

## DAFTAR PUSTAKA

- Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings, educational and psychological measurement. *Educational and Psychological Measurement*, 45(1), 131–142. <https://doi.org/10.1177/0013164485451012>
- Aini, I., & Suprpto, N. (2021). Penerapan Online Performance Assessment guna Mengukur Kemampuan Argumentasi Ilmiah Peserta Didik Materi Fluida Dinamis. *IPF: Inovasi Pendidikan Fisika*, 10(3), 13–20. <https://doi.org/10.26740/ipf.v10n3.p13-20>
- Andrews-Larson, C., McCrackin, S., & Kasper, V. (2019). The next time around: scaffolding and shifts in argumentation in initial and subsequent implementations of inquiry-oriented instructional materials. *The Journal of Mathematical Behavior*, 56. <https://doi.org/10.1016/j.jmathb.2019.100719>
- Andry, A. (2016). *Pengaruh Penerapan Model Pembelajaran Problem Based Learning Melalui Metode Debat Terhadap Kemampuan Berpikir Kritis Siswa: Studi Kuasi Eksperimen di Kelas XI IIS SMA Negeri 24 Bandung pada Materi Ketenagakerjaan*. (Skripsi). Fakultas Pendidikan Ekonomi dan Bisnis, Universitas Pendidikan Indonesia, Bandung.
- Apriyani, N. D., & Alberida, H. (2023). Pengaruh Model Problem Base Learning (PBL) terhadap Keterampilan Argumentasi Peserta Didik pada Pembelajaran Biologi: Literature Review. *BIOCHEPHY: Journal Of Science Education*, 03(1), 40–48. <https://doi.org/10.52562/biochephy.v3i1.531>
- Archila, P. A., Molina, J., & Mejía, A.-M. T. de. (2021). Fostering bilingual written scientific argumentation (BWSA) through collaborative learning (CL): evidence from a university bilingual science course. *International Journal of Science Education*, 43(1), 1–29. <https://doi.org/10.1080/09500693.2020.1844922>
- Arikunto, S. (2009). *Dasar-dasar Evaluasi Pendidikan*. Jakarta: PT Bumi Aksara.
- Azwar, S. (2012). *Metode Penelitian*. Pustaka Belajar.
- Bakhruddin, M., Shoffa, S., Holisin, I., ... Kurniawati, N. (2021). *Strategi Belajar Mengajar*. Bojonegoro: CV. Agrapana Media.
- Bitu, Y. S., Setiawi, A. P., Bili, F. G., ... Patty, E. N. S. (2024). Pembelajaran

- Interaktif: Meningkatkan Keterlibatan dan Pemahaman Siswa. *J-KIP (Jurnal Keguruan Dan Ilmu Pendidikan)*, 5(2), 193–198. <https://doi.org/10.25157/j-kip.v5i2.14697>
- Cavagnetto, A. (2010). Argument to Foster Scientific Literacy A Review of Argument Interventions in K–12 Science Contexts. *REVIEW OF EDUCATIONAL RESEARCH*, 80(3), 336–371. <https://doi.org/10.3102/0034654310376953>
- Danial, R. D. M. (2020). *Jago Debat*. Semarang: Alprin.
- Duch, B. J., Groh, S. E., & Allen, D. E. (2001). *The Power Of Problem Based-Learning* (1st ed.). Sterling, Virginia: Stylus Publishing, LLC.
- Erduran, S., Simon, S., & Osborne, J. (2004). Tapping Argumentation: Developments in application of Toulmin's Argumen Pattern for studying science discource. *International Journal of Science. Florida State University USA: Springer*, 1–25. <https://doi.org/10.1002/sce.20012>
- Fakhriyah, F., Rusilowati, A., Nugroho, S. E., & Saptono, S. (2021). Mengembangkan kemampuan argumentasi ilmiah calon guru sekolah dasar sebagai bentuk penguatan keterampilan abad 21. *Prosiding Seminar Nasional Pascasarjana Pascasarjana Universitas Negeri Semarang*, 4(1), 190–195. <https://proceeding.unnes.ac.id/snpasca/article/view/847>
- Firdausichuuriyah, C., & Nasrudin, H. (2017). Keterlaksanaan Penerapan Model Pembelajaran Inkuiri Terbimbing Untuk Meningkatkan Keterampilan Berpikir Kritis Siswa Materi Larutan Elektrolit dan Non Elektrolit Kelas X SMAN 4 Sidoarjo. *Journal of Chemical Education*, 6(2).
- Firdauzi, F. S., Widiantie, R., & Handayani. (2019). Penerapan Model Pembelajaran Problem Based Learning Dipadu Metode Debat Terhadap Kemampuan Berargumentasi. *Quangga: Jurnal Pendidikan Dan Biologi*, 11(1), 49–54. <https://doi.org/10.25134/quagga.v11i1.1633>.
- Guilfoyle, L., & Erduran, S. (2021). Recalibrating the evolution versus creationism debate for student learning : towards students ' evaluation of evidence in an argumentation task an argumentation task. *International Journal of Science Education*, 43(18), 2974–2995. <https://doi.org/10.1080/09500693.2021.2004330>

- Hasanah, M., Supeno, & Nuha, U. (2023). Pengaruh Model Problem-Based Learning Berbasis Controversial Issues pada Pembelajaran IPA terhadap Keterampilan Argumentasi Ilmiah Siswa SMP. *FKIP E-PROCEEDING*, 30–41. <https://jurnal.unej.ac.id/index.php/fkip-epro/article/view/37110>
- Hendratmoko, A. F., Madlazim, M., Widodo, W., ... Supardi, Z. A. I. (2024). Inquiry and Debate in Science Learning: Potential Strategy for Improving Students' Scientific Argumentation Skills. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 12(1), 114–138. <https://doi.org/doi.org/10.46328/ijemst.3152>
- Kementerian Pendidikan Kebudayaan Riset dan Teknologi Republik Indonesia. (2022). *Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 5 Tahun 2022 Tentang Standar Kompetensi Lulusan Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah*. Jakarta: Sekretariat Negara.
- Lampkin, S. J., Collins, C., Danison, R., & Lewis, M. (2015). Active Learning through a Debate Series in a First-Year Pharmacy Self-Care Course. *American Journal of Pharmaceutical Education*, 79(2). <https://doi.org/10.5688/ajpe79225>
- Lunenburg, F. C. (2010). Communication : The Process , Barriers , And Improving Effectiveness. *Sam Houston State University*, 1(1), 1–11.
- Mahrurnisya, D. (2023). Keterampilan Pembelajar Di Abad Ke-21. *JUPENJI : Jurnal Pendidikan Jompa Indonesia*, 2(1), 101–109. <https://doi.org/10.57218/jupenji.vol2.iss1.598>
- Majidi, A. el, Janssen, D., & Graaff, R. De. (2021). The Effects of In-class Debates on Argumentation Skills in Second Language Education. *System*, 101(5). <https://doi.org/10.1016/j.system.2021.102576>
- Marini, N., Turnip, B. R., & Puspita, D. (2023). Penerapan Model Pembelajaran Problem Based Learning Dipadu Metode Debat Terhadap Kemampuan Berargumentasi. *Journal on Education*, 06(01), 3168–3176. <https://doi.org/10.31004/joe.v6i1.3364>
- Mika, N., & Shun'ichi, M. (2013). The Effect Of Debate Training On Argumentation Skills : The Developmental Process For Japanese College

- Students. *Studies for the Learning Society*, 3(1). <https://doi.org/10.2478/sls-2013-0001>
- Mikeska, J. N., & Howell, H. (2020). Simulations as practice-based spaces to support elementary teachers in learning how to facilitate argumentation-focused science discussions. *Journal of Research in Science Teaching*, 57(9), 1356–1399. <https://doi.org/10.1002/tea.21659>
- Mufidah, L., Fatayah, & Yuliana, I. F. (2021). Keterlaksanaan Model Pembelajaran Science, Technology, Engineering, and Mathematics (STEM) pada Materi Koloid. *Journal of Chemical Education (UJCEd)*, 10(3). <https://doi.org/doi.org/10.26740/ujced.v10n3.p261-267>
- Mumtaz, S., & Latif, R. (2017). Learning through debate during problem-based learning : an active learning strategy. *Advances in Physiology Education*, 41, 390–394. <https://doi.org/10.1152/advan.00157.2016>
- Mustofa, M. H., & Rusdiana, D. (2016). Profil Kemampuan Pemecahan Masalah Siswa pada Pembelajaran Gerak Lurus. *Jurnal Penelitian & Pengembangan Pendidikan Fisika*, 2(2). <https://doi.org/doi.org/10.21009/1.02203>
- Nielsen, J. A. (2013). Dialectical Features of Students' Argumentation: A Critical Review of Argumentation Studies in Science Education. *Research in Science Education*, 43(1), 371–393. <https://doi.org/10.1007/s11165-011-9266-x>
- Octavia, S. A. (2020). *Model-model Pembelajaran*. Yogyakarta: Deepublish.
- Osborne, J., Erduran, S., & Simon, S. (2004). Enhancing The Quality of Argument in School Science. *Journal of Research in Science Teaching*, 41(10), 994–1020. <https://doi.org/10.1002/tea.20035>
- Puspa, C. I. S., Rahayu, D. N. O., & Parhan, M. (2023). Transformasi Pendidikan Abad 21 dalam Merealisasikan Sumber Daya Manusia Unggul Menuju Indonesia Emas 2045. *Jurnal Basicedu*, 7(5), 3309–3321. <https://doi.org/10.31004/basicedu.v7i5.5030>
- Rizkiana, S., & Widiyati, M. (2018). Pengembangan Model Pembelajaran Menulis Argumentasi Melalui Strategi Think Talk Write berbasis Media Audio Visual Di SMA. *Seminar Internasional Riksa Bahasa XII*, 1295–1304. <http://proceedings.upi.edu/index.php/riksabahasa/article/download/273/261>
- Roviati, E., & Widodo, A. (2019). Kontribusi Argumentasi Ilmiah dalam

- Pengembangan Keterampilan Berpikir Kritis. *Titian Ilmu: Jurnal Ilmiah Multi Sciences*, 11(2), 56–66. <https://doi.org/10.30599/jti.v11i2.454>
- Samala, A. D., Ambiyar, Jalinus, N., ... Indarta, Y. (2022). Studi Teoretis Model Pembelajaran: 21st Century Learning dan TVET. *Edukatif: Jurnal Ilmu Pendidikan*, 4(2), 2794–2808. <https://doi.org/10.31004/edukatif.v4i2.2535>
- Sanjaya, W. (2006). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Prenada Media Group.
- Shoimin, A. (2014). *68 Model Pembelajaran Inovatif dalam Kurikulum 2013*. Yogyakarta: Ar-ruzz Media.
- Silberman, M. L. (1996). *Active Learning: : 101 strategies to teach any subject*. Needham Heights, Massachusetts: Library of Congress Cataloging-in-Publication Data.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Suraya, Setiadi, A. E., & Muldayanti, N. D. (2019). Argumentasi Ilmiah Dan Keterampilan Berpikir Kritis Melalui Metode Debat. *Edusains*, 11(2), 233–241. <https://doi.org/10.15408/es.v11i2.10479>
- Syuzita, A., & Doyan, A. (2023). Implementation Of The Science Learning Model To Improving Students' Scientific Argumentation Skills: A Review. *AMPLITUDO: Journal of Science and Technology Inovation*, 2(2). <https://doi.org/doi.org/10.56566/amplitudo.v2i2.118>.
- Torres, N., & Cristancho, J. G. (2018). Analysis of the Forms of Argumentation of Teachers in Training in the Context of a Socio-scientific Issue. *TURKISH SCIENCE EDUCATION*, 15(1), 57–59. <https://doi.org/10.12973/tused.10221a>
- Toulmin, S. E. (2003). *The uses of argument: Updated edition*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511840005>
- Trilling, B., & Fadel, C. (2009). *21st Century Skills Learning for Life in Our Times*. Amerika: Jossey-Bass.
- Yunandra. (2023). *Standar Kompetensi Lulusan SMA dan MA Masa Kebijakan Merdeka Belajar*. <https://yunandra.com/standar-kompetensi-lulusan-sma-dan-ma-masa-kebijakan-merdeka-belajar/>

Zohar, A., & Nemet, F. (2001). Fostering Students' Knowledge and Argumentation Skills through Dilemmas in Human Genetics. *Journal of Research in Science Teaching*, 39(1), 35–62. <https://doi.org/10.1002/tea.10008>