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Promoting mathematics in Mumbai

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Promoting Mathematics in Mumbai

This article describes my visit to G. N. College of Arts, Science and Commerce, Mumbai, India where I was invited by the Principal Dr. Punjabi to give a lecture on ‘The Relevance of Mathematics to Business, Management Sciences, Accountancy, Economics and Commerce related degree courses’. The lecture was very well received and I found the whole event personally rewarding.

I met Dr. Punjabi along with several other academics from the UK and India at the UK-India Education and Research Initiative (UKIERI) conference held in the UK on 9 October 2009. We all engaged in discussions on various issues in education including undergraduate students’ negative perception of Mathematics. The majority of us agreed on how important it is to get the message across to students that it is a fascinating subject, not only in its own right, but also because of its relevance to several worthwhile professional qualifications, degree courses and careers. Further, that it is central to almost everything in today’s world.

We compared notes on how students in the UK and India often opt for certain career paths thinking that this will help them avoid Mathematics because of their misconceptions about the subject. I shared my tried and tested ideas and teaching approaches to motivate students to read Mathematics and Statistics and to create interest in the subjects. Dr. Punjabi asked me if I would give a lecture on this theme at her college which I accepted enthusiastically because it offered me the opportunity to contribute to promoting Mathematics.

G. N. College is a Higher Education institution affiliated to Mumbai University, as are other colleges in Mumbai, and offers bachelors’ degree programmes such as BA, BSc and BCom. The academic standard of degrees awarded by such institutions is uniform throughout the city with all the examinations set by the University of Mumbai.

My lecture was scheduled for 11.30 a.m. on Saturday 19 December 2009. I entered the lecture hall to be pleasantly surprised to see how packed it was, considering the theme of the lecture and the fact that it was a Saturday morning. The audience consisted of about 200 students, the Principal, the Vice Principal and all the faculty members.

I began with how Mathematics increases employability and helps develop those transferable skills highly desired by potential employers. I then talked about the central role of Mathematics in a variety of gadgets and luxuries that are both taken for granted and play a major part in our daily lives. I went on to discuss some major contributions by Mathematicians to improving the quality of our lives before moving on to the actual theme of the lecture. My rationale behind this order of sub topics was to create general interest in Mathematics and work constructively on their negative perceptions of the subject before relating it to their degree courses.

They listened with interest as I spoke and seemed to enjoy my lecture. I invited students to ask questions as I concluded my lecture. There was initial silence which was soon replaced by several interesting questions and lively discussions, once I put the students at ease.

I received several interesting and relevant questions and comments from students as well as academics from both the



Mathematics and other faculties. Everybody stayed until 1.30 p.m. which was rather impressive considering they had already listened to my 45 minutes lecture and had their lunch delayed! The Principal commented that the students are usually very quiet and never ask any questions and added that it was good to see them ask questions and engage in discussions with such interest.

This highlights the fact that whilst the actual lecture in such situations is important and must be prepared thoughtfully; this is just an initial trigger. A well planned thoroughly prepared lecture could be forgotten once the lecture is finished. It is important for lecturers to create an atmosphere that is conducive not only to the free exchange and expression of ideas but also to promote further curiosity in the subject. It is equally important to be empathetic to those that believe they lack the aptitude for Mathematics. It is crucial for the lecturer to make a conscious effort not to allow the complexity of the subject to overwhelm the audience.

Feedback on such lectures is another important aspect of such events which could show if the objectives were fulfilled and also help plan future presentations. The comments I received included:

- 1) “Your presentation on [the] relevance of mathematics to Business Management has created my interest towards Mathematics which I had lost considering it to be quite complex and difficult. Your lecture will always be remembered.”

Vinid Venugopalan (Student)

- 2) “The lecture was interesting and enlightening at the same time. It has not only inspired students to learn mathematics in diverse ways but it has also directed teachers from different streams of knowledge to integrate it with life. This lecture has encouraged me to explore a research initiative in the area of value based education.”

Dr. Priya Vaidya (Faculty Member)

I have agreed to deliver more lectures on themes related to Mathematics because it would give me the opportunity to make a positive contribution to the future careers of so many students by positively influencing their perceptions of Mathematics. □

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