

DAFTAR PUSTAKA

- Argarini, D. F. (2018). *Analisis Pemecahan Masalah Berbasis Polya Pada Materi Perkalian Vektor Ditinjau Dari Gaya Belajar*.
- Arikunto, S. (2013). *Dasar-Dasar Evaluasi Pendidikan*.
- Askois, A., Herlawan, & Nursia. (2023). *Efektivitas Model Pembelajaran Inquiry Terhadap Pencapaian Kompetensi Pemecahan Masalah Bangun Ruang Siswa Kelas Viii Smp Negeri 26 Buton Tengah 26 Buton Tengah* (Vol. 7, Number 1). <http://jurnal.uts.ac.id>
- Azzahra, Y., & Jaya, C. A. (2025). Pendekatan Deep Learning: Transformasi Mindful, Meaningful, dan Joyful dalam Pembelajaran Holistik. *Journal of Basic Educational Studies*, 5(3), 769.
- Chaerunisa, Z. F., & Pitorini, D. E. (2022). Profil Kemampuan Pemecahan Masalah Siswa SMA Mata Pelajaran Biologi. *BIO-PEDAGOGI*, 11(1), 8. <https://doi.org/10.20961/bio-pedagogi.v11i1.51644>
- Chin, C., & Osborne, J. (2010). Supporting Argumentation Through Students' Questions: Case Studies In Science Classrooms. *Journal of the Learning Sciences*, 19(2), 230–284. <https://doi.org/10.1080/10508400903530036>
- Divrik, R., Pilten, P., & Taş, A. M. (2020). Effect of inquiry-based learning method supported by metacognitive strategies on fourth-grade students' problem-solving and problem-posing skills: A mixed methods research. *International Electronic Journal of Elementary Education*, 13(2), 287–308. <https://doi.org/10.26822/iejee.2021.191>
- Erlin, E., & Fitriani, A. (2019). Profile metacognitive awareness of biology education students in microbiology course. *Journal of Physics: Conference Series*, 1157(2). <https://doi.org/10.1088/1742-6596/1157/2/022066>
- Erlin, E., Rahmat, A., & Purwianingsih, W. (2024). Metacognitive self regulation integrated with science technology society to improving problem solving ability in microbiology courses. *Biosfer*, 17(1), 204–214. <https://doi.org/10.21009/biosferjpb.38102>
- Erlin, E., Rahmat, A., & Rejeki, S. (2020). Use of metacognitive regulation strategies to increase student academic achievement in microbiology course. *Journal of Physics: Conference Series*, 1521(4). <https://doi.org/10.1088/1742-6596/1521/4/042016>
- Fadhilah, U., Tami, P. D., Sari, K., Arianingsih, T., & Wati, L. (2025). The Effect of Using Flashcards on Preschool Children's Language Development. *J-LELC: Journal of Language Education, Linguistics, and Culture*, 5(2), 130–136. <https://doi.org/10.25299/j-lelc.2025.23045>

- Flavell, J. H. (1979). *Metacognition and Cognitive Monitoring A New Area of Cognitive-Developmental Inquiry A Model of Cognitive Monitoring*.
- Gunardi. (2020). *Inquiry Based Learning dapat Meningkatkan Hasil Belajar Siswa dalam Pelajaran Matematika*. <https://jurnal.uns.ac.id/shes>
- Gutierrez de Blume, A. P., Montoya Londoño, D. M., Jiménez Rodríguez, V., Morán Núñez, O., Cuadro, A., Daset, L., Molina Delgado, M., García de la Cadena, C., Beltrán Navarro, M. B., Puente Ferreras, A., Urquijo, S., & Arias, W. L. (2024). Psychometric properties of the Metacognitive Awareness Inventory (MAI): standardization to an international spanish with 12 countries. *Metacognition and Learning*, 19(3), 793–825. <https://doi.org/10.1007/s11409-024-09388-9>
- Hacker, D. J., Dunlosky, J., & Graesser, A. C. (2009). *Handbook of Metacognition in Education*. www.routledge.com/
- Hayati, R. (2025). *Peran Deep Learning Dalam Meningkatkan Keterampilan Pemecahan Masalah Siswa* (Vol. 6).
- Ionita, F., Simatupang, H., Kunci, K., Pembelajaran, :, Masalah, B., Masalah, P., & Lingkungan, P. (2020). *Pengaruh Model Problem Based Learning Terhadap Kemampuan Pemecahan Masalah Materi Pencemaran Lingkungan Siswa Sma Negeri 13 Medan*.
- Irnaningtyas, & Sagita, S. (2025). *IPA Biologi untuk SMA/MA Kelas X*.
- Isnaini Hanifa, N., Akbar, B., Abdullah, S., Biologi, P., Biologi, D., & Penelitian Pendidikan Biologi, J. (2018). *Analisis Kemampuan Memecahkan Masalah Siswa Kelas X Ipa Pada Materi Perubahan Lingkungan Dan Faktor Yang Mempengaruhinya Analysis Of Problem Solving Ability Of Class X Ipa Students On Environmental Change Material And Its Affecting Factors*. 2(2), 121–128. <http://jurnal.um-palembang.ac.id/index.php/dikbio>
- Jafar, J., Afra Muadyah, A., Akbar Firdaus Yusran, A., Immanuela Silas, E., & Amalia, P. (2025). *Jurnal Pengabdian Nasional (JPN) Indonesia Workshop Merancang Modul Ajar dengan Pendekatan Pembelajaran Mendalam (Deep Learning) Menggunakan AI pada Guru Biologi SMA/MA Kota Parepare*. 6(2). <https://doi.org/10.35870/jpni.v6i2.1408>
- Jalil, A. A. (2019). *Pembelajaran Berbasis Penyelidikan (Inquiry-Based Learning)*. <https://ojs.staisdharma.ac.id/index.php/ijpiaud/index>
- Karmila, Hamzah, H., & Mutmainna. (2020). Penerapan Model Pembelajaran Inquiry Based Learning Untuk Meningkatkan Keterampilan Pemecahan Masalah Fisika Peserta Didik. *PHYDAGOGIC Jurnal Fisika Dan Pembelajarannya*, 2(2), 55–60. <https://doi.org/10.31605/phy.v2i2.1499>
- Khotimah, D. K., & Abdan, M. R. (2025). Analisis Pendekatan Deep Learning untuk Meningkatkan Efektivitas Pembelajaran PAI di SMKN Pringkuku.

- Jurnal Pendidikan Dan Pembelajaran Indonesia (JPPI)*, 5(2), 866–879.
<https://doi.org/10.53299/jppi.v5i2.1466>
- Lasmanawati, A. (2021). *Strategi pembelajaran self-regulation dalam pemecahan masalah matematika*. 21(1), 1–16. <https://doi.org/10.21831/hum.v21i1>
- Mahindra Diputera, A., Noveri Eza, G., Guru Pendidikan Anak Usia Dini, P., & Ilmu Pendidikan, F. (2024). *Memahami Konsep Pendekatan Deep Learning dalam Pembelajaran Anak Usia Dini Yang Meaningful, Mindful dan Joyful: Kajian Melalui Filsafat Pendidikan* (Vol. 10, Number 2).
- Maspupah, M., Alwahdah, R. I., Sa'adah, S., Pendidikan, P., Jurusan, B., Mipa, P., Tarbiyah, F., Uin, K., Gunung, S., Bandung, D., Program, M., Biologi, S. P., Program, D., Pendidikan, S., Uin, B., & Djati, S. G. (2020). *Analisis Kemampuan Pemecahan Masalah Pada Materi Perubahan Lingkungan Dengan Model Pembelajaran Problem Solving*. (10), 17–26.
- Mayasari, Windyarani, S., & Suhendar. (2020). *Pengaruh Model Inquiry Based Learning Terhadap Kemampuan Problem Solving Siswa Madrasah Aliyah Negeri Kelas X Pada Materi Keanekaragaman Hayati*. <https://jurnal.ummi.ac.id/index.php/JUT>
- Mere K. (2025). *Teachers' And Students' Perceptions Of The Implementation Of The Deep Learning Approach In The Learning Process At Senior High Schools*. <http://journal.al-matani.com/index.php/jkip/index>
- Mutasam, U., Susilo, H., & Artikel Abstrak, I. (2019). *Penerapan Pembelajaran Sains Berbasis Inquiry Based Learning Terintegrasi Nature of Science Terhadap Literasi Sains*. <http://journal.um.ac.id/index.php/jptpp/>
- Ning Tyas, R. (2019). The Different Effect of PBL, Inquiry, and DI on the Problem-Solving Skill in Science. In *Journal of Science Education Research Journal* (Vol. 2019, Number 1). www.journal.uny.ac.id/jser
- Nur, M., 1*, A., Parawansyah, M. I., Huda, F. H., Zulfahmi, M. N., Guru, P., & Dasar, S. (2025). Strategi Menumbuhkan Minat Belajar Siswa Melalui Pendekatan Deep Learning. In *Jurnal Muassis Pendidikan Dasar* (Vol. 4).
- Nurgana, E. (1985). *Statistika untuk Penelitian*.
- Ochtaviana Marsel, F., Fadilah, M., Biologi, D., Matematika Dan Ilmu Pengetahuan Alam, F., Negeri Padang Jl Hamka, U., Tawar Bar, A., Padang Utara, K., & Padang, K. (2025). *Analisis Kemampuan Pemecahan Masalah Berdasarkan Kemampuan Awal Dalam Pembelajaran Biologi Di Kelas X SMA Pembangunan Laboratorium UNP*. 11, 390–398.
<https://doi.org/10.22437/biodik.v11i02.44795>
- Paas, F., Renkl, A., & Sweller, J. (2003). Cognitive load theory and instructional design: Recent developments. *Educational Psychologist*, 38(1), 1–4.
https://doi.org/10.1207/S15326985EP3801_1

- Permatasari, D. (2025). *Pengaruh Guided Inquiry Learning terhadap Kesadaran Metakognisi Siswa Materi Asam & Basa*. 1(02), 1–7. <https://educationalresearchjournal.com/ejr/index.php/njmste> Journalhomepage:<https://educationalresearchjournal.com/index.php/njmste>
- Pintrich, P. R. (2004). A Conceptual Framework for Assessing Motivation and Self-Regulated Learning in College Students. In *Educational Psychology Review* (Vol. 16, Number 4).
- Rahma, D., Eka Wati Maily, M., Nur Cahyani Safitri, F., Nor Zaitunnah, P., & Laili Mala, Z. (2025). *Deep Learning Dalam Pembelajaran Mi Tinjauan Literatur Dalam Meaningful Learning Mindful Learning Dan Joyful Learning*. 10(2). <https://doi.org/10.34125/jkps.v10i2.580>
- Rhamayanti, Y., Harahap, A. N., Ainal, Y., & Hasibuan, W. (2025). *Model Inquiry Learning: Solusi Peningkatan Pemecahan Masalah Dan Aktivitas Belajar Matematika Siswa SMA*.
- Rianti R. (2018). *Profil Kemampuan Pemecahan Masalah Matematis Siswa Smp Pada Materi Bangun Ruang Sisi Datar*.
- Saefullah, A., Samanhudi, U., Nulhakim, L., Berlian, L., Rakhmawan, A., Rohimah, B., Zaky, R. A., & Islami, E. (2017). Efforts to Improve Scientific Literacy of Students through Guided Inquiry Learning Based on Local Wisdom of Baduy"s Society. *Saefullah*, 3(2), 84–91.
- Savery, J. R. (2006). Overview of Problem-based Learning: Definitions and Distinctions. *Interdisciplinary Journal of Problem-Based Learning*, 1(1). <https://doi.org/10.7771/1541-5015.1002>
- Schraw, G., Crippen, K. J., & Hartley, K. (2006). Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning. *Research in Science Education*, 36(1–2), 111–139. <https://doi.org/10.1007/s11165-005-3917-8>
- Septiani, T., Prima, N., & Nisak,) Fitri. (2019). Meta-Analisis Model Inquiry Based Learning Untuk Pembelajaran Ipa Dan Fisika Pada Abad 21. In *Physics Education* (Vol. 12, Number 4).
- Setyasto, N., & Yanuarita Sutikno, P. (2019). *Peningkatan Keterampilan Profesional Guru-Guru Sd Gugus Ganesha Windusari Magelang) Melalui Pelatihan Implementasi Model Inquiry Based Learning (Ibl) Bermuatan Six Pillars Of Character*. <https://journal.unnes.ac.id/sju/index.php/panjar/>
- Sianipar, C. S., & Sinambela, M. (2025). Implementasi Model Pembelajaran Problem Based Learning (PBL) pada Materi Tumbuh Kembang Makhluk Hidup di Kelas XI SMA Negeri 17 Medan. In *Continuous Education : Journal of Science and Research* (Vol. 6). <https://pusdikra-publishing.com/index.php/josr>

- Suharso, I., Utari, J. P. A., Khomariyah, U., Hidayah, A. S., & Giyanti, G. (2025). Analisis Perkembangan Keterampilan Metakognitif Peserta Didik Kelas V SD dalam Pembelajaran IPA. *DIDAKTIKA : Jurnal Pemikiran Pendidikan*, 31(2), 316–324. <https://doi.org/10.30587/didaktika.v31i2.9848>
- Sweller, J. (1988). Cognitive Load During Problem Solving: Effects on Learning. *Cognitive Science*, 12(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4
- Tarwiyani, Ibrohim, & Mahanal. (2019). *Penerapan Pembelajaran Sains Berbasis Inquiry Based Learning Terintegrasi Nature of Science dalam Meningkatkan Keterampilan Metakognitif Siswa*. <http://journal.um.ac.id/index.php/jptpp/>
- Yusnarti, M., Yulianti, E., Putri Wulandari, I., & Yapis Dompus, S. (2025). *Pengaruh Model Pembelajaran Inquiry Based Learning terhadap Hasil Belajar Siswa Kelas IV* (Vol. 2). <http://journal.ainarapress.org/index.php/jekas>
- Zimmerman, B. J. (2000). Self-Efficacy: An Essential Motive to Learn. *Contemporary Educational Psychology*, 25(1), 82–91. <https://doi.org/10.1006/ceps.1999.1016>