

Professor on Duty – Organised by E2TD in Collaboration with Universiti Putra Malaysia & Universiti Kebangsaan Malaysia



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In October, 2017, the Engineering Education Technical Division (E2TD) of The Institution of Engineers Malaysia organised the *Bijak Matematik* programme in collaboration with Sekolah Menengah Kebangsaan Taman Maluri, Kuala Lumpur. Acting as facilitators to assist the Form 5 students of the school in Mathematics for the *Sijil Pelajaran Malaysia* (SPM) Examination were 32 students from Universiti Putra Malaysia (UPM) and Universiti Kebangsaan Malaysia (UKM). The facilitators were assigned four students each and their role was to assist the latter to answer Mathematics questions practically.



The Form 5 students felt more comfortable when placed in small groups with one facilitator

The students were given a set of questions from Paper 1 and Paper 2. The facilitators explained and discussed the methods used to solve each question. More attention was paid to weaker students to help them better understand and be able to answer the questions. This approach allowed weaker students to get one-to-one assistance and explanations for respective topics and questions. The facilitators also gave advice on time management so that the students would be able to answer all the questions within the allocated time.

The students learnt new techniques of answering questions effectively. When placed in smaller groups, each with a facilitator who was only 4-5 years older, the students felt more comfortable about asking questions. By answering more types of questions, the students also gained necessary exposure to identify the various concepts of questions and this, in turn, gave them more



Undergraduate students from UPM's Department of Aerospace Engineering helping Form 5 students during the Bijak Matematik programme

confidence to perform during the real examination.

Indirectly, the programme also gave the students a chance to find out more about IPTA/IPTS (Institut Pengajian Tinggi Awam/Swasta) in Malaysia in preparation for further studies. They asked the facilitators questions on the route/lifestyle to success in university. Apart from helping with Mathematics questions, the facilitators also shared their experiences as former SPM candidates to motivate the students further.

In support of the campaign by the Ministry of Higher Education where undergraduates are encouraged to conduct activities in the community, the *Bijak Matematik* programme is seen as a good approach that benefits both the undergraduates and the secondary school students. By dealing with younger students and school teachers in an effective way, the facilitators can enhance their communication skills as well as improve their thinking skills when helping the school students.

They also learnt leadership skills as they had to ensure all members in the group understood questions

and were actively involved in the discussions. When monitoring the progress of each student, the facilitators used soft skills to ensure everyone was given equal attention.

In conclusion, the facilitators gained valuable experiences and became more confident about communicating with different sectors of the public. This is a good initiative by the government to develop and improve the skills and potentials of IPT students in self-development. It can be seen as benefits gain by society not only in the area of education but also in technology transfer and technical skills. ■

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