

Strengthening Teaching and Learning Through Responsible Innovation

Mohd Shahrul Nizam
Mohd Danuri
Dept. IS FCSIT UM

Artificial intelligence is increasingly influencing how educational content is developed, delivered and assessed. Within this changing environment, teachers require not only familiarity with emerging technologies but also the pedagogical knowledge needed to apply them responsibly. This focus formed the basis of the “**AI in the Classroom**” session conducted during the **National Symposium 2025** at the Putrajaya International Convention Centre.

The session was attended by 84 secondary school teachers from all over Malaysia under the Program Duta Guru, a joint initiative by **Teach For Malaysia (TFM)** and **Yayasan PETRONAS**. The programme offers an important platform to strengthen educators’ preparedness to address technological developments and the changing needs of twenty-first century learners.



AI as an Educational Support Tool

The workshop demonstrated how artificial intelligence could assist teachers in preparing lessons, assessing students and devising creative classroom activities. It also highlighted digital literacy, ethical consciousness and effective ways to incorporate AI in teaching and learning. The core point was that AI should complement, not replace, teachers’ professional roles. Artificial intelligence can understand language, identify patterns, create content and help in decision making. In education, these skills can assist teachers in developing lesson plans, deconstructing complex

topics, designing assessment questions and creating differentiated learning materials. Structured prompts can be used to generate rough drafts of teaching materials from apps like ChatGPT and Gemini. Educators can also use Gemini-powered Google Slides to build more visually engaging presentations, and faster. That being said, AI-generated materials should not be accepted as a final teaching product. All outputs need to be reviewed and adapted to meet the requirements of the curriculum, learning outcomes, student abilities and classroom contexts.

TAJUK	PENCERAMAH	TEMPAT
AI dalam Bilik Darjah	Ys. Dr. Mohd Shahrul Nizam Bin Mohd Danuri	Dewan 1
Pembelajaran Berasaskan Projek: Aajian Aqazponic Garden	Ys. Muhamad Azni Bin Mat Zin	Dewan 2
Pembelajaran Mendalam tentang Pemuliharaan Hidupan Liar	Dr. Cedric Tan	Dewan 3
STEMpower untuk Bumi: Minda Hijau, Tindakan Global	Enck Kuit Vui Keat	Dewan 4
Kesejahteraan Alam & Persekitaran	Mohd Shamsul Nizam Bin Abdullah	Dewan 5
Keperluan Literasi Iklim dan Kesihatan Planet: Warisan Generasi Seberunya	DR. FONG CHING SAUN	Dewan 6
Konsep Perlindungan Sinergi: Mencari Keharmonian Ladang dan Alam	Ms. Low Shao-Lyn & Mr. Naqib Iskander	Dewan 7
Pendidikan berunsur Permainan dalam Bilik Darjah	Dr Jacory-Lynn Minol	Dewan 8
Makmal Pelajaran STEM: Pembelajaran Aktif, Berasaskan Pengalaman & Pembelajaran Terbalik	Mr Christopher Tan Aik Wei	Dewan 9
Kuasai Masa Depan Anda: Membina Pdp STEM untuk Kejayaan	Puan Nur Faizah Binti Baharudin, Puan Thung Su Ling, & Puan Tuan Juhaida Binti Tuan Muhammad Amin	Dewan 10

List of Workshop held during National Symposium 2025

Providing the Human Foundation of Education

The effectiveness of AI is therefore largely down to teachers' professional judgement. Technology can help make things more efficient, but it's still the responsibility of educators to check the content for accuracy, relevance, and educational value. The workshop also presented Google NotebookLM as a document-based research and knowledge support tool. Unlike general conversational AI applications, NotebookLM analyzes documents that users upload, such as curriculum materials, articles, lecture notes, and PDF files.

The app can generate summaries, FAQs and timelines and structured insights from selected sources. This feature can help with lesson planning, curriculum review and organizing reference materials. Gemini is mostly a creative and conversational assistant, whereas NotebookLM is better suited for document synthesis and source-based knowledge organisation. Still, teachers have to evaluate the trustworthiness of uploaded materials and protect confidential information, in particular student records, assessment papers and personal data.

The engagement of 84 teachers showed an intense interest in the educational possibilities of AI. However, successful adoption does not require the immediate mastery of each and every application available. There should be greater emphasis on the selection of appropriate tools, the application of sound pedagogical principles and the support of continuous professional development. AI can improve efficiency, creativity and personalisation but it cannot replace empathy, encouragement, moral judgement or meaningful teacher-student relationships. Hence, the future of education needs to be continued to be human-centred with technology being used as a tool to enhance learning.



Participants from 84 Secondary School Teachers