

## DAFTAR PUSTAKA

- Albanese, M.A. (2010) 'Problem-Based Learning', in W.B. Jeffries and K.N. Huggett (eds) *An Introduction to Medical Teaching*. Dordrecht: Springer Netherlands, pp. 41–53. Available at: [https://doi.org/10.1007/978-90-481-3641-4\\_4](https://doi.org/10.1007/978-90-481-3641-4_4).
- Allen, D.E., Donham, R.S. and Bernhardt, S.A. (2011) 'Problem-based learning', *New directions for teaching and learning*, 2011(128), pp. 21–29.
- Ampadu, E. (2012) 'Students' Perceptions of their Teachers' Teaching of Mathematics: The Case of Ghana.', *International online Journal of Educational sciences*, 4(2).
- Apoko, T.W., Hendriana, B. and others (2021) 'Pembuatan Modul Pembelajaran Berbasis Digital'. Lembaga Pengembangan Pendidikan dan Pengajaran Universitas Muhammadiyah Prof. Dr. Hamka.
- Arends, R.I. (2012) 'Learn to teach Ninth Edition'. New York: Mc. Graw Hill.
- Asrizal, A. *et al.* (2018) 'The development of integrated science instructional materials to improve students' digital literacy in scientific approach', *Jurnal Pendidikan IPA Indonesia*, 7(4), pp. 442–450.
- Ayunani, D.S. (2022) *Pengembangan Modul Matematika dengan Pendekatan Contextual Teaching and Learning untuk Meningkatkan Kemampuan Koneksi Matematis pada Materi Fungsi*. UNS (Sebelas Maret University).
- Bature, I.J. (2020) 'The Mathematics Teachers Shift from the Traditional Teacher-Centred Classroom to a More Constructivist Student-Centred Epistemology', *Open Access Library Journal*, 7(5), pp. 1–26.
- Baxter, S. and Gray, C. (2001) 'The application of student-centred learning approaches to clinical education', *International Journal of Language & Communication Disorders*, 36(S1), pp. 396–400.
- Bolstad, O.H. (2019) 'Teaching for Mathematical Literacy: School Leaders' and Teachers' Rationales.', *European Journal of Science and Mathematics Education*, 7(3), pp. 93–108.
- Branch, R.M. (2009) *Instructional design: The ADDIE approach*. Springer.
- Büscher, C. (2018) *Mathematical Literacy on Statistical Measures*. Springer.

- Crocker, L. and Algina, J. (1986) 'Introduction to classical and modern test theory. Toronto: Holt, Rine Hart, and Winston'. Inc.
- Daryanto, D. (2013) 'Menyusun modul bahan ajar untuk persiapan guru dalam mengajar', *Yogyakarta: Gava Media* [Preprint].
- Deepak, K.K. (1994) 'Problem based learning', *The Indian Journal of Pediatrics*, 61(2), pp. 127–137. Available at: <https://doi.org/10.1007/BF02843601>.
- Depdiknas (2008) 'Panduan Pengembangan Bahan Ajar', *Jakarta:Depdiknas*, 1.
- Dr. Amin, S.P.M.S. and Linda Yurike Susan Sumendap, M.P. (2022) *164 Model Pembelajaran Kontemporer*. Pusat Penerbitan LPPM (pertama). Available at: <https://books.google.co.id/books?id=rBtyEAAAQBAJ>.
- Dr. Amir Hamzah, M.A. (2021) *METODE PENELITIAN \& PENGEMBANGAN (Research \& Development) Uji Produk Kuantitatif dan Kualitatif Proses dan Hasil Dilengkapi Contoh Proposal Pengembangan Desain Uji Kualitatif dan Kuantitatif*. CV Literasi Nusantara Abadi. Available at: <https://books.google.co.id/books?id=67hVEAAAQBAJ>.
- Dr.Suhirman S.Pd, M.S. (2019) 'Penelitian Kuantitatif: Sebuah Panduan Praktis', *Mataram: Fakultas Tarbiyah dan Keguruan UIN Mataram*.
- Eko Putro Widoyoko, S. (2022) 'Evaluasi Program Pembelajaran', *Yogyakarta: Pustaka Pelajar* [Preprint].
- Eronen, L. and Kärnä, E. (2018) 'Students acquiring expertise through student-centered learning in mathematics lessons', *Scandinavian Journal of Educational Research*, 62(5), pp. 682–700.
- Florentina, N. and Leonard, L. (2017) 'Pengaruh model pembelajaran kooperatif terhadap kemampuan berpikir kreatif matematis siswa', *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 7(2).
- for Economic Co-operation, O. and (OECD), D. (2012) 'Data Base—PISA 2012'.
- for Economic Co-operation, O. and Development (1999) *Measuring student knowledge and skills: A new framework for assessment*. OECD Publishing Paris.
- Frejd, P. and Geiger, V. (2017) 'Exploring the Notion of Mathematical Literacy in Curricula Documents BT - Mathematical Modelling and Applications: Crossing and Researching Boundaries in Mathematics Education', in G.A. Stillman, W.

- Blum, and G. Kaiser (eds). Cham: Springer International Publishing, pp. 255–263. Available at: [https://doi.org/10.1007/978-3-319-62968-1\\_22](https://doi.org/10.1007/978-3-319-62968-1_22).
- Gall, M.D., Gall, J.P. and Borg, W.R. (2003) *Educational Research: An Introduction*. Allyn and Bacon. Available at: [https://books.google.co.id/books?id=\\_rRhQgAACAAJ](https://books.google.co.id/books?id=_rRhQgAACAAJ).
- Ghaliyah, S., Bakri, F. and Siswoyo, S. (2015) ‘Pengembangan modul elektronik berbasis model learning cycle 7E pada pokok bahasan fluida dinamik untuk siswa SMA kelas XI’, in *Prosiding Seminar Nasional Fisika (E-Journal)*, pp. SNF2015-II.
- Hake, R.R. (1999) *Analyzing Change/Gain Scores*. Woodland Hills: Dept. of Physics, Indiana University.
- Han, W. *et al.* (2017) ‘Materi pendukung literasi numerasi’. Direktorat Jenderal Pendidikan Dasar dan Menengah.
- Hasanah, Z.N., Usodo, B. and Saputro, D.R.S. (2021) ‘KEMAMPUAN LITERASI MATEMATIKA SISWA SMA PADA KONTEKS PENDIDIKAN DAN PEKERJAAN DITINJAU DARI KEMAMPUAN AWAL’, *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 10(4), pp. 2395–2405.
- Hayati, T.R. and Kamid, K. (2019) ‘Analysis of mathematical literacy processes in high school students’, *International Journal of Trends in Mathematics Education Research*, 2(3), pp. 116–119.
- Hidayat, R. and Nurrohmah, N. (2016) ‘Analisis Peningkatan Kemampuan Pemahaman Konsep Matematis Siswa MTs Lewat Penerapan Model Pembelajaran Problem Based Learning Berbantuan Software GEOGEBRA Berdasarkan Kemampuan Awal Matematika’, *Jurnal Penelitian dan Pembelajaran Matematika*, 9(1).
- Hillman, A.M. (2014) ‘A literature review on disciplinary literacy: How do secondary teachers apprentice students into mathematical literacy?’, *Journal of Adolescent & Adult Literacy*, 57(5), pp. 397–406.
- Hmelo-Silver, C.E. (2004) ‘Problem-Based Learning: What and How Do Students Learn?’, *Educational Psychology Review*, 16(3), pp. 235–266. Available at: <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>.
- Jannah, M. and Habiby, W.N. (2022) ‘Effectiveness of the PBL model on mathematics

- learning to cultivate mathematical literacy of elementary school students', *Al-Jabar: Jurnal Pendidikan Matematika*, 13(2), pp. 455–463.
- Jonassen, D.H. and Hung, W. (2012) 'Problem-Based Learning', in N.M. Seel (ed.) *Encyclopedia of the Sciences of Learning*. Boston, MA: Springer US, pp. 2687–2690. Available at: [https://doi.org/10.1007/978-1-4419-1428-6\\_210](https://doi.org/10.1007/978-1-4419-1428-6_210).
- Kadir (2010) *Statistika*. Jakarta: PT. Rosemata Sampurna.
- Kaufman, R.A., Rojas, A.M. and Mayer, H. (1993) *Needs Assessment: A User's Guide*. Educational Technology Publications. Available at: [https://books.google.co.id/books?id=Ek%5C\\_l0MOsZH0C](https://books.google.co.id/books?id=Ek%5C_l0MOsZH0C).
- kemendikbud (2017) 'Panduan Praktis Penyusunan E-Modul. 1 57'.
- Kenedi, A.K. (2017) 'Literasi Matematis dalam pembelajaran berbasis masalah'.
- De Lange, J. and others (2003) 'Mathematics for literacy', *Quantitative literacy: Why numeracy matters for schools and colleges*, 80, pp. 75–89.
- Lase, D. (2019) 'Pendidikan di era revolusi industri 4.0', *SUNDERMANN: Jurnal Ilmiah Teologi, Pendidikan, Sains, Humaniora dan Kebudayaan*, 12(2), pp. 28–43.
- Lestari, E., Nulhakim, L. and Suryani, D.I. (2022) 'Pengembangan e-modul berbasis flip pdf professional tema global warming sebagai sumber belajar mandiri siswa kelas VII', *PENDIPA Journal of Science Education*, 6(2), pp. 338–345.
- Lestari, N.D.S. et al. (2022) 'ADULT MATHEMATICAL LITERACY SISWA BERDASARKAN AKTIVITAS LITERASI MATEMATIS', *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 11(4), pp. 2635–2648.
- Lestari, R.D. and Effendi, K.N.S. (2022) 'Analisis Kemampuan Literasi Matematis Siswa SMP Pada Materi Bangun Datar', *Biormatika: Jurnal ilmiah fakultas keguruan dan ilmu pendidikan*, 8(1), pp. 63–73.
- Likert, R. (1932) 'A technique for the measurement of attitudes.', *Archives of psychology* [Preprint].
- Mahdiansyah, M. and Rahmawati, R. (2014) 'Literasi matematika siswa pendidikan menengah: Analisis menggunakan desain tes internasional dengan konteks Indonesia', *Jurnal Pendidikan Dan Kebudayaan*, 20(4), pp. 452–469.
- Majid, A. (2012) 'Perencanaan Pembelajaran Bandung: PT Remaja Rosdakarya'.

- Manfreda Kolar, V. and Hodnik, T. (2021) 'Mathematical Literacy from the Perspective of Solving Contextual Problems.', *European Journal of Educational Research*, 10(1), pp. 467–483.
- MANGAL, S.K. and MANGAL, S. (2019) *ASSESSMENT FOR LEARNING*. PHI Learning Pvt. Ltd. Available at:  
<https://books.google.co.id/books?id=SqajDwAAQBAJ>.
- Marsitin, R. and Sesanti, N.R. (2023) 'Developing an electronic module based on mathematical literacy to enhance students' mathematical reasoning', *Jurnal Elemen*, 9(1), pp. 197–210.
- Mavugara-Shava, F.M. (2005) *Teaching for mathematical literacy in secondary and high schools in Lesotho: A didactic perspective*. University of the Free State.
- Morrison, K. et al. (2009) *Mathematical Literacy*. Pearson Education South Africa.
- Muliarta, I.K. (2018) 'Menerjemahkan Perubahan Dari TCL (Teacher Center Learning) Ke SCL (Student Center Learning)', *Cetta: Jurnal Ilmu Pendidikan*, 1(2), pp. 76–86.
- Muzaki, A. and Masjudin, M. (2019) 'Analisis kemampuan literasi matematis siswa', *Mosharafa: Jurnal Pendidikan Matematika*, 8(3), pp. 493–502.
- Nasional, I.D.P. (2003) 'Undang-undang republik Indonesia nomor 20 tahun 2003 tentang sistem pendidikan nasional'.
- Nasution, S. (2000) 'Berbagai pendekatan dalam proses belajar dan mengajar'.
- Nurhidayati, A., Putro, S.C. and Widiyaningtyas, T. (2019) 'Penerapan model PBL berbantuan e-modul berbasis flipbook dibandingkan berbantuan bahan ajar cetak pengaruhnya terhadap hasil belajar pemrograman siswa SMK', *Teknologi Dan Kejuruan: Jurnal Teknologi, Kejuruan Dan Pengajarannya*, 41(2), pp. 130–138.
- Ojose, B. (2011) 'Mathematics literacy: Are we able to put the mathematics we learn into everyday use', *Journal of mathematics education*, 4(1), pp. 89–100.
- Pakpahan, R. (2016) 'Faktor-faktor yang memengaruhi capaian literasi matematika siswa Indonesia dalam PISA 2012', *Jurnal pendidikan dan kebudayaan*, 1(3), pp. 331–348.
- Paloloang, M.F.B. et al. (2020) 'Meta analisis: pengaruh problem-based learning terhadap kemampuan literasi matematis siswa di Indonesia tujuh tahun terakhir',

- AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 9(4), pp. 851–864.
- Pisa, O. (2022) ‘Mathematics Framework (Draft)’, *Retrieved from PISA* [Preprint].
- Plomp, T. and Nieveen, N. (2007) ‘An Introduction to Educational Design Research’.
- Popkova, E.G. and Gulzat, K. (2020) ‘Technological Revolution in the 21st Century: Digital Society vs. Artificial Intelligence BT - The 21st Century from the Positions of Modern Science: Intellectual, Digital and Innovative Aspects’, in E.G. Popkova and B.S. Sergi (eds). Cham: Springer International Publishing, pp. 339–345.
- Prabawati, M.N., Herman, T. and Turmudi, T. (2019) ‘Pengembangan Lembar Kerja Siswa Berbasis Masalah dengan Strategi Heuristic untuk Meningkatkan Kemampuan Literasi Matematis’, *Mosharafa: Jurnal Pendidikan Matematika*, 8(1), pp. 37–48.
- Putri, C.A. (2023) ‘MODEL PEMBELAJARAN BERORIENTASI STUDENT CENTERED MENUJU TRANSISI KURIKULUM MERDEKA’, *Ibtidaiyyah: Jurnal Pendidikan Guru Madrasah Ibtidaiyyah*, 2(2), pp. 95–105.
- Rahmah, A.A. and Nasryah, C.E. (2019) ‘Evaluasi Pembelajaran’, *EVALUASI PEMBELAJARAN* [Preprint].
- Rahmania, L. and Rahmawati, A. (2016) ‘Analisis kesalahan siswa dalam menyelesaikan soal cerita persamaan linier satu variabel’, *JMPM: Jurnal Matematika Dan Pendidikan Matematika*, 1(2), pp. 165–174.
- Rhem, J. (1998) ‘Problem-based learning: An introduction’, in *The National Teaching and Learning Forum*, pp. 1–4.
- Rijal, A. (2022) *Mengembangkan e-Learning Mata Kuliah Pembelajaran Matematika SD Berbasis Aplikasi Moodle Program Studi PGSD*. Syiah Kuala University Press. Available at: <https://books.google.co.id/books?id=aZVfEAAAQBAJ>.
- Rizal, A.F., Purwaningrum, J.P. and Rahayu, R. (2021) ‘Pengembangan e-modul berbasis etnomatematika untuk menumbuhkan kemampuan komunikasi matematis dan minat belajar siswa’, *Koordinat Jurnal Pembelajaran Matematika dan Sains*, 2(2), pp. 1–14.
- Rizki, L.M. and Priatna, N. (2019) ‘Mathematical literacy as the 21st century skill’, in *Journal of Physics: Conference Series*, p. 42088.

- Rizqiyani, Y., Anriani, N. and Pamungkas, A.S. (2022) 'Pengembangan e-modul berbantu kodular pada smarthphone untuk meningkatkan kemampuan literasi matematis siswa SMP', *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 6(1), pp. 954–969.
- Saat, S. and Mania, S. (2020) 'Pengantar Metodologi Penelitian: Panduan Bagi Peneliti Pemula'.
- Salsabilla, I. and Hidayati, Y.M. (2021) 'Kemampuan literasi matematika siswa kelas V dalam menyelesaikan soal matematika tipe Higher Order Thinking Skills (HOTS)', *JKPD (Jurnal Kajian Pendidikan Dasar)*, 6(1), pp. 92–107.
- Saputro, B. (2017) *Manajemen penelitian pengembangan (research & development) bagi penyusun tesis dan disertasi*. Aswaja Presindo.
- Sari, D.M.M. et al. (2022) *Pengembangan Bahan Ajar*. get press. Available at: [https://books.google.co.id/books?id=Y%5C\\_h4EAAAQBAJ](https://books.google.co.id/books?id=Y%5C_h4EAAAQBAJ).
- Septian, A. and Maghfirah, D. (2021) 'Mathematical Literacy Skills using Google Classroom on Trigonometry', *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 10(4), pp. 2515–2525.
- Serin, H. (2018) 'A comparison of teacher-centered and student-centered approaches in educational settings', *International Journal of Social Sciences & Educational Studies*, 5(1), pp. 164–167.
- Shelton, K. and Saltsman, G. (2006) 'Using the ADDIE model for teaching online', *International Journal of Information and Communication Technology Education (IJICTE)*, 2(3), pp. 14–26.
- Sofyan, H., Komariah, K., Triwiyono, E., & Wagiran. (2017). *Problem Based Learning Dalam Kurikulum 2013 (Pertama)*. UNY Press.
- Solihin, L. (2022) 'Implementasi Kurikulum yang Berfokus pada Siswa'.
- Steen, L.A., Turner, R. and Burkhardt, H. (2007) 'Developing mathematical literacy', *Modelling and Applications in Mathematics Education: The 14 th ICMI Study*, pp. 285–294.
- Sugiyono, D. (2013) 'Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D'.
- Sulistyaningsih, A. and Rakhmawati, E. (2017) 'Analisis kesalahan siswa menurut

- kastolan dalam pemecahan masalah matematika', in *Seminar matematika dan pendidikan matematika UNY*, pp. 123–130.
- Sumardi, S. and Aslami, W.N. (2022) 'Analisis Tingkat Literasi Matematika Siswa Dalam Menyelesaikan Soal Sistem Persamaan Linear Dua Variabel', *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 11(2), pp. 1453–1461.
- Syafitri, A., Huda, N. and Haryanto, H. (2021) 'Problem-based learning model: Its effect on mathematical literacy ability based on students' visual verbal ability', *Al-Jabar: Jurnal Pendidikan Matematika*, 12(2), pp. 427–436.
- Syamsidah and Suryani, H. (2018) 'Buku Model Peoblem Based Learning (PBL)', *Buku*, pp. 1–92.
- Tariq, V. (2004) 'Numeracy, mathematical literacy and the life sciences', *MSOR Connections*, 4(2), pp. 25–29.
- Tärnvik, A. (2007) 'Revival of the case method: a way to retain student-centred learning in a post-PBL era', *Medical teacher*, 29(1), pp. e32--e36.
- Triyono, S. (2021) *Dinamika Penyusunan E-Modul*. Penerbit Adab. Available at: <https://books.google.co.id/books?id=1dMeEAAAQBAJ>.
- Vebrian, R. *et al.* (2021) 'Kemampuan Penalaran Matematis Siswa dalam Menyelesaikan Soal Literasi Matematika Kontekstual', *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 10(4), pp. 2602–2614.
- Widoyoko, E.P. (2012) 'Teknik penyusunan instrumen penelitian', *Yogyakarta: pustaka pelajar*, 15(1), pp. 1–22.
- Widoyoko, E.P. (2017) *Evaluasi Program Pembelajaran*. Yogyakarta: Pustaka Belajar.
- Widyastuti, E. and others (2019) 'Using the ADDIE model to develop learning material for actuarial mathematics', in *Journal of Physics: Conference Series*, p. 12052.
- Winarni, S. *et al.* (2021) 'Efektivitas Video Pembelajaran Matematika Untuk Mendukung Kemampuan Literasi Numerasi Dan Digital Siswa', *AKSIOMA: Jurnal ...* [Preprint]. Available at: <https://www.ojs.fkip.ummetro.ac.id/index.php/matematika/article/view/3345>.
- Winaryati, E. (2021) *Cercular Model of RD\&D (Model RD\&D Pendidikan dan Sosial)*. Eny Winaryati.
- Wood, D.F. (2003) 'Problem based learning', *Bmj*, 326(7384), pp. 328–330.

- Wright, R.J. (2008) *Educational Assessment: Tests and Measurements in the Age of Accountability*. SAGE Publications. Available at:  
<https://books.google.co.id/books?id=26nVLHEyickC>.
- Zaini, A. and Marsigit, M. (2014) 'Perbandingan keefektifan pembelajaran matematika dengan pendekatan matematika realistik dan konvensional ditinjau dari kemampuan penalaran dan komunikasi matematik siswa', *Jurnal Riset Pendidikan Matematika*, 1(2), pp. 152–163.
- Zakariah, M.A., Afriani, V. and Zakariah, K.H.M. (2020) *METODOLOGI PENELITIAN KUALITATIF, KUANTITATIF, ACTION RESEARCH, RESEARCH AND DEVELOPMENT (R n D)*. Yayasan Pondok Pesantren Al Mawaddah Warrahmah Kolaka.