

H2OWatch in South Africa and Malaysia

With the help of Manchester Metropolitan University (MMU), the RSC North West Region Analytical Division (NWAD) has spread its wings and introduced youngsters in South Africa and Malaysia to the importance of analysing water using portable test kits.

South Africa

Sanja Potgieter-Vermaak, a NWAD committee member and MMU staff member, visited South Africa in August 2016 and during her visit hosted an outreach activity under NWAD and MMU banners. With the assistance of Professor Herman Potgieter, representing MMU and the University of the Witwatersrand, an event was held at a school aftercare centre located in suburban Johannesburg.

This school aftercare centre (Emthonjeni) was established and is maintained by a church (Mosaiek - <http://www.mosaiek.com/bediening/missional/emthonjeni/>) and, after attending the nearby primary school, 7 - 13 year old children visit the centre where they are given a hot meal and assisted with their homework by volunteers from the church.

The 40 eager children participating in the H2OWatch activity were 10 - 12 years old. Following a presentation describing the different tests and the significance of water quality, which was developed by Sam Watkins during a summer studentship supervised by Megan McLean at MMU, the children were divided into smaller groups and given an opportunity to perform the tests for themselves.

Sanja reported that: *“For most of these children, it was the first time that they had seen or touched laboratory glassware and their eagerness was astonishing”*. Water from the local stream as well as the borehole water used on the premises were subjected to the tests. The local stream water quality was surprisingly within normal limits [i.e. temperature, turbidity, pH, total hardness (480 ppm CaCO₃) and nitrate levels] but, although softer than the stream water (220 ppm CaCO₃), the borehole water had a turbidity reading of 80 and elevated nitrate levels (10 - 25 ppm).

The plan is to continue developing this outreach activity in South Africa and hopefully expand it to other informal settlements in greater Johannesburg and to secondary schools in the area.





Malaysia

Ling Lim, a staff member at MMU, used her contacts with teachers in Malaysia to introduce some secondary school students to H2OWatch during a STEM roadshow aimed at encouraging students to study science and engineering subjects at university level. Around 300 students from 3 schools in Penang and 2 schools in Kuala Lumpur were involved. On this occasion only a few basic water quality measurements were made, but future events will involve analysing a wider range of parameters.

