

## Inspire student-centred learning, critical thinking

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AFTER much clamouring from various parties, the Education Ministry (MOE) is doing a total review of the education system by holding a nationwide dialogue for feedback.

In 2010, MOE announced the abolishment of the Penilaian Menengah Rendah (PMR) exam in 2016 despite objections from those who felt exams were needed to drive learning.

MOE will need the same fortitude soon to make unpopular yet needed changes. There is none so critical now as getting rid of our test-centred, grades-obsessed educational culture to establish a public school system of choice for all Malaysians.

Whenever our public exam results are released, the media would glorify the high scorers and high-scoring schools. Our educational culture views the ultimate goal of schooling as getting the highest possible grades.

Students are streamed into classes based on their grades. Schools are under pressure to produce more high scorers to get more funding, so teachers focus on what will be tested.

Parents ferry their children starting from Year One to tuition classes where model answers are given for predicted exam questions. Coupled with heavy homework, our students find life a drudgery as they quickly lose their natural curiosity and childhood wonder.

Those who fail to get the desired grades are looked down, driving some to find acceptance in gangs or escape by suicide.

This Asian educational culture probably originated with imperial China's examination system, which enabled ordinary citizens to enter the upper class of society.

While the best Chinese minds were memorising facts to pass exams, the West valued enquiry and investigation of natural phenomena, allowing them to make discoveries leading to technological advance.

Several Asian nations are now so good at exams that they regularly beat the United States in the Programme for International Student Assessment test, but they will be nowhere near the US when it comes to Nobel prizes.

The founding president of Google China said the next Apple or Google will not arise from Asia, but probably in the US, because "American entrepreneurs can think outside of the box because of their education".

For Malaysia to compete in an innovation-led economy, we need to change our educational culture.

The positive side of the Western educational culture is that students are encouraged to generate ideas and express their thoughts, whereas students here are expected to keep quiet and agree without question.

In the West, teachers value the opinion of even the academically weaker students who thus feel no rejection based on grades, while their top students are not worshiped by the press.

In that culture, children grow up daring to venture without fearing failure. By contrast in Asia, exam grades are used to label a child as either clever or stupid, or a school as either good or bad.

The Asian educational culture is perpetuated by teachers who practice teacher-centred learning, where knowledge is to be transmitted from teachers to students who absorb it passively like empty vessels. There is now a global shift towards student-centred learning, whereby students take responsibility for their own learning, with teachers providing a conducive learning environment.

This approach is needed now because what we teach today may be outdated tomorrow, hence our students need to learn how to find information for themselves and apply it to their situation.

Our curriculum, particularly the sciences, should make full use of inductive teaching methods, such as problem-based, enquiry-based and discovery learning. This requires students to be active and independent learners while fostering enquiry and critical thinking.

We need to inspire a love of learning through approaches that make learning interesting and that help retain information longer.

Language teachers should make liberal use of active learning methods like debates and role playing, and facilitate experiential learning through field trips.

Motivation can be improved with a greater range of Science and Arts subjects and removal of the Arts-Science class distinction.

The abolishing of the PMR is an important first step in reducing exam-centric learning and tuition culture. There should be minimal test questions asking for simple factual recall as these encourage rote learning of superficial knowledge. And there should be more questions requiring justification of answers or problem solving.

Aside from written tests, marks can come from projects where students are graded for original thought, communication, teamwork and leadership. These are the skills needed in the k-economy where wealth is generated by creating new knowledge, not regurgitating old knowledge.

Traditional Chinese education is teacher-centred, and the cane is used to ensure student compliance. However, the need now is not conformity, but creativity.

When MOE implemented the teaching of Science and Mathematics in English in 2003, many parents with children in Chinese primary schools were happy with the added benefit of increased exposure to the English language. However, many schools ended up teaching in both Mandarin and English because their teachers were mostly incompetent in English.

The MOE is doing its most extensive education system review for a long time. We cannot afford to wait until the next review to change our educational culture.

For many parents, the teacher-centred, exam-centred culture is the only one they have known for all their lives. It would take extensive roadshows highlighting the problems with this culture for them to see the need for change.

That is why the democratic practice of collecting opinions from all stakeholders may not serve us well. Ultimately, what people want is not an educational system that incorporates everybody's suggestions, but one in which they are confident of sending their children to.

The most important role of MOE is not to stitch together everyone's ideas into one consensus document, but to design an innovative, farsighted system and rally the support of Malaysian parents by explaining to them why it is the best for their children.