Assistant Professor Dr. Yeap Ban Har

Personal |

Name: Yeap Ban Har  
Identification Number: S6873690J Year of Birth: 1968  
Nationality: Malaysian (Singapore Permanent Resident)  
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Education |

Doctor of Philosophy (Ph.D.) in Mathematics Education (2002)  
Nanyang Technological University, Singapore  
Thesis: Mathematical Problem Posing (Supervisor: Professor Berinderjeet Kaur)

Master of Education (M.Ed.) (1998)  
Nanyang Technological University, Singapore  
Thesis: Mathematical Problem Solving (Supervisor: Professor Berinderjeet Kaur)

Master of Arts (M.A.) in Southeast Asian Studies (2004)  
National University of Singapore  
Thesis: Social Issues in Thailand (Supervisor: Assoc Prof Goh Beng Lan)

Post-Graduate Diploma in Education (Distinction) (1992) Nanyang Technological University, Singapore

Bachelor of Science (B.Sc.) (1990) National University of Singapore

GCE Advanced Level (1986) Raffles Junior College, Singapore

GCE Ordinary Level (1984) Raffles Institution, Singapore

Primary School Certificate (1980) St. Xavier’s Institution, Malaysia

Present Positions |

Director of Curriculum and Teacher Development (since July 2010)  
Pathlight School, Singapore  
Pathlight School is a primary and secondary school in Singapore offering mainstream curriculum to students with autism.

Academic Director (since January 2018)

Pathlight School, Singapore

Pathlight

Past Positions |

Work Experience in Professional Development Institute |

Principal  
Marshall Cavendish Institute, Singapore (2010 – 2017)  
Marshall Cavendish Institute is a global professional development institute based in Singapore and has academies in Mathematics, Science, Languages, Early Childhood Studies and Lesson Study.

Work Experience in University |

Assistant Professor (2003 to 2010)  
Mathematics & Mathematics Education, Nanyang Technological University, Singapore

Lecturer (1999 to 2003)  
Mathematics & Mathematics Education, Nanyang Technological University, Singapore

Work Experience in Singapore Schools |

Teacher (1998)  
Raffles Institution, Singapore

Head of Department & Teacher (1994 - 1997) Anglo-Chinese School (Barker Road), Singapore

Teacher (1992 - 1993) Anglo-Chinese School, Singapore

Teaching | Pre-Service Courses |

* •  Curriculum Studies in Primary Mathematics
* •  Curriculum Studies in Lower Secondary Mathematics
* •  Curriculum Studies in Secondary Mathematics

I have taught these courses in diploma, degree and post-graduate diploma programmes at National Institute of Education between 1999 and 2010.

Teaching | In-Service Courses |

•  Problem-Solving Heuristics in Primary Mathematics

•  Lesson Study in Primary Mathematics

•  Assessment in SEED Classroom (jointly offered with English Language and Literature)

I have taught these courses in diploma, degree and post-graduate diploma

programmes at National Institute of Education between 1999 and 2010.

Since 2010, I have taught most of the courses offered by Marshall Cavendish

Institute in different countries. A list of the courses are found in the institute’s prospectus.

http://www.mceducation.sg/docs/mciprospectus/mciprospectus2016\_2017\_lr

Teaching | Undergraduate Courses |

• Current Initiatives in Primary Mathematics Curriculum  
I have taught this course at National Institute of Education since its inception in 2008-09 until

2010-11. This is part of the Bachelor of Education course for primary school teachers.

•  Elementary Mathematics (EDU330)

•  Developing Problem-Solving Skills (MAT150)

I have taught these courses as an adjunct professor for Wheelock College, Boston. These courses are part of Bachelor of Science in Early Childhood Education offered at SEED Institute, Singapore.

•  Children’s Science, Mathematics and Technology

•  Integrating Creative, Critical and Reflective Thinking (ECE211)

I have taught these courses at SIM University in Singapore in 2016-17. This is part of the Bachelor of Early Childhood Studies course for early childhood educators.

Teaching | Graduate Courses |

• Developments in Mathematical Problem Solving  
I have taught this course for several years at National Institute of Education.

• Mathematics Education Research Methodology  
I have taught this course as a visiting professor at Faculty of Education, Khon Kaen University,

Thailand (May 2014).

Awards | Teaching |

Commendations in Teaching Excellence 2005 – 2008 awarded by National Institute of Education, Nanyang Technological University, Singapore.

Research | Singapore |

•  Think-Things-Through (T3) Project

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| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2004-2007 | Principal Investigator | EdRf EP 2/03 YBH  SDG 180,450 |

•  Enhancing Pedagogy of Mathematics Teachers (EPMT) Project

|  |  |  |
| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2006-2009 | Co-Investigator  Principal Investigator:  Prof Berinderjeet Kaur | SDG 166,300 |

•  Big Math for Little Kids Project

|  |  |  |
| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2009-2010 | Co-Investigator  Principal Investigator:  Assoc Prof Mary Anne Heng | OER 33/08 MAH  SDG 140,784.95 |

•  Effect of Intervention Programme on Malay-Muslim Children

|  |  |  |
| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2013-2015 | Principal Investigator | This project was funded by Yayasan Mendaki, Singapore |

Research | Regional |

•  Algebraic Thinking of Upper Primary Students Project

|  |  |  |
| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2004-2007 | Co-Investigator Principal Investigator: Dr Natcha Kamol Chiangmai University, Thailand | THB480,000 |

•  Efficacy Study on Primary Mathematics Teaching in Brunei

|  |  |  |
| --- | --- | --- |
| Period | Level of Involvement | Research Fund |
| 2014-2017 | Principal Investigator | This project is funded by Ministry of Education, Brunei |

Graduate Student Supervision |

* + •  Master of Education  
    o Ong Kian Heng (Graduated in 2003)  
    o Teo Ai Lin (Graduated in 2005)  
    o Toh Hoon Sin (Graduated in 2005)  
    o Jason Heng Cheng Han (Graduated in 2007) o Leon Huai Luu (Graduated in 2010)
  + •  Doctor of Philosophy  
    o Ho Siew Yin (Graduated in 2009)  
    o Chua Puay Huat (Graduated in 2010)

Selected Invited Presentations: Conferences |

* + •  Novemberkonferansen (Trondheim, Norway) 26-27 November 2019. Invited plenary lecture titled Teaching and Learning Mathematics Using Anchor Tasks (Norwegian Centre for Mathematics Education, Norwegian University of Science and Technology).
  + •  Thirteenth International Congress on Mathematics Education (Hamburg, Germany) 24- 31 July 2016. Invited lecture titled Instructional Models and Pedagogical Tools to Encourage and Promote Mathematical Talents for Topic Study Group 4 Activities for and Research on Mathematically Gifted Students (International Commission on Mathematics Instruction, ICMI).
  + •  Fourth International Conference-Workshop on Twenty-First Century Education: Promoting the Learner-Focused Paradigm (Olangapo, The Philippines) 30 October 2015. Delivered a plenary lecture on student-centred curriculum (Guro Formation Foundation, The Philippines).
  + •  Singapore Early Childhood Education Symposium (Singapore) 4 June 2015. Delivered an invited lecture titled Enhancing Pedagogy and Numeracy through PLC Lesson Study (Citi-NIE Financial Literacy Hub for Teachers and Microsoft, Singapore).
  + •  Association of Mathematics Educators and Singapore Mathematical Society Conference 2015 (Singapore) 4 June 2015. Delivered a keynote lecture on Developing 21st- Century Competencies in Primary Mathematics Classroom (Association of Mathematics Educators and Singapore Mathematical Society, Singapore).
  + •  Fourth Russian Educational Aid for Development (READ) Conference (St Petersburg, Russia) 12-16 May 2014. Delivered a keynote lecture titled Assessing Learning Goals in the Classroom and conducted a workshop on Classroom Assessment (World Bank).
  + •  Fifth East Asian Regional Conference on Mathematics Education (Tokyo, Japan) 18-22 August 2010. Part of the plenary panel on excellence in classroom practice.
  + •  Benchmarking Education Systems for Results East Asia Regional Conference (Singapore) 21-23 June 2010. Delivered an invited presentation using assessment for policy dialogue (World Bank).
  + •  First Russian Educational Aid for Development (READ) Conference (Moscow, Russia) 30 September - 2 October 2009. Delivered an invited presentation on national examination in Singapore (World Bank).
  + •  Paradigms in Mathematical Education for the 21st Century (Valencia, Spain) 22-24 October 2009. Delivered an invited lecture on mathematics education in Singapore (Casa Asia, Spain).
  + •  Third International Conference on Science and Mathematics Education (Penang, Malaysia) 10-12 November 2009. Delivered a plenary lecture on the role of assessment in promoting mathematical literacy (SEAMEO-RECSAM).
  + •  First International Symposium on Early Mathematics Education (Chicago, USA) 17-18 April 2009. Delivered a keynote lecture on big ideas in early childhood mathematics (Erikson Institute, USA).
  + •  Symposium on International Trends in Teaching and Assessment in Mathematics (Manila, The Philippines) 19-22 May 2009. Delivered a keynote lecture on assessment in mathematics (Center for Educational Measurement, The Philippines).
  + •  National Conference on Singapore Math for US (Las Vegas, USA) 13-16 July 2009. Delivered a keynote lecture on features of Singapore mathematics (Staff Development for Educators, USA).
  + •  International Conference on Science and Mathematics Education (Manila, The Philippines) 27-29 October 2008. Delivered a plenary lecture on assessment and conduct an invited workshop on mathematical problem solving (NISMED, University of the Philippines).
  + •  Symposium on Emerging Issues in the Mathematics Curriculum (Manila, The Philippines) 17 July 2008. Delivered a keynote lecture titled An Analysis of Mathematics Items in National Examinations in Singapore (Center for Educational Measurement, The Philippines).
  + •  Symposium on Effective Strategies for Mathematics Education: The Singapore Model (Santiago, Chile) 25-26 June 2008. Delivered a keynote lecture on mathematics teaching and learning in Singapore (Universidad Del Pacifico, Chile).
  + •  The Chicago Lesson Study Group Seventh Annual Lesson Study Conference (Chicago, USA) 8-10 May 2008. Delivered a keynote lecture on the use of lesson study as a professional development tool for mathematics teachers (DePaul University, USA).
  + •  World Bank Brown Bag Session on Mathematics Teaching in Singapore (Washington DC, USA) 14-15 April 2008. Delivered an invited lecture on mathematics teaching and learning in Singapore (World Bank, Washington DC).
  + •  Meeting of Council of Chief State School Officers (Washington DC, USA) 16 April 2008. Delivered a keynote lecture on the role of textbooks in curriculum implementation (Asia Society, Washington DC).

Selected Invited Presentations: Ministries of Education |

* + •  Norway  
    I conducted a series of three workshops for teachers in primary and secondary schools in Oslo, Norway (2016). I will do so again in November 2019.
  + •  Malaysia  
    I conducted an open lesson and a seminar for master teachers in Penang, Malaysia (2015).
  + •  Brunei  
    I gave a presentation to Minister of Education Brunei as part of an event to sign a Memorandum of Understanding between Ministry of Education, Brunei and Marshall Cavendish Institute (2014).
  + •  Thailand  
    I conducted training for mathematics teacher trainers from Thai universities for Institute for the Promotion of Science and Technology (IPST), a part of Thailand’s Ministry of Education (2008).
  + •  Chile  
    I gave presentations on mathematics curriculum and teacher education over two days to Chile’s Ministry of Education (2008).
  + •  USA  
    I gave presentation to policy makers for Utah’s Department of Education (2008).

Selected Invited Presentations: Universities |

* + •  Hong Kong  
    I gave an invited seminar to staff and students of Chinese University of Hong Kong on 22 March 2016. I also taught a graduate course while on a visiting position to the university.
  + •  Thailand  
    I gave a course on writing research reports to graduate students at Chiangmai University on 8 January 2016 and, again, in 2018. I also conducted a workshop for undergraduates on mathematical problem solving in January 2018.
  + •  Japan  
    I gave an invited lecture on the topic of internationalization of mathematics education to a group of Japanese mathematics educators from various universities. It was held in one of the universities in Osaka on 22 March 2015.
  + •  Malaysia  
    I gave an invited lecture on problem-solving approach in mathematics teaching to faculty and selected students at Institut Pendidikan Guru in Penang, Malaysia on 26 February 2015. I gave an open lesson and seminar on lesson study in Kedah at an event organised by Universiti Sains Malaysia in Penang.
  + •  Thailand  
    I was a visiting professor at Khon Kaen University in May 2014 where I gave seminars on research methods and supervised groups of graduate students.
  + •  USA  
    I gave a seminar on aspects of mathematics education in Singapore that have an impact on high achievement at Boston College on 14 April 2010. I also gave another seminar on theoretical underpinnings of mathematics teaching in Singapore at Harvard Graduate School of Education on 15 April 2010.

Selected Publications |

Books  
• Inprasitha, M., Isoda, M, Wang-Iverson, P., & Yeap, B. H. (Eds.) (2015). Lesson Study:

Challenges in Mathematics Education. Series on Mathematics Education Volume 3. Singapore: World Scientific.

Chapters in a Book

* + •  Yeap, B. H., Tsoi, R. M. F., Chua, B. L., & Woo, H. L, (2010). Chapter 9 Singapore. In The state of use of ICT in the teaching and learning of school science and mathematics among SEAMEO member countries. Penang, Malaysia: SEAMEO-RECSAM.
  + •  de Losada, M. F., Yeap, B. H., Gjone, G., & Pourkazemi, M. H. (2009). Curriculum and assessment that provides challenge in mathematics. In E. J. Barbeau & P. J. Taylor (Eds.) Challenging mathematics in and beyond the classroom: The 16th ICMI Study (p.285 – 316). New York: Springer.
  + •  Holton, D., Cheung, K. C., Kesianye, S., de Losada, M. F., Leikin, R., Makrides, G., Meissner, H., Sheffield, L., & Yeap, B. H. (2009). Teacher development and mathematical challenge. In E. J. Barbeau & P. J. Taylor (Eds.) Challenging mathematics in and beyond the classroom: The 16th ICMI Study (p.205 – 342). New York: Springer.
  + •  Ferrucci, B. J., Kaur, B., Yeap, B. H., & Carter, J. A. (2008). Algebra and algebraic thinking: Seventieth Yearbook. In C. Greenes (Ed.), Using a model approach to enhance algebraic thinking in the elementary school mathematics classroom. Reston, VA: National Council for Teachers of Mathematics.
  + •  Yeap, B. H., Ferrucci, B. J., & Carter, J. A. (2006). Mathematics education in different cultural traditions: A comparative study of East Asia and the West – The 13th ICMI Study. In Leung, F. K. S., Graf, K., & Lopez-Real, F. J. (Eds.), Comparative study of arithmetic problems in Singaporean and American textbooks, (pp. 213-226). NY: Springer. Refereed Journal Article
  + •  Yeap, B. H. (2010). Improving Mathematical Thinking through Assessment. Journal of Science and Mathematics Education in Southeast Asia, 33(2), 187-197.
  + •  Yeap, B. H. (2006). Good Practices in Mathematics Teaching and Teacher Development. Tsukuba Journal of Educational Studies in Mathematics, 25, 233-246. Professional Development Books
  + •  Edge, D. & Yeap, B. H. (2015). Teaching of Proportional Reasoning. Singapore: Marshall Cavendish Education.
  + •  Edge, D. & Yeap, B. H. (2013). Teaching of Decimals. Singapore: Marshall Cavendish Education.
  + •  Edge, D. & Yeap, B. H. (2012). Teaching of Fractions. Singapore: Marshall Cavendish Education.
  + •  Teap, B. H. & Walker, L. (2012). Every Child Can Do Math. Peterborough, NH: Crystal Springs Book.
  + •  Yeap, B. H. & Edge, D. (2011). Teaching of Whole Numbers. Singapore: Marshall Cavendish Education.
  + •  Yeap, B. H. & Kaur, B. (2010). Pedagogy for Engaged Mathematics Learning. Singapore: National Institute of Education.
  + •  Yeap, B. H. (2010). Bar Modeling. Singapore: Marshall Cavendish Education. This book has been translated into Spanish and Dutch.
  + •  Kaur, B. & Yeap, B. H. (2009). Pathways to Reasoning and Communication in the Primary School Mathematics Classroom. Singapore: National Institute of Education.
  + •  Kaur, B. & Yeap, B. H. (2009). Pathways to Reasoning and Communication in the Secondary School Mathematics Classroom. Singapore: National Institute of Education.

School Textbooks

* + •  Yeap, B. H. & Tan, W. (2007). Earlybird Mathematics Kindergarten Standards Edition Series. Textbook series widely used in the USA and several other countries.
  + •  Yeap, B. H. & Tan, W. (2014). Earlybird Mathematics Kindergarten Common Core Edition Series. Textbook series widely used in the USA. This book has been translated into Spanish.
  + •  Yeap, B. H. (2009). Primary Mathematics Grade 6 Standards Edition Series. Textbook series widely used in the USA.
  + •  Yeap, B. H., Hermanson, A., Foong P. Y., Chang, S. H., Lim, P. L. G., & Wong, O. H. (2014). Maths – No Problem! Year 1 to Year 4. Textbook series adapted for England’s 2014 National Curriculum.
  + •  Yeap, B. H. & Hermanson, A. (2015). Maths – No Problem! Year 5 and Year 6. Textbook series adapted for England’s 2014 National Curriculum.
  + •  Yeap, B. H., Foong P. Y., Chang, S. H., Lim, P. L. G., & Wong, O. H. (2017). think! Mathematics (Cambridge International Edition) Year 1 to Year 4. Textbook series adapted for Cambridge International Examination.
  + •  Yeap, B. H. (2019). think! Mathematics (Cambridge International Edition) Year 5 and Year 6. Textbook series adapted for Cambridge International Examination.  
    think! Mathematics has been translated into Swedish and Spanish.
  + •  Yeap, B. H., Tozzo, W. C., Butterfield-Tozzo, A. L., Foong P. Y., Chang, S. H., Lim, P. L. G., & Wong, O. H. (2019). think! Mathematics (Common Core Edition) Grade 1 to Grade 3. Textbook series adapted for USA’s Common Core State Standards.
  + •  Yeap, B. H. (2018). Up Down, All Around. A textbook series for kindergarten numeracy.

Collaboration with Ministry of Education in Singapore |

* + •  Curriculum Planning & Development Division, MOE, Singapore  
    Primary Mathematics Syllabus Working Committee (2009 – 2010)  
    I was part of the team that reviewed the Singapore mathematics curriculum. The Working Committee made recommendations for the revised 2013 syllabus.
  + •  Curriculum Planning & Development Division, MOE, Singapore  
    Sustained Support in Mathematics (SSM) Project (2009 – 2011)  
    My role was to investigate the longitudinal development of teachers’ pedagogical content knowledge.
  + •  Pre-School Education Unit, MOE, Singapore & PCF Kindergartens  
    Lesson Study in Five Kindergartens Project (2009)  
    My role was to facilitate lesson study in five PCF Kindergartens to explore the role of lesson study to increase the capacity of pre-school teachers. In 2009, we completed one cycle of lesson study in each of the five kindergartens, culminating in a presentation and exhibition at the Kindergarten Forum in November 2009.

• Teachers Network, MOE, Singapore (2009)  
Teacher Work Attachment  
I mentored four teachers in preparation of a teacher training workshop on the teaching of primary mathematics which was subsequently presented over four days in Khemarak University, Cambodia, in collaboration with Ministry of Education Cambodia.

Collaboration with Schools |

* + •  Bina Bangsa Schools, Indonesia (since 2007)  
    Mathematics Consultant  
    I provide professional development for mathematics teachers in this primary and secondary school chain that has schools in Jakarta, Semarang, Bandung and Malang.
  + •  Keys Grade School, The Philippines (since 2009)  
    Mathematics Consultant  
    I provide professional development for teachers in this elementary school in Manila.
  + •  Anglo Singapore International School, Thailand (since 2007)  
    Mathematics Consultant  
    I provide consultancy for this school that has three campuses in the area of mathematics curriculum and assessment.
  + •  Victory Christian International School, Manila (since 2014)  
    Mathematics Consultant  
    I provide consultancy for this school in the area of developing video resources for mathematics learning in elementary and high school levels.
  + •  Raffles Institution, Singapore (2007 – 2010)  
    Research Education Mentor  
    I mentored a group of students to develop software for the teaching of the model method. See www.ultimath.com
  + •  Princess Elizabeth Primary School, Singapore (2007 – 2010)  
    School Attachment  
    This was part of the school attachment scheme that provide opportunities for NIE faculty too keep in touch with the field. My school attachment included teaching classes over a sustained period.
  + •  Marsiling Primary School, Singapore (2009 – 2010)  
    School Attachment  
    Marsiling Primary School is one of the twenty schools in the Sustained Support in Mathematics Project.
  + •  Teck Whye Primary School, Singapore (2009 – 2011)  
    School Advisory Committee & Professional Development of Teachers  
    Teck Whye Primary School is also one of the twenty schools in the Sustained Support in Mathematics Project.

Committee Work |

International Programme Committee

* + •  International Advisory Committee for Seventh East Asian Regional Conference in Cebu, The Philippines and Co-Chair for Topic Study Group 4 on Teacher Education and Development (May, 2015)
  + •  World Association for Lesson Studies

o Council Member since 2013 o Honorary Auditor (2015)

Advisory Committee

* + •  Professional Advisory Council for NTUC First Campus (2014-2018)  
    NTUC First Campus is one of the main operators for pre-school education in Singapore. The Professional Advisory Committee is chaired by Denise Phua (Mayor, Central Singapore) and the five members include Prof Tsui Kai Choong, Provost, SIM University, Prof Zhou Jing, Deputy Dean, East China Normal University, Yeap Ban Har, Principal, Marshall Cavendish Institute, Dr Alice Seng, retired National Institute of Education professor and Dr Ngiam Tee Liang, retired National University of Singapore professor.
  + •  School Advisory Committee for Teck Whye Primary School (2009 – 2011)

Academic Committee

* + •  Coordinator of Curriculum Studies Courses for the diploma programme at National Institute of Education (2006 – 2010)
  + •  Member of Master of Education (Primary Education) Programme Review Committee at National Institute of Education (2009 – 2010)

Conference & Symposium Organization

* + •  Organized the Researchers Circle (May 2008) as part of the Mathematics Teachers Conference in collaboration with AME.
  + •  Organized a Symposium for Lesson Study in Mathematics (May 2008) in collaboration with CTL and AME.