

DAFTAR PUSTAKA

- Abdiansah, A., Utami, A. S., Yusliani, N., Januar, K., Miraswan, & Wedhasmara, A. (2023). Peningkatan Motivasi Belajar Siswa SMA Melalui Pendekatan Pemrograman Komputer. *Jurnal Pengabdian Kolaborasi Dan Inovasi IPTEKS*, 7(2), 809–820.
- Afianti, Y. (2012). Validitas dan Reliabilitas dalam Penelitian Kualitatif. *Jurnal Keperawatan Indonesia*.
- Aminah, N., Sukestiyarno, Y. L., Wardono, W., & Cahyono, A. N. (2022). Computational Thinking Process of Prospective Mathematics Teacher in Solving Diophantine Linear Equation Problems. *European Journal of Educational Research*, 11(3), 1495–1507. <https://doi.org/10.12973/eujer.11.3.1495>
- Angeli, C., Voogt, J., Fluck, A., Webb, M., Cox, M., Malyn-Smith, J., & Zagami, J. (2016). A K-6 computational thinking curriculum framework: Implications for teacher knowledge. *Educational Technology and Society*, 19(3), 47–57.
- Anistyasari, Y., Ekohariadi, E., & Munoto, M. (2020). Strategi Pembelajaran Untuk Meningkatkan Keterampilan Pemrograman Dan Berpikir Komputasi: Sebuah Studi Literatur. *Journal of Vocational and Technical Education (JVTE)*, 2(2), 37–44. <https://doi.org/10.26740/jvte.v2n2.p37-44>
- Arcavi, A. (1994). Symbol Sense: Informal Sense-making. *For the Learning of Mathematics*, 14(3), 24–35.
- Azmi, R. D., & Ummah, S. K. (2021). Implementasi Project Based Learning Untuk Mengeksplorasi Kemampuan Computational Thinking Mahasiswa. *Jurnal Ilmiah Pendidikan Matematika Al Qalasadi*, 5(1), 52–61. <https://doi.org/10.32505/qalasadi.v5i1.2761>
- Barr, V., & Stephenson, C. (2011). Bringing computational thinking to K-12: What is involved and what is the role of the computer science education community? *ACM Inroads*, 2(1), 48–54. <https://doi.org/10.1145/1929887.1929905>
- Barrett, P., Davies, F., Zhang, Y., & Barrett, L. (2015). The impact of classroom design on pupils' learning: Final results of a holistic, multi-level analysis. *Building and Environment*, 89(April), 118–133. <https://doi.org/10.1016/j.buildenv.2015.02.013>
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating Project-Based Learning: Sustaining the Doing, Supporting the Learning. In *Educational Psychologist* (Vol. 26, Issues 3–4, pp. 369–398). <https://doi.org/10.1080/00461520.1991.9653139>
- Bocconi, S., Chiocciariello, A., Dettori, G., Ferrari, A., Engelhardt, K., & Punie, Y. (2016). *Developing Computational Thinking in Compulsory Education*. <https://doi.org/10.2791/792158>
- Chabibie, M. H. (2020). Panduan penerapan model pembelajaran inovatif dalam bdr yang memanfaatkan rumah belajar. *Rumah Belajar Kemendibud*, 1–63.
- Chiang, C. L., & Lee, H. (2016). The Effect of Project-Based Learning on Learning Motivation and Problem-Solving Ability of Vocational High School Students. *International Journal of Information and Education Technology*, 6(9), 709–712. <https://doi.org/10.7763/ijiet.2016.v6.779>
- Cholily, Y. M. (2020). Pembelajaran di Era Revolusi Industri 4.0. *Jurnal Ilmiah Fakultas Keguruan Dan Ilmu Pendidikan*, 6(1), 1–6.
- Csizmadia, A., Curzon, P., Dorling, M., Humphreys, S., Ng, T., Selby, C., &

- Woollard, J. (2015). Computational Thinking: A Guide for Teachers. *Computing At School*, October 2018, 18.
- Cui, Z., Ng, O., & Jong, M. (2023). Integration of Computational Thinking with Mathematical Problem-based Learning : Insights on Affordances for Learning. *International Forum of Educational Technology & Society*, 26(April). <https://doi.org/10.30191/ETS.202304>
- Dewantara, A. H. (2018). Soal Matematika Model PISA: Alternatif Program Pengayaan. *Didaktika Jurnal Kependidikan*, 12, 197–213.
- Dudley, U., & Simmons, G. F. (1988). Calculus with Analytic Geometry. In *The American Mathematical Monthly* (Vol. 95, Issue 9). <https://doi.org/10.2307/2322923>
- Educational Technology Division. (2006). Project-based learning handbook: Educating the millennial learner. In *Malaysia: Ministry of Education*.
- Fitriana, H., & Saloom, G. (2018). Prediktor Social Loafing dalam Konteks Pengerjaan Tugas Kelompok pada Mahasiswa. *INSAN Jurnal Psikologi Dan Kesehatan Mental*, 3(1), 13. <https://doi.org/10.20473/jpkm.v3i12018.13-22>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2006). *How to Design and Evaluate Research in Education* (Issue september 2016).
- Gravemeijer, K. (2004). Local Instruction Theories as Means of Support for Teachers in Reform Mathematics Education. *Mathematical Thinking and Learning*, 6(2), 105–128. https://doi.org/10.1207/s15327833mtl0602_3
- Gravemeijer, K., & Cobb, P. (2006). Design research from a learning design perspective. *Educational Design Research*, May, 17–51. <https://doi.org/10.4324/9780203088364-12>
- Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research*, 102(November 2019), 101586. <https://doi.org/10.1016/j.ijer.2020.101586>
- Inayah, S., Jupri, A., Darhim, D., & Prabawanto, S. (2024). Exploring Students Learning Difficulties in Linear Function: A Diagnosis of Grade 9. *JTAM (Jurnal Teori Dan Aplikasi Matematika)*, 8(1), 84. <https://doi.org/10.31764/jtam.v8i1.17259>
- Juldial, T. U. H., & Haryadi, R. (2024). Analisis Keterampilan Berpikir Komputasional dalam Proses Pembelajaran. *Jurnal Basicedu*, 8(1), 136–144. <https://journal.uui.ac.id/ajie/article/view/971>
- Kamil, R., Imami, A. I., & Abadi, A. P. (2021). Analisis kemampuan berpikir komputasional matematis Siswa Kelas IX SMP Negeri 1 Cikampek pada materi pola bilangan Abstrak A . *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 12(2), 259–270.
- Karo, J. T. K. (2022). Analisis Kesulitan Siswa Kelas Xi Smk Dalam Menyelesaikan Masalah Program Linear Menggunakan Blended Learning. *Conference of Elementary Studies*, 20, 197–218.
- Kemendikbudristek. (2021). Kurikulum Untuk Pemulihan Pembelajaran. *Kajian Akademik*, 130.
- Larson, R., & Edwards, B. (2013). Calculus of a Single Variable 10e. *Climate Change 2013: The Physical Science Basis*, September 2013, 1–36. <http://eprints.utas.edu.au/4774/>
- Liao, Y., Loures, E. R., Deschamps, F., Brezinski, G., & Venâncio, A. (2018). The

- impact of the fourth industrial revolution: A cross-country/region comparison. *Production*, 28. <https://doi.org/10.1590/0103-6513.20180061>
- M. Gunawan Supiarmo, Turmudi, & Elly Susanti. (2021). Proses Berpikir Komputasional Siswa Dalam Menyelesaikan Soal Pisa Konten Change and Relationship Berdasarkan Self-Regulated Learning. *Numeracy*, 8(1), 58–72. <https://doi.org/10.46244/numeracy.v8i1.1378>
- Maharani, S., Nusantara, T., Rahman Asari, A., & Qohar, A. (2020). Computational Thinking (Pemecahan Masalah di Abad ke-21). In *WADE Group* (Issue January 2021). <https://www.researchgate.net/publication/347646698>
- Manullang, S. B., & Simanjuntak, E. (2023). Pengaruh Model Problem Based Learning terhadap Kemampuan Computational Thinking Berbantuan Media Geogebra. *Journal on Education*, 6(1), 7786–7796.
- Marifah, S. N., Mu'iz L, D. A., & Wahid M, M. R. (2022). Systematic Literatur Review: Integrasi Computational Thinking dalam Kurikulum Sekolah Dasar di Indonesia. *Journal of Elementary Education*, 5(5), 928–938. <https://www.journal.ikipsiliwangi.ac.id/index.php/collase/article/view/12148>
- McKenney, S., & C. Reeves, T. (2014). Educational Design Research. *Handbook of Research on Educational Communications and Technology: Fourth Edition, January*, 1–1005. <https://doi.org/10.1007/978-1-4614-3185-5>
- Muhammad Zuhair, Z. (2020). Telaah kerangka kerja PISA 2021 : Era Integrasi Computational Thinking dalam Bidang Matematika. *Prosiding Seminar Nasional Matematika*, 3(2020), 706–713. <https://journal.unnes.ac.id/sju/index.php/prisma/>
- N. Christi, S. R., & Rajiman, W. (2023). Pentingnya Berpikir Komputasional dalam Pembelajaran Matematika. *Journal on Education*, 5(4), 12590–12598. <https://doi.org/10.31004/joe.v5i4.2246>
- Ngatini. (2012). Peningkatan keaktifan dan hasil belajar matematika tentang fungsi melalui model pembelajaran numbered heads together bagi siswa smp. *Manajemen Pendidikan*, 7, 151–159.
- Nihayah, E. F. K. (2021). the Management Analysis of Pre-Requirements of Algebra in. *Linear: Jurnal Ilmu Pendidikan*, 5(1), 26–39.
- Nizam, & Partiw, S. G. (2023). *Panduan Implementasi Pembelajaran Berpusat pada Mahasiswa*. 1–52. [https://repository.kemdikbud.go.id/29168/1/Panduan Implementasi Pembelajaran Berpusat Pada Mahasiswa.pdf](https://repository.kemdikbud.go.id/29168/1/Panduan%20Implementasi%20Pembelajaran%20Berpusat%20Pada%20Mahasiswa.pdf)
- Noviyanti, N., Yuniarti, Y., & Lestari, T. (2023). Pengaruh Pembelajaran Berdiferensiasi Terhadap Kemampuan Computational Thinking. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 4, 283–293.
- Ormond, C. (2016). Scaffolding the mathematical “connections”: A new approach to preparing teachers for the teaching of lower secondary algebra. *Australian Journal of Teacher Education*, 41(6), 122–164. <https://doi.org/10.14221/ajte.2016v41n6.8>
- Paksi, E. W. H., Okfrima, R., & Mariana, R. (2020). Hubungan Antara Kohesivitas Dan Motivasi Berprestasi Dengan Kemalasan Sosial (Social Loafing) Pada Mahasiswa Jurusan Psikologi Universitas Negeri Padang. *Psyche 165 Journal*, 13(1), 53–59. <https://doi.org/10.35134/jpsy165.v13i1.45>
- Panjaitan, R. L., & Irawati, R. (2018). Analisis Kesalahan Penyelesaian Soal Konversi Satuan Pada Mahasiswa Pendidikan Guru Sekolah Dasar Dengan Newman’S Error Analysis. *Seminar Nasional Fisika, 2018, November*,

SNF2018-PE-23-SNF2018-PE-28.

- Papert, S. (1980). *Mindstorms: Children, computer, and powerful ideas*. <https://dl.acm.org/doi/pdf/10.5555/1095592>
- Pratiwi, G. L., & Akbar, B. (2022). Pengaruh Model Problem Based Learning Terhadap Keterampilan Computational Thinking Matematis Siswa Kelas IV SDN Kebon Bawang 03. *Didaktik: Jurnal Ilmiah PGSD FKIP Universtias Mandiri*, 08.
- Rahmawati, D., Darmawijoyo, D., & Hapizah, H. (2018). Desain Pembelajaran Materi Fungsi Linier Menggunakan Pemodelan Matematika. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 7(1), 65. <https://doi.org/10.24127/ajpm.v7i1.1311>
- Rai, N., & Thapa, B. (2019). A study on purposive sampling method in research. *Kathmandu: Kathmandu School of Law*, 1–12. <http://stattrek.com/survey-research/sampling-methods.aspx?Tutorial=AP,%0Ahttp://www.academia.edu/28087388>
- Rezky, R. (2019). Hypothetical Learning Trajectory (HLT) dalam Perspektif Psikologi Belajar Matematika. *Ekspose: Jurnal Penelitian Hukum Dan Pendidikan*, 18(1), 762–769. <https://doi.org/10.30863/ekspose.v18i1.364>
- Saputra, P. R. (2014). Kecemasan Matematika dan Cara Mengurangnya. *Pythagoras*, 3(2), 75–84.
- Selby, C., & Woollard, J. (2013). Computational Thinking: The Developing Definition. *ITiCSE Conference 2013*, 5–8.
- Shute, V. J., Sun, C., & Asbell-Clarke, J. (2017). Demystifying computational thinking. *Educational Research Review*, 22(September), 142–158. <https://doi.org/10.1016/j.edurev.2017.09.003>
- Silvia, R. D., Pramasdyahsari, A. S., & Nizaruddin, N. (2023). Analisis Kemampuan Computational Thinking Siswa Pada Materi Aljabar Ditinjau Dari Pemecahan Masalah Matematis. *Prismatika: Jurnal Pendidikan Dan Riset Matematika*, 5(2), 176–190. <https://doi.org/10.33503/prismatika.v5i2.2659>
- Slamet, R., & Wahyuningsih, S. (2022). Validitas Dan Reliabilitas Terhadap Instrumen Kepuasan Ker. *Aliansi : Jurnal Manajemen Dan Bisnis*, 17(2), 51–58. <https://doi.org/10.46975/aliansi.v17i2.428>
- Sneider, C., Stephenson, C., Schafer, B., & Flick, L. (2014). Exploring the science framework and NGSS: Computational thinking in high school classrooms. *The Science Teacher*, 81(5), 53–59. <https://doi.org/10.2505/4/tst14>
- So, H. J., Jong, M. S. Y., & Liu, C. C. (2020). Computational Thinking Education in the Asian Pacific Region. *Asia-Pacific Education Researcher*, 29(1), 1–8. <https://doi.org/10.1007/s40299-019-00494-w>
- Stewart, J. (2014). Calculus: Early Trancendentals (8th ed). In *IDF Diabetes Atlas, 8th edition*. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Marketing+Research%3A+Eighth+Edition&btnG=
- Supiarmo, M. G., Hadi, H. S., & Tarmuzi, T. (2022). Student's Computational Thinking Process in Solving PISA Questions in Terms of Problem Solving Abilities. *(Jiml) Journal of Innovative Mathematics Learning*, 5(1), 01–11. <https://doi.org/10.22460/jiml.v5i1.p01-11>
- T, S. B., Munoz, R., Villarroel, R., & Merino, E. (2012). *Computing Systems*,

- Networks and the Internet, Data and Analysis, Algorithms and Programming and Impacts of Computing*. 816–834.
- Usiskin, Z. (1982). *Van Hiele Levels And Achievement In Secondary School Geometry*.
- Wida Yanti, A., Jaelani, A., & Silvia, S. (2023). Analisis Proses Berpikir Komputasi Siswa Dalam Menyelesaikan Soal Cerita Aljabar Ditinjau Dari Gaya Berpikir Sekuensial Abstrak Dan Acak Abstrak. *Prosiding Conference on Research and Community Services*, 5(1), 19–30.
- Wing, J. (2006). Computational Thinking. *Computer Science Handbook, Second Edition*, 49(3), 68-1-68–18. <https://doi.org/10.1201/b16812-43>
- Wing, J. (2014). Computational thinking benefits society. *Journal of Computing Sciences in Colleges*, 24(6), 6–7. <http://dl.acm.org/citation.cfm?id=1529997&CFID=380881129&CFTOKEN=42051081>
- Wing, J. M. (2010). Computational Thinking: What and Why? *The link - The Magazine of the Varnege Mellon University School of Computer Science*, March 2006, 1–6. <http://www.cs.cmu.edu/link/research-notebook-computational-thinking-what-and-why>
- Yadav, A., Mayfield, C., Zhou, N., Hambrusch, S., & Korb, J. T. (2014). Computational thinking in elementary and secondary teacher education. *ACM Transactions on Computing Education*, 14(1). <https://doi.org/10.1145/2576872>
- Yahya, M., & Vitalocca, D. (2022). Penerapan Kombinasi Metode Computational Thinking dan Model Emergent Learning Untuk Meningkatkan Kemampuan Problem Solving Siswa SMK. *Garuda.Kemdikbud.Go.Id*, 762–774. <https://garuda.kemdikbud.go.id/documents/detail/3509193>