

REFERENCES

- Aida Suraya, M. Y. (1996). *Skim nombor perpuluhan bagi murid tahun lima sekolah rendah [Decimal numbers schemes of year five primary school pupils]*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.
- Arnold, B., Turner, P., & Cooney, T. J. (1996). Analyzing teaching and learning: The art of listening. *Mathematics Teacher*, 89(4), 326-329.
- Ball, D. L. (1988). *Knowledge and reasoning in mathematical pedagogy: Examining what prospective teachers bring to teacher education*. Unpublished doctoral dissertation, Michigan State University, East Lansing.
- Ball, D. L. (1990a). The mathematical understanding that prospective teachers bring to teacher education. *The Elementary School Journal*, 90(4), 449-466.
- Ball, D. L. (1990b). Prospective elementary and secondary teachers' understanding of division. *Journal for Research in Mathematics Education*, 21(2), 132-144.
- Ball, D. L. (1991a). Teaching mathematics for understanding: What do teachers need to know about subject matter? In M. M. Kennedy (Ed.), *Teaching academic subjects to diverse learners* (pp. 63-83). New York: Teachers College Press.
- Ball, D. L. (1991b). Research on teaching mathematics: Making subject matter knowledge part of the equation. In J. Brophy (Ed.), *Advances in research on teaching* (Vol. 2, pp. 1-48). Greenwich, CT: JAI press.
- Ball, D. L., Lubienski, S. T., & Mewborn, D. S. (2001). Research on teaching mathematics: The unsolved problem of teachers' mathematical knowledge. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 433-456). Washington, DC: American Education Research Association.
- Ball, D. L., & McDiarmid, G. W. (1990). The subject matter preparation of teachers. In W. R. Houston, M. Haberman, & J. Sikula (Eds.), *Handbook of research on teacher education* (pp. 437-449). New York: Macmillan.
- Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59 (5), 389-407.
- Barrett, J. E., Clements, D. H., Klanderma, D., Pennisi, S-J., Polaki, M. V. (2006). Students' coordination of geometric reasoning and measuring strategies on a fixed perimeter task: Developing mathematical understanding of linear measurement. *Journal for Research in Mathematics Education*, 37(2), 187-221.
- Baturo, A. & Nason, R. (1996). Students teachers' subject matter knowledge within the domain of area measurement. *Educational Studies in Mathematics*, 31(3), 235-268.

- Beaumont, V., Curtis, R., & Smart, J. (1986). *How to teach perimeter, area, and volume*. Reston, VA: National Council of Teachers of Mathematics.
- Berinderjeet, K., & Yeap, B. H. (2008). Mathematical problem solving in the secondary classroom. In P. Y. Lee (Ed.), *Teaching secondary school mathematics: A resource book* (2nd ed.) (pp. 105-115). Singapore: McGraw-Hill.
- Bennett, A. B. Jr., & Nelson, L. T. (2001). *Mathematics for elementary teachers: A conceptual approach* (5th ed.). New York: McGraw-Hill.
- Billstein, R., Liberskind, S., & Lott, J. W. (2006). *A problem solving approach to mathematics* (9th ed.). Boston: Pearson Education, Inc.
- Bromme, R., & Steinbring, H. (1994). Interactive development of subject matter in the mathematics classroom. *Educational Studies in Mathematics*, 27(3), 217-248.
- Brown, C. A., & Baird, J. (1993). Inside the teacher: Knowledge, beliefs, and attitudes. In P. S. Wilson (Ed.), *Research ideas for the classroom: High school mathematics* (pp.245-259). New York: Macmillan.
- Carpenter, T., Coburn, T. G., Reys, R. E., & Wilson, J. W. (1978). *Results from the first mathematics assessment of the National Assessment of Educational Progress*. Reston, VA: National Council of Teachers of Mathematics.
- Casa, T. M., Spinelli, A. M., Gavin, M. K. (2006). This about covers it! Strategies for finding area. *Teaching Children Mathematics*, 13(3), 168-173.
- Cathcart, W. G., Pothier, Y. M., Vance, J. H., & Bezuk, N. S. (2006). *Learning mathematics in elementary and middle schools: A learner-centered approach* (4th ed.). Upper Saddle River, New Jersey: Pearson Education, Inc.
- Cavanagh, M. (2008). Area measurement in year 7. *Reflections*, 33(1), 55-58. Retrieved September 27, 2008, from http://www.curriculum.support.education.nsw.gov.au/secondary/mathematics/assets/pdf/s4_teach_ideas/area/area_meas.pdf
- Chappell, M., & Thompson, D. R. (1999). Perimeter or area? Which measure is it? *Mathematics Teaching in the Middle School*, 5(1), 20-23.
- Cheah, U. H. (2001). *The construction of mathematical beliefs by trainee teachers college: A multiple case study*. Unpublished doctoral thesis, Universiti Sains Malaysia.
- Cheang, C. Y. (2002). *Mathematics Form 1: Volume 2*. Kuala Lumpur: Arus Intelek.
- Chew, C. M. (2007). *Form one students' learning of solid geometry in a phase-based instructional environment using the Geometer's Sketchpad*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.

- Chua, M. K., Teh, E. K., & Ooi, S. H. (2002). *Mathematics Form 1: Volume 2*. Johor Bahru: Pelangi.
- Clements, D. H., & Bright, G. (2003). *Learning and teaching measurement: 2003 Yearbook*. Reston, VA: National Council of Teachers of Mathematics.
- Davis, R. B. (1986). Conceptual and procedural knowledge in mathematics: A summary analysis. In J. Hiebert (Ed.), *Conceptual and procedural knowledge: The case of mathematics* (pp. 265-300). Hillsdale, NJ: Lawrence Erlbaum.
- Even, R. (1990). Subject matter knowledge for teaching and the case of functions. *Educational Studies in Mathematics*, 21(6), 521-544.
- Even, R. (1993). Subject-matter knowledge and pedagogical content knowledge: Prospective secondary teachers and the function concept. *Journal for Research in Mathematics Education*, 24(2), 94-116.
- Even, R., & Lappan, G. (1994). Constructing meaningful understanding of mathematics content. In D. B. Aichele & A. F. Coxford (Eds.), *Professional development for teachers of mathematics: 1994 Yearbook*. Reston, VA: National Council of Teachers of Mathematics.
- Even, R., & Tirosh, D. (1995). Subject-matter knowledge and knowledge about students as sources of teacher presentations of subject-matter. *Educational Studies in Mathematics*, 29(1), 1-20.
- Fatimah, S. (1997). *Skim penyelesaian masalah bagi guru matematik tingkatan dua [Problem solving schemes of form two mathematics teachers]*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.
- Fennema, E., & Franke, M. L. (1992). Teachers' knowledge and its impacts. In D. A. Grouws (Ed.), *Handbook of research on mathematics teaching and learning* (pp. 147-164). New York: Macmillan.
- Ferrer, B., Hunter, B., Irwin, K., Sheldon, M., Thompson, C., & Vistro-Yu, C. (2001). By the linear unit or square unit? *Mathematics Teaching in the Middle School*, 7(3), 132-139.
- Gay, L. R., & Airasian, P. (2003). *Educational research: Competencies for analysis and application* (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Ginsburg, H. (1981). The clinical interview in psychological research in mathematical thinking: Aims, rationales, technique. *For the Learning of Mathematics*, 1 (3), 4-11.
- Goulding, M., Rowland, T., & Barber, P. (2002). Does it matter? Primary teacher trainees' subject knowledge in mathematics. *British Educational Research Journal*, 28(5), 689-704.
- Hamel, J. (1993). *Case study methods*. Thousand Oaks, CA: Sage.

- Haylock, D. (2001). *Mathematics explained for primary teachers* (2nd ed.). London: Paul Chapman Publishing.
- Harel, G. (1994). On teacher education programmes in mathematics. *International Journal of Mathematical Education in Science and Technology*, 25(1), 113-119.
- Heaton, R. M. (1992). Who is minding the mathematics content? A case study of a fifth-grade teacher. *Elementary School Journal*, 93(2), 153-162.
- Henson, K. T., & Eller, B. F. (1999). *Educational psychology for effective teaching*. Belmont, CA: Wadsworth Publishing Company.
- Hiebert, J., & Lefevre, P. (1986). Conceptual and procedural knowledge in mathematics: An introductory analysis. In J. Hiebert (Ed.), *Conceptual and procedural knowledge: The case of mathematics* (pp. 1-27). Hillsdale, NJ: Lawrence Erlbaum.
- Hill, H. C., Sleep, L., Lewis, J. M., & Ball, D. L. (2007). Assessing teachers' mathematical knowledge: What knowledge matters and what evidence counts? In F. K. Lester, Jr. (Ed.), *Second handbook of research on mathematics teaching and learning* (pp. 111-156). Reston, VA: National Council of Teachers of Mathematics.
- Hirstein, J. J. (1981). The second national assessment in mathematics: Area and volume. *Mathematics Teacher*, 74 (9), 704-708.
- Hogan, T. P. (2007). *Educational Assessment: A practical introduction*. NJ: John Wiley & Sons, Inc.
- Hunting, R. P. (1997). Clinical interview methods in mathematics education research and practice. *Journal of Mathematical Behavior*, 16(2), 145-165.
- Hunting, R. P., & Doig, B. A. (1997). Clinical assessment in mathematics: Learning the craft. *Focus on Learning Problems in Mathematics*, 19(3), 29-48.
- Jamski, W. D. (1978). So your students know about area? *The Arithmetic Teacher*, 26(4), 37.
- Kamii, C., & Kysh, J. (2006). The difficulty of "length \times width": Is a square the unit of measurement? *Journal of Mathematical Behavior*, 25(2), 105-115.
- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] (1998a). *Huraian Sukatan Pelajaran Matematik Tahun 1 [Curriculum Specification Mathematics Year 1]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].
- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] (1998b). *Huraian Sukatan Pelajaran Matematik Tahun 2 [Curriculum Specification Mathematics Year 2]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].

- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] ((1998c). *Huraian Sukatan Pelajaran Matematik Tahun 3 [Curriculum Specification Mathematics Year 3]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].
- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] ((1998d). *Huraian Sukatan Pelajaran Matematik Tahun 4 [Curriculum Specification Mathematics Year 4]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].
- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] ((1998e). *Huraian Sukatan Pelajaran Matematik Tahun 5 [Curriculum Specification Mathematics Year 5]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].
- Kementerian Pendidikan Malaysia [Ministry of Education Malaysia] ((1998f). *Huraian Sukatan Pelajaran Matematik Tahun 6 [Curriculum Specification Mathematics Year 6]*. Kuala Lumpur: Pusat Perkembangan Kurikulum [Curriculum Development Centre].
- Kennedy, L. M., & Tipps, S. (2000). *Guiding children's learning of mathematics*. Belmont, CA: Wadsworth.
- Kenney, P. A., & Kouba, V. L. (1997). What do students know about measurement? In P. A. Kenney & E. A. Silver (Eds.), *Results from the Sixth Mathematics Assessment of the National Assessment of Educational Progress* (pp. 141-163). Reston, VA: National Council of Teachers of Mathematics.
- Kinach, B. M. (2002). A cognitive strategy for developing pedagogical content knowledge in the secondary mathematics methods course: Towards a model of effective practice. *Teaching and Teacher Education, 18*, 51-71.
- Koe, C. A. (1992, December). *Pencapaian matematik guru pelatih di maktab perguruan [Trainee teachers' mathematics achievement in teacher training colleges]*. Paper presented at the Persidangan Kebangsaan Peningkatan Pengajaran Pembelajaran Matematik di Institut/Maktab Perguruan Malaysia [National Conference on the Improvement of Mathematics Teaching and Learning at the Institutes/Teacher Training Colleges Malaysia], Melaka.
- Kupperman, J. J. (1970). *Ethical knowledge*. London: George Allen & Unwin Ltd.
- Learning Mathematics for Teaching (2006). *A coding rubrics for measuring the mathematical quality of instruction* (Technical Report LMT1.06). Ann Arbor, MI: University of Michigan, School of Education.
- Lee, S. E. (2002). *Cognitive and metacognitive processes in solving geometric problems*. Unpublished doctoral thesis, University of Science Malaysia, Penang.
- Lehrer, R. (2003). Developing understanding of measurement. In J. Kilpatrick, W, G, Martin, & D. Schifter (Eds.), *A research companion to the principles and standards for school mathematics* (pp. 179-192). Reston, VA: National Council of Teachers of Mathematics.

- Leung, F. K. S., & Park, K. (2002). Competent students, competent teachers? *International Journal of Educational Research*, 37, 113-129.
- Lewis, C., & Schad, B. (2006). Teaching and learning measurement. *Teaching children mathematics*, 13 (3), 131.
- Lim, H. L. (2007). *Penggunaan model SOLO dalam penilaian kebolehan penyelesaian persamaan linear pelajar tingkatan empat* [Assessing form four students' linear equation solving ability by using SOLO model]. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.
- Lim-Teo, S. K., & Ng, W. L. (2008). Teaching of mensuration. In P. Y. Lee (Ed.), *Teaching secondary school mathematics: A resource book* (2nd ed.) (pp. 105-115). Singapore: McGraw-Hill.
- Lindquist, M. M., & Kouba, V. L. (1989). Measurement. In M. M. Lindquist (Ed.), *Results from the fourth mathematics assessment of the National Assessment of Educational Progress* (pp. 35-43). Reston, VA: National Council of Teachers of Mathematics.
- Long, C. T., & Detemple, D. W. (2003). *Mathematical reasoning for elementary teachers* (3rd ed.). Boston: Pearson Education, Inc..
- Long, M. J., & Ben-Hur, M. (1991). Informing learning through clinical interviews. *Arithmetic Teacher*, 38(6), 44-46.
- Lourdusamy, A., & Tan Sok Khim (1992). Malaysia. In H. B. Leavitt (Ed.), *Issues and problems in teacher education: An international handbook* (pp. 179-191). Westport, CT: Greenwood Press.
- Ma, L. (1999). *Knowing and teaching elementary mathematics*. Mahwah, NJ: Lawrence Erlbaum Associates.
- MacDonald, B., & Walker, R. (1977). Case study and the social philosophy of educational research. In D. Hamilton (Ed.), *Beyond the numbers game*. London: Macmillan Education.
- Malaysian Examination Syndicate (1995). *SPM mathematics examination paper*. Kuala Lumpur. Author.
- Malaysian Examination Syndicate (1996). *1995 SPM performance report*. Kuala Lumpur. Author.
- Malaysian Examination Syndicate (2002). *SPM mathematics examination paper*. Kuala Lumpur. Author.
- Malaysian Examination Syndicate (2003). *2002 SPM performance report*. Kuala Lumpur. Author.

- Martin, M. O., Mullis, I. V. S., Foy, P., Olson, J. F., Preuschoff, C., Erberber, E. et al. (2008). *TIMSS 2007 International Mathematics Report*. Boston: TIMSS & PIRLS International Study Center. Retrieved June 26, 2009, from <http://timss.bc.edu/TIMSS2007/mathreport.html>
- Martin, W. G., & Harel, G. (1989). Proof frames of preservice elementary teachers. *Journal for Research in Mathematics Education*, 20(1), 41-51.
- Martin, W. G., & Strutchens, M. E. (2000). Geometry and measurement. In E. A. Silver & P. A. Kenney (Eds.), *Results from the Seventh Mathematics Assessment of the National Assessment of Educational Progress* (pp. 193-234). Reston, VA: National Council of Teachers of Mathematics.
- Marzita, P. (1998). *Factors associated with mathematics anxiety and its impact on primary teacher trainees in Malaysia*. Unpublished doctoral thesis. University of East Anglia, England.
- McMillan, J. H. (2001). *Classroom assessment: Principle and practice for effective instruction* (2nd ed.). Boston: Allyn and Bacon.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Meyer, R. E., & Wittrock, M. C. (2009). Problem solving. In E. M. Anderson (Ed.), *Psychology of classroom learning: An encyclopedia* (Vol. 2, pp. 702-706). Detroit: Macmillan Reference.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Ministry of Education Malaysia (2000). *Third International Mathematics and Science Study - Repeat (TIMSS - R)*. Kuala Lumpur: Educational Planning and Research Division.
- Ministry of Education Malaysia (2003a). *Integrated Curriculum for Secondary School: Curriculum Specification Mathematics Form 1*. Kuala Lumpur: Curriculum Development Centre.
- Ministry of Education Malaysia (2003b). *Integrated Curriculum for Secondary School: Curriculum Specification Mathematics Form 2*. Kuala Lumpur: Curriculum Development Centre.
- Ministry of Education Malaysia (2003c). *Integrated Curriculum for Secondary School: Curriculum Specification Mathematics Form 3*. Kuala Lumpur: Curriculum Development Centre.
- Ministry of Education Malaysia (2004). *Trends in International Mathematics and Science Study 2003 (TIMSS 2003)*. Kuala Lumpur: Educational Planning and Research Division.

- Mosenthal, J. H., & Ball, D. L. (1992). Constructing new forms of teaching: Subject matter knowledge in inservice teacher education. *Journal of Teacher Education*, 43(5), 347-356.
- Mullis, I. V. S., Martin, M. O., Gonzales, E. J., Gregory, K. D., Garden, R. A., O'Connor, K. M. et al. (2000). *TIMSS 1999 International Mathematics Report*. Boston: International Study Center.
- Mullis, I. V. S., Martin, M. O., Gonzales, E. J., & Chrostowski, S. J. (2004). *TIMSS 2003 International Mathematics Report*. Boston: TIMSS & PIRLS International Study Center. Retrieved June 26, 2009, from <http://timss.bc.edu/TIMSS2003.html>
- Musser, G. L., Burger, W. F., & Peterson, B. E. (2003). *Mathematics for elementary teachers: A contemporary approach* (6th ed.). New York: John Wiley & Sons.
- National Council of Teachers of Mathematics (1991). *Professional standards for teaching mathematics*. Reston, VA: Author.
- National Council of Teachers of Mathematics (2000). *Principles and standards for school mathematics*. Reston, VA: Author.
- Ng, S. N. (1990). Keseimbangan kefahaman konsep dan penguasaan kemahiran dalam pembelajaran matematik [Equilibrium of conceptual understanding and skills mastery in mathematics learning]. *Masalah Pendidikan [Issues in Education]*, 14, 121-130.
- Ng, S. N. (1992). Persepsi guru-guru terhadap konsep pemahaman dalam matematik [Teachers' perceptions towards the concept of understanding in mathematics]. *Jurnal Pendidikan [Educational Journal]*, 14, 57-72.
- Ng, S. F. (1995). *Malaysian preservice primary mathematics teachers and their lecturers: Practice and beliefs about mathematics, teaching and learning*. Unpublished doctoral thesis, University of Birmingham.
- Nik Azis, N. P. (1987). *Children's fractional schemes*. Unpublished doctoral thesis, University of Georgia, Athens, GA.
- Nik Azis, N. P. (1995). *Penghayatan matematik KBSR dan KBSM: Agenda tindakan* (Edisi kedua) [*Appreciation of the integrated curriculum of primary and secondary school mathematics: Action agenda* (2nd ed.)]. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Nik Azis, N. P. (1996). *Penghayatan matematik KBSR dan KBSM: Perkembangan profesional* [*Appreciation of the integrated curriculum of primary and secondary school mathematics: Professional development*]. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Nik Azis, N. P. (1999). *Pendekatan konstruktivisme radikal dalam pendidikan matematik* [*Radical constructivism approaches in mathematics education*]. Kuala Lumpur: Penerbit Universiti Malaya.

- Nik Azis, N. P. (2003, October). *Mathematics education in the 21st century: Meeting the challenges of a changing world*. Paper presented at the International Conference on Science and Mathematics Education: Which Way Now?, University of Malaya, Kuala Lumpur.
- Nik Azis, N. P. (2007, August). *Values development in mathematics education: Challenges and needs*. Paper presented at the International Seminar on Development of Values in Mathematics and Science Education, University of Malaya, Kuala Lumpur.
- Nik Azis, N. P. (2008). *Isu-isu kritikal dalam pendidikan matematik [critical issues in mathematics education]*. Kuala Lumpur: Penerbit Universiti Malaya.
- Nik Azis, N. P., & Ng, S. N. (1990). Pelaksanaan matematik KBSM: Fenomena tahun pertama [Implementation of the Malaysian Integrated Curriculum of Secondary School mathematics: First year phenomenon]. *Masalah Pendidikan [Issues in Education]*, 14, 31-45.
- O'Daffer, P., Charles, R., Cooney, T., Dossey, J., & Schielack, J. (2005). *Mathematics for elementary teachers* (3rd ed.). Boston: Pearson, Education, Inc.
- O'Daffer, P. G., & Clemens, S. R. (1992). *Geometry: An investigative approach* (2nd ed.). New York: Addison-Wesley Publishing Company.
- Olayi, G. A. (1990). Mathematics curriculum in third-world universities for prospective mathematics teachers. *International Journal of Mathematical Education in Science and Technology*, 21(5), 695-700.
- Parke, R. D. & Gauvain, M. (2009). *Child psychology: A contemporary viewpoint*. New York: McGraw-Hill.
- Ponte, J. P., & Chapman, O. (2006). Mathematics teachers' knowledge and practices. In A. Gutierrez & P. Boero (Eds.), *Handbook of research on psychology of mathematics education: Past, present and future* (pp. 461-494). Rotterdam, The Netherlands: Sense.
- Popham, W. J. (2000). *Modern educational measurement: Practice guidelines for educational leaders* (3rd ed.). Boston: Allyn and Bacon.
- Ramakrishnan, M. (1998). Preservice teachers' understanding of perimeter and area. *School Science and Mathematics*, 98(7), 361-368.
- Reinke, K. S. (1997). Area and perimeter: Preservice teachers' confusion. *School Science and Mathematics*, 97(2), 75-77.
- Rickard, A. (1996). Connections and confusion: Teaching perimeter and area with a problem-solving oriented unit. *Journal of Mathematical Behavior*, 15, 303-327.
- Rokiah, E. (1998). *Kajian kes tentang pengajaran matematik pensyarah di Institut Teknologi Mara [Case studies about the mathematics teaching of lecturers in Mara Technology Institute]*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.

- Ryan, J., & Williams, J. (2007). *Children's mathematics 4-15: Learning from errors and misconceptions*. Berkshire: McGraw-Hill.
- Seow, S. H. (1989). *Conceptions of mathematics and mathematics teaching: Case studies of four teacher trainees*. Unpublished M.Ed. Dissertation, University of Malaya, Kuala Lumpur.
- Sgroi, L. S. (2001). *Teaching elementary and middle school mathematics: Raising the standards*. Belmont, California: Wadsworth.
- Sherin, M. G., Sherin, B. L., & Madanes, R. (2000). Exploring diverse accounts of teacher knowledge. *Journal of Mathematical Behavior*, 18 (3), 357-375.
- Sharifah Norul Akmar, S. Z. (1997). *Skim penolakan integer pelajar tingkatan dua [Integers subtraction schemes of form two students]*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.
- Shulman, L. S. (1986). Those who understand: Knowledge in teaching. *Educational Researcher*, 15(2), 4-14.
- Simon, M. A., & Blume, G. W. (1996). Justification in the mathematics classroom: A study of prospective elementary teachers. *Journal of Mathematical Behavior*, 15(1), 3-31.
- Skemp, R. R. (1978). Relational understanding and instrumental understanding. *Arithmetic teacher*, 26(2), 9-15.
- Slavin, R. E. (2009). *Educational psychology: Theory and practice* (9th ed.). Upper Saddle River, NJ: Pearson.
- Strutchens, M. E., Martin, W. G., & Kenny, P. A. (2003). What students know about measurement: Perspectives from the National Assessment of Educational Progress. In D. H. Clements (Ed.), *Learning and teaching measurement: 2003 yearbook* (pp. 195-207). Reston, VA: National Council of Teachers of Mathematics.
- Stylianides, A. J., & Ball, D. L. (2008). Understanding and describing mathematical knowledge for teaching: Knowledge about proof for engaging students in the activity of proving. *Journal of Mathematics Teacher Education*, 11(4), 307-332.
- Suggate, J., Davis, A., & Goulding, M. (1999). *Mathematical knowledge for primary teachers*. London: David Fulton Publishers.
- Sutriyono (1997). *Skim penolakan nombor bulat murid darjah dua dan tiga [Whole numbers subtraction schemes of standard two and three pupils]*. Unpublished doctoral thesis, University of Malaya, Kuala Lumpur.

- Tierney, C., Boyd, C., & Davis, G. (1990). Prospective primary teachers' conceptions of area. In G. Booker, P. Cobb, & T. de Mendicuti (Eds.), *Proceedings of the Fourteenth Annual Conference of the International Group for the Psychology Mathematics Education with North American Chapter* (Vol. 2, pp. 307-315), Mexico. (ERIC Document Reproduction Service No. ED411138).
- Toumasis, C. (1992). Problems in training secondary mathematics teachers: The Greek experience. *International Journal of Mathematical Education in Science and Technology*, 23(2), 287-299.
- Tsang, F. K. W., & Rowland, T. (2005, September). *The subject matter knowledge of Hong Kong primary school mathematics teachers*. Paper presented at the European Conference on Educational Research, 7-10 September 2005, University College Dublin.
- Van de Walle, J. (2001). *Elementary and middle school mathematics: Teaching developmentally* (4th ed.). New York: Longman.
- Van de Walle, J. (2007). *Elementary and middle school mathematics: Teaching developmentally* (6th ed.). Boston: Pearson Education.
- Wilson, L. D., & Chavarria, S. (1993). Superitem tests as a classroom assessment tool. In N. L. Webb & A. F. Coxford (Eds.), *Assessment in the mathematics classroom: 1993 yearbook*. Reston, VA: National Council of Teachers of Mathematics.
- Wilson, P. S., & Osborne, A. (1992). Foundational ideas in teaching about measure. In T. R. Post (Ed.), *Teaching mathematics in grades K-8* (2nd ed.) (pp. 89-121). Boston: Allyn & Bacon.
- Woodward, E. (1982). Heidi's misconception about area and perimeter. *School Science and Mathematics*, 82(4), 332-334.
- Woodward, E., & Byrd, F. (1983). Area: Included topic, neglected concept. *School Science and Mathematics*, 83(4), 343-347.
- Wong, K. Y. (1997). Student teachers' construction of content knowledge in secondary mathematics. *Proceedings of the International Conference on Cooperative Learning and Constructivism in Science and Mathematics Education* (pp. 2.1-2.6), Penang.
- Woolfolk, A. (2007). *Educational psychology* (10th ed.). Boston: Pearson Education.
- Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.