students particularly appreciated the creative aspect of turtle graphics within this visually rich, interactive setting. The findings indicate that metaverse-enhanced instruction significantly improves learning quality in computer science education, providing a replicable model for immersive programming. This aligns with the broader potential of Edu-Metaverse to address challenges in accessibility and optimise learning processes, fostering collaborative and innovative approaches. Further study include system stability and virtual scene interactivity alongside general performance issues reported by some users. This research offers an evidence-based foundation for expanding immersive teaching models to other technical disciplines in higher education.

Management and Strategies of Inclusive Practices at Preschools in Malaysia

Bee Ling Lee
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In Malaysia, issues concerning inclusion of special needs (SEN) children are identified asnot being fully inclusive, especially at the preschool level. The Malaysian Ministry of Education is supporting more children who are special needs to enroll in the inclusiveeducation programme and to raise the number of special needs children in schools. The Malaysian Education Blueprint (2013-2025), the action plan for inclusive education in improving access to preschool education, supports the Inclusive Education Programme initiative. This research will focus on the management and strategies of inclusive practices in preschool inclusion programmes. The analysis used a thematic approach using NVIVO, which will identify the management needed for equity and equitable structures, and how collaborations are carried out in these inclusive preschools. Further analysis is on strategic practices by inclusive class teachers for inclusion practices in the three selected preschools. The findings will identify the strategies that are implemented by inclusive classteachers, focusing on modifications of content and the accommodation approach oflesson plans. This will ensure equal access for SEN children to class activities andfacilities among normal children and their collaboration in the inclusive classrooms. The methodology design is a case study with purposive sampling. The samples of this studyare the Head of the Preschool Programme and normal preschool teachers. Data collection is through semi-structured interviews with Heads of

Preschool Programme and inclusive class teachers. They will determine the adopted strategic management of preschools with inclusive programs in the state of Selangor, Malaysia. Observations and Individualised Educational Plan (IEP) documents will be obtained to strengthen the research findings. These research findings will add to the body of knowledge on preschool inclusion programs.

Seeing Through Their Eyes: A Malaysian Virtual Reality Simulation to Understand the Lived Experience of Autism

Mohd Akif Farhan Bin Ahmad Basri
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Traditional approaches to teaching clinical psychology often adopt an ableist perspective, focusing on observation and diagnosis from an external viewpoint. This limits students' ability to understand the lived experiences of individuals with autism. To address this gap, this project presents the design, development, and implementation of an innovative spherical video-based virtual reality (SVVR) simulation that immerses psychology students in the first-person perspective of an individual with autism. Developed through a structured four-phase model—needs analysis, design, development, and implementation—the SVVR simulation enables experiential learning by recreating realistic sensory, cognitive, and emotional experiences associated with autism. It integrates clinical insights, psychological theory, and sociocultural contexts specific to Malaysia to ensure authenticity and relevance. To explore feasibility, a semi-structured interview was conducted with 10 students. Thematic analysis revealed that participants found the SVVR experience immersive and emotionally impactful, offering a strong sense of "being in the shoes" of an individual with autism. The realism of the 360-degree video was praised for its ability to simulate everyday challenges. However, students also noted limitations in interactivity and engagement, due to the passive nature of spherical video content. Despite these constraints, the SVVR tool represents a valuable, accessible, and culturally sensitive training resource. It supports a shift away from didactic, observer-based methods toward more inclusive, empathy-driven clinical education—ultimately fostering a deeper understanding of autism among future psychologists.

Empowering Future Clinicians Through Experiential Leadership: A Classroom Action Research on the Psych Centre Take Over Initiative

Hooi Shan Lim & Jeng Mun Sam
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Entrepreneurship, leadership, and sustainability are rarely emphasised in postgraduate clinical psychology training, where practicum typically centres on building core clinical skills. This classroom action research investigates the impact of the Psych Centre Take Over initiative, a practicum innovation designed to embed these often-overlooked competencies into clinical education. Implemented from October 2024 to July 2025 with two cohorts (n = 52) at Taylor's University, the initiative was embedded within the PSY70103 Clinical Practicum and Seminar I module. Students assumed rotating leadership and supportive roles, such as Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Clinical Services Lead, Client Engagement Coordinator, and Publicity Lead, while managing the HEART Psychological Services under supervision. Grounded in Kolb's Experiential Learning Theory, Vygotsky's Sociocultural Theory, and Entrepreneurial Learning Theory, the model promotes deep learning through authentic engagement, collaborative decision-making, and iterative action. The initiative encouraged students to shift from passive trainees to proactive service providers, demonstrating ownership, ethical reasoning, and opportunity recognition. Outcomes showed a 100% reduction in student

complaints lodged through the university's formal platform, with increased student initiative in outreach, client engagement, and service quality improvement. Reflections and supervisor evaluations highlighted gains in entrepreneurial mindset, leadership capacity, and readiness for real-world challenges. The inclusion of Education for Sustainable Development competencies, the value of integrating experiential, entrepreneurial, and socially grounded leadership training into clinical education and recommendations on improving the existing innovation were discussed to further cultivate future-ready, ethically grounded professionals who are equipped to lead and innovate in the evolving mental health landscape.

Enhancing Clinical Reasoning through Gamified, Team-Based Simulation in a Master of Clinical Psychology Programme

Allistair Adam Nelson
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Gamification has garnered recognition as an innovative pedagogical strategy to strengthen clinical competencies within health professions education. This study employed a classroom action research method to evaluate the effectiveness of C.R.I.T.I.C.A.L (Clinical Reasoning through Interactive Teamwork and Immersive Case-based Active Learning), a structured, team-based simulation designed to enhance postgraduate students' skills in diagnostic formulation, ethical decision-making, and collaborative clinical reasoning in the context of Adult Clinical Psychology. A total of 27 students (6 males, 21 females) participated in five progressive clinical scenarios, each representing complex and dynamic mental health presentations reflective of real-world practice. Qualitative feedback collected indicated that the simulation was perceived as pedagogically valuable, with students reporting enhanced concentration, conceptual clarity, and active engagement when compared to traditional lecture-based formats. The integration of unanticipated developments ("plot twists") was regarded as a particularly effective feature that stimulated critical thinking and mirrored the uncertainty and complexity of actual clinical settings. Participants also noted that the activity fostered a heightened appreciation for teamwork, collaborative decision-making, and the application of theoretical knowledge in practice. The immersive and interactive nature of the simulation contributed to the development of key transferable skills such as adaptability and reflective practice. Overall, findings support the potential of gamified, case-based learning as a complementary approach to conventional teaching methods, offering a meaningful platform for the development of both cognitive and professional competencies in postgraduate clinical psychology training.

Simulating Clinical Communication: Medical Students' Perspectives on Role-Play in Problem-Based Learning

Sapna Patil, Ameya Ashok Hasamnis, Narendiran Krishnasamy
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Problem-based learning (PBL) provides opportunities to devise solutions to problems that mirror real-life situations. Role-play in medical education fosters experiential learning for the acquisition of essential skills through active learning. This encourages mapping of the simulation to actual clinical experience. Despite its potential, limited research exists on the integration of role-play within PBL sessions in medical schools. This study investigated the perceived effectiveness of a classroom-based innovation incorporating role-play into an established PBL curriculum by evaluating the experiences of Year 2 medical students. A purposive sample of ten medical students participating in a PBL session on the respiratory system module was selected. These learners were introduced to the concept of role-play during a session of the PBL.

After the role-play session, these students were invited to participate in a focus group discussion to share their experiences and perceptions about the inclusion of the role-play in a PBL session. Students valued role-play in a PBL for reinforcing prior knowledge, enhancing communication and clinical reasoning skills, and simulating real-life doctor-patient interactions in a safe environment with constructive peer and facilitator feedback. However, some noted initial discomfort with the change in the format of the PBL. Incorporating role-plays in PBL underscores the significance of communication in a clinical setting and provides an opportunity for students to practice communication skills in a supportive learning environment. These findings highlight role-play's value as an experiential learning tool that mirrors clinical practice, offering a scalable approach for pre-clinical training.

Innovative Pedagogy for Immersive Learning: Virtual Experience Synchronization

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This paper introduces "Virtual Experience Synchronization" (VES), a novel pedagogical approach that addresses the critical gap between the rapid advancement of virtual reality technologies and a corresponding methodology for impactful learning outcomes. Innovative pedagogical frameworks are essential to harness the full potential of immersive technologies. Building upon Kolb's Experiential Learning Cycle, VES is a systematic process of identifying and deconstructing critical real-world experiences to design and "synchronize" highly meaningful, purposeful simulations for the learner. This framework directly tackles the challenge of providing practical experience to fresh graduates and reskilling professionals, a key priority identified by the World Economic Forum. The methodology guides educators through a structured four-step process, beginning with conveying and communicating clear learning objectives, followed by the careful contextualization of the virtual environment to define the learner's role and situation. It then strategically utilises the immersive medium to contrast and emphasise key subject matter, before culminating in a coaching phase where learners are guided toward meaningful, actionable conclusions. Implementations are presented with practical examples, demonstrating how educators can move beyond passive digital consumption, creating adaptive and engaging learning experiences that cultivate the advanced critical thinking and problem-solving skills required for complex, modern industries such as architecture, engineering, and construction, thereby establishing a future-proof educational strategy.

Practice-Led Action Research on Gamified Intangible Cultural Heritage Learning: Motivating and Engaging Tertiary Students

Rui Li & Wei Wei Goh
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Digital gamification is increasingly employed in tertiary education to enhance culturally situated learning. However, in the context of intangible cultural heritage, the design choices that sustain student motivation and engagement remain unclear. This study examines the impact of a gamified learning platform centred on Yue Opera costume craft in China. Using a practice-led action research design within a planning–action–observation–reflection cycle, we engaged 34 participants and collected qualitative data through structured learning diaries and semi-structured interviews. Thematic analysis, informed by self-determination theory, revealed how specific game elements—points, leaderboards, badges, timed challenges, tasks, staged quizzes, hints, autonomous creation, narrative design, and work showcases—supported autonomy, competence, and relatedness in different ways. These mechanisms fostered motivational shifts from

curiosity-driven engagement toward more internalised, mastery-oriented goals. Engagement was reinforced through achievement feedback loops, balanced challenge–skill ratios, strategic autonomy, and curiosity activation; however, it was hindered by cognitive overload resulting from text-heavy narratives, repetitive content, limited interaction design, and time constraints. Social comparison emerged as both a motivator and a source of pressure. Beyond the findings, the research design itself constitutes a contribution: embedding research within teaching practice enabled student voices to inform iterative curriculum innovation directly. This practice-led model highlights the value of co-created, culturally responsive gamification in heritage education.

Playful Pedagogical Practices in Higher Education: Rethinking and Designing Meaningful Assessment

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As higher education seeks to engage 21st-century learners more effectively, playful pedagogy is emerging as a transformative approach to assessment design. This paper explores how integrating serious play—such as simulations, role-plays, games, and escape rooms—can shift traditional assessment practices toward more student-centred, creative, and meaningful learning experiences. Grounded in recent scholarly literature on playful learning, this study examines how playful pedagogy enhances engagement, fosters critical thinking, and encourages collaborative problem-solving. Drawing from case studies and institutional practices at universities such as Aalto University (Finland), University of Edinburgh (UK, RMIT University (Australia), and Aarhus University (Denmark)), the paper highlights how playful assessment is being embedded within formal curricula across disciplines—from design and business to engineering and the arts. These institutions demonstrate that when play is intentionally and thoughtfully designed, it becomes a serious tool for evaluating deep learning, creativity, and application of knowledge. Findings from this study suggest that successful implementation of playful pedagogy in assessment requires three core enablers: institutional support, academic willingness to experiment, and alignment with intended learning outcomes. Challenges include managing perceptions of academic rigour and navigating diverse student expectations. This presentation offers a framework for educators seeking to rethink assessment strategies through the lens of play, encouraging a shift from high-stakes testing to dynamic, formative, and student-driven assessments that support future-ready learning.

Exploring Interest in Advanced Chinese Modules Amongst Undergraduate Students at Taylor's University

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As China's economic, cultural, and geopolitical influence continues to expand globally, Malaysia's position as a key trade partner-coupled with its significant ethnically Chinese population and the growing popularity of Chinese-medium education-highlights the increasing relevance of Chinese language proficiency. In this context, higher education institutions play a critical role in developing human capital, advancing knowledge, and fostering personal growth. To future-proof the curriculum and ensure its relevance in an evolving regional landscape, Malaysian universities must continuously innovate and offer modules that align with students' interests and emerging career opportunities, particularly within Asia and the ASEAN region. This study seeks to address that need by exploring student interest in advanced Chinese language modules that go beyond foundational skills, aiming to support both academic development and professional readiness. The current Chinese language modules offered at Taylor's University are primarily designed

for absolute beginners and emphasise the development of four basic language skills: speaking, listening, reading, and writing. However, students with a formal background in Chinese education may require more advanced modules to further enhance their proficiency in alignment with their career aspirations and personal interests. As such, a survey was carried out with the purpose of exploring the interest of undergraduate students at Taylor's University in advanced Chinese language modules. An online questionnaire was used to collect the data, and several proposed topics/modules were proposed, including: Malaysian Chinese Language Media Studies (大马中文媒体研究), Creative Writing (创意写作), Chinese Translation for Professional Purposes (专业中文翻译), Business Chinese (商务中文), among others.

Exploring Music Video as Pedagogical Innovation in Higher Education Mathematics

Eng Hui Ng & Theresa Chiew
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This study explored how integrating music videos could transform mathematics education in universities, addressing common student struggles like anxiety, self-efficacy, and interest often linked to traditional teaching methods. The proposed innovative approach aimed to rethink the learning experience by utilising the engaging power of music and visuals, creating a more dynamic and accessible environment. The participants were 50 students from Calculus 1, 2, and 3 modules, all of whom had previously learned implicit differentiation through conventional lessons. Before the intervention, students' initial feelings about the topic — anxiety, self-efficacy, and interest were surveyed. Then, students watched a specially designed music video, complete with animation, melodies, and lyrics, explaining implicit differentiation techniques. Immediately after, a post-survey reassessed their perceptions, and a separate section directly asked if the video helped them. While immediate post-intervention data showed a statistically significant shift only in self-efficacy, with anxiety and interest remaining unchanged, the majority of students (scoring 4 and 5 on a 5-point Likert scale) agreed and strongly agreed that the video helped lessen their anxiety, build confidence, and boost interest on the topic. This innovative teaching method indicates a promising path for future education, demonstrating how creative multimedia can genuinely improve student well-being and learning in challenging academic disciplines.

Exploring the Effectiveness of VR in Enhancing English Writing Skill Demonstrating Project Based Learning

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Technology constitutes a new historical phase of educational development in today's globalisation, transforming traditional learning to digital innovative instruction.Virtual Reality (VR) technology has emerged as an unique, innovative digital tool engaging students in an interactive learning with simulation in many senses and project based learning (PBL) enhances students' engagement with a hands-on approach in real world application. In the context of Bangladesh, undergraduate students face difficulty in reflective narrative writing in English, developing necessary skills with creativity and self-regulated learning experiences. Incorporate with VR and PBL, learners may experience a creative learning atmosphere impact on effective learning process. This study aims to explore how VR and PBL create an interactive immersive learning environment to improve learners' English writing skill to bridge the gaps in integration of VR and PBL with meaningful learning opportunities and challenges addressing students needs and diverse learners with learning differences. The study focused on qualitative analysis obtaining undergraduate EFL students' and teachers' insights about the effectiveness of VR supporting PBL using questionnaire and interviews in a private university in Bangladesh. The

findings highlights the potentiality of VR engaging students in virtual direction, prepare learners according to their needs for the existing project based learning to enhance English writing skill. The study also suggests practical recommendations for integrating VR with PBL aligning with English language curriculum goals to enhance English writing skill through critical thinking and problem solving skills with pedagogical practices, transforming traditional teaching approaches into digital creative learning.

Integrating International Academic Visits as a Pedagogical Strategy for Curriculum Innovation in Built Environment Education

Boon Tik Leong, Lam Tatt Soon & Chang Sa'ar Chai
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In an increasingly globalised construction industry, architecture and built environment education must go beyond classroom learning to incorporate experiential and cross-cultural dimensions. This study explores the integration of an international academic visit as a form of curriculum innovation aimed at enhancing students' learning in construction project management, construction technology, and historical building conservation. Using a 15-day educational mobility trip to Shanghai, China, as a case study, the research investigates how direct engagement with foreign construction practices, smart technologies (such as BIM and volumetric construction), and urban conservation efforts can deepen student understanding and critical comparison with Malaysian practices. The trip involved technical visits to major infrastructure and heritage sites, academic exchanges with Chinese institutions, and industrial engagement with construction firms. Students were assigned comparative research tasks pre-, during, and post-visit. This study adopts a qualitative research methodology, gathering data from student reflections, academic assessments, and post-trip questionnaires with participating students. Finding suggests that such mobility programmes not only enrich students' academic and professional competencies but also foster institutional partnerships, research collaborations, and articulation pathways. The paper argues that strategically designed academic visits can serve as a high-impact educational practice, promoting curriculum innovation aligned with global industry trends and outcome-based education (OBE) goals.

Transforming Traditional STEM Education with XRIS and HoloLens

Kenn Jhun Kam, Zhermeica Tze Shwan Lim
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Rapid advances in pedagogical innovation and educational technology have created new opportunities for developing STEM education beyond traditional formal learning environments (Lai, 2023). Current challenges in STEM education such as engagement and interactivity, understanding complex concepts, practical learning, personalisation and inclusivity, and notably, integration and resources which demand monetary investment. This paper will focus on the transformative potential of integrating Extended Reality Integrated Systems (XRIS) and Microsoft HoloLens into traditional STEM education. Using mixed reality to bring digital learning materials into the physical environment, Extended Reality Informative Space (XRIS) uses HoloLens as a tool to extend reality. It will be used to examine the effects of this approach on student engagement, understanding, and overall learning outcomes. Preliminary findings suggest that the use of these technologies can enhance student engagement and learning experiences due to its immersive and interactive learning content. Furthermore, the findings also suggest that the student will have better understanding of complex

building concepts through visualisation and hands-on experiences provided by these technologies. This paper will provide guidance for future research as the study established a technical process of the XRIS. Additionally, this research will propose innovative pedagogical strategies that combine the use of XRIS and HoloLens to improve student learning outcomes. In conclusion, this study aims to revolutionise STEM education in a more interactive, engaging and effective approach and preparing the students for the demand of future.

Track: Education for Sustainable Development (ESD)

Bridging Cultural Heritage Through Interdisciplinary Collaboration: A Case Study of the Reminiscing Stadium Merdeka Project

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Taylor's University, Malaysia

This research explores the interdisciplinary collaboration between the School of Architecture, Building and Design and the School of Media and Communication at Taylor's University, facilitated by the Impact Lab for Liveable Urban Communities. Centered on the Bridging Heritage to People project, the study focuses on Stadium Merdeka and examines how cultural heritage can be made more accessible to the public through creative and academic proposals. The project aims to reimagine the historic Stadium Merdeka as a vibrant sports museum. Two key outcomes have been developed: a heritage trail design that redefines public engagement with the site, created by architecture students; and a visual appreciation video that narrates and emotionally connects audiences to the stadium's cultural legacy, produced by mass communication students. While collaboration between disciplines with differing philosophies and methodologies such as design and media is often viewed as challenging, this project demonstrates that purposeful, impact-driven initiatives can foster meaningful convergence. Through shared goals and community-centered outcomes, the collaboration transcends traditional academic boundaries, offering a replicable model for interdisciplinary engagement in the preservation and appreciation of cultural heritage.

Empowering Senior Citizens Through Generative AI: A Lifelong Learning Initiative at the University of Third Age

Chui Yin Wong
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This paper presents a case study on the implementation of a Digital Skills Training programme focused on Generative Artificial Intelligence (AI) for senior citizens at the University of Third Age (U3A) in Malaysia. As part of a lifelong learning initiative, the programme introduced participants to foundational AI concepts, with an emphasis on prompt engineering to generate creative outputs such as AI-generated images and videos. This initiative aligns with the goals of inclusive education and supports sustainable digital transformation among ageing populations. The training adopted a hands-on, learner-centred approach tailored to the cognitive and experiential needs of 28 senior learners. Participants were guided to use text prompts with AI tools to create meaningful digital artefacts, fostering engagement, creativity, and confidence in navigating emerging technologies. Outcomes revealed significant improvements in digital literacy, self-efficacy, and intergenerational relevance, demonstrating the potential of Generative AI to enhance the quality of life and digital inclusion for older adults. This paper argues that integrating AI into non-traditional education settings contributes to equitable access and supports the broader goals of Education for Sustainable Development (ESD). The case also highlights how curriculum innovation and pedagogical adaptation can bridge technological gaps and empower marginalised communities. Insights from this project offer a scalable model for institutions seeking to extend AI education beyond traditional student populations.

Empowering Communities Through Education: An Innovative Community Outreach Approach in Medical Education for Sustainable Development

Prabal Bhargava
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Medical education is evolving beyond traditional classroom instruction to embrace socially accountable, community-based learning that fosters both student development and community empowerment. This presentation highlights an innovative approach within the ophthalmology module that integrates structured community outreach activities into the medical curriculum, aiming to enhance students' competencies while promoting sustainable development in underserved communities. The practice involves medical students participating in guided outreach programmes where they engage with local populations to address pressing health and social issues through health education, screening camps, and participatory learning sessions. These field-based experiences enrich students' clinical and communication skills and promote early exposure to public health principles. At the same time such involvements provide students with real-world insights into the social determinants of health, interprofessional collaboration, fostering empathy, cultural competence, and civic responsibility. Simultaneously, communities benefit from increased awareness of preventive healthcare, improved access to services, and empowerment through knowledge, contributing to long-term sustainable development goals (SDGs) such as good health and well-being, quality education, and reduced inequalities. Preliminary outcomes demonstrate enhanced student engagement, reflective learning, and community satisfaction. This model not only bridges the gap between academic learning and societal needs but also reinforces the role of medical professionals as agents of change. This presentation advocates the integration of community-based ophthalmology training into the undergraduate curriculum as a replicable and impactful strategy for both educational excellence and sustainable community health advancement. By presenting this approach, we intend to inspire educators and institutions to adopt community outreach as a core component of health professions education, aligning with global movements toward transformative and socially accountable medical education.

The Impact of Multitasking with Digital Devices on Working Memory and Sustained Attention in Year 1 Medical Students: A Questionnaire-Based Cross-Sectional Study

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Abstract Multitasking with digital devices is a common trend among university students in today's academic environment, raising concerns about its impact on crucial cognitive functions such as working memory and sustained attention. This study aims to investigate how multitasking behaviour can affect working memory and sustained attention. A questionnaire-based cross-sectional study was conducted among 70 Year I medical students at Taylor's University, Malaysia. The survey assessed digital multitasking habits, self-perceived cognitive performance, mindful awareness levels and attitudes toward multitasking. Descriptive analysis of the data was done using one-way ANOVA, Pearson correlation coefficient and linear regression through SPSS 25.0 software. A significantly positive relationship was observed between multitasking frequency and working memory score ($p = 0.009$), and along with no significant association with sustained attention ($p = 0.384$). Results showed, students who frequently multitasked between academic assignments and digital activities such as social media and messaging demonstrated higher working memory scores. These findings also suggests that multitasking may be associated with improved working functional memory with no effect on sustained attention. However, However, these finding may influence by self-reporting biases, and further research with objective cognitive

evaluations would be helpful to corroborate these findings.

Promoting Sustainable Learner Engagement in English Listening through a Small Private Online Course-Based Flipped Classroom

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Listening is widely regarded as a core skill in English as a Foreign Language (EFL) education, yet it often poses considerable challenges for learners. To promote sustainable learner engagement, flipped learning has gained increasing attention as a learner-centred pedagogy. However, its effects on multidimensional engagement in EFL listening, particularly within Small Private Online Course (SPOC)-based models, remain underexplored. This study implemented a SPOC-based flipped model in a College English Listening class in mainland China, examining both its impact on behavioural, emotional, cognitive, and social engagement and the contextual factors shaping sustainable engagement. A quasi-experimental design was adopted over eighteen weeks with two intact classes: the experimental group (n=35) received SPOC-based flipped instruction, while the control group (n=35) followed conventional instruction. Data were collected through pre- and post-intervention questionnaires and semi-structured interviews, integrating quantitative and qualitative insights. Results showed that the SPOC-based flipped classroom significantly enhanced behavioural, cognitive, and social engagement. Emotional engagement increased in the experimental group, but the post-test difference from the control group was not statistically significant. Thematic analysis further revealed that a flexible and interactive learning environment, instructor presence and guidance, engaging learning activities, and learner agency fostered sustainable engagement, whereas heavy workload, procrastination, technical problems, and socio-emotional challenges were identified as barriers. These findings demonstrate the potential of technology-enhanced pedagogy to sustain learner engagement in English listening, underscoring its relevance for long-term language learning and education for sustainable development in higher education.

The Impact of Balanced Technology Use and Holistic Interventions on Mental Health and Focus Among Digital Native Students

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The use of digital device among university students has been on the rise since the pandemic. While technology has benefits, yet concerns exists regarding its impact on students mental health, ability to focus and lifestyle. This study explores the association between screen time and mental health factors such as anxiety, depression, and attention levels among university students. About 86 students from both local and international, universities between ages 18 to 25 participated in an online questionnaire-based survey which included validated instruments such as GAD-7 (anxiety), PHQ-9 (depression), MAAS (mindfulness), PSQI (sleep quality), IPAQ-SF (physical activity). The results showed high daily screen time (61.63%) among students with 58.1% spending 3–6 hours daily on academic-related screen time. Further, 73.26% of participants experienced some level of anxiety, while 44.19% reported depressive symptoms, 30.2% of students showed high levels of attention and awareness and 34.9% had low mindfulness scores. However, there was no statistically significant association between screen time with depression or mindfulness levels. The sleep quality and physical activity showed no significant correlations. This study shows that screen time is more closely linked to anxiety than to depression

or mindfulness suggesting that anxiety and depression may be triggered differently and should be addressed separately when addressing digital mental health.

Evaluating the Tangible Impact of Curriculum-Integrated Sustainability Projects

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Taylors University, Malaysia

Sustainable Impact Through Living Labs an initiative of the purpose learning strategy zeroed on Education for Sustainable Development (ESD) through the impact projects. All the projects under the clean technology impact lab launched between 2023-2024, are aligned to one of the pillars of the imPACT framework (Innovation, Mobilisation, Partnership, Action, Co-Creation, and Transformation) with measuring, using a multidimensional approach that integrates metrics for scientific impacts, survey feedback from stakeholders, and alignment with SDG indicators. We present multiple projects that presents measurements of the impact at various levels including environmental impacts and social outcomes. For example, in the on campus BiSun project the environmental impacts are quantified by water quality testing, energy generation, and food production, while in the off campus Ecopulse project the social outcomes are assessed with reflective journals, testimonials from the community with the improvements in their livelihood. With a comparative analysis of income generation through our Green Haven and Ecopulse project the economic resilience is tracked. All the projects involve more than one module with students from the university being the core in the execution of the project together with internal and external stakeholders. Continuous monitoring and evaluation through the outcomes enrich their educational experience that translate into measurable, real-world impact, demonstrating that ESD, when properly measured could catalyse systemic change within and beyond academic institutions.

Augmented Reality for Inclusive Digital Literacy in Orang Asli Communities

Husna Sarirah Husin[1], Kin Meng Cheng[2] Suhazlan Suhaimi[3], Suriana Ismail[4], Afizan Azman[1] & Norhidayah Hamzah[1]
[1]Taylor's University, Malaysia; [2]Universiti Tunku Abdul Rahman, [3]Universiti Pendidikan Sultan Idris, Malaysia; [4]Universiti Kuala Lumpur, Malaysia

This project aims to develop an information system framework using Augmented Reality (AR) to enhance digital literacy among the Orang Asli communities in Malaysia, with a focus on combating misinformation. Orang Asli face significant challenges in accessing digital tools due to low literacy levels, cultural and linguistic barriers, and geographical isolation. These factors make them particularly vulnerable to digital exploitation. The project will develop an immersive AR-based educational model tailored to the Orang Asli's cultural and linguistic needs. Through interactive simulations, this framework will teach critical skills for identifying and avoiding misinformation. The research will involve conducting a needs assessment through interviews and surveys with Orang Asli communities to understand their digital vulnerabilities. Based on this data, culturally relevant AR content will be developed and tested in selected communities. The expected outcomes include an improved understanding of digital literacy among Orang Asli, measurable reductions in online exploitation, and the creation of a scalable educational model for other marginalised groups. The project will address the digital divide by integrating Orang Asli into the digital economy while preserving their cultural identity. This research is significant as it combines cutting-edge technology with educational outreach to create inclusive digital tools, supporting Malaysia's national agenda for digital inclusion and global goals like the United Nations Sustainable Development Goals

(SDGs), particularly Goal 4 (Quality Education) and Goal 10 (Reduced Inequalities).

Exploring ESD in Educational Action Research in Pre-service Teacher Education

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Educational action research provides opportunities to pre-service teachers to transform their conceptual knowledge into practical experience through actively addressing a real-world teaching or learning issue, in line with the evolving landscape of education where Education for Sustainable Development (ESD) competencies become increasingly critical. This study aimed to explore pre-service teachers' experience when they conducted action research, with a focus on the challenges faced and how they addressed these challenges. Data for this qualitative research was collected using interviews. The findings revealed that the pre-service teachers faced numerous challenges such as identifying a research direction, reviewing the literature, and lacking research skills at the proposal writing stage. At the implementation stage, data collection and analysis posed challenges to them. This study suggests that it is crucial to empower pre-service teachers as self-directed practitioners in their action research journey. With this, they would be better equipped to continuously reflect on their experiences, actions and decisions for better sustainability in quality education.

Cultivating Values for Global Sustainable Future: Integrating Affective Domain in Higher Education for Sustainable Development

Marzura Malek
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The affective domain, which encompasses values, attitudes, emotions, and motivations, plays a pivotal role in shaping learner behaviour and fostering commitment to sustainability. This research explores the integration of the affective domain within Education for Sustainable Development (ESD) to cultivate responsible, value-driven global citizens. The primary objective is to investigate how affective learning influences students' awareness, attitudes, and actions toward sustainable development goals (SDGs). Grounded in Bloom's Taxonomy and the Theory of Planned Behaviour, the study adopts a mixed-method approach with students of different nationalities studying in higher education institutions in Malaysia as respondents. Data were collected using the Affective Domain Measurement Scale (ADMS) and the Sustainability Attitudes and Behaviour Inventory (SABI), complemented by focus group interviews. Findings reveal that students who actively engage in affective learning activities—such as ethical debates, environmental simulations, and service-learning—exhibit significantly higher levels of sustainability-oriented attitudes and behavioural intentions. The study emphasises that cognitive knowledge alone is insufficient to achieve ESD outcomes; affective engagement is crucial in fostering empathy, intrinsic motivation, and a sense of responsibility for global challenges. Recommendations include embedding structured affective learning strategies into ESD curricula, using AI-powered reflective tools, and enhancing educator training to assess and support affective development. Future research should longitudinally assess affective growth and its impact on sustainable behaviour post-graduation and explore culturally responsive affective pedagogies across diverse learning contexts. This study contributes to the growing recognition of affective domain as a transformative element in advancing the goals of sustainable education in the era of artificial intelligence.

Exploring Sustainability Pedagogies in Postgraduate Tourism Studies: The Case of a Higher Education Institution in Kerala, India

Aji Divakar, Shantini Thuraiselvam & Kandappan Balasubramanian
Taylors University, Malaysia

The global tourism sector faces urgent sustainability and climate change challenges, demanding a workforce equipped with robust knowledge and skills. This research critically investigated the extent to which Indian tourism higher education curricula prepare Master's students in Tourism Management to become agents of sustainable development. This mixed-method case study analysed the module descriptors and course content from a university in Kerala. Findings reveal a pervasive but often inconsistent integration of sustainability: while dedicated modules exist, much content is implicitly embedded with varying depth. Explicit integration of "Climate Change" (SDG 13) in module descriptors is notably low, indicating a lack of focus on carbon literacy. A significant gap exists in the curriculum's explicit coverage of Sustainable Development Goals (SDGs). Although experiential learning is strongly emphasised, the formal recognition of "Green Skills" in syllabi is limited, contributing to a "sustainability skill-application gap" where students struggle to leverage knowledge professionally. The curriculum shows transformative potential through immersive experiences, yet institutional rigidities and resource constraints pose significant challenges. Despite the push from the National Education Policy 2020, there is not enough integration of the Indian Knowledge System in the curriculum. This research identifies critical gaps and strengths, offering actionable recommendations for curriculum development and policymaking to foster a more responsible and resilient Indian tourism industry.

Youth Behind the Lens: A Conceptual Framework for Understanding Student Perceptions of Biodiversity Conservation Through Photovoice in Environmental Education

Nurlida Ismail[1], Rabi'ah Abd Rahman[2], Amira Mas Ayu Amir Mustafa[1]
[1] Taylor's University, Malaysia, [2] Taylor's College, Malaysia

Many studies have shown that environmental education (EE) is an important factor in shaping and improving students' environmental consciousness, knowledge and attitude leading to increased pro environmental conservation behaviors. In EE, studies have proven that engaging participants in community based participatory research both enhances the goals of EE as well as more effectively encourages students to advocate for and create ecofriendly change. However, study on students' engagement in biodiversity conservation practices, who represent the present and future stakeholders in environmental governance, is rather limited. Protecting and sustaining natural ecosystems corresponds to SDG 15 in the Sustainable Development Goal Agenda of United Nations to be achieved by 2030, which aims among others to prevent land degradation, stop biodiversity loss, and encourage sustainable use of terrestrial ecosystems, which also directly addresses biodiversity. This study proposes a conceptual framework that examines students' perception of biodiversity conservation challenges at Kuala Selangor Nature Park (KSNP) through photovoice technique and narrative inquiries. KNSP, under purview of Malaysian Nature Society (MNS), will be the context of this study as it is a prime example of a nature park in these ecosystems' environments, essential to biodiversity conservation. The framework will be developed through preliminary review of empirical studies that uses photovoice in the context of biodiversity conservation practices. Photovoice is a popular innovative method for teaching and learning among students, moving beyond traditional educational approaches to empower students to document, reflect upon, and share their learning experiences through photography and storytelling. It aligns well with pedagogical approaches that prioritise student centered learning, critical thinking, and social action. Both visualisation and personalisation are educational tools to promote learning, cognitive

outcomes, and students' interest.

Piloting an Interdisciplinary Sustainability Guidebook in Hospitality and Culinary Higher Education Curriculum

Jacqui Kong & Li Choo Chong
Taylor's University, Malaysia

This paper shares an insight into the experience of integrating key sustainability topics: Food Waste Management' and 'Responsible Food Sourcing' into Hospitality and Culinary Higher Education curriculum through a pilot testing of the Best Practice Guidebook. This Guidebook was developed by WWF Malaysia and Impact Hub Kuala Lumpur, with input from higher education instructors and hospitality industry stakeholders in Malaysia. It adopts a Behaviour Centred Design (BCD) approach and was trialed in an undergraduate module, Food Media CUL61804, which is a core subject in the Bachelor of Culinary Management programme, and a popular elective among Hospitality and Food Services (HaFS) students in Taylor's University, Malaysia. The Guidebook was used as a teaching and learning tool to encourage students to reflect on food waste management challenges on campus, and to suggest practical improvements to solve the issue at hand. A survey conducted after the pilot test found 67 students noting a marked improvement in their understanding of sustainable food practices, along with greater confidence in applying the practical strategies they had learned which were guided by the BCD framework. Some students noted the need for more practical tools, whilst many appreciated the context-specific case studies and structure of the guidebook. The pilot testing of the Best Practice Guidebook proved that it is an engaging and practical resource to help students identify barriers and propose solutions for effective food waste management, using Taylor's University as a case study. The initiative also demonstrates how sustainability concepts can be meaningfully embedded into higher education curriculum. It shows that hands-on, contextually relevant content can enhance student engagement and help raise awareness of real-world issues across disciplines.

Enhancing Purposeful Learning Through Reflective Journals in the Sustainable Living Module at Taylor's University

Siti Norzaini Zainal Abidin
Taylor's University, Malaysia

Reflective journals are widely recognised as an effective pedagogical tool in higher education, promoting purposeful learning by encouraging students to analyse and internalise complex concepts critically. While their benefits in general education are well-documented, research on their application within sustainability education remains limited. This study explores the integration of reflective journaling and experiential learning in sustainability education, focusing on the Sustainable Living module at Taylor's University. Employing a mixed-method approach, this study analyses qualitative data from 100 students' reflective journal entries, surveys, and alongside quantitative observations of experiential learning activities. The findings underscore the effectiveness of reflective journaling in fostering both personal and academic growth, with experiential learning—particularly through hands-on sustainability projects—playing a pivotal role in deepening students' reflective engagement. Based on these insights, this study provides practical recommendations for educators to enhance the implementation of reflective journaling strategies in sustainability education.

Teddy Bear Hospital as a Transformative Learning Model for Health Education and Community Empowerment

Yin Sear Lim, Khine Pwint Phyu, Siew Hong Neoh, Seok Chiong Chee & Ramakrishnan Revati
Taylor's University, Malaysia

The Teddy Bear Hospital (TBH) initiative at Taylor's University exemplifies a transformative approach to Education for Sustainable Development (ESD; SDG 4) and SDG 3 for improved health, integrated health education, empathy-building, and community outreach, all wrapped into a single immersive learning experience. Designed as a simulation-based project, the initiative brought together university students and young children from local kindergartens to engage in play-based healthcare activities that demystify various medical processes, reduce pediatric anxiety and promotes early awareness of healthy lifestyle. For children, the project improved interest in health topics and sparked curiosity about medical professions, with post-event survey data indicating a 13% increase in those expressing a desire to become a healthcare provider. For student volunteers, testimonies revealed marked growth in communication, leadership, and interprofessional collaboration, as well as the ability to translate complex medical concepts into child-friendly language. By fostering mutual understanding between future health professionals and the communities they serve, the project demonstrates how ESD can be applied through experiential, interdisciplinary methods that empower both learners and stakeholders. It meaningfully contributes to the subthemes of empowering communities, integrating sustainability across disciplines, and embedding ESD in teaching, learning, and assessment. TBH helps to build connections between universities, schools, and communities, encouraging a sense of shared responsibility. In conclusion, TBH helps in health education and community outreach by promoting sustainable health awareness and responsible citizenship.

Spaces of Belonging in Contemporary Fashion: Nurturing Diversity and Inclusion Through Adaptive, Human-Centred Design

Alshaimaa Alanadoly, Winnie T Sangueza & Joey H. Yie
Taylor's University, Malaysia

Building an inclusive community through fashion education requires deliberate engagement with diversity and inclusion via well-structured curricula. This study presents a progressive pedagogical approach in which adaptive fashion projects are integrated into undergraduate fashion design education to foster sustainability, empathy, and social equity. Adaptive fashion, designing garments for individuals with disabilities (e.g., wheelchair users, bedridden individuals, people with cerebral palsy, and the elderly), offers a platform for expanding definitions of style, deepening understanding of accessibility, and embedding the principles of 'Education for Sustainable Development' (ESD). Drawing on the experiences of three cohorts (n = 59) in a fashion design technology programme, a semester-long initiative tasked students with designing, developing, and testing adaptive garments using a 'human-centred' approach. A qualitative, two-pronged methodology was adopted: 'design analysis', documenting the technical and aesthetic qualities of student prototypes, and 'thematic analysis' of reflective narratives, capturing shifts in empathy, awareness, and professional responsibility toward inclusivity. Findings reveal that the project challenged conventional norms of accessibility, style, and marketability while empowering students as advocates for marginalised communities. Applying frameworks such as the 'consumer experience journey' for individuals with disabilities, mapping the process of dressing and undressing through close, human-centred interactions, enabled students to develop measurable competencies in inclusive design. By positioning adaptive fashion as a transformative educational tool, the research demonstrates how targeted curriculum interventions can advance sustainability education, empower both learners and communities, and provide measurable indicators of ESD impact in creative disciplines, offering actionable insights for educators, community leaders, and industry

stakeholders seeking to cultivate socially responsible professionals equipped for the complexities of contemporary fashion needs.

Transformative Practices in Education for Sustainable Development in Early Childhood

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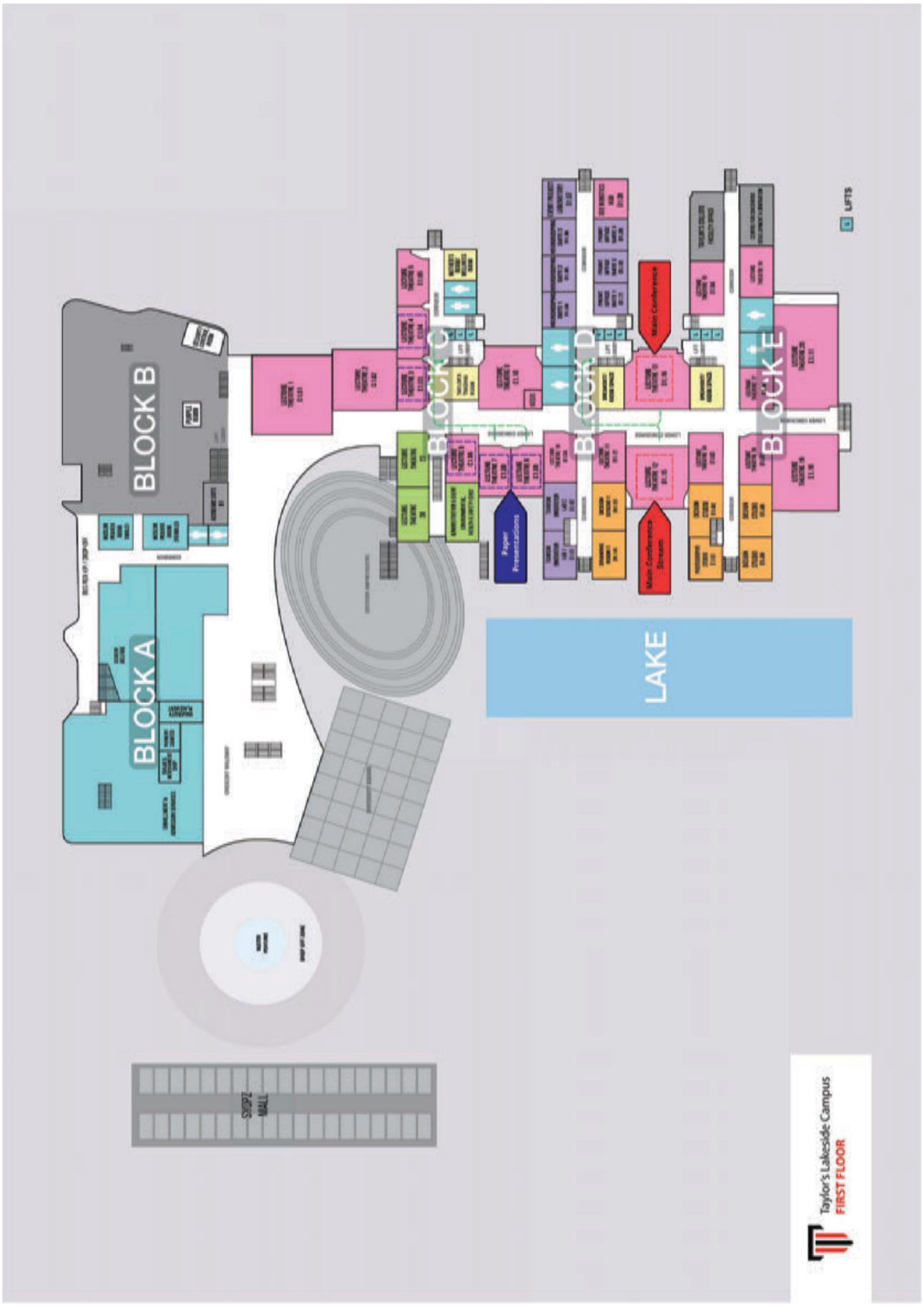
National Child Development Research Centre, Sultan Idris Education University, Malaysia

Early childhood education provides a critical foundation for cultivating values, attitudes, and behaviours that support a sustainable future. This study explores transformative practices in Education for Sustainable Development (ESD) in Malaysian early childhood settings, with particular emphasis on the project approach as a means of integrating sustainability concepts into teaching and learning. Using a qualitative case study design, data were collected through teacher interviews, classroom observations, and documentation of ESD-focused projects. Findings reveal that child-centred projects such as gardening, composting, recycling initiatives, and environmental storytelling foster ecological awareness, socio-emotional growth, and responsible behaviour among young learners. Teachers act as facilitators and role models by guiding children through the project approach, embedding sustainability in daily routines, and fostering inquiry-driven exploration. Although challenges persist, including limited resources, fragmented curriculum integration, and insufficient teacher preparation, opportunities are emerging through alignment with national education policy and the Sustainable Development Goals (SDGs). The study concludes that transformative ESD practices implemented through the project approach can create inclusive and reflective learning environments that position early childhood centres as sustainability hubs and empower children as active agents of change.

FLOOR MAP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SWIFT TRAM
Taylor's Lakeside Campus
FIRST FLOOR


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THE GRAND HALL
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Lunch & Tea Breaks
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BLOCK E
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SECOND FLOOR


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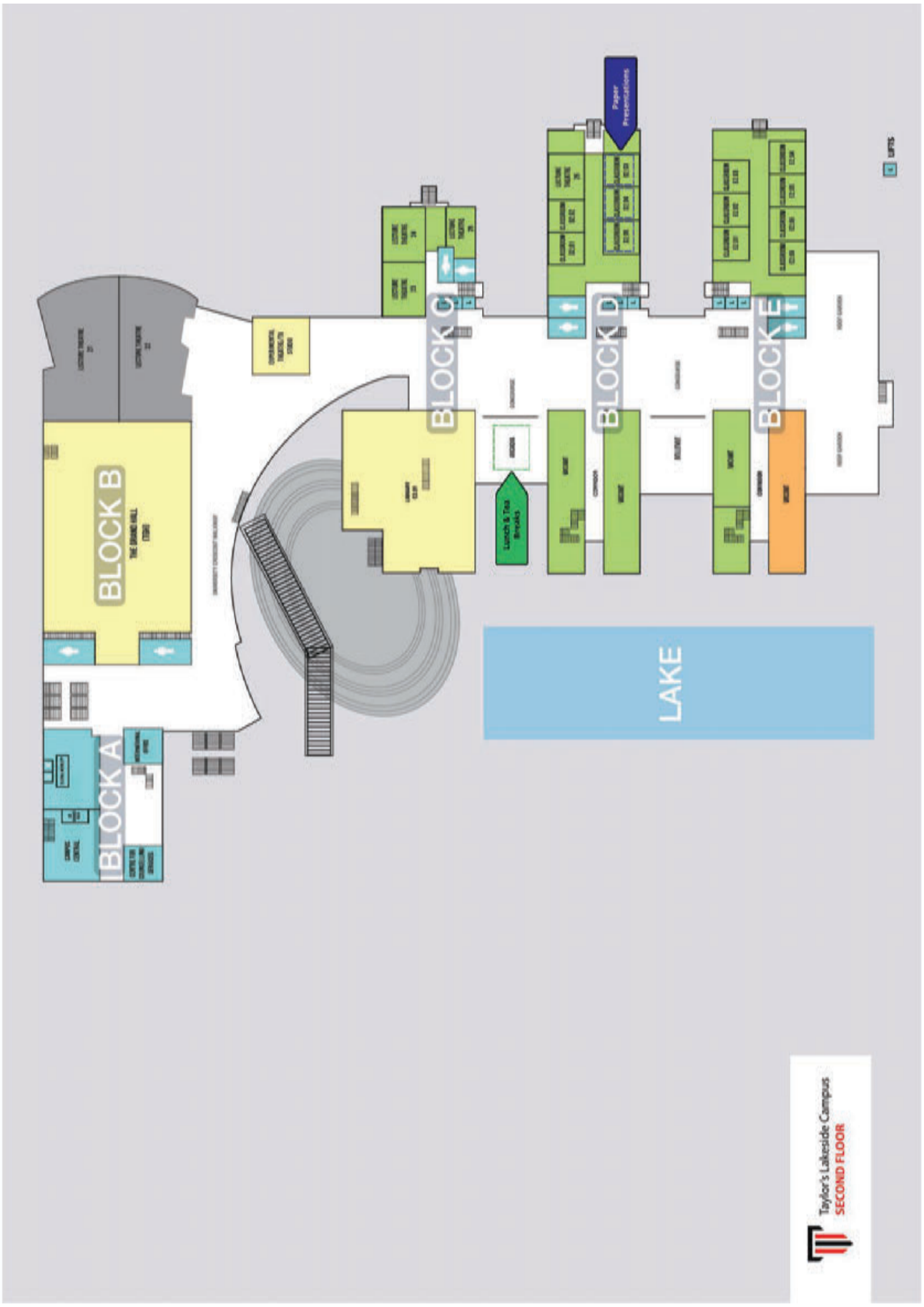
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