

Getting To Know Our Professors

Associate Professor Lee Ngan Hoe



A/P Lee Ngan Hoe
is currently an
Associate Professor
with the Mathematics &
Mathematics Education
(MME) Academic
Group.

What research area(s) do you specialise in? How does it impact your work at NIE?

My research revolves around mathematics education, and I specialise in mathematics curriculum development, and metacognition and mathematical problem-solving. I work closely with school teachers in the context of my research work. At the same time, I am also involved in pre-service and in-service education of mathematics teachers as well as postgraduate studies in mathematics education. Thus, I often find myself engaged in a continuous research-practice nexus – where research and practice interact in iterative cycles. Whilst the knowledge and up-to-date findings from my research have helped inform my teaching, interactions with teachers both at NIE and in schools provided further impetus to my research.

Could you share with us some interesting facets of your research area?

Curriculum can be perceived narrowly as the subject content or broadly as a programme of study including all of the learners' experiences. As a researcher, I prefer to adopt a broader conception of the curriculum so that I gain better insights to the subtle but yet distinguishable differences between the content, learners, instruction, and assessment aspects of the whole teaching and learning process.

Metacognition has been featured in the Singapore Mathematics Curriculum framework since 1990 though the term was first published by Flavell in 1976. This certainly speaks well of the Singapore Mathematics Curriculum as one that is cutting-edge and forward-looking. However, despite it being featured in the Framework for more than 25 years, there is still much mystery surrounding what it is beyond “thinking about thinking” among many mathematics teachers in Singapore schools. As a researcher who is interested in the research-practice nexus in mathematics education, my goal is to demystify the concept of metacognition and equip teachers with a more practice-oriented conceptualisation of the construct.

Why is NIE a good place for you to do your work?

NIE is a rich ground for pursuing my interest in mathematics education that addresses the research-practice nexus. The set-up of NIE within the context of a university provides a culture of strong research. In addition, being a leading institute of teacher-education, NIE offers a robust built-up wealth of expertise on classroom practice informed by theory.

What does NIE offer to higher degree students that is unique?

NIE is able to offer our higher degree students a learning environment that is highly conducive to learning – the necessary infrastructure, the rich resources, and the wealth of expertise of the faculty members. However, I always feel that NIE contributes a little more to the learning experience of our higher degree students. The professors are not only strong in educational research and practice but are also rich in pedagogical knowledge. Professors at NIE are not only esteemed academics that many look up to: they are also teachers, mentors, and friends who walk alongside the learning journeys of the students – something which I can attest to as a product of NIE's postgraduate programme.

What advice would you give to those who would like to pursue a higher degree programme?

Pursuing a higher degree is not just about passion, it requires discipline and perseverance. It is crucial that one plans well before embarking on such a programme so that you are more prepared to face the challenges ahead. NIE is often referred to as “the home of all Singapore teachers”, so potential higher degree students should feel free to drop by to talk to the relevant faculty members and get to know more about the programmes before embarking on one. As the Chinese saying goes, “a good beginning is half the battle won” (好的开始是成功的一半).