

## DAFTAR PUSTAKA

- Alfaried, R. N., Rokhmawati, R. I., & Amalia, F. (2022). *Pengembangan Modul Elektronik pada Pembelajaran Search Engine Marketing ( SEM ) dengan Metode Research and Development ( R & D ) ( Studi pada : SMK PGRI 3 Malang )*. 6(4), 1728–1736.
- Aprilianti, P. P., & Astuti, D. (2020). Pengembangan LKPD Berbasis STEM pada Materi Bangun Ruang Sisi Datar SMP Kelas VIII. *Jurnal Pembelajaran Matematika Inovatif*, 3(6), 653–702. <https://doi.org/10.22460/jpmi.v3i6.691-702>
- Ariana, R. M., Rasmawan, R., Sartika, R. P., Hairida, & Erlina. (2022). Pengembangan LKPD Berbasis Project Based Learning pada Materi Pencemaran Air di SMP Pontianak. *Jurnal Education and Development*, 10(2), 259–268.
- Arsana, I. W. O. K., & Sujan, I. W. (2021). Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Project Based Learning dalam Muatan Materi IPS. *Jurnal Imiah Pendidikan Dan Pembelajaran*, 5(1), 134. <https://doi.org/10.23887/jipp.v5i1.32817>
- Arsyad, A. R. (2019). Integritas Siswa SMAN dan Mas di Kalimantan Utara. *Educandum*, 5(72), 145–156.
- Berpikir Kritis Siswa. *Jurnal IPA & Pembelajaran IPA*, 4(2), 193–204. <https://doi.org/10.24815/jipi.v4i2.17859>
- Bers, M. U. (2018). Coding and Computational Thinking in Early Childhood: The Impact of ScratchJr in Europe. *European Journal of STEM Education*, 3(3). <https://doi.org/10.20897/ejsteme/3868>
- Calder, Nigel. (2019). Using Scratch to facilitate mathematical thinking. *Waikato Journal of Education*. 23. 10.15663/wje.v23i2.654.
- Cholis Sa'dijah. 1998. *Pendidikan Matematika II*. Malang : Depdikbud

- Csizmadia, A., Selby, C., & Woollard, J. (2018). *Computational thinking-a guide for teachers CPD AND INCLUSIVE EDUCATION View project E-learning View project*. <https://www.researchgate.net/publication/327302966>
- Diana, H. A., & Saputri, D. V. (2021). Model Project Based Learning Terintegrasi Steam Terhadap Kecerdasan Emosional dan Kemampuan Berpikir Kritis. *Jurnal Numeracy*, 8(2), 113–127.
- Diantary, V. A., & Akbar, B. (2022). Perbandingan Keterampilan Computational Thinking Antara Sekolah Dasar Akreditasi A dengan Sekolah Dasar Akreditasi B Pada Mata Pelajaran Matematika. *Jurnal Cendekia : Jurnal Pendidikan Matematika*, 6(3), 2749–2756. <https://doi.org/10.31004/cendekia.v6i3.1576>
- Dinnisa, K., & Sulistyowati, F. (2022). Pengaruh E-modul Interaktif Berbasis Canva Pada Materi Kekongruenan dan Kesebangunan Terhadap Siswa Minat Belajar Rendah. *Jurnal ProSandika*, 4(1).
- Fajria, R., Musdi, E., & Permana, D. (2022). Pengembangan Perangkat Pembelajaran Matematika Model Project Based Learning Terintegrasi STEM untuk Meningkatkan Kemampuan Berfikir Kreatif Peserta Didik Kelas VIII SMP. *Jurnal Edukasi Matematika Dan Sains*, 10(1), 92–102. <https://doi.org/10.25273/jems.v10i1.11918>
- Fitzgerald, B., Russo, N., & O'kane, T. (n.d.). *An Empirical Study of System Development Method Tailoring in Practice*.
- Gallego-Álvarez, I., García-Sánchez, I. M., & Rodríguez-Dominguez, L. (2010). The influence of gender diversity on corporate performance. *Revista de Contabilidad-Spanish Accounting Review*, 13(1), 53–88. [https://doi.org/10.1016/S1138-4891\(10\)70012-1](https://doi.org/10.1016/S1138-4891(10)70012-1)
- Grover, S., & Pea, R. (2021). Computational Thinking: A Competency Whose Time Has Come. In *Computer Science Education*. Bloomsbury Academic. <https://doi.org/10.5040/9781350057142.ch-003>

- Jami, S. M., Khair Mayanda Mega Santoni, atul, Sandya Prasvita, D., Adrezo, M., & Rs Fatmawati, J. (2021). *Coding for Kids Menggunakan Scratch Sebagai Upaya Kesiapan Menghadapi Industri 4.0 bagi* (Vol. 3, Issue 1).
- Jiang, B., & Li, Z. (2021). Effect of Scratch on computational thinking skills of Chinese primary school students. *Journal of Computers in Education*, 8(4), 505–525. <https://doi.org/10.1007/s40692-021-00190-z>
- Kafai, Y. B., & Burke, Q. (2015). Constructionist Gaming: Understanding the Benefits of Making Games for Learning. *Educational Psychologist*, 50(4), 313–334. <https://doi.org/10.1080/00461520.2015.1124022>
- Kibtiyah, A. M. (2022). Penggunaan Model Project Based Learning ( Pjbl ) dalam Mengklasifikasikan Informasi Wacana Media Cetak Siswa Kelas 5 Sekolah Dasar. *Inopendas Jurnal Ilmiah Kependidikan*, 5(2), 82–87.
- Kimianti. (2019). Pengembangan E-Modul IPA Berbasis Problem Based Learning untuk Meningkatkan Literasi Sains Siswa. Kwangsan: Jurnal Teknologi Pendidikan
- Labusch, A., Eickelmann, B., & Vennemann, M. (2019). Computational Thinking Processes and Their Congruence with Problem-Solving and Information Processing. In *Computational Thinking Education* (pp. 65–78). Springer Singapore. [https://doi.org/10.1007/978-981-13-6528-7\\_5](https://doi.org/10.1007/978-981-13-6528-7_5)
- Lahtinen, E., Ala-Mutka, K., & Järvinen, H. M. (2005). A study of the difficulties of novice programmers. *Proceedings of the 10th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*, 14–18. <https://doi.org/10.1145/1067445.1067453>
- Liao, J., Yang, J., & Zhang, W. (2021). The Student-Centered STEM Learning Model Based on Artificial Intelligence Project: A Case Study on Intelligent Car. *International Journal of Emerging Technologies in Learning*, 16(21), 100–120. <https://doi.org/10.3991/IJET.V16I21.25001>

- Mabruroh, M. (2019). Pengaruh Model Pembelajaran Project Based Learning pada Mata Pelajaran IPA Terhadap Kemampuan Berpikir Kritis Siswa Kelas VI SD Negeri Margorejo VI Surabaya. *Child Education Journal*, 1(1), 28–35.  
<https://doi.org/10.33086/cej.v1i1.879>
- Mahmudah, U. (2020). Meta Analisis Pengaruh Model Discovery Learning dan Problem Based Learning terhadap Kemampuan Berfikir Kritis Peserta didik Kelas V SD. *Thinking Skills and Creativity Journal*, 3(2), 43–52.  
<https://doi.org/10.33487/mgr.v2i1.1722>
- Maulana, B. S., Desiyani, K. L., & Ardiansyah, A. S. (2023). PRISMA, Prosiding Seminar Nasional Matematika Utilization of Scratch in Mathematics Learning on Students' Computational Thinking Ability. *PRISMA, Prosiding Seminar Nasional Matematika*, 6, 36–39. <https://journal.unnes.ac.id/sju/index.php/prisma/>
- Mawardi, & Sari, P. A. P. (2019). Pengaruh Model Project Based Learning Terhadap Kemampuan Berpikir Kritis IPA Siswa Kelas V Sekolah Dasar. *Indonesian Journal of Elementary Education*, 1(1), 1–12.  
<https://doi.org/10.31949/jcp.v5i2.1319>
- Mulyasa. (2014). *Pengembangan dan Implementasi Kurikulum 2013*. Bandung: Remaja Rosdakarya.
- Nasiba, U. (2022). Brankas Rahasia : Media Pembelajaran Numerasi Berbasis Berpikir Komputasi untuk Meningkatkan Kemampuan Pemecahan Masalah. *Jurnal Didaktika Pendidikan Dasar*, 6(2), 521–538.  
<https://doi.org/10.26811/didaktika.v6i2.764>
- Nisa, Abdulah. (2022). Studi Literatur: Penggunaan Media Scratch Terhadap Minat Belajar Dan Kemampuan Berpikir Kreatif Matematis Siswa. Malang: Universitas Negeri Malang
- Novak, E., & Wisdom, S. (2018). Effects of 3D Printing Project-based Learning on Preservice Elementary Teachers' Science Attitudes, Science Content Knowledge,



- and Anxiety About Teaching Science. *Journal of Science Education and Technology*, 27(5), 412–432. <https://doi.org/10.1007/s10956-018-9733-5>
- Ortiz, J. S. B., Oliveira, C. M., & Pereira, R. (2020). Teaching Computational Thinking: are we considering students' socio-cultural context? *Journal on Computational Thinking (JCThink)*, 3(1), 3. <https://doi.org/10.14210/jcthink.v3.n1.p3>
- P. B. Henderson, T. J. Cortina, and J. M. Wing, “Wing PPT—Computational Paramita, P., Erni, & Izzatika, A. (2019). Penerapan LKPD IPA Berbasis Project Based Learning Terhadap Hasil Belajar Peserta Didik. *FKIP Universitas Lampung*, 5(1), 1–13.
- Petri, G., & Gresse von Wangenheim, C. (2017). How games for computing education are evaluated? A systematic literature review. *Computers and Education*, 107, 68–90. <https://doi.org/10.1016/j.compedu.2017.01.004>
- Prensky, M. (2001). *Digital Game-Based Learning The Games Generations: How Learners Have Changed*. McGraw-Hill.
- Putri, C. D., Pursitasari, I. D., & Rubini, B. (2020). Problem Based Learning
- Qu, J. R., & Fok, P. K. (2022). Cultivating students' computational thinking through student–robot interactions in robotics education. *International Journal of Technology and Design Education*, 32(4), 1983–2002. <https://doi.org/10.1007/s10798-021-09677-3>
- Resnick, M. (n.d.). *All I Really Need to Know (About Creative Thinking) I Learned (By Studying How Children Learn) in Kindergarten \**.
- Stamatis. (2021). The Impact of Coding Apps to Support Young Children in Computational Thinking and Computational Fluency. A Literature Review. In *Frontiers in Education* (Vol. 6). Frontiers Media S.A. <https://doi.org/10.3389/educ.2021.657895>
- Terintegrasi STEM di Era Pandemi Covid-19 untuk Meningkatkan Keterampilan

- thinking,” *ACM SIGCSE Bull.*, vol. 39, no. 1, p. 195, 2007.
- Tikva, C., & Tambouris, E. (2021). A systematic mapping study on teaching and learning Computational Thinking through programming in higher education. *Thinking Skills and Creativity*, 41, 100849.  
<https://doi.org/10.1016/J.TSC.2021.100849>
- Van Eck, R. (2006). 1. <https://www.researchgate.net/publication/242513283>
- Voogt, J., Fisser, P., Good, J., Mishra, P., & Yadav, A. (2015). Computational thinking in compulsory education: Towards an agenda for research and practice. *Education and Information Technologies*, 20(4), 715–728.  
<https://doi.org/10.1007/s10639-015-9412-6>
- Wing, J. M. (2006). Computational thinking. In *Communications of the ACM* (Vol. 49, Issue 3, pp. 33–35). Association for Computing Machinery.  
<https://doi.org/10.1145/1118178.1118215>
- Wing, J. M. (2008). Computational thinking and thinking about computing. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 366(1881), 3717–3725.  
<https://doi.org/10.1098/rsta.2008.0118>
- Wing, J. M. (2010). *Demistifying Computational Thinking For Non-Computer Scientists*. Unpublished Manuscript
- Wong, & Weng. (2017). Integrating computational thinking into English dialogue learning through graphical programming tool. *2017 IEEE 6th International Conference on Teaching Assessment, and Learning for Engineering (TALE)*.
- Yanti, R., Melati, A., & Zanty, L. (2019). Analisis Kemampuan Pemahaman dan Kemampuan Komunikasi Matematis Siswa SMP Pada Materi Relasi dan Fungsi. *Jurnal Cendekia : Jurnal Pendidikan Matematika*, 3(1), 209-219.  
<https://doi.org/10.31004/cendekia.v3i1.95>

Zhang, L. C., & Nouri, J. (2019). A systematic review of learning computational thinking through Scratch in K-9. *Computers & Education, 141*, 103607.

<https://doi.org/10.1016/J.COMPEDU.2019.103607>

