

DAFTAR PUSTAKA

- Adi, K. R. J. K. & Yuliani. (2021). Pengembangan Lembar Kerja Peserta Didik Elektronik (E-Lkpd) Berbasis Inkuiri Pada Submateri Fotosintesis Untuk Meningkatkan Kemampuan Argumentasi Peserta Didik. *Bioedu: Berkala Ilmiah Pendidikan Biologi*, 10 (3): 663-673.
- Ain, Q. & Mitarlis. (2020). Pengembangan LKPD Berorientasi Inkuiri Terbimbing untuk Meningkatkan Literasi Sains Pada Materi Faktor-faktor Yang Mempengaruhi Laju Reaksi. *Journal of Chemical Education*, 9 (3): 397-406.
- Arifin, S. (2022). Perangkat pembelajaran Lembar Kerja Peserta Didik (LKPD) kurikulum merdeka. Program Pendidikan Profesi Guru Dalam Jabatan Angkatan 1, PGSD Universitas Negeri Surabaya 2022. Diakses pada 24 Agustus 2022. Tersedia di <https://ayoguruberbagi.kemdikbud.go.id/rpp/lkpd-kelas-4-ipas-bab-1-kurikulum-merdeka-terbaru/>.
- Arikunto, S. (2015). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta
- Arizen, A. & S. Suhartini. (2020). Mobile learning student worksheet based on socioscientific-issues: Enhancing students' scientific literacy skills in biology. *Jurnal Pendidikan Biologi Indonesia*, 6 (1): 15-24. <https://doi.org/10.22219/jpbi.v6i1.11196>.
- Aurora, A. & Hansi E. (2019). Pengaruh Penggunaan Media Pembelajaran E-Learning terhadap Motivasi Belajar Mahasiswa di Universitas Negeri Padang. *Jurnal Teknik Elektro dan Vokasional*, 5 (2): 11-16.
- BNSP. (2014). *Instrumen Penilaian Buku Teks*. Jakarta: Badan standar Nasional Pendidikan. Tersedia pada <https://bsnp-indonesia.org/id/wpcontent/uploads/2014/05/01-Kelompok-Peminatan-MIPA.rar>.
- Candiasa, I. M. (2010). *Pengujian Instrumen Penelitian disertai Aplikasi Iteman dan Bigsterps*. Singaraja: Unit Penerbitan Universitas Pendidikan Ganesha.

- Chadwick, R., Eilish M., & Odilla E. F. (2021). Teachers' experience of inquiry into socioscientific issues in the Irish lower secondary science curriculum. *Irish Educational Studies*. <https://doi.org/10.1080/03323315.2021.1964565>.
- Cholifah, S. N. & Dian N. (2022). Pengembangan E-LKPD Guided Inquiry-Liveworksheet untuk Meningkatkan Literasi Sains pada Submateri Faktor Laju Reaksi. *Chemistry Education Practice*, 5 (1): 1-12.
- Chowdhury, TBM., Jack H., & Miia R. (2020). Socioscientific Issues within Science Education and their Role in Promoting the Desired Citizenry. *Science Education International*, 31 (2): 203-208. <https://doi.org/10.33828/sei.v31.i2.10>.
- Cian, H. (2020). The Influence of Context: Comparing High School Students' Socioscientific Reasoning by Socioscientific Topic. *International Journal of Science Education*, DOI: 10.1080/09500693.2020.1767316
- Colburn, A. (2000). An Inquiry Primer. *Science Scope*.
- Darmojo, H. & Jenny R. E. Kaligis. (1993). *Pendidikan IPA 2*. Jakarta: Depdikbud.
- Diana, S., Arif R., & Euis S. R. (2015). Profil Kemampuan Literasi Sains Siswa SMA Berdasarkan Instrumen *Scientific Literacy Assesments* (SLA). Seminar Nasional XII Pendidikan Biologi FKIP UNS 2015.
- Erduran, S. & Jiménez-Aleixandre, M. P. (2007). Argumentation in Science Education: Perspectives from Classroom-Based Research. *Springer*.
- Gregory, R.J. (2000). *Psychological Testing: History, Principles and Applications*. Boston: Allyn & Bacon.
- Gunawan, G., A. W. Jufri, N. Nisrina, A. Al-Idrus, A. Ramdani, & A. Harjono. (2021). Guided inquiry blended learning tools (GI-BL) for school magnetic matter in junior high school to improve students' scientific literacy. *Journal of Physics: Conference Series*, 1747: 1-8. doi:10.1088/1742-6596/1747/1/012034.
- Hadisaputra, S., Gunawan G., & Muhammad Y. (2019). Effects of Green Chemistry Based Interactive Multimedia on the Students' Learning Outcomes and Scientific Literacy. *Jour of Adv Research in Dynamical & Control Systems*, 11 (7): 664-674.

- Hake, R. R. (1999). Analyzing Change/Gain Scores. *American Education Research Association*, 1-4.
- Handayani, N. N. L. & Ni K. E. M. (2020). Pembelajaran Era Disruptif Menuju Era Society 5.0. *Prosiding Webinar Nasional IAHN-TP Palangkaraya*.
- Harandi, S. R. (2015). Effect of e-learning on Students' Motivation. *Procedia-Soc Behaviour*.
- Hasan, E. N., Ani R., & Budi A. (2018). Analysis of Student Science Literacy Skills in Full Day Junior High School. *Journal of Innovative Science Education*, 7(2): 237-244.
- Herron, J. D., Cantu, L. L., Ward, R. & Srinivasan, V. (1997). Problems Associated with Concept Analysis. *Science Education*, 61 (2): 185-199.
- Holbrook, J., & Rannikmae, M. (2009). The Meaning of Scientific Literacy. *International Journal of Enviromental and Science Education*, 4(3): 275-288.
- Ismail, S. & Zakiah Q. Y. (2021). Policy Analysis of Implementation of Minimum Competency Assessment as an Effort to Improve Reading Literacy of Students in School. *Paedagoria: Jurnal Kajian, Penelitian, dan Pengembangan Kependidikan*, 12(1): 83-91.
- Ke, L., Troy D. S., Laura Z., & Patricia J. F. (2021). Developing and Using Multiple Models to Promote Scientific Literacy in the Context of Socio-Scientific Issues. *Science & Education*. <https://doi.org/10.1007/s11191-021-00206-1>.
- Kembara, M. D., Rissa H., Nina G., Intan K., Dasim B., Denok S., & Ahmad K. (2020). Scientific Literacy Profile of Student Teacher on Science for All Context. *Solid State Technology*, 63(6): 5844-5856.
- Kemdikbud. (2013). Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia. Kemdikbud: Jakarta.
- Khasanah, S. U. & Beni S. (2022). Penerapanpendekatan Socio-Scientific Issues berbantuan E-LKPD Pada Materi Zat Aditif Untuk Meningkatkanliterasi Sains Siswa. *Pensa E-Jurnal: Pendidikan Sains*, 10 (2): 313-319.
- Kiraly, A., Andrea K., & Peter T. (2019). Responsibility of Teachers: The SSIBL Model in Hungary. Springer. https://doi.org/10.1007/978-3-030-18137-6_13

- Knippels, M. C. P. J. & Michiel V. H. (2018). An educational sequence for implementing socio-scientific inquiry-based learning (SSIBL). *Science and Society*, 100 (371): 46-52.
- Kurnia, R. F. I. (2019). Pengembangan Bahan Ajar Fluida Statis Berorientasi Lingkungan Lahan Basah untuk Melatihkan Keterampilan Proses Sains Siswa SMK Isfi Banjarmasin. Skripsi. Universitas Lambung Mangkurat, Banjarmasin. Dipublikasikan.
- Lailiah, I., Sri W., Sudarmin., & Edi S. (2021). Implementasi Guided Inquiry Berbantuan E-LKPD Terhadap Hasil Belajar Kognitif Siswa Pada Materi Redoks Dan Tata Nama Senyawa Kimia. *Jurnal Inovasi Pendidikan Kimia*, 15 (1): 2792-2801.
- Laugksch, R. (2000). Scientific literacy: A conceptual overview. *Science Education*, 84(1). doi: [http://doi.org/10.1002/\(SICI\)1098-237X\(200001\)84](http://doi.org/10.1002/(SICI)1098-237X(200001)84).
- Lestari, D. D., Muchlis. 2021. E-LKPD Berorientasi Contextual Teaching and Learning untuk Melatihkan Keterampilan Berpikir Kritis Siswa pada Materi Termokimia. *Jurnal Pendidikan Kimia Indonesia*, 5(1): 25-33.
- Levinson, R., & PARRISE Consortium. (2017). Socio-scientific Inquiry-Based Learning: Taking off from STEPWISE. *In Science and Technology Education Promoting Wellbeing for Individuals, Societies and Environments*, 477-502. Springer, Cham.
- Levinson, R. (2018). Introducing socio-scientific inquiry-based learning (SSIBL). *Science and Society*, 100 (371): 31-35.
- Mahanani, I., Sri R., & Fauziatul F. (2019). Pengaruh Pembelajaran Inkuiri Berkonteks Socioscientific-Issues Terhadap Keterampilan Berpikir Kritis Dan Scientific Explanation. *Jurnal Kependidikan*, 3(1): 53-68.
- Metin, T. N., Dilek K., & Nilgun Y. (2022). Exploration of Science Teachers' Views About Socioscientific Issues. *Kastamonu Education Journal*, 30 (1): 94-105. doi: 10.24106/kefdergi.777774.
- Nam, Y. & Ying-C. C. (2017). Promoting Argumentative Practice in SocioScientific Issues through a Science Inquiry Activity. *EURASIA Journal*

- of Mathematics Science and Technology Education*, 13 (7): 3431-3461. DOI 10.12973/eurasia.2017.00737a.
- National Research Council. (1996). *National science education standards*. Washington, D.C.: National Academy Press.
- National Research Council. (2007). *Taking Science to School: Learning and Teaching Science in Grades K-8*. National Academies Press.
- Nieveen, N. (1999). "Prototype to reach product quality. Dlm. van den Akker, J., Branch, R.M., Gustafson, K., Nieveen, N., & Plomp, T. (pnyt)". Design approaches and tools in educational and training. Dordrecht: Kluwer Academic Publisher.
- Nofiana, M. & Teguh J. (2017). Profil Kemampuan Lit Erasisains Siswa Smp Di Kota Purwokerto Ditinjau Dari Aspek Konten, Proses, Dan Konteks Sains. *Jurnal Sains Sosial dan Humaniora*, 1 (2): 77-84.
- Norris S.P., & Phillips, L.M. (2003). How literacy in its fundamental sense is central to scientific literacy. *Science Education*, 87, 224-240.
- Nurhidayah, R., Irwandi D., & Saridewi N. (2015). Pengembangan Modul Berbasis Inkuiri Terbimbing Pada Materi Larutan Elektrolit dan Non-elektrolit. *EDUSAINS*, 7(1), 37-47.
- OECD. (2019). *PISA 2018 Results (Volume I): What Students Know and Can Do*, PISA, OECD Publishing, Paris.
- OECD. (2019). *Programme for International Student Assesment*.
- Prastowo, A. (2015). *Panduan Kreatif Membuat Bahan Ajar Inovatif*. Jogjakarta: Diva Press.
- Puspendik. (2019). *PISA*. Pusat Penilaian Pendidikan Balitbang Kemendikbud.
- Putri, L. A., Anna P., Nanang W., & Nur J. A. (2021). Enhancing Students' Scientific Literacy using Virtual Lab Activity with Inquiry-Based Learning. *Journal of Science Learning*, 4 (2): 173-184.
- Ramadhani, Z., Olivia R. N., Didi P. J. S., Muhammad Y. A., & Darmadi. (2021). Analisis Penerapan Aessesmen Kompetensi Minimum (Akm) Terhadap Siswa Sekolah Menengah Pertama (SMP) Di Kabupaten Magetan. *Innovative: Journal of Social Science Research*, 1 (2): 342-345.

- Rani, S., Dewi J., Aceng R., Abdul R., & Kasrina K. (2021). Pengembangan LKPD pada Materi Protista Kelas X SMA Berdasarkan Keanekaragaman Mikroalga di Sungai Bengkenang. *Diklabio: Jurnal Pendidikan dan Pembelajaran Biologi*, 5 (2): 217-225. doi.org/10.33369/diklabio.5.2.217-225.
- Rauch, F. & Diana R. (2020). How Socio-Scientific Inquiry Based Learning (SSIBL) promotes inquiry in climate issues –An example for enacting socio-scientific issues in science education. *ARISE: Action Research and Innovation in Science Education*, 3 (2): 43-45. <https://doi.org/10.12973/arise/164872>.
- Roberts, D. A. (2007). Scientific literacy/science literacy. In S. K. Abell & N. G. Lederman (Eds.), *Handbook of research on science education*. Lawrence Erlbaum Associates.
- Roberts, D. A., & Bybee, R. W. (2014). Scientific literacy, science literacy, and science education. In S.K.Abell,&N.G.Lederman (Eds.), *Handbook of research in science education*(Vol. 2,pp.545– 558). Routledge.
- Rohmah, M. (2022). Penggunaan Media Google Classroom Berbantu Liveworksheets Untuk Meningkatkan Hasil Belajar Ipa Materi Kemagnetan Siswa SMP. *EDUTECH : Jurnal Inovasi Pendidikan Berbantuan Teknologi*, 2 (1): 16-26.
- Rosa, D. M., Wildan, Saprizal H., & Baiq F. D. S. (2022). Pengembangan E-LKPD Larutan Asam Basa Berbasis Inkuiri Terbimbing untuk Meningkatkan Motivasi Belajar Siswa. *Chemistry Education Practice*. doi: 10.29303/cep.v5i1.2928.
- Roslina, I. (2019). Pengembangan LKPD Matematika Dengan Model Learning Cycle 7E Berbantuan Mind Mapping. *Jurnal Pengembangan Pembelajaran Matematika*, 1 (1): 10-22.
- Sadia, I W. (2014). *Model-model Pembelajaran Sains Konstruktivistik*. Yogyakarta: Graha Ilmu.

- Sadler, T. D. (2004). Informal reasoning regarding socioscientific issues: A critical review of research. *Journal of Research in Science Teaching*, 41 (5): 513-536. <https://doi.org/10.1002/tea.20009>.
- Sadler, T. D., & Zeidler, D. L. (2004). The morality of socioscientific issues: Construal and resolution of genetic engineering dilemmas. *Science Education*, 88(1), 4–27. doi: <http://doi.org/10.1002/sce.10101>
- Sadler, T. D., Sasha A. B., & Brianna S. (2007). What Do Students Gain by Engaging in Socioscientific Inquiry? *Research in Science Education*, 37: 371-391. DOI 10.1007/s11165-006-9030-9
- Sadler, T. D., Friedrichsen, P., & Zangori, L. (2019). A framework for teaching for socio-scientific issue and model-based learning (SIMBL). *Educação e Fronteiras/Education and Borders*, 9(25), 8–26.
- Sadler, T. D., Sasha A. B., & Brianna S. (2007). What Do Students Gain by Engaging in Socioscientific Inquiry? *Research Science Education*, 37: 371-391. DOI 10.1007/s11165-006-9030-9
- Sahronih, S., Agung P., & M. Syarif S. (2020). The Effect of Use Interactive Learning Media Environment-based and Learning Motivation on Science Learning Outcomes. *International Journal for Educational and Vocational Studies*, 1-5.
- Saija, M., S. Rahayu., F. Fajaroh., & Sumari. (2022). Enhancement of High School Students' Scientific Literacy Using Local-Socioscientific Issues In Oe3c Instructional Strategies. *Jurnal Pendidikan IPA Indonesia*, 11(1): 11-23. DOI: 10.15294/jpii.v11i1.33341
- Sanjaya, W. (2006). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Prenada Media Group.
- Sari, W. P., Sumarmin, R., Hilda, D. P. 2018. Validity of Biology Student Worksheet Baded on Problem Based Learning for Student Class XI. *Journal of Progressive Sciences and High Technologies*, 7(1): 25-30.
- Schenk, L., Karim H., Leena A., Iann L., Andrzej W., Karin H. (2021). Socioscientific Issues in Science Education: An opportunity to Incorporate

- Education about Risk and Risk Analysis? *Risk Analysis*, 41 (12): 2209-2219.
DOI: 10.1111/risa.13737
- Sriarunrasmee, J., Praweenya S., & Pimpan D. (2015). Virtual Field trips with Inquiry Learning and Critical Thinking Process: A Learning Model to Enhance Students' Science Learning Outcome. *Procedia-Social and Behavioral Sciences*, 197: 1721-1726. DOI:10.1016/j.sbspro.2015.07.226
- Sung, Y. T., Han Y. L., Je M. Y., & Kuo E. C. (2019). The quality of experimental designs in mobile learning research: A systemic review and self-improvement tool. *Educational Research Review*, 28. doi.org/10.1016/j.edurev.2019.05.001.
- Sutrisna, N. (2021). Analisis Kemampuan Literasi Sains Peserta Didik SMA di Kota Sungai Penuh. *Jurnal Inovasi Penelitian*, 1(12): 2683-2694.
- Suwono, H., Ndzani L. R., Muhammad S., & Rifka F. (2021). Interactive socio-scientific inquiry for promoting scientific literacy, enhancing biological knowledge, and developing critical thinking. *Journal of Biological Education*. DOI: 10.1080/00219266.2021.2006270
- Suyanti, D. R. (2010). *Strategi Pembelajaran Kimia*. Yogyakarta: Graha Ilmu.
- Thiagarajan, S., Semmel, D., & Semmel M. I. (1974). *Instructional Development for Training Teacher of Exceptional Children*. Online. Indiana University: Bloomington, Indiana. Tersedia pada <http://files.eric.ed.gov/fulltext/ED090725.pdf>.
- Trianto. (2010). *Mendesain Model Pembelajaran Inovatif-Progresif*. Jakarta: Prenada Media.
- Widjayanti. (2008). *Media Lembar Kerja Peserta Didik*. Jakarta: Rineka
- Wiyarsi, A., Prodjosantoso A. K. & Anggiyani R. E. N. (2021). Promoting Students' Scientific Habits of Mind and Chemical Literacy Using the Context of Socio-scientific Issues on the Inquiry Learning. *Frontiers in Education*, (6): <https://doi.org/10.3389/educ.2021.660495>
- Yuliastini, I. B., S. Rahayu, F. Fajaroh, & N. Mansour. (2018). Effectiveness of Pogil with SSI Context on Vocational High School Students' Chemistry Learning Motivation. *Jurnal Pendidikan IPA Indonesia*, 7 (1): 85-95.

- Zahroh, D. A. (2021). Pengembangan E-LKPD Berbasis Literasi Sains Untuk Melatihkan Keterampilan Berpikir Kritis Peserta Didik Pada Materi Pertumbuhan dan Perkembangan. *Berkala Ilmiah Pendidikan Biologi*, 10 (3): 605-616.
- Zeidler, D. L. (2001). Participating in program development: Standard F. In D. Siebert & W. McIntosh (Eds.), *College pathways to the science education standards*. Arlington, VA: National Science Teachers Press.
- Zeidler, D. L., Sadler, T. D., Simmons, M. L., & Howes, E. V. (2005). Beyond STS: A research-based framework for socioscientific issues education. *Science Education*, 89(3), 357–377. <https://doi.org/10.1002/sce.20048>.
- Zeidler, D. L., & Nichols, B. H. (2009). Socioscientific issues: Theory and practice. *Journal of Elementary Science Education*, 21 (2): 49–58. <http://doi.org/10.1007/BF03173684>
- Zeidler, D. L. & Sami K. (2014). *It's Debatable! Using Socioscientific Issues to Develop Scientific Literacy K-12*. NSTA Press: Virginia

