# THE YEAR THAT WAS IN EDUCATION

**SIGNIFICANT:** Will 2014 be the year that shaped Malaysian education in the next decade? We highlight last year's success stories, challenges and fresh approaches in this sector

#### NATIONAL EDUCATION BLUEPRINT

To match the standards of education that have continued to rise worldwide, the government formulated the National Education Blueprint for schoolchildren. This comprehensive review of the education system, which was launched last year and will see its implementation until 2025, will better prepare youth for an everevolving global arena.

Knowledge and skills will complement each other and students will be groomed to acquire the attributes of creative thinking, innovation, problem-solving and leadership. Students and their parents will be able to chart scholastic progress in each school year. Changes to national examinations and school-based assessments will also be made to incorporate more higher order thinking questions.

Teachers will have less administrative functions, which will be reassigned, so that they can concentrate on teaching and supervision

## HIGHER ORDER THINKING SKILLS IN

Under the National Education Blueprint, pupils nationwide learnt Higher Order Thinking Skills (HOTS) in the classroom. HOTS were also incorporated into co-curricular activities and tested in examinations last year.

The Programme for International Student Assessment (PISA) 2009 results were a wake-up call as Malaysia was ranked at the bottom one-third in reading, mathematics and science

In the latest edition, PISA 2012, which was announced in late 2013, Malaysians showed an improvement in mathematics, recording a score of 421, compared with 404 in 2009. Science scores saw a small drop, with Malaysians weighing in at an average of 420 marks against 422 three years ago. Reading ability fell the most, plunging to 398.

The results showed our pupils lack HOTS and the ability to be analytical. They can solve problems with a formula but can't answer questions that require them to extrapolate or give a reason. The Education Ministry is working aggressively to inculcate HOTS in students.

Queries which required HOTS comprised only 10 per cent of examination questions in the past.

Starting 2014, almost all questions will require skills that include comprehension, application, analysis, synthesis and evaluation. At the initial stage, only science, mathematics and history test questions reflected the change. These critical subjects were selected because they required an understanding of concepts and critical weighing of facts.

The next PISA will take place this year.

# CHAMPIONING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS EDUCATION

In the early education area as well as gifted and talented children development, efforts by Malaysia were commended with recognition given to Datin Seri Rosmah Mansor who received the Science, Technology. Engineering and Mathematics (STEM) Heroes Award at a ceremony at the United Nations (UN) headquarters in New York in September. The award was presented at the international launch of Global STEM Alliance, an initiative of the New York Academy of Sciences (NYAS) in partnership with governments, companies, non-governmental organisations and schools. The alliance was formed to spearhead STEM education, regarded as key to advancing a science- and technology-driven

While STEM education has been recognised as a critical global need, many countries face increasing employment gaps in these fields.

Prime Minister Datuk Seri Najib Razak, United Nations Educational, Scientific and Cultural Organisation director general Irina Bokova and NYAS president and chief executive officer Ellis Rubinstein addressed the UN event. Najib said STEM education is vital for the future of young Malaysians and the country. He described STEM as the heart of modern life and foundation for economic prosperity.

#### UJIAN PENCAPAIAN SEKOLAH RENDAH LEAKS

Ujian Pencapaian Sekolah Rendah (UPSR) — the first major examination in the national curriculum — is regarded as a critical determinant for entry into secondary school. Schools, teachers, parents and students put in a lot of effort into the preparation for the examination.

However, last year the nation was shocked at news of leak in UPSR test papers (science, English, mathematics and Tamil language) in early Sep-



Food supplies being distributed to flood victims at **SK Chicha Tinggi,** Pasir Mas in Kelantan.

tember. Some 478,848 Year Six pupils nationwide resat the papers on Sept 30, Oct 9 and Oct 30. This incident had many questioning the emphasis on attaining As in exams which might have been one of the reasons for the leak.

When the results were announced in November, there was a 0.02 point decrease in the Average National Grade (GPN) from 2.27 (2013) to 2.29 but the grade was better against 2011 (2.30) and 2012 (2.31). The GPN and the Average Subject Grade (GPMP), which gauge candidates' performance in specific subjects, operate on a decreasing scale where a lower index value indicates better candidate achievement. A total of 36,304 pupils scored straight As compared to 42,646 in 2013. Five subjects, including English and Bahasa Malaysia (Penulisan), saw an increase in GPMP.

#### FORM THREE ASSESSMENT RESULTS

At secondary school, the Penilaian Menengah Rendah (PMR) examination for Form Three students was replaced by Pentaksiran Tingkatan 3 or Form Three Assessment (PT3). Unlike previous years where the PMR examination was held in October, secondary schools nationwide held the PT3 examination and assessment from July 1 until Oct 17.

PT3, part of the academic component in the school-based assessment (Pentaksiran Berasaskan Sekolah, PBS), uses a variety of instruments to gauge students' mastery. PBS was introduced in an effort to move beyond an examination-oriented system.

When PT3 results were announced last month, parents and students were surprised at the less than stellar achievements and a lower number of those scoring all As. Comparisons were made between the PT3 and PMR exams. However, it should be noted PT3 emphasises the concept of central assessment and implementation of HOTS elements in its questions, and the results should be viewed as the new data baseline for the evaluation.

#### **UNIMAP-PING MILESTONES**

Universiti Malaysia Perlis (UniMAP) is the second university in the country to receive the three-star QS Stars

rating by the London-based world varsities rating agency, QS Intelligence Unit. Usually awarded to universities of more than 20 years, this young technology university — an upgrade of Kolej Universiti Kejuruteraan Utara Malaysia — was only established seven years ago.

QS Stars is a rating system that gives a bigger picture of an institution's qualities, looking into eight aspects, namely teaching, facilities, networking, internationalisation, graduates' employability, culture and community involvement, research, as well engineering and technology.

At the 2014 British Invention Show, four UniMAP researchers won seven awards including one special award from the Haller Pro Invention Foundation in Poland.

Aiming to be a centre of innovation and creativity, the tertiary institution also marked another international milestone when it bagged six gold medals and four silver medals at the 17th Moscow International Salon of Inventions and Innovation Technologies (Archimedes). UniMAP researchers also won medals — three gold, four silver and two bronze — at the recent Seoul International Invention Exhibition Fair 2013.

#### **GRADUATES' ENGLISH PROFICIENCY**

Their proficiency in English continues to be a concern. Deputy Prime Minister Tan Sri Muhyiddin Yassin, who is also Education Minister, announced a new policy making English a mandatory pass subject at public universities.

A higher Malaysian University English Test (MUET) score for entry into public higher learning institutes will be introduced this year. The minimum entry requirement was MUET band 1.

At entry point, the minimum MUET requirement will be increased according to the field of study: band 2 for arts and social sciences, band 3 for STEM courses and band 4 for law and medicine.

Graduates must achieve band 3 for arts and social science, band 4 for STEM and band 5 for law and medicine.

#### MALAYSIA'S UNIVERSITY RANKING

Five Malaysian public universities

have improved their global ranking, and three of them are placed among the top 300. According to the 2014 QS World University Rankings compiled by Britain's QS Quacquarelli Symonds, University of Malaya remains the country's highest ranked higher education body and has climbed to the 151st spot from 167th last year. Universiti Kebangsaan Malaysia moved up 10 places, from 269 to 259. Universiti Teknologi Malaysia (UTM) leapt 61 spots from 355th to 294th, putting it within the first 300 places.

Both Universiti Sains Malaysia and Universiti Putra Malaysia also made significant strides, with the former jumping from 355th to 309th, and the latter from 411th placeto 376th. This puts five Malaysian universities in the top 400 ranking.

An increased budget for research, development and commercialisation in public institutions of higher learning will mean a likely further improvement in world ranking, not only of public universities but also some private ones in the country as well.

### YOUNGEST DOCTORAL HOLDER IN

Hazzirah Izzaati Mat Hassim, 24, of UTM, became the country's youngest doctoral holder. The Kelantanborn was presented with her doctorate scroll at the university's 53rd convocation. For her achievement as the youngest recipient of a Doctorate of Philosophy in mathematics, her name has been entered in the Malaysia Book of Records.

#### TOP DEBATER

Maizura Mokhsein of Universiti Teknologi Mara (UiTM) became the pride of the country early last year when she was named the top debater at the United Asian Debating Championship (UADC) in Singapore. The 23-year-old is a law student in her final year. After eight preliminary rounds, Maizura scored the highest marks among the 360 competitors who were from universities across Asia. The UADC, which adopts the Asian Parliamentary format and sees teams of three take on each other, is Asia's largest and most prestigious tournament.

#### FIRST DAY OF SCHOOL 2015 POST-PONED

The start of the new school year has been postponed due to the flood situation, where some school buildings are being used as evacuation centres while others have been damaged by encroaching waters.

The one-week delay to the beginning of the new term will allow time for the rebuilding of homes and lives as well as repairs to school facilities. More than 300 schools in seven states were affected by the floods.

Students in Kedah, Kelantan, Terengganu and Johor will start school on Jan 11, while those in other states will start a day later.

The postponement, however, will not require the lost school hours to be replaced.