

# **The Graduate Tutor Training Workshop in the Department of Mathematics**

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Each semester, the Department of Mathematics hires about ten local and foreign graduate students as tutors. In order to help its graduate tutors provide quality teaching, the department has conducted a graduate tutor training workshop since 1999, in addition to the training programme organised by the university. Conducted by the authors, the training workshop enables the department to focus on issues related specifically to the teaching of mathematics and the needs of our undergraduate students. Besides, the training workshop allows us to monitor the teaching performance of our graduate tutors.

The first training session, comprising one hour, is usually conducted at the beginning of the academic year and highlights the importance of active learning and non-verbal communication skills (e.g. maintaining eye contact with the students while talking). The workshop also stresses the importance of making the tutorial sessions conducive for active learning as the students rarely have opportunities to voice their doubts during lectures. In addition, the graduate tutors also view video clips of tutorials conducted by previous graduate tutors to pick up pointers on how to run tutorials.

In the two weeks following the first training session, the trainers will make video recordings (each segment lasting from five to ten minutes) of a typical tutorial session conducted by each of the graduate tutors. We try to capture the following:

- The level of class participation
- The clarity of the tutor's explanation
- Bad habits that the tutors may not be aware of
- Whether the tutor can initiate discussion among the students

During the second training session, the trainers and graduate tutors watch the tapes together. It is common for tutors to initially feel awkward about watching themselves on video, but we remind them that everyone feels the same way and that watching the video is a necessary step in learning to improve. After viewing each segment, the trainers and the tutors will discuss what we have seen on the tape and focus on whether the students asked any questions during the tutorials. It is interesting to observe from the video recordings how some of the top tutors are able to get a good discussion going with the students. In fact, in some tutorial sessions, the students are doing almost as much talking as the tutors! However, other tutors are just talking to themselves throughout the whole segment. Getting the first question from the students often seems to be the most difficult part. As soon as one student has spoken up and received a helpful answer, the questions starts flowing! After watching the tape, we also discuss the general performance of the individual tutors if time permits. After the session, technicians from the department convert the video clips into files that are sent to the tutors for future reference.

The exercise helps the department identify its top tutors to nominate for the faculty's Outstanding Teaching Assistant Awards. In the past, clinching the award has boosted the teaching careers of tutors who were teaching scholars in the department. As the intake of graduate tutors continues to increase, the department believes that the training workshop plays an important role in improving the quality of teaching in our department.

To conclude, here's a summary of the essential aspects of the teaching assistants' training workshop:

- Start early. It is better if the first session is conducted before the start of the semester as changing the teaching style of a tutor can be difficult once the tutor has started teaching in a certain way.
- Make the tutors feel at ease with watching themselves and others fumble. Remind them that everyone is going through a learning process to improve themselves.
- Design a way to follow up and assess the tutors' progress. As graduate tutors are usually appointed for two semesters, we can monitor and see if a tutor has improved in the second semester after attending the workshop in the first.