

DR. KIN ENG CHIN

Selected Publications

- Wong, K. K., Pang, V., **Chin, K. E.** & Tan, C. K. (2020, in press). A framework for diagnosing dyscalculia. *ASM Science Journal*. **(SCOPUS Indexed Journal)**
- Taliban, E., **Chin, K. E.** & Jiew, F. F. (2020, in press). The transition from real numbers to complex numbers. *ASM Science Journal*. **(SCOPUS Indexed Journal)**
- Ng, L. F., Pang, V. & **Chin, K. E.** (2020, in press). Making sense of mathematics through perception, operation and reason: the case of divisibility of a segment. *ASM Science Journal*. **(SCOPUS Indexed Journal)**
- Chin, K. E.**, & Jiew, F. F. (2020). Knowing and grasping the concept of complex numbers: The case of complex numbers. *The Mathematics Enthusiast*, 17(1), article 11. **(SCOPUS Indexed Journal)**
<https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1487&context=tme>
- Jiew, F. F., & **Chin, K. E.** (2020). Supportive and problematic conceptions in making sense of multiplication: A case study. *The Mathematics Enthusiast*, 17(1), article 7. **(SCOPUS Indexed Journal)**
<https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1483&context=tme>
- Chin, K. E.**, & Jiew, F. F. (2019). Changes of meanings in multiplication across different contexts: the case of Amy and Beth. *Eurasia Journal of Mathematics, Science and Technology Education*, 15(8), em1739. **(SCOPUS Indexed Journal)**
<https://doi.org/10.29333/ejmste/108440>
- Chin, K. E.**, & Pierce, R. (2019). University students' conceptions of mathematical symbols and expressions. *Eurasia Journal of Mathematics, Science and Technology Education*, 15(9), em1748. **(SCOPUS Indexed Journal)**
<https://doi.org/10.29333/ejmste/103736>
- Chin, K. E.**, Jiew, F. F. & Taliban, E. (2019). Conceptions in making sense of multiplication. *Eurasia Journal of Mathematics, Science and Technology Education*, 15(12), em1779. **(SCOPUS Indexed Journal)**
<https://www.ejmste.com/article/conceptions-in-making-sense-of-multiplication-7738>
- Fu, S. H. & **Chin, K. E.** (2019). Teaching number tracing to at-risk Dyscalculia pupil: a single case study in LINUS 2.0 numeracy remedial class in Sandakan, Sabah. *Malaysian Online Journal of Educational Sciences (MOJES)*, 7(3), 11-21
- Chin, K. E.** & Jiew, F. F. (2019). Misconceptions or Preconceptions in making sense of decimals. *Proceedings of the 15th International Conference of The Mathematics Education for the Future Project; Theory and Practice: An Interface or A Great Divide?* Maynooth University, Kildare, Ireland.
- Jiew, F. F. & **Chin, K. E.** (2019). The embodiment of mathematical meanings with special reference to multiplication: Issues and challenges. *Proceedings of the 15th International Conference of The Mathematics Education for the Future Project; Theory and Practice: An Interface or A Great Divide?* Maynooth University, Kildare, Ireland.
- Leong, K. E., **Chin, K.E.**, Mohd Noor, N. & Teh, W. P. (2019). Diagrams Mathematics From 3 KSSM. Shah Alam: SAP Publications(M).

- Leong, K. E., **Chin, K.E.**, Mohd Noor, N. & Teh, W. P. (2019). Dual Language Mathematics Activity Book Form 3. Shah Alam: SAP Publications(M).
- Ng, L. F., Pang, V., & **Chin, K. E.** (2018). A pilot study of student teachers' infinity thinking assessment: Part I – Rasch Analysis. In Zhang, Q. (Ed.). *Pacific Rim Objective Measurement Symposium (PROMS) 2016 Conference Proceedings* (pp. 125-139). Singapore: Springer.
- Chin, P. C., Pang, V., & **Chin, K. E.** (2018). Using Rasch analysis to examine the effects of year 5 students' understanding of whole numbers multiplication. In Zhang, Q. (Ed.). *Pacific Rim Objective Measurement Symposium (PROMS) 2016 Conference Proceedings* (pp. 227-242). Singapore: Springer.
- Chin, K. E.** & Jiew, F. F. (2018). A framework for making sense of mathematics. *Proceedings of the 8th ICMI-East Asia Regional Conference on Mathematics Education*, 1, 309-319, Taipei, Taiwan.
- Pierce, R., Begg, M., & **Chin, K. E.** (2017). Met before. Australian Mathematical Sciences Institute Calculate Teacher Resources. <http://calculate.org.au/2017/11/01/met-before/>
- Pierce, R., Begg, M., & **Chin, K. E.** (2017). Symbolic synonyms. Australian Mathematical Sciences Institute Calculate Teacher Resources. <http://calculate.org.au/2017/11/14/symbolic-synonyms/>
- Pierce, R., Begg, M., & **Chin, K. E.** (2017). Communicating like a mathematician. AMSI Calculate Teacher Resources. <http://calculate.org.au/2017/10/17/communicating-like-mathematician/>
- Fu, S. H., & **Chin, K. E.** (2017). Stimulate at risk Dyscalculia pupil to learn a number sequence: A case single case study in LINUS 2.0 numeracy remedial class in Sandakan, Sabah. *EDUCATUM Journal of Science, Mathematics and Technology (EJSMT)*, 4(2), 35-42.
- Fu, S. H., & **Chin, K. E.** (2017). Stimulate at risk Dyscalculia pupil to learn a number sequence: A case single case study in LINUS 2.0 numeracy remedial class in Sandakan, Sabah. Paper presented at the *5th International Postgraduate Conference on Science and Mathematics (IPCSM) 2017 & International Conference on Science, Technology, Engineering and Mathematics (ICSTEM) 2017*, 7-9 October 2017, Universiti Pendidikan Sultan Idris, Malaysia.
- Fu, S. H., & **Chin, K. E.** (2017). An online survey research regarding awareness of Dyscalculia among educators in Sandakan district, Sabah. *International Journal of Academic Research in Progressive Education and Development*, 6(2), 1-10.
- Fu, S. H., & **Chin, K. E.** (2017). Teaching counting to at risk Dyscalculia pupil: A single case study LINUS 2.0 numeracy remedial class in Sandakan, Sabah. *26th MELTA International Conference 2017*. Article 24.
- Wong, K. K., Pang, V., **Chin, K. E.**, & Tan, C. K. (2016). Prevalence rate of Dyscalculia according to gender and school location in Sabah, Malaysia. In Chan, Y. F., Sidhu, G. K., Narasuman, S., Lee, L. F., & Rahman, S. B. A. (Eds.). *7th International Conference on University Learning and Teaching (InCULT 2014) Proceedings* (pp. 91-100). Singapore: Springer.
- Ng, L. F., **Chin, K. E.**, & Pang, V. (2016). Making sense of infinity through Perception, Operation and Reason. *Man in India*, 96, 447-455. (**SCOPUS INDEXED JOURNAL**)
- Ag Saman, A. S., & **Chin, K. E.** (2016). Solving mathematics word problems through reflection. *International Journal of Academic Research in Business and Social Sciences*, 6(12), 298-306.

- Chin, K. E., & Jiew, F. F.** (2016). Teachers' conceptions of mathematical proof. *Proceedings of the International Conference on Education and High Order Thinking Skills (ICE-HOTS) 2016, 460-471*, Johor Bahru, Malaysia.
- Chin, K. E., & Ng, L. F., & Pang, V.** (2016). Student teachers' conceptions of infinity. Paper presented at the *International Conference on Education and High Order Thinking Skills 2016 In Conjunction with the 2nd International Seminar On Science and Mathematics Education*, Universiti Teknologi Malaysia, 11-13 April 2016, Johor Bahru, Malaysia.
- Ag Saman, A. S., & **Chin, K. E.** (2016). A model for mathematics problem solving. *Proceedings of the International Conference on Education and High Order Thinking Skills (ICE-HOTS) 2016, 443-449*, Johor Bahru, Malaysia.
- Wong, K. K., Pang, V., **Chin, K. E.**, & Tan, C. K. (2016). Short term memory and arithmetic ability among low performing mathematics students in elementary school. *Proceedings of the International Conference on Education and High Order Thinking Skills (ICE-HOTS) 2016, 472-480*, Johor Bahru, Malaysia.
- Junaedi, I., Suyitno, A., Sugiharti, E., & **Chin, K. E.** (2015). Disclosure causes of students error in resolving discrete mathematics problems based on NEA as a means of enhancing creativity. *International Journal of Education, 7*(4), 31-42.
- Chin, K. E., & Lay, Y. F.** (2015). TIMSS grade 8 students' attitudes towards mathematics and mathematics achievement: A descriptive study between Malaysia and Singapore. Paper presented at the *6th International Conference on Science and Mathematics Education, SEAMEO RECSAM, 16-19 November 2015*, Penang, Malaysia.
- Lau, K. T., & **Chin, K. E.** (2015). An innovative way of using mathematics concept map. In Lay, Y. F., Lajium, D., Sharif, S., K Han, C. G., Chin, K. E., & Siew, N. M. (Eds.). *Proceedings of the 1st Borneo International Conference on Science and Mathematics Education, 169-175*, Kota Kinabalu, Malaysia.
- Ng, L. F., Pang, V., & **Chin, K. E.** (2015). Is infinity an object or a process? In Lay, Y. F., Lajium, D., Sharif, S., K Han, C. G., Chin, K. E., & Siew, N. M. (Eds.). *Proceedings of the 1st Borneo International Conference on Science and Mathematics Education, 195-201*, Kota Kinabalu, Malaysia.
- Taliban, E., & **Chin, K. E.** (2015). Supportive and problematic conceptions in complex numbers. In Lay, Y. F., Lajium, D., Sharif, S., K Han, C. G., Chin, K. E., & Siew, N. M. (Eds.). *Proceedings of the 1st Borneo International Conference on Science and Mathematics Education, 203-211*, Kota Kinabalu, Malaysia.
- Chai, C. P., & **Chin, K. E.** (2015). Representing whole number multiplication with line array model: strategies and difficulties, In Lay, Y. F., Lajium, D., Sharif, S., K Han, C. G., Chin, K. E., & Siew, N. M. (Eds.). *Proceedings of the 1st Borneo International Conference on Science and Mathematics Education, 221-239*, Kota Kinabalu, Malaysia.
- Lay, Y. F., & **Chin, K. E.** (2015). The predictive effects of school climate on TIMSS grade 8 students' science achievement: A comparative study between Malaysia and Singapore. In Ayub, A. F. M., Ali, W. Z. W., Hamzah, S. R., Ismail, M., & Pihie, Z. A. L. (Eds.). *Proceedings of the 3rd International Conference on Educational Research, 165-175*, Putrajaya, Malaysia.
- Ng, L. F., **Chin, K. E.**, & Pang, V. (2015). Making sense of infinity through *perception, operation and reason*: conceptions about infinity. Paper presented at the *1st International Conference on Educational Studies*, Universiti Teknologi Malaysia, Johor Bahru, Malaysia.

- Chin, K. E.** (2014). Supportive and problematic aspects in mathematical thinking over the longer term. In Oesterle, S., Nicol, C., Liljedahl, P., & Allan, D. (Eds.). *Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education*, 6, 41, Vancouver, Canada.
- Chin, K. E.**, Pang, V., Wong, K. K., Tan, C. K., & Lee, K. W. (2014). A preliminary study for Dyscalculia Sabah, Malaysia. In Sahin, I., Kiray, S. A., & Alan, S. (Eds.). *Proceeding book of International Conference On Education In Mathematics, Science & Technology*, 462-469, Konya, Turkey.
- Chin, K. E.**, Pang, V., Wong, K. K., Tan, C. K., & Lee, K. W. (2014). A theoretical framework for Dyscalculia. In Sahin, I., Kiray, S. A., & Alan, S. (Eds.). *Proceeding book of International Conference On Education In Mathematics, Science & Technology*, 470, Konya, Turkey.
- Chin, K. E.**, & Tall, D. O. (2013). Making sense of mathematics: the case of trigonometry. Paper presented at the *Warwick Institute of Education Inaugural Post-Graduate Student Conference*, 27 April 2013, Warwick University, United Kingdom.
- Chin, K. E.**, & Tall, D. O. (2012). Making sense of mathematics through *perception, operation and reason*: the case of trigonometric functions. In Tai-Yih Tso (Eds.). *Proceedings of the 36th Conference of the International Group for the Psychology of Mathematics Education*, 4, 264, Taipei, Taiwan.
- Chin, K. E.** (2012). Making sense of trigonometry. Paper presented at the Mathematics Education Centre PhD Workshop, Loughborough University, 20 June 2012, United Kingdom.
- Chin, K. E.**, K Han, C. G., & Lay, Y. F. (2011). Students' attitude to learning mathematics with technology at rural schools in Sabah, Malaysia. *ATIKAN: Journal of Educational Studies*, 1(2), 247-262.
- Chin, K. E.**, Nazar, R., & Pop, I. (2007). Effect of variable viscosity on the mixed convection boundary layer flow over a vertical surface in a porous medium. *International Communication in Heat and Mass Transfer*, 34, 464-473. **(ISI/SCOPUS Indexed Journal)**

RESEARCH FUNDING

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| 2018-20 | Co-researcher. <i>A Standard Policy for Evaluating and Diagnosing Dyscalculia Children in Malaysia</i> funded by Malaysia Ministry of Higher Education. RM\$64300.00 |
| 2015-18 | Research team member. <i>Secondary and university Mathematics: do they speak the same language?</i> funded by the Australian Research Council. Aud\$206,900 |
| 2015-16 | Project Leader. <i>The Role of Symbolism in Trigonometry</i> , funded by the Malaysia Ministry of Education. RM\$16666.00 |
| 2015-16 | Co-researcher. <i>Modeling Malaysian Students' Reading, Science and Mathematics Achievement in OECD-PISA: A Comparative Study between Malaysia and Singapore</i> , funded by the Malaysia Ministry of Education. RM\$16666.00 |

- 2015-16 **Co-researcher.** *The causes for undergraduate students' errors in resolving mathematics problems*, funded by the Semarang State University, Indonesia.
- 2013-14 **Co-researcher.** *Capturing Malaysian Educational Practice – Sarawak Work Package & Sabah Work Package*, funded by Universiti Malaya.
- 2012-15 **Co-researcher.** *The Instrumentation for Dyscalculia Among Primary School Students in Malaysia*, funded by Fundamental Research Grant Scheme of Malaysia Ministry of Higher Education. RM\$50,000
- 2008-09 **Co-researcher.** *The Teaching and Learning of Science and Mathematics in English*, funded by Malaysia Ministry of Education.
- 2008-09 **Project Leader.** *Students' Attitude to Learning Mathematics with Technology in Rural Schools in Sabah*, funded by Universiti Malaysia Sabah. RM\$3000.00

SELECTED AWARDS AND ACHIEVEMENTS

- Apr 2020 **Platinum Award, International Summit of Innovation & Design Exposition 2020, Moving Forward: Mediated digital subitizing**, University of Malaya, Malaysia.
- Apr 2019 **CEPSW Conference Awards 2019**, Flinders University.
(Awarded based on the number of journal articles in journals ranked as either Q1 or Q2 (by Scimago))
- Apr 2019 **Platinum Award, International Summit of Innovation & Design Exposition 2019, The Missing Chapter: Subitizing** (a Dyscalculia toolkit to help at-risk dyscalculic pupils to develop number sense) University of Malaya, Malaysia.
- 27 Sep 2017 **Universiti Malaysia Sabah Researchers Award.** Centre for Research and Innovation. Universiti Malaysia Sabah. Malaysia
- 17 Jul 2017 **Long Service Award (University Level).** Human Resource Department. Universiti Malaysia Sabah. Malaysia
- 6 June 2017 **Awarded 5 months Sabbatical leave** to attach to the Melbourne Graduate School of Education, University of Melbourne as a visiting scholar cum researcher for a ARC project.
- Nov 2014 **Bronze Prize (International Level Competition)** for the invention of Dyscalculia Screener for Primary School Students. Seoul International Invention Fair 2014. Korean Invention Promotion Association. Seoul, Korea.
- May 2014 **Gold Medal (National Level Competition)** for the invention of Dyscalculia Screener for Primary School Students. 25th International Invention, Innovation & Technology Exhibition (ITEX). Malaysian Invention and Design Society (MINDS).
- Sep 2013 **Gold Medal (University Level Competition)** for Innovation category. *Dyscalculia Screener for primary school students*. Research and Innovation Competition. Research and Innovation Centre Universiti Malaysia Sabah, Kota Kinabalu, Malaysia.
- 27 Apr 2013 **Best Paper Award** for Strand 3: Curriculum. Inaugural Post-Graduate Student Conference. **Warwick University, UK.**
- July 2012 **Warwick University Conference Award.**
- June 2010 **Outstanding Service Award** for the year 2009. Universiti Malaysia Sabah.

- 2009-2013 **Doctoral Scholarship.** Malaysia Ministry of Higher Education.
- 2004 **Certificate of Appreciation for Excellent Service.** SMK Sikuati (Sikuati National Secondary School), Kudat, Sabah.
- 2003 **Undergraduate Award.** Hainan Association Kota Kinabalu.