

DAFTAR PUSTAKA

- Aiken, L. R. (1980). Content Validity and Reliability of Single Items or Questionnaires. *Educational and Psychological Measurement*, 40(4), 955–959. <https://doi.org/10.1177/001316448004000419>
- Akbar, S. (2013). *Instrumen Perangkat Pembelajaran* (2 ed., Vol. 5). PT Remaja Rosdakarya.
- Alam, S. (2023). *Hasil PISA 2022, Refleksi Mutu Pendidikan Nasional 2023*. Media Indonesia. <https://mediaindonesia.com/opini/638003/hasil-pisa-2022-refleksi-mutu-pendidikan-nasional-2023>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning teaching and assessing: a revision of Bloom`s taxonomy of educational objectives - Complete edition*. Longman.
- Angeli, C., & Valanides, N. (2020). Developing young children`s computational thinking with educational robotics: An interaction effect between gender and scaffolding strategy. *Computers in Human Behavior*, 105, 105954. <https://doi.org/10.1016/J.CHB.2019.03.018>
- Ariyana, Y., Pudjiastuti, A., Bestary, R., & Zamroni. (2018). *Buku Pegangan Pembelajaran Berorientasi pada Keterampilan Berpikir Tingkat Tinggi*. DIRJEN GTK.
- 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>
- Beecher, K. (2017). *Computational Thinking_ A Beginner`s Guide to Problem-Solving and Programming*. BCS, The Chartered Institute For IT.
- Bers, M. U., Flannery, L., Kazakoff, E. R., & Sullivan, A. (2014). Computational thinking and tinkering: Exploration of an early childhood robotics curriculum. *Computers and Education*, 72, 145–157. <https://doi.org/10.1016/j.compedu.2013.10.020>
- Brennan, K., & Resnick, M. (2012). New frameworks for studying and assessing the development of computational thinking. *Proceedings of the 2012 Annual Meeting of the American Educational Research Association*.
- Bridges, S., McGrath, C., & L. Whitehill, T. (2012). *Problem-Based Learning in Clinical Education*. Springer. <https://doi.org/0.1007/978-94-007-2515-7>
- Brookhart, S. M. (2010). *How to Assess Higher Order Thinking Skills in Your Classroom*. ASCD.
- Bruner, J. S. (1961). The Act of Discovery. *Harvard Educational Review*, 31(1), 21–32.
- Brusilovsky, P., & Millán, E. (2007). User Modeling for Adaptive Hypermedia and Adaptive Educational Systems. *User Modeling and User-Adapted Interaction*, 17(3), 1–3.
- Chen, J. (2023). *Cognitive Mapping for Problem-Based and Inquiry Learning: Theory, Research, and Assessment* (First). Routledge.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences Second Edition*. Lawrence Erlbaum Associates.
- Dagienė, V., Jevsikova, T., Stupurienė, G., & Juškevičienė, A. (2022). Teaching Computational Thinking in Primary Schools: Worldwide Trends and Teachers` Attitudes. *Computer Science and Information Systems*, 19(1), 1–24. <https://doi.org/10.2298/CSIS201215033D>

- De Houwer, J., & Hughes, S. (2023). *LEARNING BEYOND THE INDIVIDUAL ORGANISM I Learning in Individual Organisms, Genes, Machines, and Groups: A New Way of Defining and Relating Learning in Different Systems*.
<https://doi.org/https://doi.org/10.1177/17456916221114886>
- Deep, S., Ahmed, A., Suleman, N., Abbas, M. Z., Nazar, U., & Razzaq, H. S. A. (2020). The problem-based learning approach towards developing soft skills: A systematic review. Dalam *Qualitative Report* (Vol. 25, Nomor 11, hlm. 4029–4054). Peace and Conflict Studies. <https://doi.org/10.46743/2160-3715/2020.4114>
- Dick, W., Carey, L., & O. Carey, J. (2015). *The Systematic Design of Instruction* (Eighth Edition). Pearson.
- Fanchamps, N., van Gool, E., Slangen, L., & Hennissen, P. (2024). The effect on computational thinking and identified learning aspects: Comparing unplugged smartGames with SRA-Programming with tangible or On-screen output. *Education and Information Technologies*, 29(3), 2999–3024.
<https://doi.org/10.1007/s10639-023-11956-6>
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906–911.
- Gravetter, F. J., & Wallnau, L. B. (2019). *Statistic for The Vehavioral Sciences* (10 ed.). Cengage Learning Asia Pte Ltd., www.cengage.com/highered
- Grover, S., & Pea, R. (2013). Computational Thinking in K-12: A Review of the State of the Field. Dalam *Educational Researcher* (Vol. 42, Nomor 1, hlm. 38–43). <https://doi.org/10.3102/0013189X12463051>
- Gunning, R. (1968). *The Technique of Clear Writing* (Revised Edition). McGraw-Hill Book Company.
- Hurt, T., Greenwald, E., Allan, S., Cannady, M. A., Krakowski, A., Brodsky, L., Collins, M. A., Montgomery, R., & Dorph, R. (2023). The computational thinking for science (CT-S) framework: operationalizing CT-S for K–12 science education researchers and educators. Dalam *International Journal of STEM Education* (Vol. 10, Nomor 1). Springer Science and Business Media Deutschland GmbH.
<https://doi.org/10.1186/s40594-022-00391-7>
- Johnson, D. W., & Johnson, R. T. (2009). An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning. *Educational Psychologist*, 44(1), 15–28.
- Jonassen, D. (1999). *Designing constructivist learning environments* (C. M. Reigeluth, Ed.; Vol. 2). Lawrence Erlbaum Associates Publishers.
- Joyce, B., Weil, M., & Calhoun, E. (2011). *Models of Teaching : Model-Model Pengajaran* (8 ed.). Person Educaton. Inc.
- Kemendikbudristek. (2022). *Capaian Pembelajaran Mata Pelajaran Ilmu Pengetahuan Alam dan Sosial (IPAS) Fase A-Fase C Untuk SD/MI/Program Paket A*.
- Kim How, R. P. T., Zulnaidi, H., & Rahim, S. S. A. (2022). HOTS in Quadratic Equations: Teaching Style Preferences and Challenges Faced by Malaysian Teachers. *European Journal of Science and Mathematics Education*, 10(1), 15–33. <https://doi.org/10.30935/SCIMATH/11382>
- Kiyakbay, N., Argynbayev, Y., & Adilbayeva, R. (2023). Developing Thinking Skills through Project-based Learning. *Iasayı ıniversitetiniñ habarshysy*, 128(2), 395–407. <https://doi.org/10.47526/2023-2/2664-0686.31>

- Kong, S.-C., & Abelson, H. (2019). *Computational Thinking Education*. Springer Open. <https://doi.org/https://doi.org/10.1007/978-981-13-6528-7>
- Kovalerchuk, B. (2018). *Visual Knowledge Discovery and Machine Learning* (Vol. 144). Springer International Publishing. <https://doi.org/10.1007/978-3-319-73040-0>
- Kwangmuang, P., Jarutkamolpong, S., Sangboonraung, W., & Daungtod, S. (2021). The development of learning innovation to enhance higher order thinking skills for students in Thailand junior high schools. *Heliyon*, 7(6). <https://doi.org/10.1016/j.heliyon.2021.e07309>
- Lehtimäki, T., Monahan, R., Mooney, A., Casey, K., & Naughton, T. J. (2023). A Computational Thinking Obstacle Course Based on Bebras Tasks for K-12 Schools. *Annual Conference on Innovation and Technology in Computer Science Education, ITiCSE, 1*, 478–484. <https://doi.org/10.1145/3587102.3588775>
- Leung, S. K. Y., Wu, J., Li, J. W., Lam, Y., & Ng, O. L. (2024). Examining Young Children's Computational Thinking through Animation Art. *Early Childhood Education Journal*. <https://doi.org/10.1007/s10643-024-01694-w>
- Lu, K., Yang, H. H., Shi, Y., & Wang, X. (2021). Examining the key influencing factors on college students' higher-order thinking skills in the smart classroom environment. *International Journal of Educational Technology in Higher Education*, 18(1). <https://doi.org/10.1186/s41239-020-00238-7>
- Lundin, J. (2020). *Nordic Approaches to Computational Thinking in Teaching and Learning Host names*.
- 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. *COLLASE (Creative of Learning Students ...)*, 5(5), 928–938. <https://www.journal.ikipsiliwangi.ac.id/index.php/collase/article/view/12148>
- Mauliani, A. (2020a). PERAN PENTING COMPUTATIONAL THINKING TERHADAP MASA DEPAN BANGSA INDONESIA. *Jurnal Informatika dan Bisnis*, 9(2), 1–9.
- Mauliani, A. (2020b). PERAN PENTING COMPUTATIONAL THINKING TERHADAP MASA DEPAN BANGSA INDONESIA. *Jurnal Informatika dan Bisnis*, 9(2), 1–9.
- Mensan, T., Osman, K., & Abdul Majid, N. A. (2020). Development and Validation of Unplugged Activity of Computational Thinking in Science Module to Integrate Computational Thinking in Primary Science Education. *Science Education International*, 31(2), 142–149. <https://doi.org/10.33828/sei.v31.i2.2>
- Moust, J., Bouhuijs, P., & Schmidt, H. (2021). *Introduction to Problem-based Learning*. Noordhoff Uitgevers bv. www.noordhoffuitgevers.nl
- Mukaramah, M., Kustina, R., & Rismawati Program Studi Pendidikan Bahasa Indonesia STKIP Bina Bangsa Getsempena Banda Aceh, dan. (2020). MENGANALISIS KELEBIHAN DAN KEKURANGAN MODEL DISCOVERY LEARNING BERBASIS AUDIOVISUAL DALAM PELAJARAN BAHASA INDONESIA. Dalam *Jurnal Ilmiah Mahasiswa Pendidikan* (Vol. 1, Nomor 1).
- Nguyen, G. T. C., Thai, D. T., Phan, T. A., & Nguyen, H. T. (2023). The Perceptions of Elementary School Children toward Problem-Solving

- Abilities. *FWU Journal of Social Sciences*, 17(2), 120–133.
<https://doi.org/10.51709/19951272/Summer2023/9>
- Ningtyas, H. A., & Rahmawati, L. E. (2023). Kelayakan Isi, Penyajian, Kebahasaan, dan Kegrafikan Bahan Ajar Teks Deskripsi di SMP Kelas VII. *Imajeri: Jurnal Pendidikan Bahasa dan Sastra Indonesia*, 6(1), 52–71.
<https://doi.org/10.22236/imajeri.v6i1.10977>
- Nurani, D., Anggraini, L., Misiyanto, & Mulia, K. R. (2022). *SERBA-SERBI KURIKULUM MERDEKA*. Direktorat Sekolah Dasar.
- Parwati, N. N., Suryawan, I. P. P., & Apsari, R. A. (2018a). *Belajar dan Pembelajaran* (Cetakan ke). PT Raja Grafindo Persada.
- Parwati, N. N., Suryawan, I. P. P., & Apsari, R. A. (2018b). *Belajar dan Pembelajaran* (Cetakan ke). PT Raja Grafindo Persada.
- Piaget, J. (1976). *The Child and Reality: Problems of Genetic Psychology*. Viking Press.
- Pratama, H. Y., Tobia, M. I., Saniyati, S. L., Yuginanda, A. S., & Soffa, F. M. (2023). Integrasi Computational Thinking Pada Mata Pelajaran Bahasa Indonesia Materi Pantun Kelas IV Sekolah Dasar. *Jurnal Penelitian, Pendidikan dan Pengajaran: JPPP*, 4(1). <https://doi.org/10.30596/jppp.v4i1.14564>
- Rahayu, R., Lyesmaya, D., & Maula, L. H. (2023). Analisis Kemampuan Berpikir Komputasi Siswa Sekolah Dasar berbasis Bebras Task. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 08(01), 219–234.
- Rainer Christi, S. N., Rajiman, W., Tinggi Ilmu Manajemen Informatika Kreatindo Manokwari, S., Kali Bambu, J., Puncak, R., Barat, P., Muhammadiyah Palopo, U., Jend Sudirman NoKm, J., & Wara Selatan, K. (2023). Pentingnya Berpikir Komputasional dalam Pembelajaran Matematika. *Journal on Education*, 05(04), 12590–12598.
- Reigeluth, C. M., Beatty, B. J., & Myers, R. D. (2017). *INSTRUCTIONAL-DESIGN THEORIES AND MODELS, VOLUME IV: Vol. IV*. Routledge.
- Rusman. (2012). *Model-Model Pembelajaran Mengembangkan Profesionalisme Guru* (Kedua). Rajawali Pers.
- Saad, A., & Zainudin, S. (2022). A review of Project-Based Learning (PBL) and Computational Thinking (CT) in teaching and learning. *Learning and Motivation*, 78, 101802. <https://doi.org/10.1016/J.LMOT.2022.101802>
- Savery, J. R., & Duffy, T. M. (1995). Problem Based Learning: An Instructional Model and Its Constructivist Framework. *Educational Technology*, 35(5), 31–38.
- Schiering, M. S. ., Bogner, Drew., & Buli-Holmberg, Jorun. (2011). *Teaching and learning : a model for academic and social cognition*. Rowman & Littlefield Education.
- Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books.
- Seng Tan, O. (2009). *Problem-Based Learning And Crativity*. Cengage Learning Asia Pte. Ltd.
- Sinervo, S., Sormunen, K., Kangas, K., Hakkarainen, K., Lavonen, J., Juuti, K., Korhonen, T., & Seitamaa-Hakkarainen, P. (2021). Elementary school pupils' co-inventions: products and pupils' reflections on processes. *International Journal of Technology and Design Education*, 31(4), 653–676.
<https://doi.org/10.1007/s10798-020-09577-y>

- Sistem Pendidikan Nasional. (2017). *Ekombis Sains: Jurnal Ekonomi, Keuangan dan Bisnis*, 2(1), 39–45. <https://doi.org/10.24967/ekombis.v2i1.48>
- Slavin, R. E. (2009). *Educational Psychology: Theory and Practice*. Pearson.
- Stanley, T. (2013). *Project- Based Learning for Gifted Students; A Step-by-Step Guide to PBL and Inquiry in the Classroom; Second Edition*.
- Steenhuis, H.-Jan., & Roland, Lawrence. (2018). *Project-based learning : how to approach, report, present, and learn from course-long projects*. Business Expert Press.
- Sumarno, S. (2008). Employability Skills dan Pengaruhnya terhadap Penghasilan Lulusan SMK Teknologi Industri. *Jurnal Kependidikan*, 38. <https://doi.org/https://doi.org/10.21831/jk.v38i1.2268>
- Sundayana, R. (2018). *Statistika Penelitian Pendidikan*. Alfabeta.
- Susman, K. M. (2015). *Discovery-Based Learning in the Life Sciences*. Wiley Blackwell.
- Trilling, B., & Fadel, C. (2009). *21st Century Skills: Learning for Life in Our Times*. Jossey-Bass.
- Tsarava, K., Moeller, K., Román-González, M., Golle, J., Leifheit, L., Butz, M. V., & Ninaus, M. (2022). A cognitive definition of computational thinking in primary education. *Computers & Education*, 179, 104425. <https://doi.org/10.1016/j.compedu.2021.104425>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Weintrop, D., Beheshti, E., Horn, M., Orton, K., Jona, K., Trouille, L., & Wilensky, U. (2016). Defining computational thinking for mathematics and science classrooms. *Journal of Science Education and Technology*, 25(1), 127–147. <https://doi.org/10.1007/s10956-015-9581-5>
- Widiasworo, E. (2023). *Pembelajaran HOTS Integratif* (N. Awanie, Ed.; I). CV.. Abadi Selaras Karya.
- Wing, J. M. (2006). Computational Thinking. *ACM*, 49(3).
- 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>
- Yang, S., Zhou, J., & Li, D. (2021). Functions and Diseases of the Retinal Pigment Epithelium. Dalam *Frontiers in Pharmacology* (Vol. 12). Frontiers Media S.A. <https://doi.org/10.3389/fphar.2021.727870>
- Zaky, N., Setiawan, D., & Sriadhi, S. (2022). Pengaruh Metode Demonstrasi Berbantuan Media Video terhadap Minat dan Hasil Belajar PPKn Siswa Kelas V. *Jurnal Basicedu*, 6(5), 7958–7969. <https://doi.org/10.31004/basicedu.v6i5.3586>