APPLYING PSYCHOMETRICS TO SMART SCHOOLS

Haniza: The Mimos Innovative Learning Platform promotes e-learning using semantic technology.

JO TIMBUONG

KUALA LUMPUR: The subject may sound mind-boggling but applied-research body Mimos Bhd believes that psychometrics will be an important component in the smart school flagship application.

Generally defined as the application of statistics and mathematic techniques for psychological and education testing, Mimos' centre of psychometrics plans to develop tools to complement the flagship application.

The plans will also make the lives of human-resource personnel and researchers a bit easier, said the centre.

The two-month-old centre is actively helping in the development of applications for Malaysian smart

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>
> DR HANIZA YON,
> PSYCHOMETRICIAN

schools under the Mimos Innovative Learning Platform.

Its principal researcher, psychometrician Dr Haniza Yon, said the platform promotes e-learning using semantic technology.

"Semantic technology and psychometrics are related because personalisation is part of the semantics, and profiling as well as psychometrics deal with these subjects," she explained.

Using this platform, Mimos hopes to help students get more out of e-learning through better learning methods, she said.

Compared to regular multimedia presentations used in schools, the platform takes issues further by personalising the teaching and learning methods for each student.

Through a psychometric method

called Computer Adaptive Testing (CAT), schools are able to assess each student's abilities and weaknesses. It can also identify if a student is visionary or prefers a hands-on learning approach so that teachers can personalise the method to the individual student to make the learning process more effective.

"Research has shown that students are more comfortable learning this way," Haniza said.

Half-year checks

Students will be evaluated every six months to monitor any change in preferences, she said.

CAT can also be a more effective assessment method, compared to typical pencil-and-paper tests, according to Haniza.

In a computer-assisted test, students are given random questions with similar difficulties. "The level of difficulty will depend on how students answer the previous question," she explained.

This method, she said, will produce better results compared to the conventional method and also help minimise cheating among students.

Mimos plans to use this method of psychometrics in a pilot study which it expects to roll out at the end of the year, which will be conducted in partnership with the Ministry of Education.

"This will help us identify whether the system will fare well in our schools," Haniza said.

She declined to go into details, but said the pilot would involve rural and urban schools nationwide.