

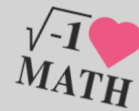
Mathematical Vitality of Mathematics Student Teachers

What is the study about?

This study investigates the Mathematics Vitality of NIE students in the B.A./B.Sc (Ed) programmes who are who are taking Mathematics as their Academic Subject.

What is Mathematical Vitality?

- Refers to knowledge and characteristics of practice exhibited by those have undergone tertiary mathematics
- Having deeper understanding of mathematical processes, in particular, methods of determining truth in Mathematics



Motivation for this study

- As mathematics students who are potential teachers, they ought to have strong mathematical vitality.
- The mathematical education of this group of potential teachers is under NIE's charge unlike for PGDE programme. Thus our mathematicians who develop them need to know the status of MV of our students at beginning of their four years at NIE and at the end of their mathematical education with us.

Progress so far

- Tested two cohorts of student teachers
 1. One group who were almost finishing their programme
 2. One group when they were at the beginning of their programme

Main Findings

- Mathematical Vitality is developed at undergraduate level Mathematics: the level at entry to University programmes is very low and it is much better among the graduating students.
- Within the small sample of students near graduation, there are still some MV areas which need development.

Papers:

Lim-Teo, S.K., Soon, W.M. & Ang, K.C. (2011), Student Teachers' Understanding of Fundamentals in Mathematics, Delta Conference, Rotorua, New Zealand.

Lim-Teo, S.K. (2012), The Mathematical Vitality of Undergraduate Mathematics Student Teachers, (under review)