

TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM

Leveraging the New Paradigm of Learning

Book of Abstracts

22-23 October 2025



Faculty of Education Universiti Teknologi MARA



Hybrid (In-person & Online Participation)





Table of Contents

No: Contents:

- 1. Opening Remarks
- 2. Officiating Remarks
- 3. Dean's Foreword
- 4. Welcoming Address
- 5. About The Symposium
- 6. Keynote Speaker 1
- 7. Keynote Speaker 2
- 8. Plenary Speaker 1
- 9. Plenary Speaker 2
- 10. Programme Schedule
- 11. Compilation of Abstracts
- 12. List of Committee Members
- 13. List of Sponsorships
- 14. Map of The Event Venues

Pages:

- 1
- 2
- 3
- 4
- _
- _
- 7
- 8
- 9
- 10 11
- 12 125
- 126 131
- 132
- 133





Opening Remarks

Assalamualaikum Warahmatullahi Wabarakatuh. Greetings, everyone.

Welcome to the Teaching and Learning International Symposium (TaLIS 2025), proudly organised by the Faculty of Education, Universiti Teknologi MARA (UiTM). Thank you for being with us at this special gathering of esteemed academics and practitioners. Your presence truly magnifies the importance of this event.

TaLIS 2025 is a shining testament of UiTM's steadfast commitment to fostering cutting-edge pedagogies and promoting a culture of lifelong learning. The symposium bears witness to that vision, providing a vibrant platform where ideas are exchanged, knowledge is shared, and collaborations are forged across borders.

This year's theme, "Leveraging the New Paradigm of Learning," reflects the rapidly evolving educational landscape shaped by advancements such as artificial intelligence, digital classrooms, personalised learning pathways, and global collaboration. Our task as educators, researchers, and innovators is not merely to adapt to these changes, but to lead them—driving transformation that empowers learners for the future.

No occasion such as this would be possible without the dedication and meticulous work of the organising committees, who diligently coordinated the event. I also extend my heartfelt thanks to you, our esteemed collaborators and attendees, whose participation enriches the symposium and strengthens its global reach. Your contribution is invaluable.

May TaLIS 2025 inspire innovative teaching practices, stimulate meaningful dialogues, and reinforce our shared mission to elevate education worldwide.

Thank you.

PROFESSOR DATUK TS. DR. SHAHRIN SAHIB @ SAHIBUDDIN, FASc Vice-Chancellor Universiti Teknologi MARA





Officiating Remarks

Assalamualaikum warahmatullahi wabarakatuh,

It gives me a great pleasure to join you at the Teaching and Learning International Symposium (TaLIS 2025). I am truly delighted to witness such an important gathering of educators, researchers and practitioners committed to advancing the future of education.

The theme, "Leveraging the New Paradigm of Learning," captures the essence of our shared mission, mainly to embrace innovation, inclusivity and professional growth in education. The key themes of this symposium — technology-enhanced learning, innovative pedagogy, curriculum development, and holistic education remind us of the urgent need to prepare learners for a rapidly changing world.

Nevertheless, as we stand at the intersection of knowledge and innovation, let us remember that education is not only about acquiring skills, but also about nurturing values, empathy and resilience. Together we can create learning environments that are dynamic, inclusive and future-ready.

On behalf of the Ministry of Higher Education (MOHE), I would like to extend my sincere appreciation to Universiti Teknologi MARA (UiTM), the Faculty of Education, and the organizing committee for their commitment to bringing TaLIS 2025 to fruition. It gives me a great honour to officially open the Teaching and Learning International Symposium (TaLIS 2025). I wish all participants a meaningful and fruitful symposium.

Thank you.

Datuk Professor Dr. Azlinda Azman Director General of Higher Education, Ministry of Higher Education, Malaysia





Good morning, distinguished guests, esteemed speakers, colleagues, and participants.

On behalf of the Faculty of Education, Universiti Teknologi MARA, it is my great pleasure to cordially welcome all of you to the *Teaching and Learning International Symposium 2025*, or TaLIS 2025. We are deeply honoured by your presence and commitment to embark on what promises to be an inspiring and intellectually stimulating gathering.

The theme chosen for TaLIS 2025, "Leveraging the New Paradigm of Learning," reflects our shared recognition that education is constantly evolving in response to the challenges and opportunities of the 21st century. It calls upon us, as educators, researchers, practitioners, and policymakers, to reimagine teaching and learning in ways that are not only innovative but also inclusive, sustainable, and future-oriented.

The objectives of this symposium are clear and timely. TaLIS will provide a dynamic platform for the exchange of ideas, professional growth, and scholarly collaboration. We are privileged to have with us experts and thought leaders who will share their insights on crucial areas of education, including curriculum development and assessment, educational technology and innovation, inclusive and holistic education, future-ready learning environments, as well as cutting-edge research in teaching and learning.

Indeed, TaLIS 2025 is one of the important steps we are taking to promote quality education, in alignment with global aspirations such as Sustainable Development Goal 4. Through knowledge sharing and collaboration, we aim to empower educators and practitioners to continuously improve their practices and to shape learning environments that prepare our students to thrive in an increasingly complex world.

I would also like to extend my sincere appreciation to the organizing committee for their hard work and dedication in bringing this symposium to fruition, and to our distinguished speakers and presenters for their generous contributions of expertise. I wish you all an enriching and memorable experience at TaLIS 2025.

Thank you.

Assoc. Prof. Dr. Shireena Basree Abdul Rahman
Dean
Faculty of Education
Universiti Teknologi MARA





Assalamualaikum warahmatullahi wabarakatuh, Ladies and gentlemen, esteemed colleagues, and distinguished guests,

Allow me to extend my warmest welcome to each of you as we gather here for the Teaching and Learning International Symposium 2025, or TaLIS 2025. As the Symposium Chair, it is a privilege to stand before such an esteemed assembly of scholars and practitioners, as together we set forth on an inspiring journey guided by our theme, 'Leveraging the New Paradigm of Learning'.

In today's rapidly changing educational landscape, innovation, adaptability, and inclusivity have become essential. This symposium serves as a dynamic platform for us educators, researchers, policymakers, and practitioners to come together to exchange ideas, challenge assumptions, and explore the many opportunities that new paradigms of learning present.

One of the greatest strengths of TaLIS 2025 lies in the diversity of perspectives represented here. We are privileged to host participants from across the globe, each contributing insights into a wide range of research topics—from technology-enhanced learning through AI, VR and AR, to curriculum development, interdisciplinary practices, educator professional development, and inclusive, holistic approaches to education. This rich exchange of ideas is what makes TaLIS not only an academic symposium, but also a global conversation on the future of teaching and learning.

Ladies and gentlemen, TaLIS 2025 is more than a symposium; it is a convergence of knowledge, collaboration, and shared commitment to educational progress. None of this would have been possible without the hard work and dedication of the organizing committee, the support of our partners, and the contributions of our speakers and participants. Hence, I would like to extend my heartfelt gratitude to each and every one of you for your invaluable role in making this event a reality.

As we commence this exciting symposium, I encourage you to immerse yourselves fully in the discussions, forge meaningful connections, and be inspired by the innovative ideas that will shape the future of education. Together, let us create learning environments that are dynamic, inclusive, and future-ready.

Last but not least, thank you for joining us on this important journey. May TaLIS 2025 be a source of inspiration, collaboration, and progress for us all.

Dr. Nurul Fitriah Alias Symposium Chair, TaLIS 2025



About The Symposium

TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM

Leveraging the New Paradigm of Learning

Date: 22-23 October 2025

Venue: Hybrid (In-Person and Online Participation)

Organized by: Faculty of Education, Universiti Teknologi MARA (UiTM)

The Teaching and Learning International Symposium (TaLIS 2025) marks the inaugural edition of a premier academic gathering hosted by the Faculty of Education, Universiti Teknologi MARA (UiTM). It serves as a dynamic platform for educators, researchers, policymakers, and industry partners to exchange ideas, share innovations, and explore emerging trends in higher education and beyond.

The theme for this year, "Leveraging the New Paradigm of Learning," reflects the pressing need to embrace transformative approaches in education. The symposium highlights key developments such as artificial intelligence in teaching and learning, personalised and flexible learning pathways, digital transformation, and global collaboration.

As the first of its kind, TaLIS 2025 aspires to establish a tradition of fostering dialogue that bridges theory and practice, encouraging participants to reimagine the future of education in alignment with national aspirations and global standards. Through plenary sessions, keynote addresses, paper presentations, and networking opportunities, the symposium provides a fertile ground for collaboration, knowledge sharing, and capacity building.

Ultimately, TaLIS 2025 embodies UiTM's commitment to advancing educational excellence and innovation, reinforcing the role of teaching and learning as catalysts for sustainable development and societal progress.





Prof. Datuk Dr. Azlinda Binti Azman Director-general Of Higher Education Ministry Of Higher Education.

YBhg. Prof. Datuk Dr. Azlinda binti Azman is a distinguished academic in social work and the first Malaysian to hold the title of Professor in Social Work. She earned her Ph.D. in Clinical Social Work from New York University in 2005 as a Fulbright Scholar. Prior to her appointment as Director-General of Higher Education on May 31, 2023, she served as the Deputy Vice-Chancellor for Student Development Affairs and Alumni at Universiti Sains Malaysia (USM), Penang, where she played a key role in advancing social work education and practice.

Nationally, Dr. Azlinda has been a leading advocate for the development of the social work profession in Malaysia. She chairs the National Joint Council Committee on Social Work Education and has been a member of the Special Project Team for Enhancing the Social Work Profession Bill/Act since 2018. Her contributions extend to roles such as council member for the Allied Health Profession at the Ministry of Health and member of the Country Coordinating Mechanism Malaysia on HIV and AIDS. She is also an expert resource for the Malaysian Qualification Agency, assessing and auditing social work programs across the country.

Dr. Azlinda has made significant contributions to social work research and practice. Her publications focus on key areas including knowledge transfer frameworks, family-based mediation in juvenile rehabilitation, mental health challenges of international students, community-based approaches to HIV/AIDS, and social development strategies in disaster-prone regions. Through her research, she has provided valuable insights into policy development and practical interventions in social work education and practice.

In her current role as Director-General of Higher Education, Dr. Azlinda has been actively involved in initiatives to enhance the quality of higher education in Malaysia. She has led discussions with the Ministry of Education to address teacher shortages, establish joint KPM-KPT initiatives, and promote student enrollment in Science, Technology, Engineering, and Mathematics (STEM) fields. Her leadership continues to shape education policy, improve institutional practices, and benefit students and society at large.





Professor Mushtak Al-Atabi Provost & Chief Executive Officer Heriot-Watt University Malaysia

Professor Mushtak Al-Atabi is currently the Provost and CEO at Heriot-Watt University, Malaysia. His research interests include purpose-driven education, engineering education, academic leadership, thermofluids, renewable energy, and biomechanical engineering.

Professor Al-Atabi published a number of books, including <u>Think Like an Engineer</u>, <u>Driven By Purpose</u>, and <u>Leading with Stories</u>. He has numerous research publications, awards and honours. He delivered two TEDx Talks, <u>Engineering the Language of Success</u> and <u>Storytelling and Engineering a Lasting Change</u>

He is a Fellow of the Institution of Mechanical Engineers (FIMechE), Chairman of the Vice-Chancellors' Council for Private Universities Malaysia (VCCPU) and a member of the Board of Directors at the British Malaysian Chamber of Commerce (BMCC).

Professor Al-Atabi is an innovative educator who believes that the main goal of education is to mobilise an individual's purpose into a positive impact on the world. He pioneered Purpose-Driven Education, CDIO (Conceive, Design, Implement, Operate) methodology and delivered the first MOOC (Massive Open Online Course) in Malaysia.

Professor Al-Atabi is a highly sought-after keynote speaker and trainer. He trains executives from Multinational Corporations, including banks, energy companies as well as universities.

His impact statement reads, "I am a storyteller. My purpose is to inspire others to tell more empowering stories about themselves and the world we live in."





Miss Azlina Kamal Education Specialist, UNICEF Malaysia

Azlina Kamal is a dedicated Education Specialist with UNICEF Malaysia, where she plays a pivotal role in advancing the rights of every child to access quality and inclusive education. Azlina holds a Master of Education (M.Ed.) in Educational Planning and Administration from the University of Malaya. She is recognized for her strategic expertise in education planning, policy analysis, and her committed advocacy to ensure no child is left behind in Malaysia's educational landscape. At UNICEF Malaysia, her work is focused on several critical areas: strengthening education systems to be more equitable and resilient, promoting digital learning and innovative teaching methodologies, advocating for policies and programs that support the most vulnerable children, including those from low-income families, refugees, and children with disabilities, and supporting efforts to improve foundational learning skills and school readiness.





Associate Prof Dr Jesslyn Holar Department Chair, Department of Teacher Education University of Nebraska, Kearney

Jesslyn Hollar is an Associate Professor and current Department Chair in the Department of Teacher Education at the University of Nebraska at Kearney. Her work focuses on teacher education, educational policy, and community-forward educational partnerships. Jesslyn brings 15 years of experience in teacher preparation, and her professional background includes working in PK-12 public and private schools and in higher education. At UNK, Jesslyn teaches courses in philosophy of education, educational research, and foundations of education in a democratic society.



Programme Schedule

Day / 22 October 2025 (Wednesday)

8:00 a.m.	Registration of Participants and Breakfast
8:30 a.m.	Arrival of VIPs and the Guest of Honour
9:00 a.m.	Entrance Procession of the Guest of Honour and VIPs
9:05 a.m.	National Anthem – Negaraku
9:10 a.m	Doa Recitation
9:15 a.m.	Opening Address by YBhg. Prof. Datuk Ts. Dr Shahrin Sahib @ Sahibuddin Vice Chancellor of UiTM
9:25 a.m.	Officiating Remarks by YBhg. Datuk Prof. Dr. Azlinda Azman Director General, Higher Education Ministry of Higher Education
9:35 a.m	Official Launch of TaLIS 2025 & Video Montage
9:40 a.m.	Presentation of Token of Appreciation
9:45 a.m	Group Photo Session
10:00 a.m.	Keynote Speech 1 YBhg. Datuk Prof. Dr. Azlinda Azman Director General, Higher Education Ministry of Higher Education
11:15 a.m.	Keynote Speech 2 YBrs. Prof. Mushtak Al-Atabi Provost and CEO at Heriot-Watt University, Malaysia
12:30 p.m.	Lunch Break & Prayer
2:00 p.m.	Parallel Session 1
3:00 p.m.	Parallel Session 2
5:00 p.m.	End of Day 1



Programme Schedule

Day 2 23 October 2025 (Thursday)

8:00 a.m.	Registration of Participants and Breakfast
9:00 a.m.	Plenary Speech 1 Miss Azlina Kamal Education Specialist, UNICEF Malaysia
10:15 a.m.	Plenary Speech 2 Assoc. Prof. Dr. Jesslyn Holar Department Chair, Department of Teacher Education University of Nebraska, Kearney
11:30 a.m.	Parallel Session 3
12:30 p.m.	Lunch Break & Prayer
2:00 p.m.	Parallel Session 4
3:15 p.m.	Closing Speech by the Dean, Faculty of Education Assoc. Prof. Dr. Shireena Basree Abdul Rahman
3:30 p.m.	 Award Presentation & Closing Ceremony Best Presenter Award Symposium Closing Remarks Closing Video Montage
4:30 p.m.	Group Photo Session
5:00 p.m.	End of Day 2



Compilation of Abstracts



Title: Integrating Educational Theories into Microlearning Design for Higher Education

Paper ID: TaLIS/2025/CDA/101

Theme: Curriculum Development and Assessment

Author 1: Fauziah Saadah Abdul Halim <a> 2020542509@student.uitm.edu.my <a> Universiti Teknologi MARA <a> Author 2: Professor Dr Ts Johan Eddy @ Luaran <a> johaneddy@uitm.edu.my <a> Universiti Teknologi MARA

Abstract:

The escalating demand for employability skills highlights the urgency to bridge the gap between academic outcomes and the dynamic workforce. Traditional education models often fall short in addressing the demand for skills aligned with current labour market trends. Microlearning (ML) and Micro-Credentials (MCs) are increasingly recognised as effective tools for upskilling and reskilling, offering concise, targeted content applicable to professional scenarios. However, their growing integration into Higher Education (HE) faces persistent challenges, including inflexibility, credential stackability, and quality alignment. This study proposes an Integrated Microlearning Framework for Higher Education (IMF-HE) to address these issues, combining technology with flexible, high-quality learning opportunities tailored to modern learners' needs. Developed using a Design and Development Research (DDR) approach, the methodology involved comprehensive data gathering through surveys and interviews with MC developers and diverse stakeholders across educational and industrial sectors. A Systematic Literature Review (SLR) further informed the framework's theoretical foundations, explicitly integrating educational theories such as Cognitive Load Theory (CLT), Vygotsky's Zone of Proximal Development (ZPD), Community of Inquiry (Col) model and Self-Directed Learning (SDL). The IMF-HE prototype underwent rigorous validation via a Delphi technique with subject matter experts, and was subsequently evaluated through structured interviews with ML and MC content developers to assess its perceived effectiveness and applicability. Key findings emphasise the crucial role of stakeholder insights in navigating integration challenges, establishing comprehensive technological infrastructure, and aligning ML content with industry expectations. The IMF-HE serves as a comprehensive quide, aligning with the Malaysian Qualification Framework (MQF) by fostering the development of high-quality, industryrelevant, and MQA-recognised MCs. This framework significantly promotes lifelong learning, enhances employability, ensures credential stackability, and supports the broader objectives of Malaysian HE.

Keywords: Microlearning, Micro-credentials, Higher Education, Educational Theories, DDR



Title: Instructional Leadership in Curriculum Development: A Systematic Review and Empirical Study on Enhancing Student Engagement Among International Secondary Schools in Jeddah, Saudi Arabia.

Paper ID: TaLIS/2025/CDA/102

Theme: Curriculum Development and Assessment (CDA)

Author 1: Mr. Shahzada Khayyam Nisar 💿 2021124433@student.uitm.edu.my 🏫 UiTM

Author 2: Professor Dr. Teoh Sian Hoon 💿 teohsian@uitm.edu.my 🏫 UiTM

Author 3: Dr. Ahmad Zulfadhli Khairuddin ahmadzulfadhli@uitm.edu.my

Abstract:

Student engagement is a critical determinant of academic success in secondary education, yet fostering meaningful engagement remains a challenge in diverse international school settings. Instructional leadership, particularly principals' roles in curriculum development, has the potential to shape engaging learning environments, but this relationship remains underexplored. This study aims to synthesize global evidence on instructional leadership practices in curriculum development that enhance student engagement and to contextualize these findings with empirical data from international secondary schools in Jeddah, Saudi Arabia. A systematic literature review (SLR) was conducted according to PRISMA 2020 guidelines, identifying 42 peer-reviewed studies published between 2000 and 2025 on instructional leadership, curriculum development, and student engagement in secondary international or multicultural school contexts. Additionally, primary data were collected from 500 instructional leaders (10 leaders from each of 50 international secondary schools in Jeddah) using a validated leadership questionnaire and structured interviews. Quantitative data were analyzed with descriptive and inferential statistics, while qualitative data underwent thematic analysis. Three key themes emerged: principals' alignment of curriculum with a shared instructional vision strongly predicts higher student engagement; collaborative curriculum planning among school leaders fosters contextualized, innovative curricula that motivate students; and adaptive curriculum leadership practices addressing linguistic and cultural diversity are crucial for engaging diverse learners. Quantitative analysis revealed a strong positive correlation (r=0.72, p<.001) between instructional leadership scores and student engagement measures across schools. This study highlights the centrality of instructional leadership in curriculum development for enhancing student engagement in international secondary schools, offering actionable guidance for school leaders, professional development providers, and policymakers aiming to build inclusive, engaging international learning environments.

Keywords: Instructional leadership, Curriculum development, Student engagement, International secondary schools, Educational leadership



Title: Bridging the Gap: A Critical Analysis of Malaysian Mathematics Textbooks and Their Role in Fostering Higher-Order Thinking Skills

Paper ID: TaLIS/2025/CDA/103

Theme: Curriculum Development and Assessment (CDA)

👤 Author 1: Ainul Azrin Bin Abu Kasim 🔟 <u>ainulazrin16@gmail.com</u> 🏫 UiTM Puncak Alam

👤 Author 2: Professor Dr. Parmjit Singh Aperapar Singh 🔘 parmj378@uitm.edu.my 🏫 UiTM Puncak Alam

Abstract:

Malaysian students have consistently underperformed in mathematics on international assessments such as TIMSS and PISA, particularly in solving non-routine problems requiring higher-order thinking (HOT) skills. Despite curricular reforms under the Malaysian Education Blueprint (2013-2025), which emphasizes critical thinking and HOT, student achievement remains low. This discrepancy raises concerns about whether instructional materials. particularly textbooks, curriculum objectives. This study examined the extent to which upper secondary mathematics textbooks in Malaysia support the development of non-routine problem-solving skills. Conducted in three phases, the study employed both qualitative and quantitative approaches. In Phase 1, content analysis was performed on four mathematics textbooks namely Modern Mathematics and Additional Mathematics for Forms4 and 5 respectively. The focus was on the classification of problems as routine or non-routine. In Phase2, a student questionnaire captured perceptions of the textbooks' effectiveness in promoting higher-order thinking. In Phase3, a paper-and-pencil test assessed students' actual performance in solving non-routine problems. The textbook analysis revealed a stark imbalance: of the 5,047 problems analysed, 97.82% (n = 4,937) were routine, while only 2.18% (n = 110) qualified as non-routine. This overwhelming focus on procedural tasks suggests a limited emphasis on fostering deep mathematical reasoning. Correspondingly, student performance on the Non-Routine Test was low, with a mean score of 11.98(SD = 4.46) out of 40. This equates to a low average percentage rate of 29.95%. Furthermore, survey findings indicated that students did not perceive their textbooks as providing opportunities for deep thinking or exploration through challenging tasks. The study highlights a critical misalignment between the KSSM curriculum's HOT goals and textbook content, which remains overwhelmingly procedural. This gap may explain persistent difficulties in cultivating advanced problem-solving skills. To address this, policymakers should prioritize textbook revisions to include more non-routine problems, coupled with teacher training to effectively integrate HOT strategies into instruction.

Keywords: Textbook, Non Routine, Problem Solving, Higher Order Thinking Skills



Title: Measuring Multiple Intelligences Among Pre-Service Teachers in IPG: An Exploratory Factor Analysis (EFA) of a Newly Developed Instrument

Paper ID: TaLIS/2025/CDA/104

Theme: Curriculum Development and Assessment (CDA)

Author 1: Muhd Amirul Naqiq Bin Zainal Abidin 2022887178@student.uitm.edu.my 👚 Universiti Teknologi Mara (UiTM)

Author 2: Zarizi Ab Rahman 2 zarizi@uitm.edu.my 👚 Universiti Teknologi Mara (UiTM)

Author 3: Azlan Ahmad Kamal a zalankamal@uitm.edu.my the Universiti Teknologi Mara (UiTM)



The application of Multiple Intelligences (MI) in teacher education offers significant benefits in preparing future educators to become efficient in their profession. Within the context of teacher training institutes, the MI approach provides pre-service teachers with the opportunity to recognize and understand their own capabilities. It equips them with the ability to design diverse teaching strategies that cater to students' varied learning needs. However, the use of valid and reliable instruments is compulsory to gather genuine information regarding the type of MI they possess. Due to that, this study developed an item from the ground up to ensure that the MI instrument was valid and reliable for pre-service teachers in the Malaysian context. This study involved a sample of 310 fourth-year pre-service teachers from teacher education institutes (IPG) in Malaysia. The data were analyzed using descriptive statistics and further examined through exploratory factor analysis (EFA) to identify the underlying factor structure of the instrument. The 42 items measuring 8 constructs were valid and reliable in assessing the MI components of pre-service teachers in teachers' training institutes (IPG). The total variance explained (TVE) was 56.51%, with Cronbach's alpha ranging from 0.703 to 0.882. In conclusion, the newly developed instrument demonstrates acceptable reliability and validity. However, to ensure greater comprehensiveness of the instrument, confirmatory factor analysis (CFA) should be conducted in future research. The present findings, therefore, serve as an early-stage validation that provides a solid foundation for further refinement and development of the instrument.

Keywords: Instruments, Multiple Intelligences, Pre-Service Teachers, Reliability, Validity,



Title: Understanding the Impact of Technostress on TVET Educators' Continuance **Intention Toward Digital Teaching and Learning**

Paper ID: TaLIS/2025/EPD/101 Theme: Educator Professional Development (EPD) 👤 Author 1: Mohd Hafizul Bin Ismail 🔘 mhafizul@unikl.edu.my 👘 Universiti Kuala Lumpur 👤 Author 2: Siti Haryani Shaikh Ali 🔟 sharyani@unikl.edu.my 👘 Universiti Kuala Lumpur Author 3: Husna Sarirah Husin 💿 husna.husin@taylors.edu.my 🏫 Taylor's University

👤 Author 4: Sallaudin Hassan 🔘 sallaudin@unikl.edu.my 🟫 Universiti Kuala Lumpur

👤 Author 5: Shin Woo Young 💿 swy73@globalenskr.com 💣 Global EnS Ltd, South Korea

Abstract:

As digital technologies become integral to teaching and learning, Technical and Vocational Education and Training (TVET) educators face increasing pressure to sustain their use. This study investigates the influence of technostress and the core constructs of the Expectation-Confirmation Model (ECM): confirmation, perceived usefulness, satisfaction, and continuance intention, on TVET educators' long-term engagement with digital teaching tools. Data were collected from 271 academic staff at Universiti Kuala Lumpur (UniKL) through an online survey. Structural Equation Modeling using SmartPLS was employed to test the research model. The findings confirm that ECM variables significantly predict continuance intention. Confirmation positively affects both perceived usefulness and satisfaction, while perceived usefulness and satisfaction both strongly influence educators' intention to continue using digital technologies. Notably, technostress negatively impacts satisfaction and continuance intention, although it does not significantly affect perceived usefulness. These results suggest that while TVET educators recognize the functional value of digital tools, emotional strain can reduce satisfaction and long-term usage. This study extends the ECM by integrating technostress, offering a more holistic view of digital teaching sustainability in the TVET sector. The findings highlight the need for institutional strategies that not only improve technical infrastructure and training but also address psychological barriers such as stress and overload. Addressing these challenges is essential to ensure the effective and lasting adoption of digital teaching practices in vocational education.

Keywords: Continuance intention, technostress, Digital teaching, TVET



Title: Principals' Visionary Leadership And Innovation Competencies In Financial Management Of Government Secondary Schools In The Northern Education District of Selangor

Paper ID: TaLIS/2025/EPD/102

Theme: Educator Professional Development (EPD)

Author 1: Mohamed Zakariya bin Othman 💿 mzothman4071@gmail.com 👚 Universiti Teknologi MARA Lauthor 2: Professor Dr Sharipah Ruzaina Syed Aris 💿 sruzaina@uitm.edu.my 👚 University Teknologi MARA

Abstract:

Effective financial management is vital for the smooth operation of secondary schools. In the Northern Education District of Selangor, government schools often face limited financial resources, highlighting the need for principals to manage funds effectively. This study examined the influence of principals' visionary leadership, innovation competencies, and background characteristics on financial management practices. Guided by contingency theory, two-factor theory, and human capital theory, a quantitative cross-sectional survey was conducted within a pragmatism framework. Data were collected from 58 principals and 188 senior assistants across 70 randomly selected schools, with a pilot study in 13 additional schools. Analyses included descriptive statistics, Pearson correlation, regression, and moderated multiple regression. Findings revealed that visionary leadership had a significant positive effect on financial management (r = .552 and r = .655; p < .01), leading to the rejection of the null hypothesis. While innovation competencies correlated positively with financial management, they were not significant predictors (p = .411). Principals' background characteristics, such as experience and training, influenced practices directly but did not significantly moderate the relationship between leadership and financial management. The study underscores the importance of visionary leadership and financial skills in enhancing school management. Although innovation and digitalization were encouraged, resource constraints limited implementation. It is recommended that the Ministry of Education collaborate with the Ministry of Digital to strengthen ICT infrastructure and support principals in improving financial systems, particularly in auditing and transparency.

Keywords: Educational Leadership, Financial Management in Schools, Innovation in Education, Human Capital Theory, Malaysian Secondary Education



Title: Digital Transformation in Higher Education: Psychological Capital and Institutional Resilience

Paper ID: TaLIS/2025/EPD/103

Theme: Educator Professional Development (EPD)

🙎 Author 1: Dr. Joseph Bankole Filani 💿 bfilani@yahoo.com 🏫 School of Education, Federal College of Education, Abeokuta



In recent years, digital transformation has become a critical agenda across global higher education systems, fundamentally altering teaching, learning, and administrative processes. While technological adoption and infrastructure development are often emphasized, the psychological and organizational dimensions that support or hinder this transformation require deeper investigation. This paper examines the role of psychological capital—defined by self-efficacy, optimism, hope, and resilience—among academic staff and institutional leaders, and how it contributes to organizational readiness and adaptability. It further investigates how institutional resilience facilitates sustained transformation by enabling institutions to recover from disruptions, adapt to new realities, and maintain core academic missions. By integrating empirical findings from recent studies with case-based insights from digitally progressive universities, the paper proposes a conceptual framework that positions psychological capital as a foundational element in building resilient institutions capable of navigating digital transitions. The implications of this framework suggest that beyond technical readiness, psychological and cultural preparedness are essential for effective and sustainable digital transformation in higher education.

Keywords: Digital Transformation, Higher Education, Psychological Capital, Institutional Resilience, Educational Change Management



Title: Behind the Thesis: Unpacking Postgraduate Students' Research Anxiety and Coping Strategies

Paper ID: TaLIS/2025/EPD/104

Theme: Educator Professional Development (EPD)

- Author 1: Lee Yee Ling veeling.lee@taylors.edu.my factoris Senior Lecturer, School of Education, Taylor's University Lakeside Campus, 47500 Subang Jaya, Selangor.
- Author 2: Jasmine Jain i jasmine.jain@taylors.edu.my f Senior Lecturer, School of Education, Taylor's University Lakeside Campus, 47500 Subang Jaya, Selangor.
 - Author 3: Liang Hongyu 💿 hongyu.liang@sd.taylors.edu.my 🟫 PhD Candidate, School of Education, Taylor's University Lakeside Campus, 47500 Subang Jaya, Selangor.

Abstract:

Postgraduate education is a critical phase of academic growth, but many students experience research anxiety (RA)—stress marked by self-doubt, fear of failure, and discomfort in tasks such as designing studies, analyzing data, and writing. In Malaysia, despite national emphasis on research excellence, master's students often struggle with limited methodological training, unclear expectations, and insufficient mentoring, yet little research has examined their specific experiences. This study aimed to investigate postgraduate students' RA at the beginning and the end of their enrolment in research-based modules and their RA management strategies. This exploratory mixed-methods study involved 86 master's students from a Malaysian private university, with quantitative data collected from pre and post questionnaires. Qualitative data were obtained from interviews with four purposely selected students based on the differences between their pre and post RA scores. Paired t-test revealed that there was no significant difference between the students' RA before and the end of their enrolment in research-based modules. Thematic analysis of the interview data showed that the students sought academic and emotional support from their lecturers, supervisors and peers to manage their RA. Notably, artificial intelligence (AI) tools helped reduce the students' RA by supporting idea generation, refining academic writing, simplifying complex ideas and assisting with translation. Besides, they engaged in leisure activities to release stress and adopted self-monitoring methods to restore focus. This study provides valuable insights to improve pedagogical strategies, supervisory practices, and institutional support for enhancing postgraduate research learning. Future research can investigate how sustained use of Al tools influences postgraduate students' RA and their research competencies.

Keywords: Research Anxiety, Postgraduate Students, Coping Strategies, Higher Education



Title: TESOL exercises unpacked: insights into their conceptions, roles, and types

Paper ID: TaLIS/2025/EPD/105

Theme: Educator Professional Development (EPD)

- 👤 Author 1: Siti Maftuhah Binti Damio 💿 maftuhah@uitm.edu.my 🏫 TESL Department, Faculty of Education, University Teknologi MARA, Malaysia.
 - 🙎 Author 2: Hamimah Hashim 🥥 hamimahh.@uitm.edu.my 🏫 Department of Educational Studies, Faculty of Education, University Teknologi MARA, Malaysia.
 - 🙎 Author 3: Dian Novita 💿 diannovita@ub.ac.id 🏫 Linguistics Studies, Faculty of Cultural Studies, Universitas Brawijaya, Indonesia.

Abstract:

While exercises are a cornerstone of TESOL pedagogy, their specific roles and conceptions remain underexplored in academic literature. This study addresses this gap by investigating three core aspects: common conceptions of exercises, their pedagogical roles, and the types used in TESOL classrooms. Defining exercises as structured practices that reinforce accuracy and understanding, the research employs a mixed-methods approach, blending quantitative analysis with qualitative insights from open-ended responses. The study focuses on TESOL trainee instructors from Malaysia and Indonesia, utilizing purposive sampling of participants who have completed microteaching sessions (Semesters 6 and 8). Key findings indicate that effective exercise design necessitates cultural and contextual considerations to ensure relevance to students' real-life experiences. Furthermore, engagement and motivation are critical to exercise effectiveness, significantly influencing participation and language acquisition. The study underscores the importance of connecting exercises to practical, real-world scenarios to make learning meaningful. This research contributes a deeper understanding of how TESOL exercises can be optimized, offering valuable implications for teacher training programs and curriculum development.

Keywords: TESOL pedagogy, language exercises, teacher training, cultural relevance, student engagement



Title: Proofreading Courses as Micro-Credential: From Enrolment Purposes to Professional Practice

Paper ID: TaLIS/2025/EPD/106

Theme: Educator Professional Development (EPD)

Author 1: Fatima binti Sabbir msbventures5253@gmail.com msbventures

Abstract:

In the current education landscape, micro-credentials have emerged as a significant learning mechanism for upskilling, especially in the professional development of educators. In an academic context, proofreading remains a critical component in the writing process, ensuring clarity, accuracy, and the elimination of distracting errors. This study aims to investigate the role of proofreading courses as a micro-credential in relation to the respondents' enrolment purposes, learning experiences, and professional development. A qualitative descriptive research method employing purposive sampling was used to collect data for the study. Twenty respondents participated by completing a survey that consisted of semi-structured and multiple-response questions, which explored their enrolment purposes and learning experiences that contributed to professional development. The study also investigated the influence of the course on their proofreading practices and overall professional growth. The findings show that most respondents enrolled in proofreading courses to enhance their skills and advance their careers. The respondents reported positive learning experiences, particularly in refining and sharpening their proofreading abilities, as well as reinforcing their capacity to evaluate clarity and accuracy through practical tasks. The study also highlights that respondents perceived significant professional growth and enhanced career prospects, as their improved skillsets increased both their competency and professional credibility within the domains of proofreading courses as a micro-credential on the long-term career progression of language professionals.

Keywords: Proofreading Courses, Micro-credential, Professional Development, Proofreading.



Title: The Influence of Learning Organizational Culture on Performance of a Private Higher Education Institution in Malaysia

Paper ID: TaLIS/2025/EPD/107
Theme: Educator Professional Development (EPD)

🙎 Author 1: Asfarina Binti Ismail 💿 2024183717@student.uitm.edu.my 🏫 Faculty of Education, UiTM Puncak Alam



This study investigates the learning organizational culture (LOC) among employees at a private higher education institution in Kuala Langat, Selangor and their perceptions towards performance. The research aims to (1) establish the LOC being practised, (2) ascertain the employees' perceptions on performance, (3) examine the correlation between LOC and performance, and (4) ascertain the relative contribution of LOC towards performance. A quantitative method approach was employed, using a questionnaire survey of 4 Likert-scale statements distributed to 152 respondents. Quantitative data were analyzed using SPSS version 26.0. From the result obtained, it is revealed that the degree of learning organizational culture was moderate (Mean = 2.73, SD = 0.560). Similarly, performance perceived by employees is moderate (Mean = 2.98, SD = 0.586). A very strong, positive, and statistically significant relationship was found between learning organizational culture and performance (r = 0.872, p < 0.001). The regression findings demonstrated that learning organizational culture significantly predicts performance with 68.3% of the variance in sustainable performance can be explained by LOC. The implications of the research proposed evidence-based policy recommendations that can be implemented by the institution since institutional performance is highly reliant on the learning culture.

Keywords: Learning Organization, Learning Organizational Culture, DLOQ, Performance, Higher Education



Title: Teaching Systems and Approaches in Landscape Architecture: Community and Landscape Design Studio Projects for a Bachelor in Landscape Architecture Course

Paper ID: TaLIS/2025/EPD/108
Theme: Educator Professional Development (EPD)

🙎 Author 1: Assoc. Prof. LAr. Ts. Dr. Alamah Misni 💿 alama884@uitm.edu.my 愉 Universiti Teknologi MARA

Abstract:

The Community and Landscape Design studio project is a key component of the third-semester curriculum in the Landscape Architecture Program. This course aims to equip students with the skills needed to design practical, sustainable, and visually cohesive outdoor environments for mixed housing developments. Instruction is based on a landscape design methodology that integrates various elements and applies planning procedures to create cohesive and sustainable spaces. The curriculum emphasizes the interconnectedness of landscape components, encouraging design solutions that are both aesthetically appealing and contextually relevant. Students apply these principles in neighbourhood housing development projects, directly linking theoretical knowledge with practical application. By the end of the semester, students are expected to demonstrate proficiency in creating effective communities and functional landscapes, preparing them to tackle significant societal challenges in urban environments. This study assesses the effectiveness of the course's systems approach in teaching sustainable design competencies through project-based learning. Students from the Study of Landscape Architecture at the Faculty of Built Environment, Universiti Teknologi MARA, implemented the systems approach in their residential landscape projects. Data were collected through a questionnaire, resulting in 104 valid responses. Analyses conducted using SPSS version 30.0 and Smart-PLS version 4.0 evaluated the consistency, validity, and significance of the observed relationships. The findings show that sustainable development significantly enhances landscape planning and the ability to meet community needs. Additionally, effective landscape planning directly addresses community requirements and fosters creativity and innovation in design. By prioritizing community needs, the integration of creativity, innovation, and technology within the studio process is facilitated. Technology also plays a role in aligning creativity, innovation, and community priorities. These results illustrate how the course enhances students' competence in sustainable, community-oriented design and provide actionable recommendations for both students and design educators.

Keywords: Community, Landscape Design, Project-based Learning, Sustainable, Mixed Housing Developments



Title: Systematic Efforts to Develop Teacher Competencies for Effective Learning

Paper ID: TaLIS/2025/EPD/109

Theme: Educator Professional Development (EPD)

👤 Author 1: Zulfa Faizatul Maula 🤘 Faizatull.05@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus UPI Tasikmalaya



Professional development for educators is a planned and ongoing endeavour aimed at enhancing teachers' expertise, knowledge, and skills to support effective learning. In the rapidly evolving landscape of 21st-century education, teachers are required not only to master subject content but also to employ innovative teaching strategies, integrate technology, and respond to the diverse needs of pupils. This study presents an overview of the concept, types, and significance of professional development for educators at the primary and secondary school levels. Using a literature review methodology, various academic sources concerning teacher training, workshops, collaborative learning, and reflective practice were analysed. The findings suggest that well-structured and relevant professional development programmes contribute significantly to improving teaching quality, boosting teacher motivation, and enhancing pupil learning outcomes. Hence, collaboration and support from government agencies, schools, and communities are essential to developing sustainable and contextually relevant professional development initiatives.

Keywords: Professional Development, Educators, Teacher Training, Teaching Quality.



Title: STEM Teaching Competency Instrument: Validity and Reliability for Mathematics Secondary School Teachers

Paper ID: TaLIS/2025/EPD/110

Theme: Educator Professional Development (EPD)

🧘 Author 1: Nor Syazwani Binti Mohd Rasid 💿 norsyazwani1211@gmail.com 🏫 Universiti Malaya

👤 Author 2: Hutkemri Zulnaidi 🧕 hutkemri@um.edu.my 🏫 Universiti Malaya 👤 Author 3: Mohd Razip Bajuri 🍳 razip.bajuri@um.edu.my 🏫 Universiti Malaya

Abstract:

STEM education is an imperative element in preparing students to meet the future demands and is regarded as a key driver for a nation to compete globally. Hence, the role of teachers as influential agents to integrate STEM education is undeniable. There were various efforts that have been made to empower STEM education, especially in enhancing the competency of teachers. This makes it necessary to measure teachers' competencies in STEM teaching. In this study involving 399 mathematics secondary school teachers, we report on the construct validity of the STEM Teaching Competencies (STC) for mathematics teachers in Malaysia is presented. Initially, a translation and adaptation of the original instrument was performed, resulting in three constructs being validated by seven content experts and two language experts. Then, further construct validity was assessed by Exploratory Factor Analysis, Confirmatory Factor Analysis and internal consistency with Cronbach's Alpha. Factor analysis indicated evidence of validity and reliability of the three factors of STC: Knowledge, Teaching and Learning Skills, and Practice of Teaching Professionalism Value. The three constructs showed strong internal consistency and sufficient evidence of construct validity and concurrent validity. STC has the potential tool to self-evaluate mathematics teachers' competencies in integrating STEM approach. It would help to provide a useful outcome measure for improving teaching skills, and to help obtain evidence for the optimal design of STEM teaching professional development.

Keywords: Mathematics Teacher, Reliability, STEM Education, Teaching Competency, Validity



Title: The Influence of Family Background and Individual Personality on Academic Achievement Among Asnaf Children In Melaka

Paper ID: TaLIS/2025/IAE/101

Theme: Interdisciplinary and Applied Education (IAE)

👤 Author 1: Hariaty Binti Mansor 🔟 2024655974@student.uitm.edu.my 🟫 Universiti Teknologi MARA (UiTM)

Abstract:

This study investigates the influence of family background specifically on socioeconomic status, family size, and parental education and personality traits such as perseverance, industriousness, and talkativeness on the academic achievement of students from economically disadvantaged backgrounds. By examining the interplay between family dynamics and individual personality factors, the research aims to uncover the key determinants that contribute to educational success among poor students. A mixed-methods approach is employed, combining quantitative analysis of academic performance data with qualitative insights into family environments and personality profiles. The findings highlight the significant role of supportive family conditions, higher parental education, and personality traits in fostering academic success. These results offer practical implications for educators, policymakers, families and others in developing strategies to enhance learning outcomes for disadvantaged students, promoting greater equity in education.

Keywords: Academic Achievement, Socioeconomic, Parental Education, Personality Traits



Title: Analysis of Tourist Perception of Geotourism Development In Sumedang City

Paper ID: TaLIS/2025/IAE/102

Theme: Interdisciplinary and Applied Education (IAE)

🙎 Author 1: Irena Novarlia 🔍 irenanovarlia@upi.edu 🏫 Universitas Pendidikan Indonesia, Sumedang Regional Campus 🙎 Author 2: Alifah Azizah Ahmad 区 alifahazizah@upi.edu 🏫 Universitas Pendidikan Indonesia, Sumedang Regional Campus

Abstract:

This study aims to analyze tourists' perceptions of geotourism development in Sumedang Regency. Geotourism is considered a tourism concept that not only offers natural beauty but also emphasizes education, conservation, and community empowerment. This research employed a qualitative descriptive approach. Data were collected through in-depth interviews, observation, and documentation, and analyzed using Miles and Huberman's interactive model, which includes data reduction, data display, and conclusion drawing. The findings reveal that, in general, tourists hold positive perceptions of Sumedang's geotourism potential, particularly in areas such as Mount Tampomas, Jatigede Reservoir, Citengah Village Waterfalls, Tenjolaut Conggeang Pasir Pabeasan and Kabuyutan Citembong Girang Site. Tourists recognize these attractions as having educational value and potential to become leading destinations if managed properly. However, several challenges were identified, including limited supporting facilities, accessibility issues, and insufficient promotion based on geological information. Factors influencing tourists' perceptions include visiting experiences, availability of information, service quality, and community support. Tourists expect that geotourism development in Sumedang should prioritize sustainability, improve facilities, and involve local communities in management. This study concludes that Sumedang's geotourism has promising prospects yet requires integrated development strategies to enhance regional tourism competitiveness.

Keywords: Tourist Perception, Geotourism, Sumedang, Tourism Development, Qualitative Research



Title: Massage Therapy On The Process Of Blood Pressure Reduction In Hypertensive Patients: A Systematic Literature Review

Paper ID: TaLIS/2025/IAE/103

Theme: Interdisciplinary and Applied Education (IAE)

Author 1: Tito Chaisar Samuel samueltito 789@upi.edu fully Universitas Pendidikan Indonesia Author 2: Vina Prihatini vinaprihatini@upi.edu fully Universitas Pendidikan Indonesia Author 3: Raihana Sekar Armila hanaarm30@upi.edu fully Universitas Pendidikan Indonesia Author 4: Nunung Siti nunungss@upi.edu fully Universitas Pendidikan Indonesia Author 5: Naila Nurfadhilah nailanurfadhilah@upi.edu fully Universitas Pedidikan Indonesia

Abstract:

Introduction: Hypertension is a non-communicable disease with a high prevalence that can lead to serious complications if not properly managed. Non-pharmacological approaches such as massage therapy present an appealing alternative for hypertension management. This study aims to explore the effectiveness of massage therapy in reducing blood pressure, alleviating anxiety, and improving the sleep quality of hypertension patients. Objective: The study aims to systematically review the effects of massage therapy on systolic and diastolic blood pressure, anxiety, sleep quality, and cortisol levels in hypertension patients. Research Methods: This research employed a systematic literature review focusing on English-language articles published in the last 10 years. Data were collected from ScienceDirect, PubMed, Sage Journals, and Wolters-Kluwer databases using keywords related to hypertension and massage. The studies included employed Randomized Controlled Trials (RCT), Quasi-Experimental, and Clinical Trial methods. Results: Eight selected journals demonstrated that various massage therapy techniques, such as back massage, foot massage, and acupressure, were significantly effective in reducing systolic and diastolic blood pressure. The reduction in systolic blood pressure ranged from 7 to 20 mmHg, while diastolic pressure decreased by 4 to 13 mmHg. Additionally, massage therapy reduced anxiety, improved sleep quality, and decreased cortisol levels. Conclusion: Massage therapy offers multidimensional benefits in managing hypertension, encompassing both physiological and psychological effects. This study supports the integration of massage therapy into holistic hypertension management approaches. However, further research is needed to understand the variability in effectiveness across specific massage technique.

Keywords: Blood Pressure, Hypertension, Kneading, Massage



Title: An Assessment of the Impact of the Adoption of Hausa language in entrepreneurship studies and communication in Northern Nigeria

Paper ID: TaLIS/2025/IAE/104 Theme: Interdisciplinary and Applied Education (IAE)

👤 Author 1: Mr. Abubakar Maikudi 💿 maikudite10@gmail.com 🖍 School of Languages, Federal College of Education, Abeokuta, Ogun State Nigeria

Abstract:

This study assesses the impact of adopting the Hausa language in entrepreneurship studies and communication in Northern Nigeria. As the most widely spoken indigenous language in the region, Hausa has increasingly been integrated into educational and business contexts to enhance accessibility, engagement, and effectiveness. The research explores how the use of Hausa in entrepreneurship education influences learners' comprehension, participation, and skill acquisition, particularly among non-English speakers. It also examines the role of Hausa in facilitating communication between entrepreneurs, customers, and government agencies. Data were collected through surveys and interviews with students, educators, and entrepreneurs across selected states in Northern Nigeria. Findings reveal that the use of Hausa significantly improves learners' understanding of key entrepreneurial concepts, encourages greater classroom participation, and bridges communication gaps in the informal sector. However, the study also highlights challenges, including limited academic resources in Hausa and concerns about limiting global competitiveness. The paper concludes that while the adoption of Hausa enhances local entrepreneurial development and inclusion, it must be balanced with exposure to global languages like English for broader market access. Recommendations are made for policy support, curriculum development, and resource investment to strengthen the bilingual approach in entrepreneurship education and practice in the region.

Keywords: Hausa language, Entrepreneurship Education, Indigenous Language, Communication, Bilingual instruction.



Title: Comparing Rhetorical Moves in Promotional and Academic Oral Presentations

Paper ID: TaLIS/2025/IAE/105
Theme: Interdisciplinary and Applied Education (IAE)

Author 1: Shi Xiaotong 2022684984@student.uitm.edu.my null
Author 2: Kaarthiyainy Supramaniam kaarthiyainy@uitm.edu.my null
Author 3: Nurshamshida Shamsudin -nurshamshida@uitm.edu.my nurshamshida Universiti Teknologi MARA

Abstract:

With the growing influence of short-video platforms in global commerce, promotional oral presentations (POPs) have emerged as a key genre distinct from academic oral presentations (AOPs) in both structure and purpose. This research investigates the rhetorical moves of POPs on short-video platforms, using AOPs as a comparative reference to offer practical insights for business English instruction and to explore how genre differences affect presentation style and structure. Drawing on genre theory, this study adopts a move-based approach to analyze 30 English-language book promotional oral presentations on TikTok, developing a model with eight rhetorical moves. The study also highlights both similarities and differences between AOPs and POPs in obligatory, conventional, and optional moves. Both genres rely on obligatory and conventional moves to fulfill central communicative functions and organize the presentation. In AOPs, obligatory moves ensure clarity and authority, and conventional moves support elaboration. In POPs, obligatory moves focus on engagement and product information, while conventional moves strengthen persuasion. The use of optional moves further illustrates genre tendencies, adding analytical depth in AOPs and revealing rhetorical flexibility in POPs for promotional effectiveness.

Keywords: Rhetorical Moves, Genre Theory, Promotional Oral Presentations , Academic Oral Presentations



Title: Training And Career Development On Nurse Performance: Systematic Literature Review

Paper ID: TaLIS/2025/IAE/106

Theme: Interdisciplinary and Applied Education (IAE)

👤 Author 1: Heri Ridwan 💿 heriridwan@upi.edu 🖍 Universitas Pendidikan Indonesia Kampus Daerah Sumedang 👤 Author 2: Nys. Faradilla Salsabilla 💿 faradillasalsabilla@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus Daerah Sumedang

Abstract:

Nurse performance is one of the main indicators of health service quality, which is influenced by various factors, including training and career development. Training provides opportunities for nurses to improve their technical skills, knowledge, and competencies, so that they are able to carry out their duties efficiently and effectively, while career development contributes to increased motivation, job satisfaction, and professionalism through career planning, promotion, and continuing education. Research objectives: This study aims to identify the effect of training and career development on nurse performance. Methods: The method used was systematic literature review. Articles were taken using quasi-experimental, cross sectional, and randomized controlled trial (RCT) designs. Articles were taken according to predetermined eligibility criteria and analyzed secondary data taken from national and international journals published between 2020-2024 and using the Cochrane database, Google Scholar, ScienceDirect, and Springer. Relevant articles were assessed using JBI Critical Appraisal. Research results: The results obtained were 6 articles with a low risk of bias. The 6 articles showed that training and career development have a significant influence on nurse performance. However, the impact varies depending on the training method, organizational support, and individual motivation. This research is expected to be a reference in developing policies in the field of nursing management to improve the quality of health services. Conclusions The conclusion of this study confirms the importance of training and career development as strategic interventions to improve the quality of health services through more optimal nurse performance.

Keywords: Career Development, Nurse Performance, Training



Title: Decision-making involving socioscientific issues: a systematic literature review

Paper ID: TaLIS/2025/IAE/107 Theme: Interdisciplinary and Applied Education (IAE)

Author 1: Guan Shan guan2023shan@gmail.com f Taylor's University / School of Education Author 2: Jasmine Anak Jain j jasmine.jain@taylors.edu.my f Taylor's University / School of Education

Abstract:

Purpose: The systematic review of this study aims to explore effective intervention for improving decision-making skills on socioscientific issues (SSI) in science education in published research. Methods: Following the Preferred Reporting Items for System Reviews and Meta-Analysis (PRISMA) methodology, we searched scholar research on SSI-related decision-making included in Web of Science (WOS), Scopus and Education Resources Information Center (ERIC). Following the removal of duplicates and a systematic screening of titles, abstracts, and full texts from 1500 articles, 81 empirical studies published in English in peer-reviewed journals were included for final analysis. Studies were excluded if they did not pertain to the field of science education or were not focused on improving SSI-related decision-making competence. As the included studies employed qualitative, quantitative and mixed research methods, the Mixed Methods Appraisal Tool (MMAT) was used to assess risk-of-bias. Results: The results show that three types of models have been used to explore SSI-related decision-making activities. The structured decision-making process model has been found to significantly enhance learners' ability to make informed decisions. Combining SSI teaching with role-playing or collaborative learning has produced remarkable results, significantly improving participants' ability to make informed decisions. Conclusion: Examining the decision-making proficiency of individuals through the lens of SSI holds promise in elucidating the nuanced dynamics and cognitive processes underpinning high-quality decision-making. This review offers scientific educator's suggestions for teaching informed decision-making on SSI and discusses potential directions for future research.

Keywords: Decision-making, Sociocentric Issues, Systematic Review



Title: Emotional Intelligence, Self-resilience And Academic Performance Amongst The Postgraduate Students At The Faculty Of Education, Uitm Puncak Alam, Selangor, Malaysia

Paper ID: TaLIS/2025/IAE/108

Theme: Interdisciplinary and Applied Education (IAE)

- 🙎 Author 1: Rabiatul Adawiah Binti Sofian 💿 rabiatulras81@gmail.com 🟫 Universiti Teknologi MARA (UiTM)
- Author 2: Leele Susana Jamian 💿 leele@uitm.edu.my 👔 Department of Educational Management and Leadership, Faculty of Education, Universiti Teknologi MARA Malaysia, Selangor Branch, Puncak Alam Campus, Selangor, Malaysia
- Author 3: Teoh Sian Hoon 💿 teohsian@uitm.edu.my 🏫 Department of Mathematics Education, Faculty of Education, Universiti Teknologi MARA Malaysia, Selangor Branch, Puncak Alam Campus, Selangor, Malaysia

Abstract:

Malaysia Education Blueprint 2015-2025 (Higher Education) introduced by the Ministry of Education has outlined 11 shift aspirations to produce higher education systems that are able to produce graduates with high competencies. To fulfil the aspirations, Malaysian postgraduates, are expected to be all rounded students in terms of intellectual, spiritual, physical and emotion. Hence, based on past studies and observation, emotional intelligence and self-resilience are continuously measured and contributed to high academic performance amongst graduates. Nonetheless, there are also gaps in the existing local literature pertaining to emotional intelligence, selfresilience and academic performance amongst the postgraduate students in the Malaysian higher learning institutions. In view of this, the current study is conducted with the primary aim to investigate the relationship of emotional intelligence and self-resilience towards academic performance amongst the postgraduate students at the Faculty of Education, UiTM Puncak Alam, Selangor, Malaysia. A descriptive-correlational study using a mixed-methods research design was employed to measure relationships amongst the variables. Four instruments measuring emotional intelligence by Wong and Law (2002), resilience scale by Connor and Davidson (2003), and academic performance scale by Koopmans (2012) and McGregory (2015) were adapted to suit the local setting. The quantitative findings revealed that there were significant and positive relationships between emotional intelligence and self-resilience towards academic performance. Multiple regression analysis further indicated that 34.4% of the variance in academic performance was contributed by emotional intelligence, and 69.3% by self-resilience. Further, qualitative data tends to triangulate the quantitative findings. Aside from positive responses, there were also voices suggested otherwise. Consequently, these findings lead to some implications such as corpus of knowledge, theoretical, pedagogical, policy and training development in educational management and leadership amongst the postgraduate students at the stipulated institution.

Keywords: Emotional Intelligence, Self-resilience, Academic Performance, Postgraduate Students and Higher Learning Institutions



Title: Beyond the Textbook: Using Comic Strips to Teach Business Law to Non-Law Students

Paper ID: TaLIS/2025/IAE/109

Theme: Interdisciplinary and Applied Education (IAE)

👤 Author 1: Hariati Mansor 🔟 hariati@uitm.edu.my 👘 University Teknologi MARA Cawangan Johor

🙎 Author 2: Rezashah Mohd Salleh 💿 rezashah.mohdsalleh@gmail.com

Author 3: Noraziah Abu Bakar

Abstract:

Lecturing non law students in business law is not without challenges. This is due to the nature of the subject which involves abstract concepts, complex terminology and the students' perception that the subject lack relevance to them. The traditional lecture-based method alone may not be sufficient to understanding the complexity of business law and sustained engagement. Hence, this article aims to explore the use of comic strips as a visual and narrative teaching tools to overcome the limitation of traditional lecture-based method. It examines the use of comic strips to simplify legal concepts, depicts the application of the legal principles in the real world and accommodates varieties of learning style based on Dual Coding Theory and constructivist approaches. The study involving 15 business and management students who had failed the examination indicated positive results; all showed improvement in their performance in the following semester after the incorporation of comic strips into the teaching process. In addition, the paper presents practical classroom applications, benefits, potential limitations and recommendations benefits educators. In conclusion, the study emphasizes that innovative pedagogical tools in legal education ensure learning is more enjoyable and less monotonous for non-law students.

Keywords: Business Law, Comic Strips, Visual Learning, Non-law Students, Innovative Pedagogy, Student Performance



Title: Case-Based Learning in Preclinical Sciences Dental Curriculum: An Interdisciplinary Approach in Basic Medical Sciences

Paper ID: TaLIS/2025/IAE/110

Theme: Interdisciplinary and Applied Education (IAE)

Author 1: Ts Dr Faezah Sabirin drfaezah@uitm.edu.my from Universiti Teknologi MARA

Author 2: Noor Izzah Abd Rahman noorizzah7525@uitm.edu.my from Universiti Teknologi MARA

Author 3: Prof Madya Ts Dr Nur Aliana Hidayah alianahidayah@uitm.edu.my from Universiti Teknologi MARA

Author 4: Dr Noor Azliza Wani Abd Aziz noorazlizawani@uitm.edu.my from Universiti Teknologi MARA

Author 5: Muhamad Aizat Abdul Rahim aizatrahim@uitm.edu.my from Universiti Teknologi MARA

Abstract:

In traditional teaching, the first- and second-year students in Bachelor of Dental Surgery (BDS) are taught Basic Medical Science subjects (i.e., Anatomy, Physiology, Biochemistry, Pathology, Microbiology and Pharmacology) through siloed subject-based lectures, practical and tutorial sessions only. The Case-based learning (CBL) approach in Basic Medical Science curriculum for BDS is a pedagogical strategy that may facilitate the students to integrate the theory of all taught subjects into a selected case. This study was therefore aimed to design an interdisciplinary CBL framework for Respiratory System Module. The CBL was conducted from the second semester to the fourth semester. Alignment of the Specific Learning Outcomes (SLO) across the six subjects was conducted and overlapping concepts between the subjects were identified in a small group discussion among subject experts. A case on Respiratory System that matched the shortlisted SLO was selected. For the implementation of the CBL in the class, the students were divided into small groups consisted of maximum 12 students and three CBL sessions (one session per week) were scheduled in the timetable. For the first CBL session, the students were introduced and discussed on the case and facilitated by lecturer. The students then prepared a presentation for the group, explaining on the case and the theory of Basic Medical Science subjects underlying them in the second CBL. The assigned lecturer to the group will guide the students correct any misconception if any. For the third CBL session, each group will be assigned to one SLO and the presenters were randomly selected among the group members and question-and-answer session followed. The students were assessed through formative assessments for each CBL session according to a standardised rubric. At the end of third CBL, the case was summarised by subject experts. The CBL offered a student-centred approach that could improve the students' understanding.

Keywords: Case-based Learning, Dental Curriculum, Student-centered and Basic Medical Sciences.



Title: Enhancing Self Regulation of B.ED Teacher Trainees Through Explicit Instruction Of Self Regulation Strategies

Paper ID: TaLIS/2025/IPP/102

Theme: Innovative Pedagogical Practices

Author 1: Dr. A.Jahitha Begum 🔟 <u>bjahitha@gmail.com</u> 🟫 The Gandhigram Rural Institute-Deemed to be University, Gandhigram Lural Institute-Deemed to be University, Gandhigram Author 2: Dr. S.Jerslin 🔟 <u>jerslinmartina@gmail.com</u> 🏫 The Gandhigram Rural Institute- Deemed to be University, Gandhigram

Abstract:

Self-regulation is the main component for an individual's success. Self-regulation is a set of behaviors and an integrated learning process which influence individual's learning. Self-discipline and academic learning abilities are highly essential for the self-regulated learners. The self-regulated individual can check his goal by continuously and consciously monitoring. Training in self –regulated learning enhances not only the motivation, in-dependency, creativity, critical thinking etc but also the academic achievement. Vision and stimulative environment of B.Ed teachers is achieved by self-regulated learning which is essential for professionalization. Forty B.Ed teacher trainees were selected for the present study. After giving explicit training of self-regulation the results proved that the B.Ed trainees showed significant improvement in their self-regulation.

Keywords: Self- Regulation, B.Ed Teacher Trainees, strategies, Major subjects, Effect



Title: Five Decades of Innovative Teaching in Business and Economics Education: A Bibliometric Review Towards SDG 4

Paper ID: TaLIS/2025/IPP/103

Theme: Innovative Pedagogical Practices

Author 1: Nurulashikin binti Romli 💿 nurulashikin@uitm.edu.my 🟫 Universiti Teknologi MARA Cawangan Johor Kampus Segamat 👤 Author 2: Yan-Ling Tan 💿 tanya163@uitm.edu.my 愉 Universiti Teknologi MARA Cawangan Johor Kampus Segamat

Abstract:

This study presents a bibliometric review of innovative teaching and learning in business and economics education over the past five decades (1970–2024). Data were retrieved from the Web of Science Core Collection using a comprehensive set of title-based queries on 5 September 2024, without restrictions on language, publication year, or document type. The analysis was conducted in three phases: descriptive statistics, citation analysis, and keyword co-occurrence mapping using Microsoft Excel and VOSviewer. The findings reveal increasing academic investment in digital pedagogies, blended learning, and technology acceptance frameworks such as TAM and UTAUT. Keywords such as e-learning, hybrid teaching, and digital classroom dominate the landscape, reflecting both theoretical maturity and responsiveness to global disruptions like the COVID-19 pandemic. This study provides a strategic overview of research trajectories and aligns closely with Sustainable Development Goal (SDG) 4 on quality education. The insights derived inform policy design, curriculum transformation, and educator professional development, offering evidence-based pathways for institutional resilience and post-pandemic pedagogical reform.

Keywords: Blended learning, E-learning, Pedagogical innovation, Bibliometric analysis, SDG 4



Title: From Analysis to Action: Empowering Students Through Debate and Pitch-Based Learning

Paper ID: TaLIS/2025/IPP/104

Theme: Innovative Pedagogical Practices

🙎 Author 1: Prof. Madya Dr. Sazlinda Kamaruzaman 🔟 <u>sazlinda@upm.edu.my</u> 🏫 Universiti Putra Malaysia

Author 2: Dr. Ili Syazana Binti Johari <a>Ili@upm.edu.my Department of Chemistry, Faculty of Science, Universiti Putra Malaysia Author 3: Dr. Ahmad Zaidi Bin Ismail <a>Image: ahmadzaidi@upm.edu.my Author 3: Department of Chemistry, Faculty of Science, Universiti Putra Malaysia

Abstract:

This innovative pedagogical activity has been implemented for the third time in a core undergraduate chemistry course at UPM, focusing on Chemical Spectroscopy topics. The main objective is to encourage students to think beyond instrumentation and apply analytical knowledge to real-world problems. Traditional approaches often limited to student's perspectives of lab-based learning. This method, however, integrates teamwork, role-based group dynamics and entrepreneurial thinking. Students are required to form structured teams resembling mini organization, with a clear defined roles such as leader, analyst and presenter. Together, they analyse current Malaysian pollution issues, ranging from environmental to health and safety concerns. Then they will propose diagnostic methods that incorporate suitable spectroscopic techniques for both qualitative and quantitative analysis and monitoring. The activity is divided into two main parts. Firstly, students pitch their ideas based on prior research and group discussion, suggesting appropriate instruments and justifying their choice scientifically. Secondly, an on-the-spot challenge simulates a mini debate session where randomly selected groups must present their findings within minutes and respond to questions from peers. This approach reinforces critical thinking, scientific communication and quick decision-making under pressure. Peers also participate in evaluating group performance, allowing them to reflect on other's strategies while providing constructive feedback. The response has been overwhelmingly positive. Over 95% of participating students reported increased engagement and enjoyment, citing the activity as a refreshing change from passive lectures. Students expressed that the format made them feel like real scientists, capable of applying their knowledge to pressing societal issues. The combination of structured teamwork and impromptu challenges ensured that students did not only grasp the core content but also appreciated the broader significance of spectroscopy in public health, industry and environmental monitoring. This approach reflects the essence of innovative pedagogy and fostering student ownership of learning through relevance, interaction and real-world application.

Keywords: Spectroscopy Education, Pitch-Based Learning, Problem-Based Learning (PBL), Student Engagement, Innovative Pedagogy



Title: Transforming Engineering Education through TPACK-SOLO: A Reflective Framework for Student-Centered and Innovative Teaching Practice

Paper ID: TaLIS/2025/IPP/106

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Assoc. Prof. Dr. Mohd Kamaruddin bin Abd Hamid <a> kamaruddinhamid@ums.edu.my hinversiti Malaysia Sabah Author 2: Dr. Norazana binti Ibrahim horazana@utm.my horazana@utm.my horazana@utm.my horazana@utm.my horazana@utm.my horazana <a href="mailto:hinve

Abstract:

The rapid shift in higher education toward student-centered and outcome-based learning calls for transformative pedagogical approaches, especially in engineering education. This paper introduces an innovative framework that integrates Technological Pedagogical Content Knowledge (TPACK) with the Structure of Observed Learning Outcomes (SOLO) taxonomy to support engineering educators in designing reflective, technology-enhanced, and cognitively progressive learning environments. The TPACK model guides educators in harmonizing content knowledge with appropriate pedagogical strategies and digital tools, while the SOLO taxonomy offers a structured method to design learning tasks and assessments that progressively deepen student understanding. By combining these two frameworks, educators can create instructional strategies that not only meet the cognitive needs of students but also foster engagement, critical thinking, and autonomy. This study draws on classroom implementation within a chemical engineering program, where active learning strategies, such as peer teaching, gallery walks, and process simulations, were designed using the TPACK-SOLO approach. Educators engaged in reflective teaching cycles and collaborative design sessions, documenting their pedagogical transformation through journals and student performance data. Findings indicate that the TPACK-SOLO framework enhanced teaching innovation, improved alignment with intended learning outcomes, and promoted deeper student learning. The reflective process further empowered educators to continuously improve and adapt their practices in response to student feedback and technological advancements. This paper advocates for the adoption of TPACK-SOLO as a scalable and discipline-agnostic model for professional development and curriculum innovation. It contributes to the broader discourse on student-centered education by demonstrating how structured reflection, combined with pedagogical and technological integration, can drive transformative change in engineering education.

Keywords: TPACK, SOLO Taxonomy, Engineering Education, Student-Centered Learning, Innovative Pedagogy.



Title: Plastic Waste Challenges And Recycling Innovation In Malaysia: From Waste To Wealth Jacquet Suit

Paper ID: TaLIS/2025/IPP/107

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Azwady Mustapha

azwady@uitm.edu.my

Author 2: Nor Idayu Ibrahim

idayuibrahim@uitm.edu.my

UiTM

Author 3: Lilinieta Talib

neita201@uitm.edu.my

UiTM

Author 4: Zainudin Md Nor

zainu570@uitm.edu.my

Kolej Komuniti Bukit Mertajam

Abstract:

Awareness of solid waste recycling practices is decreasing because there are a few communities who are irresponsible about throwing solid waste into the trash can without following the recycling waste category even though the recycling bins have been designated according to different waste categories. With the emergence of this innovation, it has an impact on awareness of caring for the environment through education, which is the most influential medium of change among university and school students. Educational institutions such as universities are the main channel for exposing recycling education to today's society so that knowledge, skills and noble values as well as correct actions in dealing with garbage disposal and environmental issues can be reduced. Effective and systematic exposure and facilities for recycling programs can encourage student involvement in recycling practices with support from all parties. Student involvement and awareness are very important and effective variables to improve recycling practices and solid waste management among them.

Keywords: Recycling Education, Environment, Solid Waste



Title: Innovating Solat Education through Songs: An Assessment Based on Musleh Integrated Education Berhad (MIEB) Module.

Paper ID: TaLIS/2025/IPP/108

Theme: Innovative Pedagogical Practices (IPP)

👤 Author 3: Dr Khadijah Binti Said Hashim 🔟 khadi642@uitm.edu.my 🏫 Universiti Teknologi MARA

Abstract:

This study introduces an innovative approach to enhance khusyuk (focused devotion) in solat among Year 3 pupils through a solat-themed song known as the "Lagu Solat". The intervention was designed to engage multiple intelligences as theorised by Howard Gardner by combining rhythm, language, movement and reflection to strengthen pupils' understanding and emotional connection with the meanings of solat recitations. Recognising that many children struggle to concentrate meaningfully during prayer, this study explores how music and creative pedagogy can transform solat learning into a more engaging and spiritually immersive experience. To evaluate the effectiveness of the song-based innovation, the Musleh Integrated Education Berhad (MIEB) Assessment Module was utilised as a character-based instrument to measure levels of khusyuk before and after the intervention. A mixed method approach was employed involving pre and post-assessments, learning observations and pupils' reflective feedback. Results indicate a significant improvement in pupils' concentration, memorisation and spiritual awareness during solat. Furthermore, pupils displayed greater enthusiasm and confidence in performing their prayers. The findings suggest that integrating music into Islamic education can foster holistic character development and moral education.

Keywords: Character Education, Islamic Pedagogy, Khusyuk, Multiple Intelligences, Lagu Solat.



Title: Enhancing Self Regulation Of B.ED Teacher Trainees Through Explicit Instruction Of Self Regulation Strategies

Paper ID: TaLIS/2025/IPP/109

Theme: Innovative Pedagogical Practices (IPP)

- Author 1: A.Jahitha Begum 💿 bjahitha@gmail.com 🟫 Department of Education, The Gandhigram Rural Institute-Deemed to be University, Gandhigram-624302
- Author 2: S.Jerslin 💿 jerslinmartina@gmail.com 🟫 Department of Education, The Gandhigram Rural Institute-Deemed to be University, Gandhigram-624302
 - Author 3: R.Kohilapriya (a) kohilapriya3186@gmail.com (b) Department of Education, The Gandhigram Rural Institute-Deemed to be University, Gandhigram-624302

Abstract:

Self-regulation is the main component for an individual's success. Self-regulation is a set of behaviors and an integrated learning process which influence individual's learning. Self-discipline and academic learning abilities are highly essential for the self-regulated learners. The self-regulated individual can check his goal by continuously and consciously monitoring. Training in self –regulated learning enhances not only the motivation, independency, creativity, critical thinking etc but also the academic achievement. Vision and stimulative environment of B.Ed teachers is achieved by self-regulated learning which is essential for professionalization. Forty B.Ed teacher trainees were selected for the present study. After giving explicit training of self-regulation the results proved that the B.Ed trainees showed significant improvement in their self-regulation.

Keywords: Self- Regulation, B.Ed Teacher Trainees, strategies, Major subjects, Effect.



Title: The Fuzzy Delphi Method: Validation of the Gamification Learning Framework for Language Learning in a Private University

Paper ID: TaLIS/2025/IPP/110

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Mohd Zahrul Bin Baharin

zahrulbaharin@uptm.edu.my fi Universiti Teknologi MARA Puncak Alam
Author 2: Johan @ Eddy Luaran johaneddy@uitm.edu.my fi Universiti Teknologi MARA
Author 3: Ani Mazlina Dewi Mohamed anima107@uitm.edu.my fi Universiti Teknologi MARA
Author 4: Hafizz Al-Amirrul Mohd Zanial hafizz@uptm.edu.my fi University Poly-Tech Malaysia

Abstract:

👤 Author 5: Mohd Fitry Yahya 🔟 fitry@uptm.edu.my 🟫 University Poly-Tech Malaysia

This research aims to reach expert consensus and alignment regarding the validation of Gamification Learning Framework for Language Learning. This research employed two iterations of the Fuzzy Delphi Method (FDM) with a seven-point Likert scale to gather assessments from 20 experts across various fields, including technology, gamification, education, TESL, adult learning, mobile learning, communication, CALL, management, digital transformation, curriculum design, game creation, cybersecurity, and system architecture. The research instrument consists of 51 items, developed from two prior studies involving mixed methods and a systematic literature review. The data examined utilizing Triangular Fuzzy Number and the Defuzzification Process. The findings indicate that experts achieved consensus on 51 items in Round 1, and in Round 2, 50 of the 51 items received agreement from experts, and 44 out of 51 items received Threshold (d) values under 0.2. The research indicated that the consensus and agreement among experts exceeded 75% for majority of the elements, with a Threshold (d) value under 0.2 (d = < 0.2). The 44 items in the survey that met the Triangular Fuzzy Number requirements therefore received approval, while 7 items were rejected. This finding suggested that 44 items have achieved expert agreement and are therefore validated as essential elements and constructs in the gamification learning framework in language learning. FDM can incorporate specialized viewpoints to achieve agreement on item validation, guaranteeing the dependability and significance of the created items.

Keywords: Fuzzy Delphi Method (FDM), Gamification, Language Learning, Technology Learning



Title: Bentang Pareang: History Education Media For Elementary School Students

Paper ID: TaLIS/2025/IPP/111

Theme: Innovative Pedagogical Practices (IPP)

Keywords: Keywords: Bentang pareang, educational media, history, elementary school

👤 Author 1: Dina Barokah 🔘 <u>dinabarokah12@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi

👤 Author 2: lis Nurasiah 💿 <u>iisnurasiah@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi

🙎 Author 3: Efi Kurniasari 🔍 <u>efikurniasari@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

Globalization poses significant challenges to the sustainability of local cultures, especially among the younger generation, who are more familiar with modern culture than traditional heritage. Consequently, students' appreciation of local history and culture is declining, even though both play a crucial role in character formation. One cultural heritage rich in historical and character values is the traditional song Bentang Pareang from West Java. This song conveys messages of brotherhood, mutual cooperation, respect for ancestors, environmental awareness, and pride in one's own culture. This study aims to analyze the role of the song Bentang Pareang as a medium for learning history and as a means of instilling character values in elementary schools. This research employed a descriptive qualitative method with a case study approach. Data were collected through classroom observations, in-depth interviews with students, traditional elders, and artists, as well as documentation in the form of song lyrics, photographs, and videos. Data analysis was conducted using the Miles and Huberman model, which includes data reduction, data presentation, and conclusion drawing. The results indicate that utilizing the song "Bentang pareang" can enhance students' understanding of local history, foster a spirit of mutual cooperation, respect for culture, and strengthen national identity. Furthermore, this song-based learning creates a more inclusive, enjoyable, and meaningful learning environment by integrating cognitive, affective, and social aspects. Thus, the song "Bentang pareang" serves not only as a cultural heritage but also as an innovative and affective learning medium to instill historical values, character, and local wisdom in elementary school students.

Keywords: Keywords: Bentang pareang, educational media, history, elementary school



Title: Kendang Pencak as Contextual Learning Media: Pedagogical Innovation from Pasir Halang Village

Paper ID: TaLIS/2025/IPP/112

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Risa Mandarisma <a> risamandarisma@ummi.ac.id <a> Universitas Muhammadiyah Sukabumi <a> Author 2: Astri Sutisnawati <a> astrisutisnawati@ummi.ac.id <a> Universitas Muhammadiyah Sukabumi <a> Universitas Muhammadiyah Sukabumi

👤 Author 3: Din Azwar Uswatun 🔟 <u>dinazwar@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

Traditional art is one of the educational media that plays an important role in shaping the character of the young generation. In the midst of globalization, the preservation of local culture becomes a challenge as well as an opportunity to present pedagogical innovation. One of the unique traditions is Kendang Pencak in Pasir Halang Village, Cikarang Village, Sukabumi Regency, which is consistently held every night before the circumcision procession. This tradition not only serves as entertainment, but also a means of contextual learning that combines traditional music, pencak silat, and socio-cultural values. The uniqueness of this implementation becomes a research novelty, because it is different from other regions that only perform pencak silat or music separately. This research aims to describe the practice of Kendang Pencak as a character education medium based on local wisdom, analyze its contribution to the formation of moral values and self-efficacy of the young generation, and identify its potential as a pedagogical innovation in formal and non-formal education. The method used is qualitative descriptive with participatory observation techniques, in-depth interviews, and activity documentation. Data is analyzed through the stages of reduction, presentation, and drawing conclusions. The research results show that Kendang Pencak in Pasir Halang is able to increase discipline, cooperation, respect, and pride in local culture. In addition, this activity strengthens cultural identity and provides a learning experience that is relevant to daily life, so it deserves to be used as an innovative and applicative local culture-based learning model.

Keywords: Pedagogical Innovation, Kendang Pencak, Contextual Learning.



Title: Character Education In The Dogdog Lojor Dance As A Typical Local Wisdom Of Sukabumi

Paper ID: TaLIS/2025/IPP/113

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Susilawati <a> susilawati <a href="mailto:susilawati susilawati <a href="mailto:susilawati susilawati@ummi.ac.id <a href="mailto:mailto:susilawati] <a href="mailto:susilawatisnawati] universitas Muhammadiyah Sukabumi susilawati susilawati <a href="mailto:susilawati susilawati <a href="mailto:susilawati <a href="mailto:susilawati<

Abstract:

This research examines how characters are taught through Dogdog Lojor Dance, a special local custom from Sukabumi. The method used for this research uses a qualitative method that is done by interview. The reason for this research is that there is not enough information to understand the form and movement of Dogdog Lojor's creative dance. The purpose of this research is to explore and provide a detailed explanation of the structure of dance movements and musical instruments used. Research results show that Dogdog Lojor Dance has a movement structure related to character education, including values such as togetherness, unity, and discipline. The findings show that the creative Dogdog Lojor dance comes from the Dogdog Lojor art in Leba Regency, Banten, but has also developed in Sukabumi, especially in Parungkuda Sukabumi, and Toto Sugiarto created the Dogdog Lojor Dance. The movements in this dance consist of pure and meaningful movements, with accompaniments that utilize traditional musical instruments such as drums, bongang gongs, tililit, saron, and angklung. Makeup is done by using corrective makeup. The clothes worn have the characteristics of Baduy, while the properties used include angklung and dogdog. The movement structure in this dance consists of the main movements that include 29 motifs and one motif for the preservation movement.

Keywords: Dogdog lojor dance, local wisdom, character education



Title: Analysis Of The Use Of Vocabulary Hanging Game Media For Elementary School Students' Initial Reading Skills

Paper ID: TaLIS/2025/IPP/114

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Revyka Medina Rachim 🔟 revykamedinarachim@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

Author 2: Din Azwar Uswatun 💿 dinazwar@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi Author 3: Arsyi Rizgia Amalia 💿 arsyirizgiaamalia@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

Early reading skills are a basic skill that elementary school students, especially first graders, must master because they form the foundation for literacy development in subsequent stages. However, many students still face difficulties in recognizing letters, sounding syllables, and arranging words into simple sentences. This condition requires teachers to provide learning media that are more innovative, interactive, and appropriate to the characteristics of early childhood. This study aims to analyze the use of the Vocabulary Hanging Game as a fun learning strategy to improve early reading skills. The study was conducted using a qualitative approach using observations, teacher interviews, and documentation of learning outcomes of first grade elementary school students. Data were analyzed through the processes of reduction, presentation, and drawing conclusions. The results showed that the Vocabulary Hanging Game media was able to increase learning motivation, strengthen vocabulary memory, and help students more easily recognize letters, syllables, and simple words. In addition, the learning atmosphere became more active, collaborative, and meaningful. Teachers considered this media very suitable for application in Indonesian language learning because it fits the developmental needs of lower grade students. Thus, it can be concluded that the Vocabulary Hanging Game is an effective and applicable alternative learning media in overcoming initial reading difficulties, while also supporting the creation of a fun, creative learning atmosphere and encouraging active student involvement in class.

Keywords: Beginning Reading, Elementary School, Learning Media, Literacy, Vocabulary Hanging Game



Title: From Critical Thinking to Future-Oriented Critical Thinking: Building Sustainable Mindsets in Primary Education

Paper ID: TaLIS/2025/IPP/115

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Efi Kurniasari 🔘 <u>efikurniasari@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi, Universitas Ahmad Dahlan

👤 Author 2: Sugiyarto Surono 🔟 <u>sugiyarto@math.uad.ac.id</u> 🏫 Universitas Ahmad Dahlan

Author 3: Ishafit 🔘 ishafit@pfis.uad.ac.id 🟫 Universitas Ahmad Dahlan

👤 Author 4: lis Nurasiah 🔘 <u>iisnurasiah@ummi.ac.id</u> 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

Critical thinking has long been recognized as a key competency in education; however, the complex challenges of the 21st century demand a more advanced form of thinking. This paper explores the shift from traditional critical thinking to Future-Oriented Critical Thinking Skills (FOCTS), emphasizing its role in fostering a sustainable mindset among elementary school students who will face global challenges in the era of the Sustainable Development Goals (SDGs). Employing a qualitative descriptive approach through literature review and best practice analysis, this study examines theoretical perspectives and selected educational practices that integrate FOCTS into early learning. The findings highlight that FOCTS promotes anticipatory thinking, collaborative problem-solving, and long-term perspectives in decision-making. In practice, FOCTS encourages students to reflect critically not only on the present but also on possible and preferable futures, linking classroom learning to real-world sustainability issues. This paper concludes that embedding FOCTS in elementary education is essential to prepare future generations with the cognitive, ethical, and adaptive capacities required to address uncertainty, complexity, and sustainability challenges in an increasingly dynamic world

Keywords: Future-Oriented Critical Thinking, Sustainable Mindset, Primary Education, Innovative Pedagogy, SDG 4



Title: Pemanfaatan Barang Sekitar Sebagai Media Konkret untuk Meningkatkan Hasil Belajar Penjumlahan dan Pengurangan di Kelas 1 SD

Paper ID: TaLIS/2025/IPP/116

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Alini Widyastuti <a> aliniw1127@ummi.ac.id <a> universitas Muhammadiyah Sukabumi <a> Author 2: lis Nurasiah <a> iisnurasiah@ummi.ac.id <a> universitas Muhammadiyah Sukabum

🙎 Author 3: Luthfi Hamdani Maula 🔘 <u>luthfihamdani@ummi.ac.id</u> 🟫 Universitas Muhammadiyah Sukabumi

Abstract:

Mathematics learning in first grade of elementary school serves as a crucial foundation for mastering arithmetic skills at higher levels. However, many students at SD Rosa Jaya still struggle to understand the concepts of addition and subtraction when learning is delivered only in an abstract manner or through lectures, especially in schools with limited learning resources. This study aims to improve learning outcomes in basic arithmetic operations through the use of surrounding objects as concrete media in Grade 1 of SD Rosa Jaya Cianjur with a total of 22 students. The research employed Classroom Action Research (CAR) conducted in two cycles. Data were collected through learning achievement tests and student activity observations. The results of this study showed an increase in students' average scores from the pre-cycle, to 73 in the first cycle, and further increased to 84 in the second cycle. In addition, student engagement in learning activities increased significantly. This study emphasizes that the use of objects available in the surrounding environment, such as small stones, seeds, and other classroom items, can serve as effective concrete media to strengthen students' understanding of addition and subtraction operations in Grade 1 of SD Rosa Jaya.

Keywords: Concrete Media, Surrounding Objects, Addition, Subtraction, Elementary School



Title: Literature Study on the Development of Teaching Materials Based on Realistic Mathematics Education (RME) with Metacognitive Strategies to Improve Primary School Students' Mathematical Critical Thinking Skills

Paper ID: TaLIS/2025/IPP/118

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Rina Setiana 💿 Setianarina03@gmail.com 🟫 Universitas Pendidikan Indonesia Kampus Tasikmalaya 🙎 Author 2: Prof. Dr. Karlimah, M.Pd. 💿 Karlimah@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus Tasikmalaya

Abstract:

This study is a literature review aimed at analyzing the development of teaching materials based on Realistic Mathematics Education (RME) combined with metacognitive strategies in mathematics learning for lower-grade primary school students. RME is considered effective in helping students understand mathematical concepts meaningfully through real-life contexts, while metacognitive strategies play an essential role in training students to plan, monitor, and evaluate their thinking processes. The literature review findings indicate that both approaches, when applied separately, have proven to enhance students' conceptual understanding, problem-solving skills, and learning awareness. However, the integration of RME and metacognitive strategies in the development of mathematics teaching materials for lower-grade students remains limited. This study concludes that combining RME as a contextual foundation with metacognitive strategies as a thinking control mechanism can create more meaningful, reflective, and critical mathematics learning. Therefore, further research involving the development and testing of teaching materials based on the integration of these approaches is strongly recommended to improve the quality of mathematics education in primary schools.

Keywords: Realistic Mathematics Education (RME), Metacognitive Strategies, Teaching Materials, Critical Thinking, Primary School



Title: Integrating 21st -Century Skills Wheel in Higher Education: An Expert Consensus Framework

Paper ID: TaLIS/2025/IPP/119

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Dr Vinothini Vasodavan 💿 vino.vasodavan@taylors.edu.my 🟫 Taylor's University

Author 2: Lee Yee Ling o yeeling.lee@taylors.edu.my f Taylor's University

🙎 Author 3: Dorothy DeWitt 🔟 dorothy@um.edu.my 🏫 Department of Curriculum and Instructional Technology, Faculty of Education, Universiti Malaya,

Abstract:

Graduates from higher education institutions (HEIs) are expected to be specialized in the subject-matter knowledge and demonstrate skills involving creativity, critical thinking, collaboration, and social skills. Regardless, with employers reporting graduates lack of the requisite knowledge, skills, and attitudes, a mismatch is identified in the supply and demand of graduates. Instructional strategies at HEIs are typically confined to basic activities that do not promote the development of 21st-century skills. Given the need for instructors to possess specific competencies to integrate 21st-century skills into learning tasks, it is vital to optimize their innovative teaching practices to apply various 21st-century skills into learning tasks. The current work proposed a framework for developing 21st -century skills in higher education using the Fuzzy Delphi method (FDM) to obtain consensus among 16 experts. Based on the consensus obtained, collaboration, knowledge construction, self-regulation, creativity, skilled communication, and emotional awareness are some of the contemporary skills that must be prioritized. Corresponding instructional strategies are also key to integrating those skills into the teaching and learning process. This 21st-century framework can guide their instructors to facilitate their students to learn modern skills via innovative teaching practices.

Keywords: 21st -Century Skills, Social Constructivism, Fuzzy Delphi Method, Higher Education



Title: Innovative Pedagogical Practices: Shaping Teaching and Learning in the 21st Century Classroom

Paper ID: TaLIS/2025/IPP/121

Theme: Innovative Pedagogical Practices (IPP)

Keywords: innovative pedagogy, 21st-century education, student-centered learning, technology in teaching, modern classroom practices.

Author 1: Jegaan A/L Subramaniam g-05126346@moe-dl.edu.my Sekolah Jenis Kebangsaan Tamil Ladang Sungai Sebaling
Author 2: Suhashini A/P Batumalai suhaarun1010@gmail.com Universiti Tun Abdul Razak

Abstract:

The 21st century demands a radically different approach to teaching and learning than previous centuries since pupils now require abilities like creativity, problem-solving, teamwork, and digital literacy. Teachers are shifting away from conventional lecture-based instruction and towards more creative educational approaches in order to satisfy these needs. The use of innovative teaching strategies including inquiry-based learning, gamification, project-based learning, and flipped classrooms to produce more interesting and significant learning environments is covered in this essay. Additionally, technology is crucial in facilitating these developments. Teachers may deliver more individualised instruction and reach students with varying requirements by utilising online platforms, interactive programs, and resources like virtual simulations and artificial intelligence. In addition to utilising technology, innovative practices also aim to enhance curriculum design, assessment techniques, and teacher professional development. There are nevertheless difficulties even if these techniques have many advantages. Among the obstacles to effective implementation are a lack of resources, poorly prepared teachers, and loopholes in the policies. Schools and education systems need to offer teachers, students, and policymakers a lot of support, training, and cooperation in order to overcome them. Finally, to create classrooms that prepare students for future difficulties, novel pedagogical techniques are required. They increase student-centredness, engagement, and relevance to everyday life. These methods can help make education more adaptable, inclusive, and more appropriate for the rapidly evolving 21st-century world.

Keywords: Innovative Pedagogy, 21st-Century Education, Student-centered Learning, Technology in Teaching, Modern Classroom Practices.



Title: Cognitive-Based Learning Through Imagery Training on Students Self-Regulated Learning (SRL)

Paper ID: TaLIS/2025/IPP/122

Theme: Innovative Pedagogical Practices (IPP)

👤 Author 1: Dina Aliyah Nurshafa 🢿 dinaaliyahns09@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus Sumedang 👤 Author 2: Anggi Setia Lengkana 💿 asetialengkana@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus Sumedang

🙎 Author 3: Muhammad Nur Alif 💿 mnalif@upi.edu 🟫 Universitas Pendidikan Indonesia Kampus Sumedang

Abstract:

This study examined the effectiveness of cognitive-based learning through imagery training in enhancing students' Self Regulated Learning (SRL). SRL represents a fundamental capability that enables students to regulate their own learning process through planning, monitoring, evaluation, and self-control. Imagery training, as a cognitive method involving mental visualisation, has shown significant potential in developing SRL components. This study employed a mixed-method approach to analyse the relationship between imagery training and improvements in students' metacognitive abilities. A quasi-experimental design was conducted with 80 senior high school students divided into experimental (n=40) and control

groups (n=40). The experimental group received 8 weeks of systematic imagery training integrated with cognitive-based learning approach. Data were collected using Self-Regulated Learning Scale, Imagery Ability Questionnaire, Learning Strategy Inventory, Metacognitive Awareness Inventory, and learning journals. Results showed significant improvements in all SRL components including planning (d=1.28), self-monitoring (d=1.35), evaluation (d=1.98), and emotional regulation (d=1.67) in the experimental group. Qualitative analysis revealed four main themes: enhanced self-awareness, improved planning skills, better emotional regulation, and increased motivation. The findings demonstrate that systematic implementation of imagery training can effectively enhance students' planning, self-monitoring, evaluation, emotional regulation, memory enhancement, and concentration abilities.

Keywords: Cognitive Learning, Imagery Training, Metacognition, Self Regulated Learning, Visualisation



Title: Step Model (Space, Task, Equipment, People): Learning For Enhancing Intrapersonal Intelligence Of Elementary School Children

Paper ID: TaLIS/2025/IPP/123

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Edwin Nurillah Firdaus o edwinnurillahfirdaus@upi.edu n Universitas Pendidikan Indonesia Kampus Sumedang
Author 2: Anggi Setia Lengkana a asetialengkana@upi.edu n Universitas Pendidikan Indonesia Kampus Sumedang
Author 3: Muhammad Nur Alif m mnalif@upi.edu u Universitas Pendidikan Indonesia Kampus Sumedang



This study introduces an innovative approach to enhance intrapersonal intelligence of elementary school children through the STEP Model (Space, Task, Equipment, People). The intervention was designed to engage multiple intelligences as theorized by Howard Gardner by combining self-reflection, emotional regulation, self-awareness, and metacognition to strengthen students' understanding of themselves. Recognizing that many children struggle to develop meaningful selfawareness, this study explores how the STEP Model and creative pedagogy can transform intrapersonal learning into a more engaging and transformative experience. To evaluate the effectiveness of the STEP Model-based innovation, a comprehensive intrapersonal intelligence assessment instrument was utilized as a character-based tool to measure levels of self-awareness before and after the intervention. A mixed method approach was employed involving pre and post-assessments, learning observations, and students' reflective feedback. Results indicate a significant improvement in students' concentration, emotional regulation, and spiritual awareness. Furthermore, students displayed greater enthusiasm and confidence in expressing self-understanding. The findings suggest that integrating the STEP Model into education can foster holistic character development and cater to diverse learning styles. This study contributes to the growing discourse on innovative, learner-centered approaches in character and moral education

Keywords: Character Education, STEP Model, Intrapersonal Intelligence, Multiple Intelligences, Social Emotional Learning.



Title: Google Sites as a Centralized Digital Learning Platform: An Action Research Case Study for SPM Students

Paper ID: TaLIS/2025/IPP/124

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Suhashini A/P Batumalai 🔍 suhaarun1010@gmail.com 🟫 Universiti Tun Abdul Razak

👤 Author 2: Asst. Prof. Dr. Hamidah Mohamad 🢿 hamidah_mohamad@unirazak.edu.my 🏫 Universiti Tun Abdul Razak

Abstract:

The rapid shift towards digitalization in education has emphasized the need for centralized and accessible learning platforms for secondary school students preparing for the Sijil Pelajaran Malaysia (SPM). However, many students struggle with fragmented resources across multiple applications, leading to reduced efficiency and motivation in exam preparation. This study addresses the problem by investigating the use of Google Sites as a centralized platform for managing learning materials and assessments. The objectives of this research were: (1) to examine the effectiveness of Google Sites in centralizing digital learning resources for SPM students, and (2) to evaluate its impact on student engagement and self-directed learning. The study employed a qualitative action research design guided by Kemmis and McTaggart's cycle, which involves planning, acting, observing, and reflecting. A case study was conducted in a Malaysian secondary school, where teachers designed and implemented a Google Site to host subject modules, past-year papers, and interactive learning activities. Data were collected through student surveys, classroom observations, and teacher reflections. Findings revealed that Google Sites improved accessibility, reduced confusion caused by scattered resources, and enhanced students' motivation to engage in independent study. Teachers also found it efficient for updating content and managing classroom resources. Nevertheless, challenges such as unstable internet access and varying levels of digital literacy limited optimal usage. In conclusion, the study highlights the potential of Google Sites as a cost-effective and sustainable solution for centralized learning. Recommendations are made for broader adoption supported by digital training programs for educators.

Keywords: Google Sites, centralized learning, action research, Kemmis cycle, SPM students



Title: Impact of Innovative Digital Pedagogies on French Language Learning in Nigeria

Paper ID: TaLIS/2025/IPP/125

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Mr. Awonusi Makinde John-Abiodun 🔟 goldebby24@gmail.com 🏫 School of Languages, Federal College of Education,
Abeokuta



This study investigates the impact of innovative digital pedagogies on French language learning in Nigeria. With the increasing adoption of digital technologies in education, this research explores the potential of digital pedagogies to enhance French language acquisition among Nigerian learners. A mixed-methods approach was employed, combining both quantitative and qualitative data collection and analysis methods. A total of 120 French language learners participated in the study, with 60 learners exposed to innovative digital pedagogies and 60 learners using traditional teaching methods. The results show a significant improvement in French language proficiency among learners exposed to innovative digital pedagogies, particularly in listening and speaking skills. The study also highlights the potential of digital pedagogies to increase learner motivation, engagement, and autonomy. The findings of this study contribute to the growing body of research on the impact of digital pedagogies on language learning. The study's recommendations provide insights for educators, policymakers, and stakeholders seeking to integrate innovative digital pedagogies into French language education in Nigeria.

Keywords: Innovative Pedagogy, French Language, Nigeria, Language Acquisition, Digital Technologies



Title: Fostering Religious Literacy through the RADEC Learning Model

Paper ID: TaLIS/2025/IPP/126

Theme: Innovative Pedagogical Practices (IPP)

👤 Author 1: Atep Sujana 🍳 atepsujana@upi.edu 🏫 Universitas Pendidikan Indonesia Kampus Sumedang

🙎 Author 2: Nurroh Muna Mu'adah 区 nurrohmunamuadah@upi.edu 愉 Universitas Pendidikan Indonesia Kampus Sumedang

Abstract:

In today's digital era, access to information on religious knowledge has become increasingly convenient; however, deep understanding is required to avoid reductive interpretations. Religious literacy plays a pivotal role in equipping individuals with the critical capacity to engage with religious teachings comprehensively. This study investigates the contribution of the RADEC learning model in fostering religious literacy among Elementary Teacher Education (PGSD) students. Employing a descriptive method, the study systematically and objectively examined students' religious literacy. The participants consisted of 50 first-semester PGSD students (42 female, 8 male) enrolled in a science literacy course. Data were collected through questionnaires, observation guidelines measuring student engagement during lectures, and an essay-based religious literacy test. The findings demonstrate that the RADEC learning model effectively integrates religious values into science literacy learning. Consequently, students not only enhanced their science literacy but also developed the ability to relate scientific concepts to faith-based values, thereby strengthening their religious literacy.

Keywords: Religious Literacy, RADEC Learning Model, Science Literacy, Descriptive Method, Faith-Based Learning.



Title: Enhancing The Mastery Of Year 4 Pupils On Comparative And Superlative Adjectives Using Funadjective Learning Kit

Paper ID: TaLIS/2025/IPP/127 Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Nur Athirah Miskim Binti Aznan 🢿 2023544363@student.uitm.edu.my 🏫 SK Taman Bukit Teratai



The mastery of comparative and superlative adjectives continues to pose a significant challenge for Malaysian primary school pupils, especially among those with limited English proficiency. This action research examined the effectiveness of Funadjective Learning Kit in enhancing Year 4 pupils' mastery in using comparative and superlative forms accurately. A qualitative research design was employed, with purposive sampling of five low-achieving pupils from a primary school in Ampang, Selangor. These participants were selected due to their recurring difficulties in applying adjective rules and their low engagement during conventional grammar lessons. The intervention, Funadjective Learning Kit, was developed as a comprehensive multimodal resource comprising three distinct components: (i) Kit A -Interactive Multimedia Kit, a digital grammar tool that incorporates interactive notes, songs and both online and offline games via Microsoft PowerPoint; (ii) Kit B – Let's Learn Adjectives Module, an offline worksheet designed to reinforce rules through practice; and (iii) Kit C - Board Game: 1 Dollar Ludo (Adjective Edition), which offers gamified grammar practice in a collaborative environment, inspired by the Ludo board game. Data were gathered through semi-structured interviews, classroom observations and a post-test conducted after the intervention. Findings indicate a significant improvement in pupils' mastery and motivation. All participants scored above 80% in the post-test, compared to pre-test scores ranging between 20% and 40%. Observations indicated a decrease in off-task behavior and an increase in active participation, while interview responses revealed that pupils found the kit enjoyable, motivating and effective. This study finds that Funadjective Learning Kit presents a viable and effective approach for improving pupils' mastery of comparative and superlative adjectives. Through the integration of digital, print-based and game-based methods, it illustrates how interactive, student-focused innovations can enhance grammar learning, making it a more engaging and effective experience for young ESL learners.

Keywords: Comparative Adjectives, Superlative Adjectives, Grammar Acquisition, Learning Kit, Game-based Learning



Title: Pemanfaatan Peta Sebagai Media Pembelajaran ICT Oleh Guru Sebagai Penunjang Kegiatan Pembelajaran Di Sekolah Dasar

Paper ID: TaLIS/2025/IPP/128
Theme: Innovative Pedagogical Practices (IPP)

👤 Author 1: Syifa Nuryalin Azizah HA 🔟 azizahyalin@upi.edu 🏫 UPI Kampus Tasikmalaya Indonesia

Abstract:

Penelitian ini bertujuan untuk mengkaji pemanfaatan media pembelajaran berbasis ICT oleh guru Sekolah Dasar dalam proses belajar mengajar. Permasalahan utama yang diangkat adalah bagaimana guru mengintegrasikan media ICT serta tantangan yang mereka hadapi dalam pelaksanaannya.

Penelitian ini menggunakan pendekatan classroom ethnography dengan teknik pengumpulan data berupa wawancara melalui Google Form dan observasi langsung terhadap kegiatan pembelajaran. Hasil penelitian menunjukkan bahwa guru memanfaatkan media ICT seperti peta digital dan cetak untuk meningkatkan pemahaman siswa terhadap materi, khususnya dalam pembelajaran yang bersifat geografis. Penggunaan media ini terbukti meningkatkan antusiasme, partisipasi, dan pemahaman siswa secara signifikan. Namun, ditemukan pula beberapa kendala dalam implementasinya, antara lain

keterbatasan pelatihan, infrastruktur yang belum memadai, serta ketimpangan kemampuan guru dalam mengelola teknologi. Sebagian guru menggabungkan media digital dengan pendekatan konvensional sebagai strategi adaptif terhadap karakteristik siswa. Dari temuan tersebut dapat disimpulkan bahwa pemanfaatan media ICT memiliki potensi besar dalam meningkatkan kualitas pembelajaran di sekolah dasar, namun memerlukan dukungan teknis dan kebijakan berkelanjutan agar implementasinya lebih merata dan efektif.

Keywords: Media pembelajaran, ICT, Sekolah dasar, teknologi, kompetensi guru.



Title: Concept of Education for Sundanese Indigenous Communities

Paper ID: TaLIS/2025/IPP/129

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Anggit Merliana anggitm@upi.edu for Universitas Pendidikan Indonesia
Author 2: Seni Apriliya seni_apriliya@upi.edu for Universitas Pendidikan Indonesia
Author 3: Ghullam Hamdu seni_apriliya@upi.edu for Universitas Pendidikan Indonesia
Author 4: Purwati seni_apriliya@upi.edu for Universitas Pendidikan Indonesia
Author 5: Ilmi Zajuli Ichsan seni_almizajuli@gmail.com for Department of Elementary Education, Universitas Mohammad Husni

Abstract:

Thamrin, Indonesia.

This article aims to explore the concept of education within the Sundanese indigenous community and to understand how educational processes take place in this cultural context. Education among the Sundanese is not merely understood as the transfer of knowledge but also as the transmission of values, norms, and local wisdom that regulate human relations with others, nature, and the Creator. The scope of discussion includes the fundamental concepts of education, its objectives, guiding principles, curriculum, and the learning processes that develop contextually within Sundanese society. This study highlights the significance of traditional education as a medium for cultural preservation as well as a means of shaping character and collective identity. The research employs a case study approach with data collected through interviews, observations, and documentation in selected Sundanese communities. The findings are analyzed to identify distinctive educational patterns and to assess their relevance to contemporary educational challenges. Consequently, this article is expected to provide a comprehensive understanding of Sundanese indigenous education while serving as an academic reference for developing culturally rooted educational practices.

Keywords: Community Education, Sundanese Indigenous Community



Title: Integrating National Agency and Team-Based Learning: A Novel Model for Teaching Substance Abuse in Medical Education

Paper ID: TaLIS/2025/IPP/130

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Noor Fahitah Abu Hanipah fahitah@uitm.edu.my fulto UiTM

Author 2: Siti Norsyafika Kamarudin fahitah@uitm.edu.my fulto UiTM

Author 3: Nurul Alimah Abdul Nasir fulton nurulalimah@uitm.edu.my fulton UiTM

Author 4: Norasikin Ab Azis fulton norasikin_abazis@uitm.edu.my fulton UiTM

Author 5: Norhafiza Razali fulton norhafiza8409@uitm.edu.my fulton UiTM

Abstract:

Substance abuse is a chronic, relapsing condition that imposes a significant global and national health burden. The World Health Organization (WHO) estimated that 296 million people used drugs in 2021, with nearly 40 million experiencing drug use disorders. In Malaysia, the National Anti-Drug Agency (NADA) reported 118,000 registered drug users in 2022, predominantly among young adults. Despite its importance, substance abuse education in many medical curricula remains limited and is often delivered through traditional didactic lectures, which provide factual knowledge but insufficiently promote critical reasoning, attitudinal change, or engagement with real-world patient care. This study describes the implementation of a novel teaching approach that integrates team-based learning (TBL) with collaboration from NADA. The module combined theoretical teaching on the pharmacology of psychoactive substances with contextual insights from NADA's prevention, treatment, rehabilitation, and community-based programs. The learning activity began with preparation of learning materials by the lecturers and students were given two weeks for self-preparation before the actual learning session. Prior TBL, students had a session with NADA representatives discussing about real-life scenarios and their roles. Next, students participated in TBL activities, including an individual readiness assurance test, a team readiness assurance test, and application exercises based on authentic case scenarios. The new approach actively engaged students with realistic clinical problems, promoted critical thinking, and enhanced understanding of the multidisciplinary nature of addiction care. It also fostered empathy, improved professional attitudes and stigma, and increased awareness of public health responsibilities. Compared with lectures and seminars, this collaborative TBL approach better prepared students for clinical practice by integrating pharmacological knowledge with community and policy perspectives. In conclusion, combining TBL with NADA collaboration provides a practical, contextually relevant strategy for substance abuse education, equipping future doctors with the knowledge, skills, and values necessary to address emerging challenges in addiction medicine effectively.

Keywords: Substance abuse, medical education, team-based learning, collaborative teaching and learning



Title: The Sundanese Traditional Ceremony Of Mapag Karesmen As A Gateway To Strengthening Character Education For Students In Elementary School

Paper ID: TaLIS/2025/IPP/131

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Cinta Nur Hasna Azzahra 🍭 cintanha@ummi.ac.id 👚 Universitas Muhammadiyah Sukabumi 👤 Author 2: Dr. lis Nurasiah, M.Pd 💿 iisnurasiah@ummi.ac.id 🟠 Universitas Muhammadiyah Sukabumi

👤 Author 3: Efi Kurniasari, M.Pd 💿 efikurniasari@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

The character crisis among elementary school students is a critical issue as values of responsibility, discipline, politeness, and social care are increasingly fading in daily life. This concern is particularly evident during significant school events, such as graduation or farewell ceremonies, which often serve only as entertainment without deeper educational meaning. To address this, the study explores the potential of Sundanese local wisdom, karesmen adat Sunda mapag, as a medium for character education during farewell events for graduating students.

Karesmen is a Sundanese traditional performance that integrates art, prayer, and ceremonial respect. Within the school context, it is adapted to instill religious devotion, respect for teachers and parents, and appreciation of the six-year learning journey. Using a descriptive qualitative method, data were collected through interviews and observations at SDN Sindangsari over three weeks, involving students, teachers, parents, and instructors.

Findings reveal that karesmen adat Sunda mapag provided students with meaningful experiences. They demonstrated solemnity, respect for teachers and peers, stronger responsibility, discipline, and improved cooperation. The cultural elements also allowed students to internalize noble values embedded in art and symbols of the ceremony.

This study indicates that integrating cultural traditions into school activities not only preserves local heritage but also strengthens character formation. Farewell ceremonies, when grounded in local wisdom, become more than formal celebrations—they transform into learning experiences that nurture values essential for personal and social development. Thus, culture-based approaches like karesmen are highly relevant as models of character education in Indonesian elementary schools.

Keywords: Mapag karesmen, character education, elementary school, local wisdom.



Title: Enhancing critical thinking skills for oral English competence using inquiry-based learning approach among college students in China

Paper ID: TaLIS/2025/IPP/132

Theme: Innovative Pedagogical Practices (IPP)

🙎 Author 1: Dr. Yue Fang 🔍 yuefangmail@163.com 👔 Jiangxi Institute of Fashion Technology

👤 Author 2: Dr. Mawarni Mohamed 💿 mawarnim@uitm.edu.my 🏫 Faculty of Education, Universiti Teknologi MARA

Author 3: Boon Yih Mah 💿 mahboonyih166@uitm.edu.my 🟫 -Academy of Language Studies, Universiti Teknologi MARA, Cawangan Pulau Pinang, Penang, Malaysia



In the 21st century, Mastering English, especially spoken English, has become a necessary skill for college students after graduation. However, after many years learning, Chinese students still exhibit weak proficiency in English speaking. Some scholars believe that the Critical Thinking can help students effectively learn English. There is a lack of research conducted on cultivating students' critical thinking skills in the teaching of college oral English in China. This study adopted qualitative research method to investigate the effectiveness of inquiry-based learning approach on students' critical thinking skills in oral English class in Chinese college. 30 Business English undergraduates were selected and enrolled in the experimental group (n = 30). The experimental group received the 9-week inquiry-based learning intervention. Qualitative data was collected through classroom observations. The result showed that student's interpretation and analysis skills improved noticeably after the IBL intervention. However, their evaluation and inference skills showed some limitations. Regarding explanation skills, the students were able to convey information clearly. However, their presentations lacked depth and breadth in certain areas. Furthermore, the students demonstrated a better command of sentence structure and significantly improved their vocabulary acquisition. For future researchers, they can design a longer research programme for critical thinking training, spanning at least a semester or even a year, which may yield better results. In addition, in order to improve the generalizability, future research could consider a variety of educational settings, including public colleges or key universities.

Keywords: Critical Thinking Skills, Inquiry-based Learning, Oral English, Chinese College, CCTST



Title: Praktik Pedagogis Inovatif melalui Karinding: Revitalisasi Kearifan Lokal untuk Pendidikan Karakter di Sekolah Dasar

Paper ID: TaLIS/2025/IPP/133

Author 1: Alini Widyastuti aliniw1127@gmail.com the Universitas Muhammadiyah Sukabumi Author 2: Iis Nurasiah iisnurasiah@ummi.ac.id the Universitas Muhammadiyah Sukabumi Author 3: Luthfi Hamdani Maula la luthfihamdani@ummi.ac.id the Universitas Muhammadiyah Sukabumi

Abstract:

Character education rooted in local wisdom is essential for shaping a young generation that is not only intellectually intelligent but also has a strong cultural identity. Traditional karinding music, as part of Sundanese cultural heritage, is rich in philosophical and social values that can be used as a medium for character education. This study aims to describe the use of karinding as an innovative pedagogical practice in local culture-based character education in elementary schools. The method used is descriptive qualitative with an ethnographic approach, including data collection through literature study, observation, and interviews with cultural experts, craftsmen, teachers, and students in the Gunung Padang area, Cianjur. The results show that karinding is effective as an interactive and multisensory learning medium, instilling character values such as religiosity, nationalism, independence, mutual cooperation, and integrity. Karinding music also strengthens enjoyable and meaningful contextual learning experiences and internalizes local cultural values. Thus, karinding plays an innovative role in connecting cultural preservation and character education in elementary schools.

Keywords: Karinding, Character Education, Local Wisdom, Innovative Pedagogy



Title: Experiential Learning through Echoes of Jazz: Melodic Canvas

Paper ID: TaLIS/2025/IPP/134
Theme: Innovative Pedagogical Practices (IPP)

▲ Author 1: Janette Jannah binti Poheng janette@uitm.edu.my Universiti Teknologi MARA
 Author 2: Amanina Alwani binti Badaruddin amanina@uitm.edu.my Universiti Teknologi MARA

Abstract:

Concert organization within an educational setting has always been regarded as an added value and a vital platform for nurturing musical talent. Whether in schools or at the tertiary level, the most effective way to learn is through direct experience. In line with this philosophy, Echoes of Jazz: Melodic Canvas, part of the Jazz Series organized by the Faculty of Music, Universiti Teknologi MARA, was designed to provide students with practical, performance-based experiences beyond the classroom, with a particular focus on collaborative performance, improvisation, and creative interpretation. For educators, organizing a concert presents unique challenges, risks, and responsibilities. Careful planning is required in areas such as repertoire selection, artistic direction, rehearsals, and balancing academic guidance with creative freedom. By performing alongside their educators, students developed essential skills in live performance, stage presence, ensemble playing, and artistic communication. This experience also fostered confidence, adaptability, and a deeper understanding of jazz performance within a professional context. The concert attracted a diverse audience, including members of the public and high school students, offering them not only the opportunity to enjoy live jazz music but also to gain a greater appreciation of its cultural significance. Ultimately, Echoes of Jazz: Melodic Canvas provided a meaningful, hands-on learning experience that enabled students to grow as musicians and collaborators while uniting the community through jazz and underscoring the Faculty of Music's commitment to cultivating talent and innovation. By sharing the insights and outcomes of this initiative, this study offers educators and practitioners practical strategies for integrating experiential learning into music programmes, integrating experiential learning with real-world performance experiences.

Keywords: Collaborative Performance, Cultural Appreciation, Improvisation, Jazz Education



Title: Development of a Local Cultural Wisdom Value Transformation Model (TNKLB) as an Effort to Instill Discipline and Responsibility Values in Elementary School Students

Paper ID: TaLIS/2025/IPP/135
Theme: Innovative Pedagogical Practices (IPP)

Author 1: Ajid Abdul Majid a jidabdulmajid35@gmail.com DPI Kampus Tasikmalaya
Author 2: Elan a elanmpd@upi.edu DPI Kampus Tasikmalaya
Author 3: Syarif Hidayat hidayat@upi.edu DPI Kampus Tasikmalaya

Abstract:

Instilling the values of discipline and responsibility in elementary school students is an important foundation in shaping the nation's character. One approach that can be used is through the transformation of local cultural wisdom values (TNKLB) that are relevant to the social context of Indonesian society. This study uses a literature study method by reviewing various studies, scientific articles, and educational policy documents related to local wisdom and character education. The results of the study indicate that the integration of local wisdom values, such as mutual cooperation, manners, etiquette, and work ethic, can be an effective strategy in instilling discipline and responsibility. The TNKLB model emphasizes the process of internalizing values through contextual learning, role models, and habits in everyday life in elementary schools. Thus, TNKLB has the potential to be an alternative model of character education that not only forms disciplined and responsible students but also fosters a love for local culture.

Keywords: Character Education, Discipline, Local Wisdom, Responsibility, TNKLB



Title: Innovative Pedagogical Practices through Karinding: Revitalizing Local Wisdom for Character Education in Elementary Schools

Paper ID: TaLIS/2025/IPP/136
Theme: Innovative Pedagogical Practices (IPP)

👤 Author 1: Alini widyastuti 💿 Aliniw1127@gmail.com 🏫 Universitas Muhammadiyah Sukabumi

Author 2: lis Nurasiah 🧕 iisnurasiah@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi Author 3: Luthfi Hmadani Maula 💿 luthfihamdani@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi

Abstract:

Character education rooted in local wisdom is essential for shaping a young generation that is not only intellectually intelligent but also has a strong cultural identity. Traditional karinding music, as part of Sundanese cultural heritage, is rich in philosophical and social values that can be used as a medium for character education. This study aims to describe the use of karinding as an innovative pedagogical practice in local culture-based character education in elementary schools. The method used is descriptive qualitative with an ethnographic approach, including data collection through literature study, observation, and interviews with cultural experts, craftsmen, teachers, and students in the Gunung Padang area, Cianjur. The results show that karinding is effective as an interactive and multisensory learning medium, instilling character values such as religiosity, nationalism, independence, mutual cooperation, and integrity. Karinding music also strengthens enjoyable and meaningful contextual learning experiences and internalizes local cultural values. Thus, karinding plays an innovative role in connecting cultural preservation and character education in elementary schools.

Keywords: Karinding, Character Education, Local Wisdom, Innovative Pedagogy



Title: Al storytelling, bilingual education, early childhood learning, health education, teaching innovation Mouthville: Al-Powered Storytelling for Early Childhood Dental Health Education

Paper ID: TaLIS/2025/IPP/137

Theme: Innovative Pedagogical Practices (IPP)

- 🙎 Author 1: Dr Fariza Binti Md Kasim 🧕 fareezakasim@gmail.com 🏫 Universiti Teknologi MARA Sungai Buloh Campus
- Author 2: Dr. Azwin Assilah Kamaruddin 🔟 azwinassilah@uitm.edu.my 🟫 Pediatric Dentistry Department, Faculty of Dentistry Universiti Teknologi MARA Sungai Buloh Campus
- 👤 Author 3: Dr. Mohamad Afiq Farhan Roslan 🢿 afiqfarhan@uitm.edu.my 🟫 Pediatric Dentistry Department, Faculty of Dentistry Universiti Teknologi MARA Sungai Buloh Campus
- 🙎 Author 4: Nur Nazihah binti Muhammad Hanifah 💿 nazihahhanifah91@gmail.com 🟫 Pediatric Dentistry Department, Faculty of Dentistry Universiti Teknologi MARA Sungai Buloh Campus
- Author 5: Nor Sheridah binti Mahmod o sheridah 175@gmail.com p Pediatric Dentistry Department, Faculty of Dentistry Universiti Teknologi MARA Sungai Buloh Campus

Abstract:

Traditional health education for young children often relies on static materials such as posters, comics, or videos that are not adaptive to learners' needs. Preschool children, in particular, require interactive and age-appropriate learning approaches that capture attention and reduce fear of unfamiliar situations. Storytelling, a long-established pedagogical method, can be enhanced with artificial intelligence (AI) to create dynamic, personalised, and bilingual learning experiences. This project, Mouth Ville: An Animated Journey of Happy Teeth, aims to (1) engage preschool children in learning about oral health through Al-generated storytelling, (2) reduce dental-related anxiety by framing treatment as friendly narratives, (3) empower parents and teachers with a digital teaching tool for classroom or home use, and (4) demonstrate the integration of AI in early childhood education as a scalable teaching innovation. An Al-assisted animated video was developed using a multi-step design process: (1) Story scripting with AI applications to simplify dental concepts into child-friendly adventures. (2) Illustrations and animations created with the OpenArt app, featuring colourful, approachable characters. (3) Narration produced in both Malay and English using ElevenLabs AI voices. (4)Editing and integration completed with CapCut to combine visuals, narration, and interactive elements. The resource was piloted among preschool children, and behavioural responses were observed using validated scales of anxiety and cooperation, alongside teacher and parent feedback. Mouth Ville illustrates how Al-driven, bilingual storytelling can transform early childhood health education by making learning engaging, accessible, and emotionally supportive. Beyond oral health, this model offers a replicable framework for innovative teaching practices in multiple educational contexts.

Keywords: Al Storytelling, Bilingual Education, Early Childhood Learning, Health Education, Teaching Innovation



Title: ClassGenis MOOC: A Conceptual Framework for Al-Supported Educator Guidance in MOOC Preparation

Paper ID: TaLIS/2025/IPP/138
Theme: Innovative Pedagogical Practices (IPP)

Author 1: Najlaa' Nasuha binti Mohd Radin

najlaanasuha@uitm.edu.my

universiti Teknologi MARA Cawangan Terengganu



Massive Open Online Courses (MOOCs) continue to transform education delivery globally, with xMOOCs emerging as the dominant format characterized by structured content delivery and standardized assessments. Despite their popularity, educators face significant challenges in designing interactive, engaging, and scalable xMOOCs, often due to constraints such as limited creativity, time pressures, and unclear preparation guidelines. This paper introduces ClassGenis MOOC, an innovative online manual designed specifically to assist educators in preparing high-quality xMOOCs through the integration of Al tools for content development and instructional design. Grounded in a hybrid conceptual framework combining the ADDIE model and design thinking principles, ClassGenis MOOC provides structured, practical guidance that aligns with the linear, systematic nature of xMOOC course development. By leveraging Al to streamline content creation and enhance learner interaction, the online manual empowers educators to efficiently produce engaging MOOCs while overcoming common challenges. Although empirical validation is pending, this conceptual work highlights ClassGenis as a valuable resource that addresses the unique demands of xMOOC preparation and offers a pathway for future research to evaluate its impact and refinement. This contribution supports advancing educator readiness and improving the quality and scalability of xMOOCs worldwide.

Keywords: MOOC, Instructional Design, AI in Education, Educator Support, Online Course Preparation



Title: PaedoPulp Trainer: Bridging Anatomy and Clinical Skills in Enhancing Undergraduate Pulpotomy Education

Paper ID: TaLIS/2025/IPP/139

Theme: Innovative Pedagogical Practices (IPP)

Author 1: Dr. Azwin Assilah binti Kamaruddin azwinassilah@uitm.edu.my 🟠 Faculty of Dentistry, UiTM Sungai Buloh Campus Author 2: Dr. Mohd Amir Mukhsin bin Zurin Adnan mohdamirmukhsin@uitm.edu.my 🟠 Faculty of Dentistry, UiTM Sungai Buloh

Author 3: Dr. Siti Aisyah Roslan a isyah3140@uitm.edu.my f Faculty of Dentistry, UiTM Sungai Buloh Campus
 Author 4: Dr. Mohammed Gh Abd Ali Al-Naser mohammed1304@uitm.edu.my f Faculty of Dentistry, UiTM Sungai Buloh Campus
 Author 5: Muhammad Zaid Zainuddin zaidzainuddin@uitm.edu.my f Faculty of Dentistry, UiTM Sungai Buloh Campus



Teaching pulpotomy to undergraduate dental students remains a challenge due to limited patient exposure and reliance on conventional lectures or demonstrations. As a result, students may struggle to fully appreciate primary tooth anatomy and the sequential steps involved in the procedure before entering clinical practice. To address this gap, we developed a sustainable and affordable Pulpotomy Training Kit designed to enhance both anatomical understanding and procedural skills in a simulation setting.

The kit consists of two main components. The first is a primary molar anatomy model with cut-sections and colour-coded layers of enamel, dentin, and pulp chamber, enabling students to visualise and appreciate the unique morphology of primary teeth. The second is a pulpotomy simulation tooth with a pulp chamber insert containing a red gel core that mimics vital pulp tissue and simulates bleeding during the procedure. This allows students to practice critical steps such as access preparation, pulp removal, haemostasis management, medicament placement, and restoration. Each kit is paired with a video-assisted, step-by-step instructional guide accessible via a QR code, as well as a self-assessment checklist to encourage reflective learning. By combining anatomical visualisation with hands-on procedural practice, the training kit provides a holistic learning experience that is affordable, reusable, and scalable. This innovation empowers students to build confidence and competence in paediatric pulp therapy before treating patients, bridging the gap between theory and clinical application.

Keywords: Dental Education, Paediatric Dentistry, Simulation, 3D Printing



Title: Empowering Peer-Assisted Learning through Telegram Bots: A HyFlex Approach to Supporting Diverse Learner Needs

Paper ID: TaLIS/2025/TEL/101

Theme: Technology-Enhanced Learning

Abstract:

This paper presents an innovative Peer-Assisted Learning (PAL) initiative that leverages the Telegram platform and HyFlex learning model to support university students' academic needs. The project was developed in response to several key challenges: students' limited access to organized study materials, difficulties in identifying personal learning gaps, and hesitance to seek academic help in face-to-face interactions due to self-consciousness or lack of confidence. The primary objective was to provide a centralized, accessible, and supportive digital learning environment that could accommodate diverse learner preferences and promote independent and collaborative learning. A Telegram-based PAL Bot was designed and deployed, offering an integrated academic hub that includes subject-specific resources, compiled notes from PAL sessions, audio-visual materials, Padlet links for anonymous Q&A, and access to group discussions. The initiative was embedded within a HyFlex framework, allowing both synchronous and asynchronous interactions, and accommodating various learning styles and schedules. The methodology involved the iterative design and testing of the bot, guided by student feedback and usage analytics. Surveys and reflections were used to evaluate student engagement, perceived usefulness, and areas for improvement. Results indicated increased student participation, improved access to learning content, and a heightened sense of academic support. The anonymity feature also encouraged more questions and peer interaction, especially among less confident students. The findings highlight the potential of integrating familiar digital communication tools like Telegram into structured academic support systems. This approach not only enhances accessibility and engagement but also fosters a more inclusive and flexible learning environment. The study offers valuable implications for institutions seeking to scale up peer learning initiatives or adopt hybrid and HyFlex models in their teaching strategies, especially in contexts where student-centered and tech-enhanced learning are prioritized.

Keywords: Peer-Assisted Learning (PAL), HyFlex Learning, Telegram Bot, Digital Learning Tools, Instructional Innovation



Title: Clicks and Cognition: Exploring the Link Between Digital Media Preferences and Learning Approaches Among Maldives TVET University Students

Paper ID: TaLIS/2025/TEL/102

Theme: Technology-Enhanced Learning (TEL)

Author 1: JASMINE ANAK JAIN drigosminejain@gmail.com School of Education, Taylor's University Author 2: Mohamed Azhan Fawaz Shareef drigosminejain@gmail.com shool of Education, Taylor's University drigosminejain@gmail.com hold:drigosminejain@gmail.com <a href="mailto:hold:drigosminejain@gmailto:hold:drigosminejain@gmailto:hold:drigosminejain@gmailto:hold:drigosminejain@gmailto:hold:drigosminejain@gmailto:hold:drigosminejain@gmailt

🙎 Author 3: Johan Eddy Luaran 🔟 johaneddy@uitm.edu.my 🏫 Faculty of Education, Universiti Teknologi MARA

Abstract:

Digital media is an integral part of students' lives, yet its impact on learning remains unclear. While prior research has focused on social media, little is known about how different digital media preferences relate to students' learning approaches. This study examines whether university students in Technical and Vocational Education and Training (TVET) programs in the Maldives adopt different learning approaches based on their digital media preferences. A survey of TVET university students aged 18–24 (n=126) assessed digital media usage and learning approaches using a modified Media and Technology Usage Scale and the short-form Approaches and Study Skills Inventory for Students (ASSIST). Findings showed that text messaging (n=92) and video streaming (n=30) were the most preferred media, while none preferred social media. Most students employed a deep learning approach (n=65), followed by surface (n=31) and strategic (n=30). A chi-square test of independence found no significant relationship between digital media preferences and learning approaches, $\chi^2(4, n=126) = 2.24, p > .05$. These results suggest that digital media preferences do not directly shape students' learning strategies. Future research should explore broader influences, such as cultural and environmental factors, and distinguish between active and passive digital media use.

Keywords: Digital media; learning preferences; Maldives, TVET students



Title: Cross-cultural Perspectives on Gamified ESL Instruction Towards Engagement and Motivation Among Undergraduate Students of UiTM Perak

Paper ID: TaLIS/2025/TEL/103

Theme: Technology-Enhanced Learning (TEL)

Author 1: Syarein Nazriq Marizam Bin Shahrulnizam syareinnazriqmarizam@gmail.com syareinnazriqmarizam@gmail.com syareinnazriq <a h

Abstract:

This study investigates the influence of gamified English as a Second Language (ESL) instruction on learner engagement and motivation among undergraduate students at Universiti Teknologi MARA (UiTM) Perak. Anchored in the frameworks of Self-Determination Theory (SDT) and the Technology Acceptance Model (TAM), this research examines learners' perceptions of usefulness and ease-of-use of gamification strategies, alongside their behavioural intentions and satisfaction with technological resources. A quantitative, cross-sectional survey design was employed, involving 299 students from UiTM Tapah and UiTM Seri Iskandar. Data were gathered via a structured questionnaire and analysed using descriptive statistics, Pearson's correlation, and independent samples t-tests. Findings reveal that learners generally held positive perceptions of gamified ESL instruction, particularly highlighting its usefulness in enhancing comprehension and academic performance. A significant difference was found in students' satisfaction with technological infrastructure between the two campuses, favouring UiTM Tapah. Strong positive correlations were observed between perceived usefulness and motivation (r = .838), as well as perceived ease-of-use and motivation (r = .717), indicating that learners' positive attitudes toward gamification are closely tied to increased engagement. However, no significant difference was found in behavioural intention or motivation across campuses, suggesting that motivation can remain high even in less technologically equipped environments. The study highlights the potential of gamified ESL instruction to improve learning outcomes and learner engagement. It also underscores the importance of technological readiness and perceived ease-of-use in sustaining motivation. Implications for theory, pedagogy, and institutional policy are discussed, with recommendations for future research in longitudinal and low-resource contexts.

Keywords: Gamification, ESL Instruction, Learner Engagement, Learning Motivation



Title: Will Artificial Intelligence Revolutionize Foreign Language Education in China?

Paper ID: TaLIS/2025/TEL/104

Theme: Technology-Enhanced Learning (TEL)

- Author 1: Gong Chenxi 🙉 <u>kevingcx@126.com</u> 🏫 PHD student, Faculty of Education, Universiti Teknologi MARA (UiTM), Puncak Alam, Selangor, Malaysia
- Author 2: Dr Marina Mohd Arif 💿 marina363@uitm.edu.my 🟫 Faculty of Education, Universiti Teknologi MARA (UiTM), Puncak Alam, Selangor, Malaysia
 - Author 3: Yaman Chen 💿 2022299304@student.uitm.edu.my 📫 Faculty of Education, Universiti Teknologi MARA (UiTM), Puncak Alam, Selangor, Malaysia

Abstract:

This article believes that artificial intelligence should inherit the fine tradition of education, promote the reform of the education system, rather than leading to disruptive revolutions. The article first explores the characteristics of technological change, pointing out that each industrial revolution has had a profound impact on the economy and social structure, but this impact in the field of education is more about promoting people-centered development rather than breakthrough revolutionary changes. Education has continuity, stability, and inheritance, and a reckless' educational revolution 'may bring disastrous consequences. Foreign language education belongs to the category of education and should also be gradually reformed, seeking progress while maintaining stability. This article further analyzes the unique challenges that the application of artificial intelligence in foreign language education may face, including the alienation of the essential attributes of foreign language learning and the neglect of cultural diversity. Finally, this article calls on foreign language educators to actively embrace artificial intelligence technology, organically integrate it into the existing education system, produce high-quality results, and promote foreign language education to a new height of reform, rather than blindly following the trend and leading the development of foreign language education in the wrong direction.

Keywords: Artificial Intelligence; Foreign Language Education; Industrial Revolution; Revolutionary; Reformist



Title: ChatGPT and The Evolution of Al In Vocabulary Learning: A Critical Narrative Review

Paper ID: TaLIS/2025/TEL/105

Theme: Technology-Enhanced Learning (TEL)

🙎 Author 1: Farhana Atiqah Binti Ahmad Radzuan 🔟 2023222692@student.uitm.edu.my 🏫 UITM Kampus Puncak Alam

Author 2: Marina Mohd Arif <a> marina363@uitm.edu.my <a> UITM Kampus Puncak Alam Author 3: Wan Nurul Elia Haslee Sharil <a> nurulelia@uitm.edu.my <a> UITM Kampus Puncak Alam

Abstract:

Aligned with Sustainable Development Goal 4 (Quality Education), vocabulary acquisition remains central to equitable and effective language education, supporting learners' communicative competence and lifelong learning. As educational technologies evolve, artificial intelligence (AI) has emerged as a powerful tool in vocabulary instruction. While traditional AI tools such as Quizlet and Duolingo have facilitated vocabulary learning through gamified, recognition-based activities, they often lack contextual depth and adaptability. In contrast, generative AI tools like ChatGPT offer dynamic, interactive, and personalised vocabulary learning experiences that support both receptive and productive skills. This narrative review synthesises Scopus-indexed research from 2020 to 2025 to examine the shift from traditional to generative AI in vocabulary learning, with a focus on ChatGPT. It critically evaluates ChatGPT's pedagogical affordances, including real-time feedback, incidental learning, and adaptive scaffolding, while also addressing key challenges such as algorithmic bias, academic integrity, and digital access disparities. The review explores user perceptions, comparative effectiveness, and implementation barriers, underscoring the need for guided integration, teacher training, and ethical oversight. To maximise impact, the review proposes strategic frameworks and optimisation approaches that align ChatGPT's use with structured instructional design and inclusive pedagogical practices. It concludes that while ChatGPT holds significant promise as an AI-powered vocabulary tool, its transformative potential depends on informed, equitable, and ethically grounded implementation. By advancing practical and critical insights, this study contributes to the responsible integration of generative AI in language education, supporting the global agenda of SDG 4 for inclusive and quality learning opportunities.

Keywords: ChatGPT, Vocabulary Learning, Generative Al Tools, Pedagogical Integration, Ethical Challenges in Al Education



Title: Generational Multimodal Communication in Online Learning: A Micro-Analytic Mixed Methods Study

Paper ID: TaLIS/2025/TEL/106

Theme: Technology-Enhanced Learning (TEL)

Author 1: Nurul Kamalia Binti Yusuf <a> nurulkamalia@uitm.edu.my <a> Universiti Teknologi MARA Cawangan Negeri Sembilan Author 2: Wan Zumusni Wan Mustapha <a> zumusni178@uitm.edu.my <a> Universiti Teknologi MARA Cawangan Negeri Sembilan Author 3: Tuan Sarifah Aini Syed Ahmad <a> tsyaini@uitm.edu.my <a> Universiti Teknologi MARA Cawangan Negeri Sembilan

Abstract:

Learners are exposed to more varied and overlapping forms of expression in digital communication contexts, which frequently combine text, emojis, memes, and platform-specific interactive features. However, the micro-level analysis that captures the interactional dimensions of such practices is less explored through a mixed methods approach. The present study seeks to address how multimodal communication in online learning environments is negotiated and experienced by generations. Adopting a mixed-method approach, the study combines phenomenology (lived experience) and Multimodal (Inter)action Analysis (MIA) (meaning-making across modes in sequential interaction). Six key constructs were identified: Language Formality, Emoji Symbol Use, Code-Switching Frequency, Platform Affordance Sensitivity, Digital Literacy, and Meme Trend Responsiveness, which were derived from qualitative data in the form of semi-structured interview responses and interaction transcripts through thematic coding. These results guided a quantitative model of causal relationships among constructs with path analysis of expert ratings. The findings indicate that Language Formality and Digital Literacy play a central role as determinants of multimodal patterns of communication, whereas Platform Affordance Sensitivity has a more reactive role, being determined by user adaption to digital instruments. The micro-analytic findings also demonstrate how experience, knowledge of platform, and generational identity configure the real-time digital interactions. This study provides insights into generation-specific multimodal behaviours in education and may be used as a template for developing inclusive digital learning environments which take account of varied communicative repertoires.

Keywords: Multimodal Communication, Digital Education, Generational Differences, Phenomenology, Micro-Analytic Approach, Mixed Methods Research



Title: Technology-Enhanced Learning for Digital-Native Learners: A Study on Engagement through Gamified Platforms in Secondary Education

Paper ID: TaLIS/2025/TEL/107

Theme: Technology-Enhanced Learning (TEL)

🙎 Author 3: Nurul Amira Fitriyah Binti Mohd Fauzi 💿 <u>nurulamirafitriyah@gmail.com</u> 🏫 UiTM Cawangan Melaka

Abstract:

The growing number of digital-native learners in today's classrooms necessitates the introduction of innovative teaching strategies that resonate with their learning preferences. This research explores the application of gamification in technology-supported learning environments to foster engagement and motivation in secondary school learning environments. Based on the Technology Acceptance Model (TAM) and constructivist learning theory, a mixed-methods approach was utilized on 45 Form 4 students in Malaysia. Data were collected through surveys, classroom observation and focus group interviews. The results indicated that, gamified features like leaderboards, points, badges and interactive challenges were very helpful in increasing the attention, perceived usability, and satisfaction of the students. Quantitative data also revealed an average engagement score greater than 4.0 on 5-point Likert scale, whereas qualitative comments revealed the usefulness of visual interactivity and near-immediate feedback. In conclusion, the study finds that gamification can reduce mathematics anxiety as well as providing a sense of motivation, and collaborative learning in secondary school learning environments. Future studies are recommended to address personalization using Al technology, longer-term and more subjects, and cross-cultural investigation of gamified TEL environments to increase generalizability.

Keywords: Technology-Enhanced Learning, Gamification, Student Engagement, Secondary Education, Digital Natives, Motivation



Title: Efforts To Improve Elementary School Students' Arabic Vocabulary Mastery Through QR Code-assisted Storybook Media

Paper ID: TaLIS/2025/TEL/108

Theme: Technology-Enhanced Learning (TEL)

Author 1: Syifa Rosyidatunnisa <a> syifarosyidatunnisa <a> Syifarosyidatunnisa <a> Universitas Muhammadiyah Sukabumi

🙎 Author 2: Arsyi Rizqia Amalia 🔟 <u>arsyirizqiaamalia@ummi.ac.id</u> 📫 Universitas Muhammadiyah Sukabumi

👤 Author 3: Luthfi Hamdani Maula 🔟 luthfihamdani@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

Abstract:

Arabic language learning in elementary schools is often hampered by low vocabulary mastery, making it difficult for students to understand texts or construct simple sentences. To address this problem, this study used the Classroom Action Research (CAR) method, implemented in two cycles. Each cycle consisted of planning, action implementation, observation, and reflection stages, carried out systematically. The subjects were sixth-grade elementary school students who were actively involved in the learning activities. The learning activities were carried out using QR Code-assisted storybooks, designed to contain simple vocabulary and equipped with QR codes containing audio and short videos so that students can learn more interactively and contextually. Research data were obtained through vocabulary tests, observations of learning activities, and teacher reflection notes, then analyzed descriptively both qualitatively and quantitatively. The results showed an increase in students' Arabic vocabulary mastery in each cycle, both in terms of the number of vocabulary mastered and student engagement in the learning process. In conclusion, the use of QR Code-assisted storybooks has been proven to improve elementary school students' Arabic vocabulary mastery and create a more interesting, enjoyable, and meaningful learning atmosphere.

Keywords: Arabic, Story Books, Vocabulary, QR Code, Elementary School



Title: Student Perceptions of Google Sites: A Technology Acceptance Model (TAM) Based Evaluation of Platform Adoption

Paper ID: TaLIS/2025/TEL/109
Theme: Technology-Enhanced Learning (TEL)
Author 1: Juliza binti Salleh juliza3379@uitm.edu.my tuli Universiti Teknologi MARA
Author 2: Lee Siaw Li siawli@uitm.edu.my tuliversiti Teknologi MARA
Author 3: Lai Tze Wee in laitzewee@uitm.edu.my tuliversiti Teknologi MARA
Author 4: Shirley Sinatra Gran shirley@uitm.edu.my tuliversiti Teknologi MARA
Author 5: Syah Runniza binti Ahmad Bakri runniza@uitm.edu.my tuliversiti Teknologi MARA

Abstract:

This study investigates student acceptance of Google Sites (GS) as a digital learning platform for mathematics and statistics, guided by the Technology Acceptance Model (TAM). A total of 251 diploma and degree students from UiTM Samarahan 2, Sarawak, participate in the research, representing diverse academic programs and semesters. Data are gathered using a structured questionnaire comprising 28 items across five TAM constructs namely perceived ease of use, perceived usefulness, attitude toward use, behavioural intention to use and perception. Descriptive analysis shows consistently high agreement across all constructs, with mean scores ranging from 4.39 to 4.61 on a 5-point Likert scale. Perceived ease of use records the highest mean score (M = 4.61), showing that students find GS easy to use and simple to access, especially on their mobile phones. Individual responses also highlight that the platform is flexible, feels engaging and helps support their learning. Independent t-test results reveal significant gender differences in perceived ease of use and perceived usefulness, with female students reporting higher scores. These findings imply that female learners may engage more purposefully with GS, potentially influenced by digital confidence or learning styles. However, no significant differences are found in attitude, behavioural intention or perception, indicating broad acceptance across genders. The results affirm GS as a practical and well-received tool for digital learning. The study offers insights for educators and suggests future research, particularly in comparing the effectiveness of Google Sites with other platforms such as Google Classroom.

Keywords: Google Sites, Digital learning, Online learning platform, Students' perception, Technology Acceptance Model (TAM)



Title: Pengembangan Media Game Edukasi Wordwall Sebagai Pembelajaran Bahasa Indonesia Siswa Sekolah Dasar

Paper ID: TaLIS/2025/TEL/110
Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Lisma Sofariah 🔍 imaaasfrh@upi.edu 🏫 Universitas Pendidikan Indonesia



Learning media is a supporting device that helps educators deliver material in learning activities. One of the learning media that already exists to support learning activities, namely the use of educational game-based media in Indonesian language lessons for elementary school children, can attract students to participate in learning because the use of game-based learning media will spur them to compete to get good learning results. Their high enthusiasm will create a fun and not boring learning atmosphere. Indonesian language is one of the compulsory subjects that students must learn and master. One aspect of the achievement of students' language skills is by applying varied and appropriate media. In order to create fun teaching and learning activities, researchers develop and produce a product whose application uses a set of computers, namely educational games. The use of learning media has several obstacles in delivering formal material, learning is not interactive, and students are not interested in the learning process. This research uses a research and development (R&D) design. This development research method is defined as a research method used to produce a product. The purpose of this research is to develop wordwall educational game media in the form of interactive PowerPoint to help students in grade one on Indonesian language material. Analysis, design, development, implementation, and evaluation are the five stages of the ADDIE model used for this development. Student response questionnaires, validation sheets, and activity questionnaires are the research instruments used in this study.

Keywords: Learning Media; Indonesia Language; Elementary School; Wordwall



Title: Overcoming Barriers in Digital Learning: Implementing Initiatives in Rural Schools of Sabah – Insights from Recent Studies and Observations

Paper ID: TaLIS/2025/TEL/111

Theme: Technology-Enhanced Learning (TEL)

Author 1: Sharifah Sara Hasliza Syed Hamid 🔍 dr.sarahasliza@gmail.com 🟫 Univerisiti Teknologi MARA

👤 Author 2: Rosilawati binti Sueb 🔟 rosil334@uitm.edu.my 🏫 Univerisiti Teknologi MARA

Abstract:

This paper discusses the implementation of digital learning initiatives in rural schools in Sabah, Malaysia, highlighting the main challenges and opportunities offered by technological, infrastructural, and socioeconomic factors. The integration of digital tools potentially bridges the educational gaps between urban and rural areas, however, rural areas in Sabah continuously face barriers, including unreliable internet connectivity, limited access to digital devices, insufficient teacher training, and socioeconomic disparities. Research underscores the importance of teacher readiness and continuous professional development in ensuring the effective integration of digital learning resources. Studies also found that although parental support is vital, is often hindered by limited digital literacy and economic constraints. This paper highlights that a comprehensive strategy must address these challenges through specific interventions in infrastructure, training, and community involvement. Enhancing digital access, teachers' digital competency, and parental participation in rural schools in Sabah can maximize the use of digital learning technologies, consequently, enhance educational outcomes and reducing the disparity between rural and urban education.

Keywords: Digital Learning, Rural Education, Sabah, Digital Divide, Teacher Training, Parental Support



Title: Digital Learning Media As a Product Of Team-Based Projects In Islamic Education Seminar Courses

Paper ID: TaLIS/2025/TEL/112
Theme: Technology-Enhanced Learning (TEL)

Abstract:

This study aims to present the results of a course conducted in the Islamic Education Seminar course using the Team-Based Project teaching method. This research is important to respond to the Minister of Education, Culture, Research, and Technology's Decision Number 210/M/2023 regarding Key Performance Indicators for Higher Education Institutions and Higher Education Service Institutions at the Ministry of Education, Culture, Research, and Technology, which states that classroom lectures must be conducted using the Team-Based Project method. The research method used was a case study with data collection conducted using documentation techniques in the form of artifacts produced by students, namely Islamic Education learning media in elementary schools. The research location was the elementary school education study program at the Universitas Pendidikan Indonesia. The research was conducted during the even semester of the 2024/2025 academic year, focusing on Class B, which consisted of 42 students divided into 14 groups. The research results are as follows: 1) The team-based project in the Islamic Education Seminar course produced 14 digital learning media products for Islamic education in elementary schools, 2) The digital learning media produced consist of 7 digital flipbooks, 4 educational videos, and 3 websites, 3) The applications used in the creation these digital media produced consist of 7 digital flipbooks, 4 educational videos, and 3 websites, 3) The applications used in the creation these digital media products included Heyzine, Book Creator, Pinterest, Wordwall, Google Site, Suno, CapCut, HTML5, YouTube Canva, Zepeto, CapCut, and Runway. This Study concludes that team-based projects in Islamic Education Seminar courses can produce a variety of digital learning media for Islamic Education learning in elementary schools.

Keywords: Team-Based Project, Islamic Education, Digital Learning Media



Title: Collaborative Learning through Educational Digital Games Based on Game-Based Learning and Local Culture to Improve Literacy and Collaboration Skills in Elementary Schools

Paper ID: TaLIS/2025/TEL/113

Theme: Technology-Enhanced Learning (TEL)

Author 1: Nurdinah Hanifah 🔍 nurdinah.hanifah@upi.edu 🟫 Universitas Pendidikan Indonesia Author 2: Kania Indah Pratiwi 🔍 kaniaindahp@upi.edu 🟫 Universitas Pendidikan Indonesia

Abstract:

The demands of 21st-century education require the integration of literacy and collaboration skills from the primary school level. However, literacy instruction in primary schools often focuses solely on individual cognitive skills and pays little attention to collaborative learning. This study aims to examine the effectiveness of a locally contextualized digital educational game based on Game-Based Learning (GBL) to enhance reading literacy and collaboration skills among primary school students. The research employed a quasi-experimental design with a mixed-methods approach involving two classes (n = 60) of Grade II students in Bandung. Instruments included a reading literacy test (α = 0.88), a collaboration observation rubric, and focus group discussions (FGD). Findings indicate a significant improvement in the experimental group's reading literacy scores (p < 0.01) compared to the control group, as well as higher-quality collaboration observed during group activities. Qualitative data from the FGD further revealed that students were more motivated, engaged, and supportive of peers in accomplishing learning challenges. This study highlights that integrating locally contextualized GBL offers an innovative pedagogical strategy to foster literacy and collaboration skills in primary education.

Keywords: Game-based Learning, Literacy, Collaboration, Primary School, Pedagogical Innovation



Title: Measuring Academic Data Literacy in Learning Analytics: Instrument Development and Validation

Paper ID: TaLIS/2025/TEL/114

Theme: Technology-Enhanced Learning (TEL)

🙎 Author 1: Dr. Quadri Adedayo Taofeek 💿 taofeekquadri@uitm.edu.my 🏫 Universiti Teknologi Mara 👤 Author 2: Assoc. Prof. Dr. Nurbiha A Shukor 💿 nurbiha@utm.my 🏫 Universiti Teknologi Malaysia

Abstract:

Learning analytics is a subfield of technology-enhanced learning that enables educators at all levels to gain access to student data, which can be used for making instructional assessments and achieving results that can be implemented to achieve targeted learning goals. The provision and transmission of data related to students' classroom instruction to students, academics, and educational institutions placed significant emphasis on developing learning analytics technologies, particularly in increasing students' retention and academic performance. Nevertheless, despite the many benefits of applying learning analytics in education, including providing feedback, academics still struggle to use it successfully due to insufficient competencies. This study used a pilot study to validate a measuring instrument to examine the relationship between data literacy attitude, data literacy belief, data literacy access, and data literacy competence in learning analytics of academic staff in a higher education institution. The instrument was validated using PLS-SEM. Composite Reliability (CR) and outer loading were employed to assess reliability. The Heterotrait–Monotrait Ratio (HTMT) was utilized to verify the discriminant validity of this instrument, whereas the Average Variance Extracted (AVE) was employed to test the convergent validity. By using PLS-SEM to assess the validity and reliability of the items, the scales developed in this study were found to be valid and reliable.

Keywords: Learning Analytics, Data Literacy Competence, Data Literacy Attitude, Data Literacy Access, Data Literacy Belief



Title: An Integrated Methodology for Bibliometrix Analysis for the Impact of Artificial Intelligence on Critical Thinking

Paper ID: TaLIS/2025/TEL/115
Theme: Technology-Enhanced Learning (TEL)

Author 1: LI LI 💿 Illily135@163.com 🖍 North China University of Science and Technology

Author 2: Wang Yingli 🔍 - 🏫 North China University of Science and Technology

Abstract:

The pervasive integration of artificial intelligence across academic disciplines has underscored the need to understand evolving research trends in critical thinking within the Artificial Intelligence (AI) era. Despite growing interest, a comprehensive analysis of this domain is still lacking. This study employs bibliometric methods, following PRISMA guidelines and using VOSviewer, to examine the development of critical thinking research over the past decade in the context of AI. By analyzing 157 publications from Scopus, Web of Science, and CNKI, we identify major contributing countries, influential authors, keyword co-occurrences, and emerging thematic clusters. The results reveal a shift from theoretical discussions to empirically grounded studies concerning AI-driven educational tools and ethical reasoning. This review not only maps the current intellectual structure but also highlights research gaps and practical implications, offering valuable guidance for future scholarly inquiry.

Keywords: Artificial Intelligence, Bibliometrix Analysis, Critical Thinking, Integrated Methodology



Title: Impacts of Artificial Intelligence Tools on University Students' Cognitive-Metacognitive Capabilities: A Pilot Study

Paper ID: TaLIS/2025/TEL/116
Theme: Technology-Enhanced Learning (TEL)

Author 1: Desta Berhe Sbhatu odestasbhatu@uitm.edu.my b UiTM

Author 2: Nabilah Abdullah odestasbhatu@uitm.edu.my b UiTM

Abstract:

This research aims to investigate the effects of the use of artificial intelligence (AI) tools on students' cognitive-metacognitive abilities. Freshman students of biology, chemistry, and physics education at a Malaysian university enrolled via three pathways participated in the study. Students' scores on yes (1) or no (0) structured surveys (on 11 research topics), high school/pre-university GPA, and test scores (on lower- and higher-order thinking science tests) were collected and analyzed. In many of the research topics, the mean scores of the surveys were high. Data analyses were carried out using inferential statistical methods. Comparisons of mean scores were carried out based on gender, pathway to university, and major areas of study. Many indicators showed that males, chemistry majors, and pathway 2 (pre-university foundation) students did better. Mean scores of many research topics on cognitive-metacognitive abilities were positively correlated to mean scores of the research topics on AI use. In all the regression models of the research topics, the predictor variables were without significant contributions (p > 0.05). Qualitative examination of the data showed that the students were able to rate their cognitive-metacognitive abilities and AI use in some meaningful ways and distinct patterns. Given their strong academic background, students' self-assessments of cognitive-metacognitive abilities and AI usage in STEM learning may reflect a reasonable level of awareness, though further qualitative validation is needed. A mean score of approximately 12 out of 25 on the topic of 'the effects of AI in hindering STEM learning' suggests neutrality or ambivalence about negative consequences of AI while still recognizing its overall benefits, as shown by the high mean scores in the topic on 'the benefit of AI in STEM learning.' This suggests a nuanced perspective where students see AI as both a facilitator and a potential challenge in their education.

Keywords: Al Tools, Cognitive Abilities, HOT Skills, Metacognitive Abilities



Title: Leveraging Generative Artificial Intelligence for Development of Pre-University English Reading Instrument

Paper ID: TaLIS/2025/TEL/117

Theme: Technology-Enhanced Learning (TEL)

Author 1: ISMI SAFIA ADILA BT IBRAHIM 2 2025529351@student.uitm.edu.my 🏫 Faculty of Education, UiTM Puncak Alam

Author 2: Johan @ Eddy Luaran in johaneddy@uitm.edu.my 🏫 Faculty of Education, UiTM Puncak Alam Author 3: Nur Hazwani Binti Hanafi in - 🏫 Centre of Foundation Studies, UiTM Dengkil

Abstract:

Designing a standards-aligned reading comprehension assessment is a significant challenge for Malaysian pre-university English academicians who must abide with the demands of Bloom's Taxonomy, the CEFR, and COPPA standards while balancing teaching, research, and administrative loads. The emergence of generative artificial intelligence (GenAl), such as Gemini, ChatGPT, Co Pilot and Deep Seek, has encouraged academicians to investigate and employ these technologies to improve their pedagogical methods, including the creation of reading materials and evaluation. This concept paper proposes a comprehensive framework that enables academicians to leverage generative Al for designing standards-aligned English reading comprehension instruments. The framework was developed through integration of insights from professional development programs with current literature on Al-assisted assessment design. The proposed framework consists of three systematic phases, which are Setup & Multi-Platform Content Generation, Al Generation, and Human Expert Validation. This will help ensure that Al-generated assessments maintain pedagogical standards while reducing development time and enhancing transparency in the design process. Although currently pre-validated, the framework offers a practical starting point for faster, more transparent, and standards-aligned test development. Future research will focus on comprehensive validation studies to establish the framework's effectiveness and reliability.

Keywords: Generative Artificial Intelligence, English Reading Assessment, Reading Comprehension Instruments, Framework Development, Standards-Aligned Evaluation



Title: Assessing Students' Perception toward Their Professors' Teaching Competence Using TPACK Framework

Paper ID: TaLIS/2025/TEL/118

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Johan Eddy Luaran 🔟 johaneddy@uitm.edu.my 🏫 Universiti Teknologi MARA

👤 Author 2: Desta Berhe Sbhatu 💿 desta.sbhatu@mu.edu.et 🏫 Universiti Teknologi MARA

👤 Author 3: Melissa Malik 🔍 melissamalik@uitm.edu.my 🏫 Universiti Teknologi MARA

🙎 Author 4: Ismail Abdulfatai Olohunfunmi 💿 abdulfunmi@uitm.edu.my 🟫 Universiti Teknologi MARA



This study investigates students' perceptions of their professors' Technological Pedagogical Content Knowledge (TPACK) in one Malaysian higher education institution. Using a survey-based design, findings show that students consistently rated their professors high across all TPACK domains, with content knowledge (CK) and pedagogical knowledge (PK) emerging as strengths, while technological knowledge (TK) received comparatively lower ratings. The results were compared to local evidence from a Malaysian university (Fauzi & Shah, 2022) and a regional one from an Indonesian university (Ningtyas & Degeng, 2023), which similarly revealed students' strong appreciation for professors' CK. The students' ratings about their professors' TPACK proficiency are generally higher than self-ratings of preservice teacher educators and university faculty members. The findings suggest that capacity-building initiatives need to extend beyond technical familiarity to include technological knowledge and pedagogy in content-specific education.

Keywords: TPACK framework; student perceptions; higher education pedagogy



Title: Development of a Digital Module Based on Project-Based Learning in STEM Subjects to Improve 21st-Century Skills of Elementary School Students

Paper ID: TaLIS/2025/TEL/119

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Rina Ayuwati 🔍 rinaayuwati06011990@upi.edu 🏫 UPI KAMPUS TASIKMALAYA

👤 Author 2: Syarif Hidayat 🍭 hidayat@upi.edu 🟫 UPI KAMPUS TASIKMALAYA

🙎 Author 3: SENI APRILIYA 🔟 seni_apriliya@upi.edu 🟫 UPI KAMPUS TASIKMALAYA

Abstract:

This study aims to develop a digital module based on Project-Based Learning (PjBL) for STEM subjects to enhance elementary school students' 21st-century skills. The targeted skills include critical thinking, creativity, collaboration, and communication (4C), in line with the demands of digital-era education and the implementation of the Merdeka Curriculum. The research employs a Research and Development (R&D) method using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research subjects consist of 30 fifth-grade elementary school students. Research instruments include expert validation sheets, teacher and student response questionnaires, as well as critical thinking and problem- solving tests. Data were analyzed quantitatively and descriptively through validation score calculations, response percentages, and test score improvements.

The results show that the PjBL-based digital module meets the criteria for being highly valid (average score of 88%), practical to use (teacher responses 91% and student responses 89%), and effective in improving critical thinking and problem-solving skills, with an average score increase from 63.4 on the pretest to 83.6 on the posttest. Thus, the PjBL-based digital module for STEM subjects can serve as an innovative alternative to support 21st-century learning in elementary schools.

Keywords: Digital Module, Project-Based Learning, STEM, 21st-Century Skills



Title: Investigating Al Writing Tools in Enhancing Academic Writing Skills of Diploma in TESL Students of a Private College in Malaysia: The Moderating Role of Students' Perceptions

Paper ID: TaLIS/2025/TEL/120

Theme: Technology-Enhanced Learning (TEL)

Author 1: Muhammad Ammar Bin Azman Muhdammardanish97@gmail.com Management and Science University (MSU)
Author 2: Associate Professor Dr. Abu Bakar Bin Ibrahim Management and Science University (MSU)

Abstract:

The rapid advancements in Artificial Intelligence (AI) have transformed language education, especially in higher education. Many studies have been done related to AI integration in education, but none on the use of language AI tools among Diploma TESL students at Poly-Tech institutions in Malaysia. This study investigates the use of Al writing tools such as Grammarly, QuillBot and ChatGPT in enhancing the academic writing skills of Diploma in Teaching English as a Second Language (DTESL) students at Kolej Poly-Tech Mara (KPTM) Kota Bharu, Malaysia. The study is grounded in Sociocultural Theory (SCT) and the Technology Acceptance Model (TAM) to investigate the relationship between Al writing tool use which is the independent variable and academic writing skills as the dependent variable including grammar accuracy, vocabulary usage, coherence and organization and self-editing skills. Students' perceptions of Al writing tools that are operationalized through perceived usefulness and perceived ease of use will serve as the moderating variable. A mixed-method explanatory sequential design under the pragmatic paradigm will be employed with Phase 1 comprising a quantitative survey that will be administered to 150 students followed by Phase 2 involving qualitative semi-structured interviews with 15 purposively selected students to explore their experiences, challenges and suggestions for improving the integration of AI writing tools. Quantitative data will be analysed using SPSS Statistics Version 29 through descriptive statistics, Pearson correlation and multiple regression analysis. Qualitative data will be analysed thematically through a manual process. This study will provide empirical insights into how AI writing tools support ESL academic writing performance and offer practical recommendations elicited from students' suggestions for incorporating these tools into writing instruction. By focusing on the Malaysian higher education ESL context, this study addresses critical gaps in the literature on Al-assisted academic writing.

Keywords: Al Writing Tools, Academic Writing Skills, Student Perceptions, Sociocultural Theory, Technology Acceptance Model



Title: Analysis of E-LKPD Development Requirements with a Constructive Character on Measuring Perimeter and Area of Flat Shapes in Primary Schools

Paper ID: TaLIS/2025/TEL/122
Theme: Technology-Enhanced Learning (TEL)

Author 1: Siti Nurani sitinurani90@upi.edu fi UPI Tasikmalaya
Author 2: Elan sitinurani90@upi.edu fi UPI Tasikmalaya
Author 3: Karlimah sitinuah@upi.edu fi UPI Tasikmalaya

Abstract:

Many primary school students still have difficulty measuring the perimeter and area of flat shapes. Misconceptions, a tendency to emphasise memorising formulas, and meaningless cognitive, affective and psychomotor experiences contribute to learning failure. However, there are student worksheets, both printed (LKPD) and electronic (E-LKPD), that can serve as learning media to provide meaningful experiences. In this digital age and moral crisis, it is certainly more appropriate to use constructive E-LKPD that provide cognitive, affective and psychomotor experiences. Therefore, it is necessary to develop E-LKPD so that they are constructive in nature. It is necessary to analyse first before conducting development research using the ADDIE model. The analysis stage uses field studies in the form of interviews and document analysis. The respondents were teachers, and the documents were the curriculum and several E-LKPD. The analysis results showed that E-LKPD provides space to motivate learning and meaningful experiences in measuring the perimeter and area of flat shapes, but it does not yet touch on experiences of being honest with oneself, discipline, and cooperation. These findings emphasise the urgency of developing character-based E-LKPD so that it is constructive not only in terms of cognitive and skill aspects but also affective aspects. The results of this analysis provide a strong theoretical and practical basis for the next stage of design and development, in the form of E-LKPD that integrates the measurement of the perimeter and area of flat shapes with character for primary school students.

Keywords: Character Education, Constructivism, E-LKPD, Geometry, Primary School



Title: Best Practice Improvement Ability Digital Literacy Based on Learning Media Gamification for Grade IV Students of SDN 2 Cisadap.

Paper ID: TaLIS/2025/TEL/123

Theme: Technology-Enhanced Learning (TEL)

🙎 Author 1: Faiz Satrio Yudhanto 💿 faizsatrioyudhanto499@upi.edu 🟫 Kampus Universitas Pendidikan Indonesia Tasikmalaya



Implementation teaching students is necessary selection of appropriate and optimal learning media to achieve objective learning . As educator ability reflect on learning that has been implemented very important to master and implement . Ability reflection this is very impactful positive good for educators , students, and for usefulness science in field education when reflection is published . The purpose of writing article This that is to (1) discuss implementation of learning media gamification use Interland (g.co/ interland) for improvement ability digital literacy of elementary school students (2) reveals reflection researchers moment carry out practice teaching (3) explaining importance reflection for educators . The methods used in manufacturing article this use method narrative inquiry , research with method narrative inquiry this aim for describe results reflection implementation practice teach digital literacy based on learning media gamification for fourth grade students of SDN 2 Cisadap Regency Ciamis which has implemented by researchers . Based on results narrative inquiry can concluded that learning media gamification use Interland (g.co/ interland) can give impact positive for classroom learning as well as can become solution for problem no availability of learning media-based gamification for learning digital literacy, as well as reflection own role important for educator for keep going can increase quality teach from time to time.

Keywords: Digital Literacy, Gamification Learning Media, Interland, Narrative Inquiry, Learning Reflection



Title: Blended Learning in Anatomy and Physiology Teaching: Experiences of Diploma Nursing Students in UiTM

Paper ID: TaLIS/2025/TEL/124

Theme: Technology-Enhanced Learning (TEL)

Author 1: Marlina Mohd Mydin 🔍 narlimar@uitm.edu.my 🦍 null

Author 2: Frannelya Anak Francis frannelya8306@uitm.edu.my francity of Health Sciences, Universiti Teknologi MARA Cawangan Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia



Anatomy and Physiology (A&P) serve as the foundation for many health-related programs, providing students with an understanding of the human body as they progress in their studies and careers. Teaching A&P to diploma nursing students can be challenging, since students come with varying levels of background knowledge. Blended learning has been adopted, combining classroom teaching with e-learning, to give students greater flexibility and promote active learning by enabling them to access materials, review content and practice using interactive tools. This study aims to evaluate nursing students' learning experiences with a blended learning approach in Anatomy and Physiology (A&P). The UFUTURE platform served as the online medium, with each topic supported by recorded lectures, 3D visualizations of anatomical structures, animation videos, quizzes and games, all designed to simplify complex processes. A total of 75 nursing students from UiTM Bertam and Samarahan campuses completed a survey on their learning experiences. Nearly half of the respondents (45.9%) rated the overall approach as Good, while 37.8% described it as Excellent. More than half (54.8%) also considered the animation videos to be Extremely Effective in improving their understanding. Overall, the findings suggest that nursing students effectively received blended learning, and it may be an effective way to support the teaching and learning of anatomy and physiology (A&P), particularly for those with diverse academic backgrounds.

Keywords: Blended Learning, Anatomy and Physiology, Nursing Students, Teaching



Title: Blended Learning in Anatomy and Physiology Teaching: Experiences of Diploma Nursing Students in UiTM

Paper ID: TaLIS/2025/TEL/124

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Marlina Mohd Mydin 🔍 narlimar@uitm.edu.my 🏫 null

Author 2: Frannelya Anak Francis o frannelya8306@uitm.edu.my 🏫 Faculty of Health Sciences, Universiti Teknologi MARA Cawangan Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia



Anatomy and Physiology (A&P) serve as the foundation for many health-related programs, providing students with an understanding of the human body as they progress in their studies and careers. Teaching A&P to diploma nursing students can be challenging, since students come with varying levels of background knowledge. Blended learning has been adopted, combining classroom teaching with e-learning, to give students greater flexibility and promote active learning by enabling them to access materials, review content and practice using interactive tools. This study aims to evaluate nursing students' learning experiences with a blended learning approach in Anatomy and Physiology (A&P). The UFUTURE platform served as the online medium, with each topic supported by recorded lectures, 3D visualizations of anatomical structures, animation videos, quizzes and games, all designed to simplify complex processes. A total of 75 nursing students from UiTM Bertam and Samarahan campuses completed a survey on their learning experiences. Nearly half of the respondents (45.9%) rated the overall approach as Good, while 37.8% described it as Excellent. More than half (54.8%) also considered the animation videos to be Extremely Effective in improving their understanding. Overall, the findings suggest that nursing students effectively received blended learning, and it may be an effective way to support the teaching and learning of anatomy and physiology (A&P), particularly for those with diverse academic backgrounds.

Keywords: blended learning, anatomy and physiology, nursing students, teaching



Title: Framework for Child Development in Technology-Enhanced Learning (FCD-TEL): Towards Developmentally Sensitive and Inclusive Learning Design for Children

Paper ID: TaLIS/2025/TEL/125

Theme: Technology-Enhanced Learning (TEL)

- Author 1: Siti Aminah Abd Wahab 🔍 aminahwahab@uitm.edu.my 🏫 Universiti Teknologi MARA (UiTM) Cawangan Melaka, Kampus Alor Gajah
- 🙎 Author 2: Dr Nur Nasliza Arina Mohamad Nasir 💿 nasliza@uitm.edu.my 🟫 Universiti Teknologi MARA (UiTM) Cawangan Melaka, Kampus Alor Gajah
- 🙎 Author 3: Dr Mohammad Nurhafiz Hassim 💿 hafiszhassim@uitm.edu.my 🏫 Universiti Teknologi MARA (UiTM) Cawangan Melaka, Kampus Alor Gajah



The rapid integration of digital technologies such as artificial intelligence, gamification, and immersive tools into early and primary education has transformed the way learning is designed and delivered, reshaping the role of learning designers and broadening the ways children engage with learning. Although recent studies report promising outcomes in terms of learner motivation, accessibility, and personalization, growing concerns remain regarding developmental appropriateness, cognitive load, inclusivity, and ethical safeguards for children, educators, and families. These concerns form the focus of the framework proposed in this paper. To examine these issues, this paper conducts a narrative critical review of literature published between 2019 and 2025. The review was guided by five research questions: (i) how learning designers integrate child development principles into technology-enhanced learning, (ii) what blind spots or risks remain, (iii) how diverse developmental needs are addressed, (iv) how ethics and privacy are managed, and (v) how UDL, TPACK, and SAMR are applied to the design of technology-enhanced learning for children. Findings indicate that while learning designers increasingly adopt inclusive strategies and adaptive tools, developmental grounding remains inconsistent, risks of cognitive overload persist, and ethical safeguards such as privacy, wellbeing, and resistance to persuasive design are still inadequately embedded in practice. These insights underline the need for a structured tool, leading to the development of the Framework for Child Development in Technology-Enhanced Learning (FCD-TEL), a twelve-dimensional, three-level rubric (O-Absent, 1-Partial, 2-Strong) that integrates developmental alignment, inclusivity, pedagogical coherence, and ethical safeguards into a single evaluative framework. FCD-TEL is proposed to provide learning designers with a structured approach to addressing these challenges in technology-enhanced learning design for children.

Keywords: Learning Design, Child Development, Technology-enhanced Learning, Inclusivity, Ethical Safeguards



Title: Development Canva Media To Improve First Grade Students' Beginning Writing Skills Girimukti 3 State Elementary School

Paper ID: TaLIS/2025/TEL/126
Theme: Innovative Pedagogical Practices (IPP)

Author 1: Nina Andiani ninaandiani20@upi.edu ninusuh UPI TASIKMALAYA
Author 2: Seni Apriliya seni_apriliya@upi.edu ninusuh UPI TASIKMALAYA
Author 3: Syarif Hidayat hidayat@upi.edu ninusuh UPI TASIKMALAYA

Abstract:

This study aims to develop Canva-based learning media to improve elementary school students' beginning writing skills. The research method used Research and Development (R&D) with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. The subjects were 30 first-grade students at SDN Girimukti 3, Ciamis Regency. The research instruments included an expert validation sheet, teacher and student response questionnaires, and a beginning writing skills test. Data were analyzed descriptively and quantitatively, calculating validation scores, response percentages, and average test results. The results showed that Canva met the criteria for highly valid (average score of 87%). The media was also practical to use, as evidenced by positive responses from 89% of students and 92% of teachers. Furthermore, the media effectively improved beginning writing skills, with an average score increasing from 62.3 to 82.7 after the learning process. Therefore, Canva-based media can be used as an innovative alternative for beginning writing instruction in elementary schools.

Keywords: Writing Startups, Canva Media, Elementary School, Media Development



Title: Blended Learning Approaches in Art History: A Comparison of Conventional Lectures and Digital Platforms

Paper ID: TaLIS/2025/TEL/127 Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Madam Siti Nur Izaura Bt Mohd Razis 💿 Izaura@uitm.edu.my 🏫 Universiti Teknologi MARA UITM Puncak Alam

👤 Author 2: Juliana Manan 💿 Julianan0868@uitm.edu.my

in Universiti Teknologi MARA UITM Puncak Alam



Art history has historically been taught through in person lectures and visual slide shows with a focus on descriptive analysis and chronological narration. However, new avenues for disseminating art historical information have been made possible by the quick development of digital technology and the increasing availability of online materials. By contrasting traditional lecture-based instruction with digital learning platforms, this study examines the efficacy of blended learning strategies in art history classrooms. To investigate variations in student involvement, comprehension, and critical thinking abilities, the study uses a mixed-method approach that includes pre- and post-assessment exams, classroom observations, and student surveys. The results show that digital platforms offer interactive elements, self-paced exploration, and broader access to visual materials that improve contextual knowledge, whereas traditional lectures offer structured instruction and encourage direct connection with instructors. According to the study, by combining the two approaches, a blended learning model bridges the gap between passive reception and active engagement and produces a more dynamic and inclusive learning environment. By emphasising the potential of blended learning to revolutionise Art History instruction in higher education settings, this study adds to the continuing conversations on technology-enhanced pedagogy.

Keywords: Blended, Learning, Art, History, Conventional, Lectures, Digital



Title: Artificial Intelligence-Mediated Metacognitive Strategy in Language Learning: Enhancing Autonomy and Language Proficiency.

Paper ID: TaLIS/2025/TEL/128

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Siti Nur Dina Haji Mohd Ali 💿 dina8394@uitm.edu.my 🏫 Universiti Sains Islam Malaysia, Universiti Teknologi MARA Cawangan Negeri Sembilan

👤 Author 2: Hazlina Abdullah 🔟 hazlina@usim.edu.my 🟫 Universiti Sains Islam Malaysia

🙎 Author 3: Engku Mohd Syafiq Engku Safruddin 💿 emsyafiq@usim.edu.my 🏫 Universiti Sains Islam Malaysia

👤 Author 4: Mohd Hafizul İsmail 💿 mhafizul@unikl.edu.my 🟫 Malaysian İnstitute of Information Technology, Universiti Kuala Lumpur

Abstract:

The integration of artificial intelligence (AI) into language learning has become a new avenue for fostering metacognitive strategies that enhance learner autonomy and proficiency. This study examines the relationship between AI use and metacognitive strategy adoption among language learners. Grounded in Oxford's Strategy Inventory for Language Learning (SILL), the study adopted a quantitative research design via a survey. Data were collected from 120 undergraduates at selected local higher education institutions. For data analysis, Structural Equation Modelling (SEM) was employed to test the hypothesised pathways linking AI use, metacognitive strategy adoption, autonomy, and language proficiency. Results revealed that AI use significantly predicted metacognitive strategy adoption, which in turn mediated positive effects on learner autonomy and language proficiency. These findings highlight the prominent role of AI in language learning and provide both theoretical contributions to metacognitive strategy research. This study suggests practical implications for the policymakers and language instructors for designing suitable AI-enhanced pedagogical interventions for language learning in digital contexts.

Keywords: Artificial Intelligence, Language Learning, Metacognitive Strategies, Structural Equation Modelling



Title: Challenges and Opportunities of Technology-Enhanced Music Education in Resource-Limited Settings

Paper ID: TaLIS/2025/TEL/129 Theme: Technology-Enhanced Learning (TEL) pedagogy

👤 Author 1: J. Julia 💿 juli@upi.edu 🟫 Universitas Pendidikan Indonesia



This paper presents a literature review on the challenges and opportunities of technology-enhanced music education in elementary schools, with a particular focus on resource-limited contexts. Derived from an exploration of the Scopus database, the review identified 60 relevant sources published between 2010 and 2024, including meta-analyses, case studies, survey research, and policy analyses. The synthesis reveals that while music education is widely recognized as essential for children's holistic development, its implementation at the elementary level is increasingly constrained by limited resources, teacher readiness, and policy pressures that marginalize the arts. Findings indicate that teacher preparation remains a central barrier, as many generalist educators lack sufficient training and confidence to integrate digital tools effectively, while professional development, mentoring, and collaborative networks emerge as critical factors for sustaining innovation in music classrooms. At the institutional level, neoliberal reforms and inequitable resource distribution exacerbate disparities, with urban schools often better equipped than their rural and low-income counterparts, thereby shaping student engagement and outcomes. At the same time, opportunities exist through inclusive, trauma-informed, and culturally responsive pedagogies supported by technology, as digital platforms, gamified applications, and open-source resources demonstrate potential to expand participation and affirm student identities, particularly when adapted to local cultural contexts. Innovative practices in resource-limited schools further suggest that constraints can foster creative pathways rather than insurmountable obstacles; however, gaps remain in longitudinal evidence, scalable professional development models, and cross-cultural research. The review concludes that technology integration in elementary music education should be framed as a contextual and equity-driven process, requiring systemic support, equitable resource allocation, and teacher empowerment to ensure that technology serves as a catalyst for creativity, inclusion, and resilience in music learning.

Keywords: Elementary Music Education, Technology Integration, Resource-limited Schools, Teacher Professional Development, Inclusive



Title: Enhancing Digital Systems Course through Virtual Laboratories: Bridging Theory and Practice

Paper ID: TaLIS/2025/TEL/130

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Nur Asfahani Ismail 💿 asfahani9303@uitm.edu.my 🟫 UiTM Johor, Pasir Gudang Campus

🙎 Author 2: Nor Affida M.Zin 💿 affida0253@uitm.edu.my 🟫 Faculty of Electrical Engineering, UiTM Johor, Pasir Gudang Campus 👤 Author 3: Fadila Mohd Atan 💿 fadila2533@uitm.edu.my 🏫 Faculty of Electrical Engineering, UiTM Johor, Pasir Gudang Campus



Teaching digital systems often presents challenges due to its abstract nature and the limitations of physical laboratory resources. Traditional hardware-based labs provide valuable hands-on experience, but access may be restricted by equipment availability, scheduling, and cost. To address these challenges, this paper presents a case study on the integration of virtual laboratories in a Digital Systems course. Using simulation tools for topics such as Boolean algebra, combinational logic, and sequential circuits, the virtual labs were designed as complementary exercises to lectures and hardware sessions. The implementation allowed students to practice circuit design and verification independently, with immediate feedback from the software. From an instructional perspective, virtual labs enhanced flexibility in teaching, supported clearer visualization of abstract concepts, and reduced reliance on physical equipment. Importantly, the approach contributed to the attainment of Program Outcome 5 (Modern Tool Usage) by equipping students with practical experience in using contemporary digital design and simulation tools aligned with industry practices. This teaching innovation demonstrates how virtual labs can enrich digital systems education by bridging theory and practice, fostering PO5 attainment, and supporting technology-enhanced learning in electrical engineering.

Keywords: Virtual Labs, Digital Systems, Logic Simulation, Teaching Innovation, PO5, Technology-Enhanced Learning



Title: Enhancing Basic Life Support (BLS) Performance Through Structured Training And Assessment Among Medical Students

Paper ID: TaLIS/2025/TEL/131

Theme: Technology-Enhanced Learning (TEL)

Author 1: Nurul Huda Ahmad 🔍 huda8317@uitm.edu.my 🏫 Faculty of Medicine, Universiti Teknologi MARA, Sungai Buloh, Malaysia 🙎 Author 2: Kaneko Ichiro 💿 i-kaneko@med.teikyo-u.ac.jp 🏫 Teikyo Simulation Education and Research Center, Tokyo, Japan



[Background] Competency-based learning emphasizes mastering essential skills through practical application and assessment. This study evaluates medical students' Basic Life Support (BLS) performance using structured training and assessment protocols to ensure skill retention, confidence, and preparedness for real-world emergencies. [Method] Fourth-year medical students at Teikyo University underwent structured BLS training, including theory review, hands-on practice with real-time feedback using Laerdal⊚ Resusci Anne QCPR Torso, and a three-step assessment (main, additional, final tests). The goal was achieving a Chest Compression Overall Score (CCOS) ≥90%, with analysis of correct depth and rate maintenance. [Results] In 2023, 117 students (56% male, 44% female) participated. Pass rates for the three-step assessment were 88%, 96%, and 100%. CCOS scores differed significantly by gender (p=0.046). Correct depth (50-60mm) was achieved by 88%, 91%, and 92% of students, with significant gender differences (p<0.001). Correct depth maintenance (≥80% of time) was 56%, 60%, and 62%, while compression rates (100-120/min) were 80%, 83%, and 84%, with no significant gender differences. [Conclusion] A CCOS goal of ≥90% proved achievable and effective for medical students, enhancing BLS skills and confidence. Other metrics were less consistently met, suggesting the need for further refinement in training protocols to ensure comprehensive skill mastery.

Keywords: Basic Life Support, BLS, CPR, Cardiopulmonary Resuscitation



Title: Nature Power: A Game-Based Learning Adventure on Photosynthesis for Primary School Students

Paper ID: TaLIS/2025/TEL/132

Theme: Technology-Enhanced Learning (TEL)

👤 Author 1: Suhanah binti Rosnan 💿 suhan009@uitm.edu.my 🏫 Universiti Teknologi MARA

Author 2: Ummi Kalsum Binti Ahmad Hamini 💿 ummihamini@gmail.com 🟫 Universiti Teknologi MARA

Abstract:

For primary school students in particular, learning about photosynthesis is an important component of science education. However, many students have lost interest in learning science due to the lack of engaging and interactive learning tools, with traditional methods often failing to capture their curiosity and interest. This project aims to address this concern by assisting them learn photosynthesis in an enjoyable way and through an interactive mobile game. This project applied the Game Development Life Cycle (GDLC) Model as the primary methodology. The Model involved several stages, which are initiation, pre-production, production, testing, and release. The Nature Power project achieved an overall effectiveness rating of 90.20%, with significant knowledge gains and strong positive feedback indicating its success in engaging students and enhancing interest in learning about photosynthesis. Future enhancements may be applied in the future by adding more sets of quizzes, adding more mini games, providing some animation on notes section and providing video learning. These future enhancements will make the learning experiences more meaningful.

Keywords: Educational game, Game-Based Learning (GBL), Photosynthesis, Interactive Learning, Student Engagement.



Title: Exploring the Factors in Career Preparedness Among Undergraduate Students: A Systematic Literature Review (2020–2025)

Paper ID: TaLIS/2025/IHE/101

Theme: Inclusive and Holistic Education (IHE)

🙎 Author 1: Ahmad Ainullutfi Bin Azzman 🔟 <u>2024306397@student.uitm.edu.my</u> 🏫 Universiti Teknologi MARA (UiTM)

👤 Author 2: Teoh Sian Hoon 🔟 <u>teohsian@uitm.edu.my</u> 📫 Universiti Teknologi MARA (UiTM)

👤 Author 3: Leele Susana Jamian 🍭 leele@uitm.edu.my 🟫 Universiti Teknologi MARA (UiTM)

Abstract:

This paper addresses the critical nexus between career preparedness among undergraduates and its factors, including personal, social, academic, environmental, and resilience factors. It aims to identify the factors with the research question "To what extent do personal, social, resilience, academic, and environmental factors influence career preparedness among undergraduate students?". A systematic review method called PRISMA was employed to select the relevant articles between 5 years (2020 – 2024). A total of 23 articles were analyzed after going through the screening process. In conclusion, the results of this study indicate that personal, social, academic, environmental factors, and resilience play a crucial role in shaping career preparedness among undergraduate students. Findings from 23 analyzed articles emphasize that the interaction between social support, authentic learning experiences, and students' ability to adapt to change is key to the effective development of career preparedness. This study provides important implications for higher education institutions in formulating more comprehensive support strategies and interventions to enhance students' career preparedness.

Keywords: Career Preparedness, Undergraduate Students, Systematic Literature Review, Personal Factor



Title: Reliability and Construct Validity Evidence on Biomotor Abilities Tests and Performance Tests to identify Talent in Swimming among 12-year-Old Boys

Paper ID: TaLIS/2025/IHE/102

Theme: Inclusive and Holistic Education (IHE)

👤 Author 1: Mr Nagoor Meera bin Abdullah 🔟 nagoor@uitm.edu.my 🏫 universiti teknologi mara

🧘 Author 2: Professor Madya Dr. Zarizi Ab Rahman 💿 <u>zarizi@uitm.edu.my</u> 🏫 Faculty of Educcation, Universiti Teknologi Mara

Author 3: Professor Dr. Hairul Anuar Hashim
hairulkb@usm.edu.my h Universiti Sains Malaysia

👤 Author 4: Dr. Zaharul Azwan Abdul Razak 💿 - 🏫 Faculty of Education, Universiti Teknologi Mara

🧘 Author 5: Mr. Novri Gazali 횓 <u>novri gazali@edu.uir.ac.id</u> 🏫 Universitas Islam Riau,, Indonesia

Abstract:

The purpose of this study is to determine the objectivity, reliability, and construct validity evidence of the biomotor ability test instruments to identify talent in swimming among 12-year-old boys. A total of thirty-six (n=36) boys aged 12 years old participated in the study. This study involved 36 male subjects and two raters for reliability and validity. Six biomotor ability tests and two performance test instruments have been identified. The ICC, test-retest, and Pearson Correlation were used to determine the objectivity and reliability of all the test instruments. Findings for ICC for rater 1 and rater 2 (.95) for sit up test, rater 1(.93) and rater 2(.97) for push up test, rater 1(.99) and rater 2(.99) for sit and reach test, rater 1(.89) and rater 2(.94) for standing long jump test, rater 1(.96) and rater 2(.98) for two hand basketball test, rater 1(.99) and rater 2(.99) for hand grip strength (right hand) test, rater 1(.96) and rater 2(.98) for 50M breaststroke swim test was good. The reliability evidence show that the biomotor ability test instruments shows a good reliability such as sit up test (r = .71), push up test (r = .64), sit and reach test (r = .91), standing long jump test (r = .83), two-hand basketball throw test (r = .92), hand grip strength (right hand) test (r = .91), hand grip strength (left hand) test (r = .91), 50-M freestyle swimming test (r = .91) and 50-M breaststroke swimming test (r = .97). All the tests are appliable to identify talent in swimming. However, this is only a prediction, and other variables can be added to assess talent in swimming.

Keywords: Biomotor Abilities, Reliability, Sports, Swimming, Talent Identification



Title: Investigating Factors Affecting Secondary School Students' Performance In Biology Subject

Paper ID: TaLIS/2025/IHE/103

Theme: Inclusive and Holistic Education (IHE)

Author 1: SOFEA ALIA BINTI MOHD NOR <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>O <a>

Abstract:

Academic achievement is an important indicator in assessing a student's level of success in school. It is typically measured through examination results and overall performance throughout the learning period. Various approaches have been introduced by educators and schools to improve students' achievement levels. However, the performance in Biology among secondary school students still shows a significant gap. Therefore, this study was conducted to examine the extent to which family socioeconomic status, school facilities, peer influence and teachers' teaching approaches affect the academic performance of Form Four students in selected secondary schools in the state of Selangor. This study employed a quantitative approach using a cluster sampling and purposive sampling. The findings are expected to provide clearer insights into the key factors influencing students' performance in Biology. This study also recommends that future research involve more schools and adopt a mixed-methods approach to obtain a more comprehensive and in-depth understanding.

Keywords: Academic Achievement, Biology, Socioeconomic Status, Peer Influence, School Facilities, Teaching Approach



Title: The Role of Design in Holistic Education: An Analysis of Visual Communication as Inclusive Pedagogy

Paper ID: TaLIS/2025/IHE/104

Theme: Inclusive and Holistic Education (IHE)

🧘 Author 1: Ms. Suzana binti Ruslan 🔟 <u>24053183@siswa.um.edu.my</u> 🟫 UNIVERSITI MALAYA 👤 Author 2: Dr. Norharyanti binti Mohsin 🔍 <u>yantimohsin@um.edu.my</u> 🏫 UNIVERSITI MALAYA

Abstract:

This paper theorizes the function of design in promoting holistic education. Inclusion in the classroom today necessitates methods that go beyond simple integration and toward pedagogies that acknowledge linguistic, cognitive, and sensory variety. In addition to providing aesthetic support, visual design, which includes layout, typography, color, iconography, and motion—acts as a mediating system of meaning that can increase expressive possibilities, lower cognitive barriers, and scaffold engagement for all students. Recent research, which draws on theories of multimodal learning, emphasizes how coordinated verbal and visual modalities improve involvement and comprehension, especially when backed by cogent design structures (Luo, 2023; Guo et al., 2024). Although critical reviews indicate a closer alignment between UDL quidelines and quantifiable learning impacts, design decisions that provide multiple means of representation, engagement, and expression are associated with stronger inclusion outcomes within the Universal Design for Learning (UDL) framework (Rusconi & Squillaci, 2023; Almegdad et al., 2023). Visual supports serve as communication bridges, offering learners alternate pathways for meaning-making and identity affirmation, as further evidenced by research on autism and sign language (Petersson-Bloom & Holmqvist, 2022; Conama, 2024; National Council for Curriculum and Assessment [NCCA], 2024). The researcher introduce the conceptual model of the designed inclusivity that incorporates three dimensions: semiotic design (how visuals encode disciplinary knowledge), cognitive design (how visuals manage attention and load), and access design (how visuals extend participation across neurodiverse and signing learners). This synthesis frames design as a pedagogical concept as opposed to an adjunct tool. The framework theorizes the roles of perceptual anchoring, affordance mapping, and multimodal redundancy, and risks of visual clutter and inequity. In the paper's conclusion, a research agenda for holistic education is outlined, including design-based studies co-created with Deaf and neurodiverse students, as well as mixed-methods evaluations that demonstrate how visual communication impacts learner welfare, comprehension, and involvement.

Keywords: Inclusive Pedagogy, Holistic Education, Visual Communication, Universal Design for Learning (UDL), Neurodiversity



Title: Exploring Self-empowerment: Insights From The Experiences of Adult Learners In A Local Government Unit-supported Higher Education Institution

Paper ID: TaLIS/2025/IHE/105
Theme: Inclusive and Holistic Education (IHE)

Author 1: Dr. Kurt S. Candilas mrkurtz21@gmail.com City College of Cagayan de Oro
Author 2: Jeany Mae Macalam-Manlunas O-City College of Cagayan de Oro
Author 3: Erlouise Vargas O-City College of Cagayan de Oro
Author 4: Ma. Katerina Janubas O-City College of Cagayan de Oro
Author 5: Mark Janubas O-City College of Cagayan de Oro

Abstract:

This study explores the lived experiences of adult learners aged 40 and above in a government-led institution in Cagayan de Oro City, Philippines. Using transcendental phenomenology, the research focuses on the transformative learning processes these learners undergo while balancing academic, personal, and professional responsibilities. Data were gathered through in-depth interviews with five selected participants and analyzed using Moustakas' Stevick-Colaizzi-Keen method. Four key themes emerged: Inspiration, highlighting the motivational role of family and generational aspirations; Role Management, emphasizing strategies for balancing responsibilities and negotiating roles; Academic Growth, revealing learning integration and goal-oriented strategies; and Resilience, showcasing perseverance and personal transformation through education. The findings underscore the profound impact of education on adult learners, not only in achieving personal and professional goals but also in inspiring intergenerational growth and societal contributions. By addressing their unique challenges and motivations, the study offers valuable insights for educators and policymakers to design more inclusive and supportive learning environments for adult learners.

Keywords: Adult Learners, Transformative Learning, Higher Education, Role Management, Resilience, Motivation, Phenomenology, Cagayan de Oro City, Intergenerational Aspirations, Lifelong Learning.



Title: The Traditional Game of Galah Asin as a Medium for Inclusive Character Education in Elementary Schools

Paper ID: TaLIS/2025/IHE/106

Theme: Inclusive and Holistic Education (IHE)

🙎 Author 3: Astri Sutisnawati 💿 astrisutisnawati@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi

Abstract:

Inclusive education has emerged as a means of providing equal learning opportunities for all students regardless of their background, abilities, or individual circumstances. In this context, traditional games can be an effective educational medium for addressing student diversity in the learning process. This study aims to examine the use of the traditional game Galah Asin as a medium for inclusive character education in elementary schools. This study uses a qualitative approach with a literature review method, analyzing various sources such as journals, books, scientific articles, as well as theories on inclusive education and traditional games. The findings indicate that the Galah Asin game encourages the participation of all students regardless of their background or abilities, and can foster character values such as cooperation, sportsmanship, honesty, and responsibility. Additionally, this game also encourages active participation from all students, including those with differing abilities, thereby creating an inclusive learning environment. Thus, the Galah Asin game can serve as an effective medium for inclusive character education in elementary schools.

Keywords: Galah Asin, Inclusion, Character Education, Traditional Games, Elementary School



Title: Integration of Seren Taun Local Wisdom in Character Education: A Cultural **Education Model in Kasepuhan Girijaya**

Paper ID: TaLIS/2025/IHE/107

Theme: Inclusive and Holistic Education (IHE)

👤 Author 1: Selfira Rulitasari 🔟 selvirarulitasari@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

👤 Author 2: Arsyi Rizgia Amalia 🔟 arsyirizgiaamalia@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi 👤 Author 3: Astri Sutisnawati 💿 astrisutisnawati@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi

Abstract:

This study aims to deeply examine the integration of local wisdom Seren Taun as a cultural education model for character education in Kasepuhan Girijaya. The Seren Taun traditional ceremony performed by the Kasepuhan Girijaya community in Sukabumi, West Java, not only functions as a harvest ritual, but also as a vital medium for instilling noble values and shaping the character of the younger generation amidst the resistance to globalization. This study uses a qualitative method with a descriptive-analytical approach, which is based on direct field observations and in-depth interviews with traditional leaders, teachers, and the local community. The results show that each stage of the Seren Taun ceremony, from the customary deliberation (naptu), preparation (ngadiukeun), to the helaran procession, contains strong educational values, such as mutual cooperation, religiosity, gratitude, and environmental awareness. These values are internalized naturally through real practices, making it an authentic 'living curriculum'. Thus, this ceremony can be an effective model for the development of a character education curriculum that is mandatory in local culture. The conclusion of this study is that local wisdom has a significant role in forming a holistic and inclusive character, so that it can be a strategic solution to strengthen the cultural identity of Indonesia's young generation.

Keywords: Cultural Education, Local Wisdom, Character Education, Seren Taun



Title: Building Character through Holistic Education: An Effective Strategy to Prevent Bullying in Schools

Paper ID: TaLIS/2025/IHE/108

Theme: Inclusive and Holistic Education (IHE)

Author 1: Rutba ulya islamy <a> Rutbaulya@ummi.ac.id <a> Universitas Muhammadiyah Sukabumi <a> Author 2: Efi kurniasari <a> efikurniasari@ummi.ac.id <a> Universitas Muhammadiyah Sukabumi

🙎 Author 3: Rifky Aditya Ramadhan 💿 rifkyaramadhan@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

] ightharpoonup Abstract:

Education is a crucial aspect of human life, serving not only as a means of transferring knowledge but also as a means of character formation and developing students' overall potential. Holistic education presents an approach that balances cognitive, affective, psychomotor, social, and spiritual aspects, thereby fostering the development of a well-rounded personality. This article highlights the role of holistic education in building student character while preventing bullying behavior in schools. The research method used was descriptive qualitative, using interviews with seven sixth-grade students at SD IT Al lzz, supported by an analysis of relevant literature. The results indicate that bullying behavior among students generally takes the form of verbal, physical, and social aggression, triggered by differences in character and a lack of empathy among peers. Through the implementation of holistic education, moral values, empathy, and social skills can be instilled sustainably, enabling students to build harmonious relationships and reduce the potential for bullying. Thus, holistic education has proven to be an effective strategy in creating an inclusive, civilized school environment and supporting the formation of a generation that is not only academically intelligent but also possesses strong character and morality.

Keywords: Bullying, Holistic Education, Character, Elementary School



Title: Revitalizing Lenong in Elementary School Education

Paper ID: TaLIS/2025/IHE/109

Theme: Inclusive and Holistic Education (IHE)

Author 1: Intan Nur Febriyani <a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO<a>intannurO

Author 2: Luthfi Hamdani Maula <a> luthfihamdani@ummi.ac.id luthfihamdani@ummi.ac.id luthfihamdani@ummi.ac.id luthfihamdaniwummi.ac.id <a href="mailto:luthfih

Abstract:

Revitalizing traditional arts is an urgent need to address the currents of globalization and modernization, which often shift local culture. Lenong, as a traditional Betawi–Tangerang art form, possesses relevant moral, social, and cultural values that need to be transformed into education, particularly in elementary schools. This research employed qualitative methods with a descriptive approach. Data were collected through literature studies, participant observation, and in-depth interviews with teachers, students, and arts practitioners. The results indicate that Lenong plays an important role in character education because it teaches the values of honesty, responsibility, empathy, and social solidarity through a simple and humorous storyline that is easy for children to understand. From an inclusive education perspective, Lenong can involve all students without discrimination, whether as performers, scriptwriters, or active audience members. Meanwhile, from a holistic educational perspective, Lenong develops cognitive (understanding the story and moral message), affective (empathy, humor, cooperation), and psychomotor (artistic expression and communication) aspects. Revitalizing Lenong in elementary schools can be achieved through integration into the Merdeka curriculum, project-based learning, collaboration with local artists, and digital adaptation to make it more engaging for the younger generation. Thus, Lenong is not just a cultural heritage, but also a strategic instrument in building national character and identity.

Keywords: Revitalization, Lenong, Elementary School, Character Education, Quality



Title: The Traditional Game of Galah Asin as a Friendly and Inclusive Character Education Medium in Elementary Schools

Paper ID: TaLIS/2025/IHE/110

Theme: Inclusive and Holistic Education (IHE)

Author 1: Kaysa Azka Khairiyah 💿 kaysaazkakh@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi 👤 Author 2: Din Azwar Uswatun 💿 dinazwar@ummi.ac.id 🏫 Universitas Muhammadiyah Sukabumi

👤 Author 3: Astri Sutisnawati 💿 astrisutisnawati@ummi.ac.id 🟫 Universitas Muhammadiyah Sukabumi



Inclusive education has emerged as a means of providing equal learning opportunities for all students regardless of their background, abilities, or individual circumstances. In this context, traditional games can be an effective educational medium for addressing student diversity in the learning process. This study aims to examine the use of the traditional game Galah Asin as a medium for inclusive character education in elementary schools. This study uses a qualitative approach with descriptive methods, with data collection through observation of game activities, interviews with teachers and students, and documentation. The results of the study show that the Galah Asin game encourages the involvement of all students regardless of their background or abilities, and can foster character values such as cooperation, sportsmanship, honesty, and responsibility. In addition, this game also encourages active participation from all students, including those with different abilities, thereby creating an inclusive learning environment. Thus, the Galah Asin game can be an effective medium for inclusive character education in elementary schools.

Keywords: Galah Asin, Inclusion, Character Education, Traditional Games, Elementary School



Title: Policy Innovation as a panacea for Girl-Child Education and Sustainable Development in Nigeria

Paper ID: TaLIS/2025/IHE/112 Theme: -



Policy formulation and implementation are fundamental ingredients for achieving holistic development across all phase of human endeavor. This task is so important that, the template and action of every human effort is dictated to a very large extent by the workability of policies formulated and the procedures for implementing those policies. However, attaining enviable developmental status by countries requires more than policy formulation and implementation because policies when formulated have termination period which calls for an urgent need to imbibe the culture of policy innovation which is a peculiar character of most developed and developing nations. Consequently, it is important to state that the education sector in less-developed countries of the world and most especially girl-child education is suffering neglect given the failure and deficit of policies guiding the operations of this all-important aspect of human life. Haven underscored the forgoing; this paper seeks to espouse the fundamental need of policy reassessment which is required for policy innovation and consequently attaining sustainable development in the education sector and most importantly girl-child education. The paper adopts the Triple Helix Model as developed by Etzkowitz (1993) and Etzkowitz and Leydesdorff (1995) which explains the relationship between three core actors in the innovation policy process (government, Industries and Research institutions). Data for the research is obtained through the secondary sources which include journals, articles, policy papers and text books. It recommends amongst other things that; to achieve holistic sustainable development in any society, the place of policy innovation in the education sector especially girl-child education is of utmost importance because women in the world over occupies a focal point of every development conscious society.

Keywords: -



Title: Transforming Character Education Through A Holistic Approach In Schools

Paper ID: TaLIS/2025/IHE/124

Theme: Inclusive and Holistic Education (IHE)

Author 1: Syifa'u Rohmah o syifa'urohmah@upi.edu n Universitas Pendidikan Indonesia Kampus Tasikmalaya
Author 2: Purwati purwati upurwati@upi.edu n Universitas Pendidikan Indonesia Kampus Tasikmalaya

Abstract:

This study aims to examine various literature related to the implementation of holistic education and character education for early childhood in Indonesia. The research method employed is a literature review, analysing 15 peer-reviewed journal articles indexed in SINTA and several other scholarly sources. The findings indicate that holistic education plays a crucial role in integrating cognitive, affective, social-emotional, physical, creative, and spiritual aspects, thereby fostering well-balanced and adaptable children. Character education based on Pancasila values and religiosity has also proven effective in cultivating noble character, protecting children from negative influences of globalisation, and strengthening national identity. The literature review underscores that the involvement of families, schools, and communities is a key factor in the success of character education. Additionally, implementation strategies such as habituation, role modelling, creative activities, and approaches based on the language of love significantly contribute to instilling positive values from an early age. Consequently, holistic education that is integrated with the Pancasila Student Profile and religious character education is regarded as a strategic solution in preparing Indonesia's golden generation intelligent, morally upright, and ready to face the challenges of the digital era and Society 5.0.

Keywords: Holistic Education, Character Education, Early Childhood, Pancasila Student Profile, Digital Era.



Title: Evaluating Shifts in Student Perceptions of Statistics: A Pre-Post Intervention Study Using Bloom's Taxonomy Framework

Paper ID: TaLIS/2025/IHE/127
Theme: Inclusive and Holistic Education (IHE)

Author 1: Juliza Salleh undefined undefined



This study uses Bloom's Taxonomy to explore how students respond to learning statistics, focusing on both thinking skills and emotional reactions. The framework includes two main areas, the cognitive domain, which involves understanding and applying knowledge, and the affective domain, which relates to feelings, motivation and attitudes toward learning. The research examines four key constructs namely knowledge, understanding, feeling and attitude using a pre and post test design to track changes after a classroom intervention. The intervention aims to help students better understand statistical concepts while also supporting their emotional engagement with the subject. Results show that students improve in knowledge, understanding and attitude, suggesting stronger interest and clearer thinking. However, scores related to feeling decrease, possibly because students become more aware of how difficult statistics can be, which leads to self-reflection and less emotional comfort, especially for those with limited background in the topic. Inferential analysis using paired samples t-tests shows statistically significant differences across all constructs, demonstrating that the intervention effectively promotes meaningful changes in both cognitive understanding and emotional engagement. These results support the idea of the importance of combining academic guidance with emotional support to help students learn more effectively. By addressing both how students think and how they feel, lecturers can create a more balanced and supportive learning environment in statistics education.

Keywords: Attitude, Bloom's Taxonomy, Feeling, Classroom Intervention



Title: Evaluating Shifts in Student Perceptions of Statistics: A Pre-Post Intervention Study Using Bloom's Taxonomy Framework

Paper ID: TaLIS/2025/IHE/128

Theme: Inclusive and Holistic Education (IHE)

- Author 1: Juliza Salleh 💿 juliza3379@uitm.edu.my 👚 Faculty of Computer and Mathematical Sciences, Center of Mathematical Sciences, Universiti Teknologi MARA (UiTM) Sarawak Branch
 - Author 2: Rumaizah Che Md Nor 💿 rumaizah@uitm.edu.my 🟫 Faculty of Computer and Mathematical Sciences, Center of Mathematical Sciences, Universiti Teknologi MARA (UiTM) Sarawak Branch
 - 🙎 Author 3: Syah Runniza Ahmad Bakri 🢿 runniza@uitm.edu.my 📫 Faculty of Computer and Mathematical Sciences, Center of Mathematical Sciences, Universiti Teknologi MARA (UiTM) Sarawak Branch
- Author 4: Badrul Amin Jaafar Dedrulamin@uitm.edu.my for Faculty of Computer and Mathematical Sciences, Center of Mathematical Sciences, Universiti Teknologi MARA (UiTM) Sarawak Branch
 - 🙎 Author 5: Siti Hasma Hajar Mat Zin 💿 hasmahajar@uitm.edu.my 🟫 Faculty of Computer and Mathematical Sciences, Center of Mathematical Sciences, Universiti Teknologi MARA (UiTM) Johor Branch

Abstract:

This study uses Bloom's Taxonomy to explore how students respond to learning statistics, focusing on both thinking skills and emotional reactions. The framework includes two main areas, the cognitive domain, which involves understanding and applying knowledge, and the affective domain, which relates to feelings, motivation and attitudes toward learning. The research examines four key constructs namely knowledge, understanding, feeling and attitude using a pre and post test design to track changes after a classroom intervention. The intervention aims to help students better understand statistical concepts while also supporting their emotional engagement with the subject. Results show that students improve in knowledge, understanding and attitude, suggesting stronger interest and clearer thinking. However, scores related to feeling decrease, possibly because students become more aware of how difficult statistics can be, which leads to self-reflection and less emotional comfort, especially for those with limited background in the topic. Inferential analysis using paired samples t-tests shows statistically significant differences across all constructs, demonstrating that the intervention effectively promotes meaningful changes in both cognitive understanding and emotional engagement. These results support the idea of the importance of combining academic guidance with emotional support to help students learn more effectively. By addressing both how students think and how they feel, lecturers can create a more balanced and supportive learning environment in statistics education.

Keywords: Attitude, Bloom's Taxonomy, Feeling, Classroom Intervention



Title: Inclusive Pathways to Teacher Empowerment: A Pre-Post Analysis of Assessment Literacy Training for Stateless Community Education in Tagupi, Sabah

Paper ID: TaLIS/2025/IHE/129 Theme: Inclusive and Holistic Education (IHE)

Keywords: inclusive, education, teachers, stateless community, Lahad Datu, Sabah, Training of Trainers (TOT), assessment literacy

Author 1: Siti Balgis Binti Mohd 2025962545@student.uitm.edu.my UITM Cawangan Puncak Alam

Author 2: Ahmad Zulfadhli Bin Khairuddin ahmadzulfadhli@uitm.edu.my

n UITM Cawangan Puncak Alam

Abstract:

In Malaysian education, discussions revolve around educators and learners in rural areas are often overlooked. However, another group requiring concern is the stateless community. Despite living there for a long time, they lack documents for various reasons. This community consists of the Tagupi residents who live in Lahad Datu, Sabah. This project aims to foster connections in education between documented and undocumented learners within the framework of inclusive and holistic philosophy. This study aims to investigate the efficacy of Training of Trainers (TOT) in improving assessment literacy skills among teachers in a stateless community by conducting pre-post test analysis. Data were obtained using pre and post-tests, teachers feedback, and demographic descriptions. A total of 15 teachers (N = 15) participated in a two-day workshop, where they engaged in structured modules on assessment literacy and practical application. The study employed a quasi-experimental pre-post design, allowing comparison of teachers' knowledge and skills before and after the intervention. The findings indicate that the TOT program enhances assessment literacy among teachers in stateless communities. This study enhances the understanding of a stateless community in inclusive education, positing that education functions as fundamental social security and acts as a cornerstone for inclusive, equitable, and sustainable national development. Furthermore, the study provides valuable insights for subsequent research by academics or policymakers in the domain of curriculum development for minority community education and alternative teacher training programs.

Keywords: inclusive, education, teachers, stateless community, Lahad Datu, Sabah, Training of Trainers (TOT), assessment literacy



Title: Enhancing Quality Education of Faith Based Non-Governmental Organization Operating as Private Tahfiz Schools in Malaysia: A Coordination Governance Approach

Paper ID: TaLIS/2025/IHE/130

Theme: Inclusive and Holistic Education (IHE)

Author 1: Wahida Ana Sophia Binti Mohd Dain wahida058@uitm.edu.my universiti Teknologi MARA (UiTM)

Author 2: Yarina Ahmad varina@uitm.edu.my universiti Teknologi MARA (UiTM)

Author 3: Nurul Hidayana Mohd Noor hidayana@uitm.edu.my
universiti Teknologi MARA (UiTM)

Abstract:

The recent update of private Tahfiz schools witnessed more establishment of such schools including by Non-Profit Sector. The function of faith based non-governmental organizations operating as private religious schools as education providers is acknowledged and well received by the public (Nishimuko, M., 2009) in Malaysia. These schools are also simultaneously complementary to the government's effort to offer a quality education to the citizens as established in educational policy. This paper discusses the current approach for Private Tahfiz schools in the provision of governance and the gaps created from the practice. Using a qualitative method, this study adopted in-depth interviews and generated substantial intensive data from four (4) key persons from relevant agencies and four (4) identified key persons from private Tahfiz school operators. The four relevance (4) agencies identified to have the access over the operationalization of Faith Based Non-Governmental Organization operating as private Tahfiz schools are Jabatan Agama Islam Selangor (JAIS), Registrar of Society (ROS), Ministry of Education (MoE) and Department of Welfare (DoW). Due to the siloed governance practice, this study found regulation, compliance and monitoring are the main challenges created by this practice. For this reason, this paper recommended a coordination governance approach to improve the governance issues while simultaneously enhancing its educational quality. The implications of this study are critical for policymakers, relevant agencies, and private Tahfiz school operators to address the governance gaps that hinder the achievement of quality education. Faith Based Non-Governmental Organization, Private Tahfiz School, Coordination Governance, Quality Education.

Keywords: Faith Based Non-Governmental Organization, Private Tahfiz School, Coordination Governance, Quality Education.



Title: Towards a Holistic Framework for Academic Library Furniture Design: Integrating Aesthetic Experience, Functionality, and Pedagogy for 21st-Century Learning

Paper ID: TaLIS/2025/IHE/131

Theme: Inclusive and Holistic Education (IHE)

🙎 Author 1: Ms Nurul Ain Haron 💿 nurulanneh@gmail.com 🏫 INTI International College Subang

🙎 Author 2: Dr Natrina MP Toyong 💿 natrinatoy@uitm.edu.my 🏫 Faculty of Art & Design, Universiti Teknologi MARA

🙎 Author 3: Dr S'harin Mokhtar 💿 sharin2066@uitm.edu.my 🏫 Faculty of Art & Design, Universiti Teknologi MARA



Academic libraries are evolving from quiet repositories of books into hybrid learning commons that foster collaboration, creativity, and digital fluency. Within this transformation, furniture is no longer passive equipment but a key mediator between body, technology, and space that shapes cognitive, emotional and social engagement that underpins 21st-century learning. Yet scholarship on libraries remains fragmented. Most studies examine either functionality (ergonomics, proxemics, spatial efficiency) or aesthetic experience (comfort, ambience, emotional appeal) and rarely integrate these perspectives with contemporary pedagogy. This paper proposes a holistic conceptual framework for academic library furniture design grounded in a Systematic Literature Review (SLR) of research across environmental psychology, higher-education studies, ergonomics, and design. Guided by PRISMA screening, the review identified recurring concepts such as sensory-motor engagement, neuroaesthetic valuation, universal design and digitally enhanced learning. The findings were synthesised into three interwoven theoretical domains. 1) Aesthetic Experience, which encompasses sensory-motor stimulation, emotional resonance, and cultural meaning-making; 2) Ergonomic and Environmental Design, by integrating proxemics, anthropometrics, universal accessibility, and technology infrastructure; 3) Learning Environment and Pedagogy, which aligns physical settings with constructivist, collaborative, and blended learning strategies. By bridging design, psychology, and education, the framework positions furniture as an aesthetic pedagogical interface and provides a robust platform for empirical testing through wellbeing metrics, collaborative behaviour analysis and digital engagement studies. It offers designers, educators and institutions a future ready for creating library environments that sustain and transform 21st-century learning.

Keywords: Academic Library, Neuroaesthetic, Furniture Design.



Title: Ki Hajar Dewantara's Three Educational Centers in the Holistic Character Development of Early Childhood Education in Indonesia

Paper ID: TaLIS/2025/IHE/133
Theme: Inclusive and Holistic Education (IHE)
Author 1: Purwati purwati_purwati@upi.edu
Author 2: Gilar Gandana UPI Kampus Tasikmalaya
Author 3: Lutfi Nur lutfinur@upi.edu
Author 4: Anggit Merliana anggitm@upi.edu
Author 5: Anggi Maulana Rizqy anggimaulanarizqi@upi.edu

Abstract:

Holistic character education has an urgency in improving the quality of the younger generation, especially early childhood. The purpose of this study is to analyze the concept of the Tri Pusat Pendidikan Ki Hajar Dewantara in fostering early childhood character holistically using a comprehensive literature study. This study uses a literature study, a qualitative approach, and a variety of sources relevant to the research problem. Content analysis is a technique used in data analysis and the thematic approach is the method chosen in the stage of identification, categorization, and synthesis of findings based on literature review. The result of this study is that the concept of the Tri Ki Hajar Dewantara Education Center is in accordance with contemporary education theory, namely the ecological theory of development of Bronfenbrenner and the theory of character education of Lickona. Early childhood education institutions that implement the Tri Education Center make children's characters develop well. However, there are still shortcomings in its implementation, such as low parental understanding and lack of coordination between educational centers, as well as limited community participation. Alternative solutions in responding to these problems are to organize sustainable parenting education programs, increase community engagement, and develop an integrated curriculum. This pattern is in accordance with the development of technology in the present day combined with the values of local wisdom. The results of this study present a theoretical contribution to the aspects of holistic character education and character education based on local wisdom.

Keywords: Three Educational Centers, Ki Hajar Dewantara, Holistic Character Education, Early Childhood



Title: Governance of Early Childhood Care and Education in Malaysia: Fragmentation and Coordination

Paper ID: TaLIS/2025/IHE/135
Theme: Inclusive and Holistic Education (IHE)

Author 1: Nor Shamimi Muhamad Ridza mimiridza@gmail.com Tuniversiti Teknologi Mara
Author 2: Yarina Ahmad yarina@uitm.edu.my

👤 Author 3: Thenmolli Vadeveloo3 💿 thenm020@uitm.edu.my 🏫 Universiti Teknologi Mara

Abstract:

Early Childhood Care and Education (ECCE) is a period from newborn to six years old, before children enter primary school. This is a significant period where it shapes the minds of young children and lays the foundation for lifelong learning, highlighting the importance of ensuring quality ECCE services. Governance of ECCE in Malaysia is currently fragmented, with multiple agencies overseeing different aspects of the sector. This fragmentation has resulted in unstandardized curriculum guidelines, differing teacher qualification requirements, overlaps of responsibilities, and gaps in provision, leading to inefficiencies and inconsistent quality of services. This study employed a qualitative approach, conducting in-depth interviews with four main agencies: the Ministry of Education, the Ministry of Rural and Regional Development, the Department of National Unity and Integration, as well as the Department of Social Welfare. Three governance models were considered to enhance effectiveness: 1) consolidation, 2) coordination, and 3) creation of a new agency. Findings indicate that coordination is the most suitable model for Malaysia's diverse context, as it allows different agencies to continue playing their respective roles while ensuring greater alignment, consistency, and complementarity in the governance of ECCE. Strengthening inter-agency collaboration would allow Malaysia to harmonize standards, reduce duplication, and ensure all children have equitable access to quality ECCE services. This is aligned with Target 4.2 of the Sustainable Development Goal 2030, where all children should have access to quality ECCE services.

Keywords: ECCE, Governance, Fragmentation, Coordination



Title: Enhancing Gross Motor Skills Through Game-based Learning: A Gender Perspective In Children With Intellectual Disabilities

Paper ID: TaLIS/2025/IHE/136
Theme: Inclusive and Holistic Education (IHE)

Author 1: Dr. Rizal Ahmad Fauzi, M.Ed 💿 rizalafauzi13@upi.edu 🟫 Universitas Pendidikan Indonesia Author 2: Prof. Dr. Ayi Suherman, M. Ed 💿 ayisuherman@upi.edu 🟠 Universitas Pendidikan Indonesia

Author 3: Milawati Krisna, B. Ed
millawk@upi.edu huniversitas Pendidikan Indonesia
Author 4: Entan Saptani, M. Ed
entansaptani@upi.edu huniversitas Pendidikan Indonesia

Abstract:

This study aims to test the effectiveness of a game-based learning model in improving gross motor skills with a focus on gender differences among children with intellectual disabilities. This study used a Single Subject Research (SSR) design with an A–B–A pattern, consisting of three phases: Baseline-1 (A1), Intervention (B), and Baseline-2 (A2). Participants included three students with mild intellectual disabilities, consisting of two boys and one girl, selected using purposive sampling. The instrument used was the Test of Gross Motor Development Second Edition (TGMD-2), which includes five indicators of gross motor skills: running, hopping, catching, kicking, and underhand rolling. The results showed that all participants experienced improvement from baseline (A1) to the intervention phase (B), with the highest average improvement observed in male participants (Boy 1: +40.22%, Boy 2: +39.12%) compared to female participants (Girl: +34.68%). Furthermore, a comparison between baseline one and baseline 2 (A1/A2) showed sustained improvement across all participants, confirming the effectiveness of the intervention over time. These findings suggest that play-based learning is effective in improving gross motor skills in children with intellectual disabilities, and that male participants may show slightly greater improvement than female participants. This highlights the importance of considering gender-specific characteristics when designing adaptive physical education programs.

Keywords: Play-based Learning, Gross Motor Skills, Gender Differences, Intellectual Disability, Single-subject Research



Title: Educator Professional Development

Paper ID: TaLIS/2025/her/NaN Theme:

🙎 Author 1: Ayu Salistina Marwah 🔍 el.mar3one31@gmail.com 🏫 Universitas Pendidikan Indonesia Kampus Tasikmalaya

Abstract:

Pengembangan profesional pendidik merupakan instrumen krusial dalam peningkatan kualitas pendidikan. Penelitian ini bertujuan untuk menganalisis efektivitas berbagai model pengembangan profesional dalam konteks pendidikan di Indonesia, serta mengidentifikasi faktor-faktor yang memengaruhi keberhasilannya. Metode kajian literatur digunakan untuk mensintesis temuan dari berbagai studi empiris dan teoretis terkait. Hasil analisis menunjukkan bahwa program pengembangan yang berkelanjutan, kolaboratif, dan terintegrasi dengan praktik kelas memiliki dampak signifikan terhadap peningkatan kompetensi pedagogik, profesional, dan sosial pendidik. Sebaliknya, pelatihan yang bersifat sporadis dan tidak relevan dengan kebutuhan aktual pendidik cenderung kurang efektif. Faktor-faktor penentu keberhasilan mencakup dukungan kelembagaan, relevansi materi, dan implementasi yang berorientasi pada refleksi praktik. Dengan demikian, esai ini menyimpulkan bahwa pengembangan profesional harus direkonseptualisasi dari sekadar pelatihan menjadi sebuah proses pembelajaran berkelanjutan yang berpusat pada kebutuhan pendidik dan realitas sekolah. Implikasi kebijakan yang disarankan mencakup penguatan komunitas belajar profesional (professional learning communities), alokasi sumber daya yang memadai, dan pengembangan sistem evaluasi berbasis dampak.

Keywords: Kompetensi Guru, Kualitas Pendidikan, Kurikulum, Metode Pembelajaran, Sistem Pendidikan



Title: Adaptation and Validation of The Metacognitive Awareness Inventory for Malaysian Pre-Service Teachers: A Two-Phase Psychometric Study

Paper ID: Theme:

Author 1: Siti Fairuz Dalim <u>sitifairuz3325@uitm.edu.my</u> f Faculty of Education, Universiti Malaya Author 2: Mohd Nor Syahrir Abdullah <u>mnsyahrir@um.edu.my</u> f Faculty of Education, Universiti Malaya Author 3: Rose Amnah Abd. Rauf <u>rose_amnah@um.edu.my</u> Faculty of Education, Universiti Malaya

Abstract:

The purpose of this study is to address the need for a culturally validated instrument to assess metacognitive abilities among pre-service science teachers in Malaysia. The Metacognitive Awareness Inventory (MAI) by Schraw & Dennison (1994) was adapted to create the Preservice Teachers' Metacognition Inventory (PTMI), with rigorous psychometric validation conducted to ensure its reliability and validity in the Malaysian teacher education context. The adaptation involved modifying original items to reflect science teaching, followed by expert reviews to establish face and content validity. A two-phase psychometric validation was then conducted. Phase 1 employed exploratory factor analysis with 108 pre-service science teachers, utilizing Principal Component Analysis with Varimax rotation. Items with factor loadings below 0.40 or substantial cross-loadings were systematically removed. Phase 2 involved confirmatory factor analysis with 157 participants to validate the extracted factor structure. Model fit was evaluated using RMSEA, GFI, CFI, TLI, and chi-square ratio, while convergent validity was assessed through Average Variance Extracted and Composite Reliability. The exploratory factor analysis revealed an eight-factor structure consisting of Metacognitive Knowledge (Declarative Knowledge, Conditional Knowledge, Procedural Knowledge) and Metacognitive Regulation (Planning, Evaluation, Debugging Strategies, Information Management Strategies, Comprehension Monitoring). The refined 32-item PTMI demonstrated excellent model fit (RMSEA = 0.070-0.073, CFI = 0.941-0.964, TLI = 0.930-0.953, χ^2 /df = 1.773-1.827). All factor loadings exceeded 0.70 and were statistically significant. Strong convergent validity (AVE = 0.570-0.694) and internal consistency (CR = 0.803-0.901, $\alpha = 0.802-0.901$) were established. This validated instrument provides teacher educators with a reliable diagnostic tool to assess metacognitive development and evaluate training programs, while offering researchers a robust measure for investigating metacognition's role in teaching practice.

Keywords: Metacognition, Pre-service Teachers, Exploratory factor analysis, Confirmatory factor analysis



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Committee Wembers

Patron

Prof. Dr. Ahmad Taufek Abdul Rahman Rector

Advisor

Assoc. Prof. Dr. Shireena Basree Abdul Rahman Dean

Chairperson

Prof. Ts. Dr. Johan @ Eddy Luaran
Deputy Dean (Research and Industrial Networking)

Programme Director
Dr. Nurul Fitriah Alias

Assistant Director
Dr. Muhamad Nur Fariduddin Abdul Aziz

Secretaries

Ms. Anis Yuhanna Nasri

Treasurers

Mr. Nor Hisyam Husin Ms. Nur Farah Haida Zulkifli



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Members

WORKING COMMITTEES

Registration & Souvenirs Committee

Dr. Ahmad Fahim Zulkifli (Head)
Ms. Nadia Ainuddin Dahlan
Ms. Nurul Aisyah Rosli
Mr. Kamalrul Shaari

ICT & Technical Committee

Mr. Cheong Tau Han (Head)
Dr. Norhayati Mohd Yusof
Mr. Abdul Rahman Munjiaf
Mr. Mohd Nazri Mokhtar

Venue, Equipment & Logistics Committee

Dr. Zaharul Azwan Abdul Razak (Head)

En. Noorazam Abd Razak

En. Rosmizal Mahamud

En. Hufaizall Hamidon

Pn. Ammi Shafiqah Aminuddin

Pn. Sarah Zulkifli

Pn. Noor Haida Abd Rahman



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Committee Members

WORKING COMMITTEES

Opening Ceremony, Protocol & Event Management Committee

Ms. Nur Shakila Izzati Rusli – Event Manager (Head)
Ms. Munirah Mohd Izam – Floor Manager
Ms. Adzura Elier Ahmad – Emcee

Promotion & Sponsorship Committee

Prof. Madya Dr. Leele Susana Jamian (Head)
Dr. Nor Tutiaini Ab Wahid
Dr. Mardiah Hafizah Muhammad Hafizi
Dr. Izzuddinazwan Misri
Dr. Thair Hussein Abdelrahman Khazaalah
Dr. Taofeek Adedayo Quadri

Abstract Program Book Committee

Cik Nur Shakila Izzati Rusli

Assoc. Prof. Ts. Dr. Siti Zuraida Maaruf (Head)
Dr. Muhammad Faiz Sabri

Dr. Fazyudi Ahmad Nadzri Pn. Zainiza Ismail



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Committee Members

WORKING COMMITTEES

Publication Committee

Assoc. Prof. Dr. Kaarthiyainy Suparamaniam (Head)
Dr. Norazah Abdul Aziz
Prof. Dr. Parmjit Singh Aperapar Singh

Scientific Paper Committee

Dr. Nurshamshida Md Shamsudin (Head)
Prof. Dr. Nabilah Abdullah
Prof. Dr. Teoh Sian Hoon
Prof. Madya Dr. Siti Maftuhah Damio
Prof. Madya Dr. Mawarni Mohamed
Prof. Madya Dr. Suthagar Narasuman
Dr. Geethanjali Narayanan

Keynote Speaker Committee

Dr. Khadijah Said Hashim (Head) Dr. Jamiah Baba

Dr. Azlan Ahmad Kamal Dr. Fatin Aliana Mohd Radzi



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Committee Members

WORKING COMMITTEES

Parallel Session Committee

Dr. Ahmad Zulfadhli Khairuddin (Head)
Dr. Ismail Abdulfatai Olohunfunmi
Dr. Joseph Boon Zik Hong
Pn. Mazuin Zulkapli
Pn. Rabaieyah Khalib

Graphic Design Committee

Ms. Noor Farhani Othman (Head)
Ms. Raiha Shahanaz Redzuan

Audio & Visual Committee

Mr. Muhammad Noor Hizami Hamidi (Head) Mr. Harmeet Singh Kuldip Singh Mr. Mohammad Hafizzan Abdul Razak



TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM Leveraging the New Paradigm of Learning Members

WORKING COMMITTEES

Food & Beverage Committee

Ms. Nur Farahien Abdul Rahman (Head) Ms. Nur Halilah Halimi

Speech Text Committee

Dr. Roslinda Abdul Wab (Head)
Dr. Marina Mohd Arif
Ms. Melissa Malik

Video & Montage Committee

Assoc. Prof. Dr. Mohd Khairezan Rahmat (Head) Mr. Abdul Rahman Munjiaf (*Video & Montage*) Mr. Mohamad Luqman Mohamed Sazali





Map of

TEACHING AND LEARNING INTERNATIONAL SYMPOSIUM

Leveraging the New Paradigm of Learning

The Event Venues





FOR ENQUIRIES AND/OR MORE INFORMATION:

- Faculty of Education Universiti Teknologi MARA (UiTM) Selangor Branch Puncak Alam Campus Level 5, FSK Building 1, 5 42300 Puncak Alam Selangor Darul Ehsan, MALAYSIA
- Website: https://talis.uitm.edu.my
- Phone: +603-3258 4954 (Miss Anis Yuhanna Nasri)
- Email: talis.uitm@gmail.com