



ASEAN QUALITY ASSURANCE CONFERENCE

SUNWAY UNIVERSITY



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A CLASS ABOVE

2022

Emerging from Crisis:

Refining Quality Assurance Towards Stability
in Higher Education

Information Brochure

August 9th – 10th, 2022 9:30AM – 4:00PM

<https://university.sunway.edu.my/AQAC2022>

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ASEAN Quality Assurance Conference (AQAC) 2022
Emerging from Crisis: Refining Quality Assurance Towards Stability in Higher Education

Foreword (1)



Professor Graeme Wilkinson

*Tan Sri Jeffrey Cheah Distinguished Professor and
former Vice-Chancellor of Sunway University*

Conference Advisor

I am delighted to welcome everyone to the ASEAN Quality Assurance Conference 2022, which this year has the emergence from the Covid-19 pandemic as a backdrop and an over-arching theme for our discussions. Higher education has become a rapidly expanding global industry and all stakeholders, such as students, their parents, employers and governments, demand and expect high quality outcomes.

As the world went into the pandemic, modes of delivery of higher education rapidly changed, leading to enormous challenges for those involved in assuring quality. But as we have emerged from the other side, it is time to take stock on what worked well and what didn't. Furthermore, it is highly unlikely that higher education delivery will ever return to pre-pandemic models, as the entire community of academics and students have become used to greater variety in learning methodologies and much greater use of online resources. Hybrid, mixed-mode, or blended learning models have become the norm supported by extensive resources available digitally. Consequently, as delivery modes have evolved and are continuing to evolve right now, we must also examine the new challenges that arise for quality assurance in the future.

Therefore, this conference examines the different dimensions of quality as they apply across the broad aspects of higher education such as curriculum development and improvement; pedagogy, educational methods, objectives and resourcing; and testing and assessment, all within the context of the rapidly changing world of higher education on the tail end of a crisis. Related to these dimensions are issues such as quality policy development, deployment and efficiency, and the need to innovate and continuously improve outcomes for stakeholders and to yield a better experience for those who have to deliver quality or to audit it.

In this conference we shall therefore hear from educators, researchers and thought leaders, as they present their research studies, their experiences of practice, and their ideas on quality assurance approaches, successes and failures, as well as their ideas on the future of quality assurance as it might develop in the coming years. The conference promises to be most stimulating and I am delighted to welcome all participants to what I am sure will be fruitful discussions and debates in thought-provoking sessions.

ASEAN Quality Assurance Conference (AQAC) 2022
Emerging from Crisis: Refining Quality Assurance Towards Stability in Higher Education

Foreword (2)



Professor Matthew Sansom
*Pro Vice-Chancellor (Education),
Sunway University*

It is a great pleasure for Sunway University to host this conference and my personal pleasure to welcome all attendees and participants. Providing world-class education requires a deep commitment to quality in all its forms throughout the university. Quality and quality monitoring are crucial to student experience and the outcomes we hope they will attain. These require renewed attention post-pandemic as we recalibrate educational practices more fully infused with ed-tech and the new possibilities this brings. There is now an urgency to understand the impact of these changes to maximise strengths and minimise weaknesses. This conference will be a helpful contribution to the process of navigating our way through these changes.

The pandemic has been a time of considerable innovation. Educators have needed to upskill, improvise and reflect on the nature of their professional practice. Similar levels of innovation and creativity have been required of managers and staff working in all areas, including facilities, IT and university services, libraries, academic support, and quality and standards. It is revealing and reassuring to reflect on how MQA was able to pivot and provide support to institutions through this challenging period. MQA allowed a balance between rigour and flexibility necessary to adapt but maintain quality. Although we have returned to regulatory norms, this support from MQA has modelled an essential and valuable part of the way forward. I fully anticipate that the relationship between rigour and flexibility will characterise much of what we will hear and learn about during the conference papers and discussions. It is not necessarily an easy balance to achieve, but it is central to the meaningful and authentic application of quality processes.

At their best, healthy quality processes ensure inclusivity and fairness for students, provide protection to both students and staff, and, most importantly, facilitate effective education. I hope this conference will play a significant role in achieving these goals by helping us think through and find solutions to some of today's new and complex quality challenges. My thanks go to the conference organisers, everyone contributing papers, keynotes and panel discussions, and all attendees; I look forward to productive discussions and discovering new insights.

ASEAN Quality Assurance Conference (AQAC) 2022

9 & 10 August 2022 | Zoom Platform | 9:30AM – 4:00PM

Theme

As the world adjusts to a ‘new normal’ amidst the continued throes of the COVID-19 crisis, so too must the academic institutions of the world aspire towards adapting and stabilising the development of its teaching platforms and quality assurance policies.

The 2022 ASEAN Quality Assurance Conference hosted by Sunway University pinpoints the theme of transitioning ‘Emergency from Crisis: Refining Quality Assurance Towards Stability in Higher Education’. This event encompasses the progress of academic, research, assessment and quality assurance practices over the COVID-19 lifespan on a scale of international cross-comparison.

Sunway University invites you to this thought-provoking platform on the future of academic quality assurance: a space for participants to share their experiences, collate their ideas, and inspire policies to be integrated into the systems of various institutions as they strive towards stability.

Objectives

- Recognise and share progress in the development of quality assurance benchmarks as institutions experienced the impact of COVID-19;
- Explore the importance of a pervasive quality assurance culture within academic institutions;
- Discuss strategies for transition from emergency remote teaching and learning to a holistic hybrid educational experience.

**Keynote Address (1):
Open, Flexible and Distance Learning**



Professor Melinda Dela Peña Bandalaria
*Chancellor,
University of the Philippines Open University*
mbandalaria@upou.edu.ph

Professor Melinda Dela Pena Bandalaria has been the chancellor of University of the Philippines Open University since 2016. She received her PhD from the University of the Philippines Los Baños in Development Communication in 2001. She is passionate about improving the quality of online education, driven by data and evidence. With more than twenty years of experience in the area of open learning, she has fourteen projects with funding projects from different agencies and organizations. She continues to be the resource person in several training programs organized by University of the Philippines Open University and other institutions. She developed the courses for MOOC in open learning and is also a course conveyer herself. Her contribution is vital in transforming physical classroom learning into remote and online learning during the Covid-19 pandemic.

Since 2016, she has been actively involved in driving Online Education. She is the chair for Asian Massive Open Online Course Steering Committee; the coordinating president for OU5, a group of five open universities in the Philippines, Indonesia, Malaysia, Thailand and Vietnam; and a founding member of benchmarking framework and data set for online, open, smart and technology-enhanced Higher Education. In 2018, she was awarded Distinguished Alumna for Open Education; in 2021, she was conferred the Meritorious Service Award by Asian Association of Open Universities, and in 2021, the Prize of Excellence for Individual Contribution to the field of Open, Flexible and Distance Learning by the ICDE.

**Keynote Address (2):
Ensuring the Quality Assurance during and post the COVID-19**



Professor Dr. Angela Yung Chi Hou
*Professor & Associate Dean, College of Education,
National Chengchi University, Taiwan*
yungchi@nccu.edu.tw / [hou1268@gmail.com](mailto:houl268@gmail.com)

Angela Yung-chi Hou, is Professor of Higher Education and Associate Dean of College of Education, National Chengchi University, Taiwan. She served as Executive Director of Higher Education Evaluation & Accreditation Council of Taiwan from 2016 to 2021, Jan and Dean of Office of International Education, Fu Jen Catholic University from 2013 to 2016. She has been actively committed to quality assurance practices and international research for more than 15 years, including serving as Vice President & Board member of International Network of Quality Assurance in Higher Education (INQAAHE), Vice President & Board member of Asia Pacific Quality Network (APQN), and international reviewer of institutional and program accreditation in several countries, including UK, Hong Kong, Macao, Philippines, Mongolia, etc.

She specializes in higher education policy, quality management, internationalization, faculty development, and quality assurance of cross border higher education. She is in the service of Chief-in-Editor of Journal of Higher Education by Taiwan Higher Education Society, and Associate Editor of Journal of Asian Pacific Educational Review (SSCI) and several editorial boards of more than 5 academically peer-reviewed journals in higher education. Up to present, she has published more than 130 English and Chinese journal papers, articles, book chapters, reports and monographs in the areas of higher education policy, quality assurance, cross border higher education, internationalization, etc.

ASEAN Quality Assurance Conference (AQAC) 2022

Emerging from Crisis: Refining Quality Assurance Towards Stability in Higher Education

9 & 10 August 2022 | Zoom Platform

Itinerary

Day 1: 9th August 2022 (Tuesday)	
09:30	Registration
10:00	Welcoming Address Professor Elizabeth Lee Chief Executive Officer, Sunway Education Group Chair, AQAC 2022
10:10	Opening Remarks YBhg. Professor Dato' Dr Mohammad Shatar Sabran Chief Executive Officer, Malaysian Qualifications Agency (MQA)
10:20	Keynote Speaker (1): Open, Flexible and Distance Learning Professor Melinda Dela Peña Bandalaria Chancellor, University of the Philippines Open University
10:50	Break
11:10	Paper Presentations (Session 1) <p style="text-align: center;">Easing the burden of quality assurance in higher education with data analytics and machine learning: Prospects and research needs</p> <p style="text-align: center;">Wilkinson, Graeme G. Chancellery and Centre for Higher Education Research, Sunway University.</p> <p style="text-align: center;">Sustaining quality of higher education student experience in a changing higher education landscape</p> <p style="text-align: center;">Mohd Dahlan, S. F. University Services Department, Sunway University.</p> <p style="text-align: center;">Assuring quality in classroom practise through reflection in action: Techniques</p> <p style="text-align: center;">Hall, Stephen J. Centre for English Language Studies, Sunway University.</p> <p style="text-align: center;"><i>Moderator: Professor Glenda Crosling</i></p>
12:10	Lunch

13:30	Paper Presentations (Session 2)	
	Breakout Room 1	Breakout Room 2
	<p style="text-align: center;">Conceptual modeling for online pedagogy: A case of practical subjects</p> <p style="text-align: center;">Chong, K. C. School of Hospitality & Service Management, Sunway University.</p> <p style="text-align: center;">Support students learning through diagnostic assessment</p> <p style="text-align: center;">Kaur, C.,^{1*} Kaur, A.², Kaur, P.³ ¹Faculty of Creative Industries, Universiti Tunku Abdul Rahman, Selangor. ²Faculty of Creative Industries, Universiti Tunku Abdul Rahman, Selangor. ³Center for Foundation Studies, Universiti Tunku Abdul Rahman, Selangor.</p> <p style="text-align: center;">Recalibrating an educator's quality compass with TQM</p> <p style="text-align: center;">Acosta-Corpuz, D. M. Institute of Management, College of Social Sciences, University of the Philippines Baguio, Baguio City, Philippines.</p> <p style="text-align: center;"><i>Moderator: Associate Professor Dr Chew Jacty</i></p>	<p style="text-align: center;">Students' readiness and satisfaction in the use of ICT as a teaching and learning tool: A study at Sunway University</p> <p style="text-align: center;">Mohamed Sharif, M. N.¹, Ahmad, R.², Adris. S. A.³, Nagasundram, U.⁴, Yaacob, Y.⁵, Mahmud, M. M.⁶ ^{1,2,3,4,5}General Studies Department, Sunway College. ⁶Department of Professional and Continuing Education, Sunway University.</p> <p style="text-align: center;">Navigating leadership and sustaining higher education amid the COVID-19 crisis</p> <p style="text-align: center;">Gan, E.^{1*}, Sim, J. P. T.¹ & Chang, I. H. C.¹ ¹Policy, Planning and Quality, Swinburne University of Technology Sarawak Campus.</p> <p style="text-align: center;">An empirical investigation into technology acceptance and pre-class activities as factors to influence students' engagement</p> <p style="text-align: center;">Tan, C. C.¹, Shaik Farid, N. F.², Lee, S. H.³, Mahmud, M. M.⁴, Yaacob, Y.⁵ ^{1,2,3,5}General Studies Department, Sunway College. ⁴Professional and Continuing Education Department, Sunway University.</p> <p style="text-align: center;"><i>Moderator: Dr Jane Teh</i></p>

14:30	Forum: Quality Assurance in Teaching & Learning <ul style="list-style-type: none">• Associate Professor Dr Fariza Khalid Deputy Director, Center of Education Extension, Universiti Kebangsaan Malaysia• Caroline Yap Yu Li Principal Teaching Fellow, Department of Accounting, Sunway University, Malaysia• Dr Alexius Chia Associate Dean, Practicum & Partnerships, Office of Teacher Education, National Institute of Education, Singapore
15:45	Closing Remarks Professor Matthew James Sansom Pro Vice-Chancellor (Education), Sunway University

Day 2: 10th August 2022 (Wednesday)	
08:30	Registration
09:00	Welcoming Remarks Professor Sibrandes Poppema President & Vice-Chancellor, Sunway University
9:10	Ministerial Address YB Datuk Seri Dr Noraini Binti Ahmad Minister of Higher Education Malaysia
9:20	<p>Paper Presentations (Session 3)</p> <p style="text-align: center;">Project-based learning in an actuarial course <u>Low, A. A.</u>^{1*}, Teh, J. K. L.²</p> <p style="text-align: center;">¹Department of Applied Statistics, School of Mathematical Sciences, Sunway University.</p> <p style="text-align: center;">²Department of Actuarial Science & Risk, School of Mathematical Sciences, Sunway University.</p> <p style="text-align: center;">Education in emergencies: Emerging successfully with resilience (A case study at Sunway College Johor Bahru)</p> <p style="text-align: center;">How, P. L., Lee, S. L., <u>Ng, K. H.</u>, Sathissan, R., Shereen, K., Wong, S. L. Pre-University Department, Sunway College Johor Bahru.</p> <p style="text-align: center;">Cracking the code: An innovative way of embedding formative assessments in the number-based web attendance system</p> <p style="text-align: center;"><i>Lai, K. H.</i> School of Mathematical Sciences, Sunway University.</p> <p style="text-align: center;"><i>Moderator: Dr Jane Gew Lai Ti</i></p>
10:20	Keynote Speaker (2): Ensuring the Quality Assurance during and post the COVID-19 Professor Dr Angela Yung Chi Hou Professor & Associate Dean, College of Education, National Chengchi University, Taiwan
10:50	Break
11:10	<p>Paper Presentations (Session 4)</p> <p style="text-align: center;">Students' attitudes towards the adoption of technology</p> <p style="text-align: center;">Ishak. N. S.¹, Ibrahim, I.², <u>A'seri, M. M. S.</u>³, Yaacob, Y.⁴, Mahmud, M.⁵ ^{1,2,3,4}General Studies Department, Sunway College.</p> <p style="text-align: center;">⁵Department of Professional and Continuing Education, Sunway University.</p>

	<p style="text-align: center;">The benefits of pre-class and live class in blended learning</p> <p style="text-align: center;">Mustamam, N. I.¹, Saparman, M.S.¹, <u>Ishak, N. S.</u>¹, Yaacob, Y.¹, Mahmud, M. M.²</p> <p style="text-align: center;">¹General Studies Department, Sunway College. ² Academic Enhancement Division, Sunway University.</p> <p style="text-align: center;">Responsive blended learning: A way forward?</p> <p style="text-align: center;">Tam, K. C.¹, <u>Tan, S. I.</u>^{1*}</p> <p style="text-align: center;">¹ School of Social Sciences, Heriot-Watt University Malaysia, Malaysia.</p> <p style="text-align: center;">Principal component analysis of behavioural engagement on students' performance</p> <p style="text-align: center;"><u>Chan, Lay Guat</u>^{1*}, Ng, Qian Yun¹, Hamidon, Zahari²</p> <p style="text-align: center;">¹School of Mathematical Sciences, Sunway University. ²Cluster of Education and Social Sciences, Open University Malaysia.</p> <p style="text-align: center;"><i>Moderator: Dr Nicholas Lee Boon Kheng</i></p>
12:30	Lunch
13:30	<p>Forum: Quality Assurance in ASEAN</p> <ul style="list-style-type: none"> • Professor Dr Hjh. Hanim Salleh Deputy President, MyQAN • Associate Professor Dr Gerardo L. Largoza Executive Director, De La Salle University Strategic Management & Quality Assurance Office Member, ASEAN University Network Quality Assurance Council (AUN-QA) • Professor Ir. Dr Khairul Salleh bin Mohamed Sahari Deputy Chief Executive Officer, Malaysian Qualifications Agency (MQA)
15:00	<p>Final Keynote</p> <p>YBhg. Professor Dato' Dr Husaini Bin Omar Director General of Higher Education, Department of Higher Education, Ministry of Higher Education Malaysia</p>
15:30	Best Paper Presentation
15:45	<p>Closing Remarks</p> <p>Associate Professor Dr Sim Tze Ying Organising Chairperson, ASEAN Quality Assurance Conference (AQAC) 2022 Associate Dean (International) – School of Interdisciplinary Studies, and Head – Centre for American Education, Sunway University</p>

Scientific Committee

No	Name	Designation
1.	Associate Professor Dr Ooi Pei Boon (Chairperson)	Director of Special Projects, Chancellery Office Head of Department of General Studies
2.	Professor Glenda Marian Crosling	Professor & Head of Research Centre, Chancellery Office
3.	Associate Professor Dr Chew Jacty	Associate Dean (Education) – School of Medical and Life Sciences
4.	Associate Professor Dr Malissa Maria Mahmud	Head – Department of Professional and Continuing Education, Academic Enhancement Division
5.	Dr Nicholas Lee Boon Kheng	Associate Dean (Education) and Associate Dean (Employability and Engagement) – School of Interdisciplinary Studies Head – English for Specific Academic Purposes Unit
6.	Dr Jane Teh Kimm Lii	Associate Dean (Education) – School of Mathematical Sciences
7.	Dr Jane Gew Lai Ti	Senior Lecturer – School of Medical and Life Sciences

Conceptual modeling for online pedagogy: A case of practical subjects

CHONG, K. C.

School of Hospitality & Service Management, Sunway University, 47500 Selangor,
Malaysia.

daniele@sunway.edu.my

Abstract

The coronavirus pandemic has hastened unanticipated “instant transitions” to remote learning at colleges and universities across the country. Previous studies on online education between 2021 and 2022 were primarily teacher-centric, focusing on effectiveness in online teaching with little emphasis on learner conditions, enabling and motivating factors. This study wishes to address key questions on how does the online pedagogy framework look like when student learning conditions and subject nature are considered? And how can different subjects be evaluated for suitability and effectiveness before adapting online approaches? This study argued that the key factor for success in teaching practical skills online is first to recognize and acknowledge the difference between a controlled and an uncontrolled environment. Conceptual modelling suggested that academics and institutional management must carefully evaluate the subjects/programs based on their reliance on the three Cs: 1) Control – close monitoring of the performance of skills due to the high risks involved, as practical results are greatly dependent on precise specifications of materials used; 2) Capacity – unique and specialized utensils, equipment, materials, workstation, and space that are required in facilitating the practice; 3) Coaching – close evaluation and correction of students performing complex tasks, processes and mastery of a particular skill.

Keywords: practical, online, teaching, learning, pandemic

Support students learning through diagnostic assessment

KAUR, C.^{1*}, KAUR, A.², KAUR, P.³

¹Faculty of Creative Industries, Universiti Tunku Abdul Rahman, Selangor, Malaysia.

²Faculty of Creative Industries, Universiti Tunku Abdul Rahman, Selangor, Malaysia.

³Center for Foundation Studies, Universiti Tunku Abdul Rahman, Selangor, Malaysia.

charanjit@utar.edu.my

Abstract

Post-pandemic teaching and learning took on a new appearance and posed a challenge to the quality of education in the country. Although face-to-face sessions have resumed at the university level, online and hybrid courses continue to be offered. For private universities with students of diverse racial and national backgrounds, the pressure to evaluate the quality of student work is rarely examined. Henceforth, the purpose of this study is to assess the technique and quality of evaluation for the subject of Creative Thinking and Idea Generation which is 100% based on coursework. Based on last semester's teaching experience, it was determined that the present assessment was difficult for students to work on and comprehend. Local and international students have varying perspectives, which impacts the calibre of their work. This paper will explore the challenges students experience and provide evaluation measures and good rubrics so as not to compromise the learning objectives of the course (CLO). Since local and international students have varying degrees of comprehension, diagnostic assessment is deemed necessary before deciding on the subject's assessment. Assessment feedback provided through this writing is critical since it influences decisions concerning grades, CGPA, and students' eligibility for scholarships and the ability to continue receiving student loans (PTPTN).

Keywords: assessment, diagnostic, creative, holistic rubric

**Students' readiness and satisfaction in the use of ICT as a teaching and learning tool:
A study at Sunway University**

**Mohamed Sharif, M. N.¹, Ahmad, R.², Adris, S. A.³, Nagasundram, U.⁴,
Yaacob, Y.⁵, Mahmud. M. M.⁶**

^{1,2,3,4,5}General Studies Department, Sunway College, 47500 Selangor, Malaysia.

⁶Department of Professional and Continuing Education, Sunway University, 47500 Selangor, Malaysia.

nadzris@sunway.edu.my

Abstract

Students' readiness and satisfaction with using ICT as a learning tool are closely related to ensuring student excellence, particularly for those who use online learning. Students' readiness and satisfaction with ICT include knowledge of students' ICT skills as a learning tool. Furthermore, having a personal laptop and a good internet network contributes to students' readiness to learn. Student satisfaction is dependent on the university's ICT services. As a result, this study is a direct assessment of students' readiness and satisfaction with using technology as an online learning tool. Following that, this study investigates student satisfaction with the Institution of Higher Education's ICT services. This study employs a quantitative approach with a questionnaire as the research instrument. As study participants, 1,692 Sunway University students enrolled in General Subjects were chosen. The data were analysed descriptively, and the study results revealed that students are ready to use technology as a teaching and learning tool, and they are satisfied with the ICT facilities provided by the Institute of Higher Education. According to the findings, students who have full ICT facilities, stable internet access, and ICT skills are satisfied with the ICT facilities provided by the institution and achieve the highest mean score.

Keywords: readiness, satisfaction, information and communication technology (ICT), teaching tools

Navigating leadership and sustaining higher education amid the COVID-19 crisis

Gan, E.^{1*}, Sim, J. P. T.¹, & Chang, I. H. C.¹

¹Policy, Planning and Quality, Swinburne University of Technology Sarawak Campus,
Sarawak, Malaysia.

evgan@swinburne.edu.my

Abstract

Background: The COVID-19 pandemic is an extraordinary phenomenon that has brought about unprecedented challenges to even the most experienced leaders in navigating the ongoing uncertainties. Nevertheless, with leaders and followers working hand in hand, the pandemic has highlighted the importance of both leadership and followership complementing each other.

Aim: This paper aims to highlight some leadership best practices derived from the recent literature written in the context of battling the COVID-19 pandemic and contextualising their significance for the higher education sector.

Methods: This is a review paper of the existing body of knowledge on the scope covered in this paper.

Findings: The literature shows there is no one-size-fits-all leadership style, especially amid this pandemic. Nevertheless, leaders who have excelled exhibit these actions: courage, compassion, empathy, connectedness and vulnerability. They remain honest concerning challenges and share their uncertainties while realistically offering hope.

Conclusion: Navigating this complex new reality cannot be fulfilled by any prior training, strategic planning knowledge, operational experience, or former decision-making skillsets. Leaders need to have a clear vision, be open-minded and continue to engage actively with their followers to optimise organisational outcomes.

Keywords: COVID-19, leadership best practices, crisis management, higher education

An empirical investigation into technology acceptance and pre-class activities as factors to influence students' engagement

Tan, C. C.¹, Shaik Farid, N. F.², Lee, S. H.³, Mahmud, M. M.⁴, Yaacob, Y.⁵

^{1,2,3,5}General Studies Department, Sunway College, 47500 Selangor, Malaysia.

⁴Professional and Continuing Education Department, Sunway University, 47500 Selangor, Malaysia.

celinet@sunway.edu.my

Abstract

Background: The educational system around the world has significantly shifted to online since the COVID-19 pandemic. Currently, the education system has experienced a paradigm shift, especially among higher education institutions wherein predominantly, educators tend to adopt technology as a viable teaching and learning approach. However, students' engagement is a major concern among educators. To ensure the quality in achieving the learning outcome, it is pertinent to study the factors that affect the student's engagement.

Aim: The main objective of this study is to examine the probability of technology acceptance and pre-class activities as factors that influence higher education students' engagement in the online learning platform.

Methods: For the present study, a cross-sectional approach was adopted. The responses from 1692 Sunway College and Sunway University students were collected through a Google survey form. It was conducted from January to March 2022.

Findings: The finding of the study revealed that students' technology acceptance is positively and significantly related to their engagement in the online learning process. It has also empirically demonstrated the significance of pre-class activities on the engagement of students in online classes.

Conclusion: This study provides insights to educational institutions and practitioners as well as policymakers to advance the online learning process effectively.

Keywords: technology acceptance, pre-class, students' engagement, online learning, higher education

Principal component analysis of behavioural engagement on students' performance

Chan, Lay Guat^{1*}, Ng, Qian Yun¹, Hamidon, Zahari²

¹School of Mathematical Sciences, Sunway University, 47500 Selangor, Malaysia.

²Cluster of Education and Social Sciences, Open University Malaysia, 47500 Selangor, Malaysia.

layguatc@sunway.edu.my

Abstract

Background: The rise of learning analytics enables instructors to collect, analyse and report data to understand students' learning experience within the course. Since student engagement, specifically behavioural engagement is deemed to be important, learning analytics can be applied to assess behavioural engagement to improve students' learning experience.

Aim: To identify behavioural engagement elements which have a significant impact on students' performance in an actuarial science undergraduate course.

Methods: This study applied learning analytics which consists of Blackboard data, attendance and academic results, where the analysis is conducted through principal component analysis using Rstudio.

Findings: Three principal components will be considered as it explains around 85% of the variance in the data. We found that students who have better grades have better attendance, spent more time on videos, more Blackboard clicks and higher videos view. Besides, students with poorer grades tend to have low homework completion rates. Lastly, no concrete observation can be made for video completion.

Conclusion: We concluded that "time spent on the study", "attempts on learning materials" and "task completion" are the three principal components, i.e. three important behavioural engagement that impact students' performance in an actuarial science undergraduate course. Some limitations of the study have been outlined.

Keywords: learning analytics, behavioural engagement, principal component analysis

Project-based learning in an actuarial course

Low, A. A.^{1*}, Teh, J. K. L.²

¹Department of Applied Statistics, School of Mathematical Sciences, Sunway University, 47500 Selangor, Malaysia.

²Department of Actuarial Science & Risk, School of Mathematical Sciences, Sunway University, 47500 Selangor, Malaysia.

aalow@sunway.edu.my

Abstract

Background: Project-Based Learning (PBL) is an innovative learning approach that teaches many strategies critical for success in the 21st century. PBL activities are meant to develop real-world skills that prepare students for employment. The learning method may improve critical thinking, creativity, the ability to communicate effectively, and problem-solving skills.

Aim: To investigate the effects of PBL in an actuarial course. The lessons learnt may assist other educators interested in implementing PBL in a specialised subject in higher education.

Methods: The participants of this study were final-year actuarial students in the School of Mathematical Sciences at Sunway University. PBL was incorporated into the actuarial subject based on curriculum content. Observations were made by the subject lecturer throughout the project assignment. Findings were made based on subject evaluation and reflection essays by students of the actuarial course.

Findings: Students mainly expressed positive opinions about using the PBL method in developing the needed skills to prepare them for employment. The project assignment could have been seen as challenging, demanding and time-consuming; however, the significance of its holistic learning is only realised at the end of the course based on students' reflections of how the project had helped to instil 21st-century skills necessary for the workforce: creativity, critical thinking, communication and interpersonal skills, teamwork, adaptability and time management. Besides mastering the curriculum content, students could experience its practicality in a simulated corporate scenario.

Conclusion: PBL is the way forward in this new generation of self-directed learning and intrinsic motivation to explore real-world challenges actively.

Keywords: project-based learning, higher education, actuarial course

**Education in emergencies: Emerging successfully with resilience
(A case study at Sunway College Johor Bahru)**

How, P. L., Lee, S. L., Ng, K.H., Sathissan, R., Shereen, K., Wong, S. L.
Pre-University Department, Sunway College Johor Bahru, Johor, Malaysia.
plhow@sunway.edu.my

Abstract

Background: COVID-19 has caused a global emergency in education which exacerbated the inequalities in the education system. The EiE (Education in Emergency) Policy Monitoring Framework suggests that proper Agents, Teaching and Learning and Systems factors need to be in place to build a resilient education system. Proper management of these three factors will ensure the preparedness, response and recovery of educational systems during any emergencies. To achieve long-term educational goals, Sunway College Johor Bahru through the Project Revolution (ProRev) initiative became the central pillar for the Pre-University Department in its effort to remain resilient throughout the pandemic. Inaugurated in 2015, ProRev prioritises the use of differentiated pedagogies and technologies in the classroom and drives contemporary standards and policies.

Aim: This study aims to explicate whether the ProRev initiatives applied pre, during and post-pandemic has helped to drive a resilient education system by employing the correct Agents, Teaching and Learning and Systems factors.

Methods: An online survey was conducted amongst 28 academic staff from the Pre-University Programmes, focusing on gathering feedback on the effectiveness of ProRev initiatives in building a resilient education system.

Findings: All 25 questionnaire items focusing on the three management phases received positive mean responses with a mean value of above 3.99. 100% of the respondents also indicated that ProRev initiatives have helped them to become more resilient teachers.

Conclusion: This study concludes that ProRev initiatives is the driver to a resilient education system which enabled Sunway College Johor Bahru to emerge successfully out of the Covid-19 pandemic.

Keywords: resilience, emergencies, readiness, preparedness, response, recovery

Easing the burden of quality assurance in higher education with data analytics and machine learning: Prospects and research needs

Wilkinson, Graeme G.

Chancellery and Centre for Higher Education Research,
Sunway University, 47500 Selangor, Malaysia;
graemew@sunway.edu.my

Abstract

While most professionals in higher education strive to deliver high quality education and enjoy doing so, the processes connected with “assuring” the quality are less welcome. Quality assurance in higher education throughout the world is a largely bureaucratic process aimed at ensuring a good student experience and fit-for-purpose education, often considered to be the production of streams of graduates that meet industrial needs. There is much administrative work involved in quality assurance processes, which is the bane of academics the world over as well as for quality assurance agencies. The question arises as to whether this administrative burden may be lightened by use of approaches such as data analytics (DA) and machine learning (ML). This paper considers the prospects for DA/ML in quality assurance in higher education and the research issues that arise from this.

Keywords: quality assurance, higher education, big data, data analytics, machine learning, research needs

Cracking the code: An innovative way of embedding formative assessments in the number-based web attendance system

Lai, K. H.

School of Mathematical Sciences, Sunway University, 47500 Selangor, Malaysia
keehuongl@sunway.edu.my

Abstract

Background: Efficient documentation of students' attendance reports is imperative in monitoring students' progress and providing supporting evidence for audit purposes. Since 2017, Sunway University has adopted the iCheckIn web attendance system, which requires learners to key in a unique 5-digit numeric code generated by instructors. Leveraging on the numerical nature of the iCheckIn codes, the otherwise mundane attendance-taking routine could be made more rewarding and engaging by creatively embedding formative assessments in the process.

Aim: This work proposes an innovative way of embedding formative assessments in the existing number-based web attendance system. The study also presents and analyzes the feedback collected from learners.

Methods: We first presented the principles in designing mathematical questions such that their solutions match the generated 5-digit iCheckIn codes. We then administered a questionnaire to collect feedback from learners. Both descriptive and inferential were employed in analysing the data collected.

Findings: A total of 152 respondents participated in the survey. The mean score of the six items in the questionnaire ranged from 3.78 to 4.07. No significant difference between population means was observed across respondents from different demographic groups. Learners found the proposed mechanism interesting and stimulating.

Conclusion: In addition to fostering teaching creativity, the innovative practice of embedding formative assessments in a number-based web attendance system greatly benefits both instructors and learners, by providing insightful feedback to instructors, in assessing students' understanding of the topics taught in previous lessons. From learners' point of view, these interactive activities increase their engagement during lessons and promote peer discussions.

Keywords: formative assessments, web attendance system, educational innovation

Students' attitudes towards the adoption of technology

Ishak, N. S.¹, Ibrahim, I.², A'seri, M. M. S.³, Yaacob, Y.⁴, Mahmud, M.⁵

^{1,2,3,4}General Studies Department, Sunway College, 47500 Selangor, Malaysia.

⁵Department of Professional and Continuing Education, Sunway University, 47500 Selangor, Malaysia.

syazwanii@sunway.edu.my

Abstract

The use of technology in the teaching and learning process can increase the efficiency and effectiveness of learning outcomes because it helps students prepare in advance before the learning session begins. Technological tools can also create a more attractive, practical, concise and compact learning environment because students will be exposed to exciting and easy-to-understand descriptions and presentations. As a result, students will not become tired and bored during the teaching and learning process because they are drawn to the presentation style demonstrated by technology. Students' attitude towards the use of technology is one of the critical factors that guarantee students' excellence in learning in blended learning. Students' attitude towards the use of technology includes an interest in using technology for learning purposes; love to explore something new; high initiative in using technology, and are always motivated to use technology for learning purposes. This study aims to identify students' attitudes towards the use of technology, especially those that follow blended learning. This study uses quantitative research methods by descriptively analyzing students' attitudes towards using technology in blended learning. This study focuses on Sunway University and Sunway College students who have taken the subject of General Subjects in the 1st semester of the January 2022 session. A total of 1,692 students answered the questionnaire, which was distributed using Google Forms. The findings showed that Sunway students' attitude towards using technology in blended learning was high. The results of this study prove that Sunway University students show a positive attitude towards using technology in blended learning. The findings also provide positive input to instructors using technology as a teaching and learning tool through blended learning.

Keywords: attitude, technology, teaching and learning, blended learning

The benefits of pre-class and live class in blended learning

Mustamam, N.I.¹, Saparman, M.S.¹, Ishak, N.S.¹, Yaacob, Y.¹, Mahmud, M. M.²

¹General Studies Department, Sunway College, 47500 Selangor, Malaysia.

²Academic Enhancement Division, Sunway University, 47500 Selangor, Malaysia.

nurizzatim@sunway.edu.my

Abstract

In line with the development of the 21st century, blended learning works as one of the innovative methods to integrate technology into teaching and learning. It offers an opportunity for educational institutions around the globe to explore its potential, especially in the era of COVID-19. Nevertheless, to ensure its effectiveness, the instructors must ensure the delivery of teaching through blended learning is efficient to meet the course learning outcomes. Learning the students' feedback sounds significant as a part of the quality assurance assessment. It helps to explain the benefits as probably expanded throughout the process. Thus, this study aims to explore the benefits of pre-class and live classes delivered in blended learning among the students of Sunway University and Sunway College who attended online classes for Mata Pelajaran Umum (MPU) from January to March 2022. Using a set of questionnaires, 1692 students were sampled and analyzed through a standard statistical procedure in quality assurance in means analysis (ANOM). The study's results found that the benefits of blended learning for students are high. The pre-class video recording, as shared earlier through eLearn, help students to understand the topics better while enabling them to enjoy some flexibility in accessing the content. Meanwhile, live lectures promote better discussion between student-lecturer and peers and increase students' enthusiasm and passion for learning.

Keywords: blended learning, benefit, live class, pre-class

Assuring quality in classroom practise through reflection in action: Techniques

Hall, Stephen J.

Centre for English Language Studies, Sunway University, 47500 Selangor, Malaysia.
stephenh@sunway.edu.my

Abstract

Learning outcomes are often stated in quality assurance documents, yet there can be a gap between what the written aims proclaim and the actual learning during classroom interaction. While quality assurance is often detailed in written documentation, the learner uptake of content and acquisition of skills may be more dependent on engagement, active learning and productive use of target content, than on prescribed guidance and planned teacher aims (Moore, 2014). This brief paper will suggest that addressing the challenge of how much quality in-depth learning occurs and how much involvement and engagement there is can be addressed through reflective practise and specifically “reflection in action” (Farrell, 2021). Practical techniques will be described.

Keywords: learning outcomes, quality assurance, reflective practise, reflection in action

Responsive blended learning: A way forward?

Tam, K. C.¹, Tan, S. I.^{1*}

¹School of Social Sciences, Heriot-Watt University Malaysia, Putrajaya, Malaysia.
Siok_Inn.Tan@hw.ac.uk

Abstract

Background: Responsive Blended Learning was introduced at Heriot-Watt University Malaysia in response to the disruption to learning and teaching due to the COVID-19 pandemic. Besides responding to the pandemic lockdown, it also enables the learning and teaching activities for the future education technology in the digital era. It is designed as a response to an extraordinary situation, including the Covid-19 pandemic. However, with the announcement of the transition into the endemic phase on 1 May 2022, many learning and teaching activities are returning to pre-pandemic classes.

Aim: This study intended to explore the perceived experience of the lecturers in adopting Responsive Blended Learning for future learning and teaching activities.

Methods: Semi-structured interviews were conducted to gather the rich experiences of the lecturers. Data were analysed into thematic coding using Nvivo as a tool.

Findings: 5 themes emerged from the data which are increased flexibility, perceived student engagement, advanced learning experience and comprehensive assessments.

Conclusion: Responsive Blended Learning is perceived as a useful tool for future learning and teaching. However, it was not always perceived as a positive approach due to the increased workloads. It is suggested that future research can explore the views of students as end users to ensure a broader understanding of Responsive Blended Learning.

Keywords: Responsive Blended Learning, university, learning and teaching

Recalibrating an Educator's Quality Compass with TQM

Acosta-Corpuz, D. M.

Senior Lecturer at the Institute of Management, College of Social Sciences,
University of the Philippines Baguio, Baguio City, Philippines.

dacorpuz@up.edu.ph

Abstract

Background: In the advent of learner-centred education, quality of purpose is attained, sustained, and enhanced in a multi-dimensional and holistic approach. Educators in higher education are the primary drivers of quality assurance. They facilitate the attainment of relevant learning outcomes through instruction, research, and extension to satisfy the advancing needs of stakeholders. Capacitating educators to personify a good quality culture boosts the whole quality management system of HEIs.

Aim: This paper aims to contribute to educators' understanding of quality assurance in higher education in the light of Deming's management philosophy of Total Quality Management (TQM).

Methods: An overview of the existing literature around quality assurance in higher education is provided and analysed alongside the ASEAN Network University Quality Assurance eight-criteria assessment model at the program level.

Findings: Understanding Harvey & Williams' (2010) quality assurance "value systems" in higher education is gained through discussions on process control, continuous improvement, commitment and breakthrough with Deming's key TQM principles of purpose, cooperating systems, improvement, leadership and methods and processes.

Conclusion: Educators are the prime movers of quality management. They are guided by their quality compasses which need frequent recalibration. Deepening their understanding and transcending from knowledge to practice of a quality culture through the healthy exercise of quality assurance would contribute immensely to the greater humanitarian goal of sustainable development. TQM principles serve as the bedrock of quality assurance. Key TQM themes are associated with the AUN-QA assessment model for program level using the perspective of a management educator. Further study may validate these connections and may extend the empirical study to the other quality points of TQM.

Keywords: higher education, educator, Total Quality Management, quality assurance, sustainable development

Sustaining quality of higher education student experience in a changing higher education landscape

Mohd Dahlan, S. F.

University Services Department, Sunway University, 47500 Selangor, Malaysia
sitifarizad@sunway.edu.my

Abstract

The COVID-19 crisis has brought about another disruptive change to the higher education landscape. Higher education institutions which had not been responding well to the fourth industrial revolution (IR 4.0) struggled to adapt to the abrupt changing needs of students and the industry. They strived to sustain the quality of education and student experience during the pandemic period. On the other hand, institutions which had responded well to the digital transformation of IR 4.0 have been adapting well to the changing landscape as they have weaved in the adoption of technological advancements in their service delivery to offer flexible and responsive education to students. In the endemic phase of the crisis, it is observed that certain expectations of students in the quality of education and services they experience have changed. Constant transformation of a higher education institution to respond to the changing needs of students and the industry is vital to ensure its relevancy and sustainability. This paper aims to share Sunway University's experience in evaluating the different aspects of the student experience that have changed post-pandemic, managing the changing needs of its students and the mechanisms for holistically monitoring student experience at Sunway University.

Keywords: quality assurance, higher education, student experience

