

DAFTAR PUSTAKA

- Afriani, A. (2018). Pembelajaran Kontekstual (Contextual Learning) dan Pemahaman Konsep Siswa. *Jurnal Muta'aliyah*, 1(3), 80–88. http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBERTUNGAN_TERPUSAT_STRATEGI_MELESTARI
- Aini, N., Baharuddin, & Hermanto. (2023). The Effect of Digital Literacy and Self Regulation Ability on The Performance of Junior High School. *Proceeding International Conference on Education*, 1, 707–720.
- Akbar, B., Tayeb, T., Afif, A., Munirah, & Munawarah. (2022). Pengaruh Regulasi Diri dan Lingkungan Belajar terhadap Prestasi Belajar Matematika Siswa. *Alauddin Journal of Mathematics Education*, 4(1), 90–97. <https://doi.org/10.24252/ajme.v4i1.28842>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Blooms' Taxonomy of Educational Objectives*. New York: Addison Wesley Longman.
- Arikunto, S. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Aseptianova, Nawawi, S., & Pesisa, L. (2019). Analisis Pemahaman Konsep Siswa Pada Materi Pencemaran Lingkungan Di Sma Negeri 4 Palembang. *Bioilmi: Jurnal Pendidikan*, 5(1), 59–65. <https://doi.org/10.19109/bioilmi.v5i1.3540>
- Astuti, L. S. (2017). Penguasaan Konsep IPA Ditinjau Dari Konsep Diri. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 7(1), 40–48.
- Atmojo, S. E., Muhtarom, T., & Lukitoaji, B. D. (2020). The level of self-regulated learning and self-awareness in science learning in the covid-19 pandemic era. *Jurnal Pendidikan IPA Indonesia*, 9(4), 512–520. <https://doi.org/10.15294/jpii.v9i4.25544>
- Ayas, A., Ozmen, H., & Calik, M. (2010). Students' Conceptions of the Particulate Nature. *International Journal of Science and Mathematics Education*, 8, 165–184.
- Balbi, G., Ribeiro, N., Schafer, V., & Schwarzenegger, C. (2021). *Digital roots: Historicizing media and communication concepts of the digital age*. Walter de Gruyter. <https://www.degruyter.com/document/doi/10.1515/9783110740202/html>
- Brooks, S., Dobbins, K., Scott, J. J. A., Rawlinson, M., & Norman, R. I. (2014). Learning about learning outcomes: The student perspective. *Teaching in Higher Education*, 19(6), 721–733. <https://doi.org/10.1080/13562517.2014.901964>
- Carey, K. B., Neal, D. J., & Collins, S. E. (2004). A psychometric analysis of the Self-Regulation Questionnaire A psychometric analysis of the self-regulation questionnaire. *Addictive Behaviors*, 29, 253–260. <https://doi.org/10.1016/j.addbeh.2003.08.001>
- Carretero, S., Vuorikari, R., & Punie, Y. (2017). *The Digital Competence Framework for Citizens With Eight Proficiency Levels and Examples of Use*. Publications Office of the European Union. <https://doi.org/10.2760/38842>
- Chen, F. (2025). The relationship between digital literacy and college students' academic achievement: the chain mediating role of learning adaptation and online self-regulated learning. *Frontiers in Psychology*, July. <https://doi.org/10.3389/fpsyg.2025.1590649>

- Ching, B. H., & Wu, X. (2018). Concreteness fading fosters children's understanding of the inversion concept in addition and subtraction. *Learning and Instruction*, 61, 148–159. <https://doi.org/10.1016/j.learninstruc.2018.10.006>
- Cleary, T. J., & Platten, P. (2013). Examining the Correspondence between Self-Regulated Learning and Academic Achievement: A Case Study Analysis. *Education Research International*, 1–19. <https://doi.org/10.1155/2013/272560>
- Damanik, F. H. S., & Saliman, S. (2023). Sustainable Education and Student Action: Understanding Student Contributions to Addressing Climate Change. *Jurnal Penelitian Pendidikan IPA*, 9(Special Issue), 197–210. <https://doi.org/10.29303/jppipa.v9ispecialissue.6142>
- Danuri, M. (2019). Development and transformation of digital technology. *Infokam*, XV(II), 116–123. <https://doi.org/https://doi.org/10.53845/infokam.v15i2.178>
- Dewi, F. I. R., Sakuntalawati, R. D., & Mulyawan, B. (2023). *Pencegahan Cyberbullying Berbasis Pemanfaatan Online Resilience Dan Karakter Remaja*. Yogyakarta: Deepublish Publisher.
- Djamahar, R., Ristanto, R. H., Sartono, N., Ichsan, I. Z., & Muhlisin, A. (2018). CIRSA : Designing Instructional Kits to Empower 21st Century Skill. *Educational Process : International Journal*, 7(3), 200–208. <https://doi.org/10.22521/edupij.2018.73.4>
- Erdogan, T., & Senemoglu, N. (2016). Development and validation of a scale on self-regulation in learning (SSRL). *SpringerPlus*, 5(1), 1686–1698. <https://doi.org/10.1186/s40064-016-3367-y>
- Ergen, B., & Kanadli, S. (2017). The Effect of Self-Regulated Learning Strategies on Academic Achievement: A Meta-Analysis Study. *Eurasian Journal of Educational Research*, 17(69), 55–74. <https://doi.org/10.14689/ejer.2017.69.4>
- Eshet-Alkalai, Y., & Chajut, E. (2009). Changes over time in digital literacy. *Cyberpsychology and Behavior*, 12(6), 713–715. <https://doi.org/10.1089/cpb.2008.0264>
- Esnaashari, S., Gardner, L. A., Arthanari, T. S., & Rehm, M. (2023). Unfolding self-regulated learning profiles of students: A longitudinal study. *Journal of Computer Assisted Learning*, 39(4), 1116–1131. <https://doi.org/10.1111/jcal.12830>
- Fauzi, M. (2021). Pengaruh Literasi Digital Terhadap Pencegahan Informasi Hoaks pada Remaja di SMA Negeri 7 Kota Lhokseumawe. *Jurnal Pekommas*, 6(2), 77–84. <https://doi.org/10.30818/jpk.2021.2060210>
- Feraco, T., Casali, N., Ganzit, E., & Meneghetti, C. (2023). Adaptability and emotional, behavioural and cognitive aspects of self-regulated learning: Direct and indirect relations with academic achievement and life satisfaction. *British Journal of Educational Psychology*, 93(1), 353–367. <https://doi.org/10.1111/bjep.12560>
- Ferrari, A., Brecko, B. N., & Punie, Y. (2014). DIGCOMP : a Framework for Developing and. *Elearning Papers*, 38(May), 1–15.
- Goodfellow, R. (2011). Literacy, literacies and the digital in higher education. *Teaching in Higher Education*, 16(1), 131–144. <https://doi.org/10.1080/13562517.2011.544125>
- Greene, J. A., Plumley, R. D., Urban, C. J., Bernacki, M. L., Gates, K. M., Hogan, K. A., Demetriou, C., & Panter, A. T. (2021). Modeling temporal self-regulatory processing in a higher education biology course. *Learning and Instruction*, 72, 1–27. <https://doi.org/10.1016/j.learninstruc.2019.04.002>
- Hafiza, N., Rahayu, H. M., & Kahar, A. P. (2022). *The Relationship Between Digital Literacy and Learning Outcomes in Biology Learning for Students*. 8(1). <https://doi.org/10.29303/jppipa.v8i1.1067>

- Hague, C., & Payton, S. (2010). *Digital Literacy Across The Curriculum*. Bristol: Futurelab.
- Handayani, S. (2020). Budaya Literasi Melalui Gesigeli (Gerakan Siswa Gemar Literasi). *Social, Humanities, and Educational Studies (SHES)*, 3(4), 1037–1043. <https://jurnal.uns.ac.id/shes>
- Harahap, H. S., & Harahap, A. N. (2021). Pengaruh Model Pembelajaran Guided Inquiry Dan Modified Free Inquiry Terhadap Kemampuan Berpikir Kritis Siswa Pada Materi Pencemaran Lingkungan Di Sma Negeri 1 Kotapinang. *Bio-Lectura: Jurnal Pendidikan Biologi*, 8(2), 119–128. <https://doi.org/https://doi.org/10.31849/bl.v8i2.7690>
- Harahap, H. S., Harahap, N. A., & Harahap, A. (2022). *Berpikir Kritis Terhadap Pencemaran Lingkungan dengan Metode Inkuiri*. CV. El Publisher. <https://cursa.ihmc.us/rid=1R440PDZR-13G3T80-2W50/4>. Pautas-para-evaluar-Estilos-de-Aprendizajes.pdf
- Haryono, S. (2012). *Metodologi Penelitian Bisnis dan Manajemen: Teori dan Aplikasi*. Jakarta: PT IPU.
- Hastuti, R., Rahman, U., & Muchlisah. (2019). Pengaruh Regulasi Diri (Self Regulation) Dan Motivasi Belajar Terhadap Hasil Belajar Biologi Pada Peserta Didik Kelas XI Mia Man 1 Bulukumba. *Jurnal Al-Ahya*, 1(2), 42–52. <https://doi.org/https://doi.org/10.24252/al-ahya.v1i2.8074>
- Hatlevik, O. E., Scherer, R., & Christophersen, K. A. (2017). Moving beyond the study of gender differences: An analysis of measurement invariance and differential item functioning of an ICT literacy scale. *Computers and Education*, 113, 280–293. <https://doi.org/10.1016/j.compedu.2017.06.003>
- Herdyana, N., Suprpto, P. K., & Ali, M. (2022). Pengaruh Media Sekolah Pintar Indonesia (SPI) Terhadap Literasi Digital Dan Hasil Belajar Pada Materi Keanekaragaman Hayati. *Diklabio: Jurnal Pendidikan Dan Pembelajaran Biologi*, 6(1), 47–55. <https://doi.org/10.33369/diklabio.6.1.47-55>
- Heriamariaty. (2011). Upaya Pencegahan Dan Penanggulangan Pencemaran Air Akibat Penambangan Emas Di Sungai Kahayan. *Mimbar Hukum*, 23(3), 533–544. <https://doi.org/10.22146/jmh.16175>
- Hill, M. K. (2010). *Understanding Environmental Pollution* (3rd editio). Cambridge: Cambridge University Press.
- Hinojo-Lucena, F. J., Aznar-Díaz, I., Cáceres-Reche, M. P., & Romero-Rodríguez, J. M. (2019). Artificial intelligence in higher education: A bibliometric study on its impact in the scientific literature. *Education Sciences*, 9(1), 1–9. <https://doi.org/10.3390/educsci9010051>
- Hobbs, R. (2017). Measuring the Digital and Media Literacy Competencies of Children and Teens. In *Cognitive Development in Digital Contexts* (pp. 253–274). Elsevier Inc. <https://doi.org/10.1016/B978-0-12-809481-5.00013-4>
- Huda, K. (2020). *Modul Pembelajaran SMA: Biologi*. Jakarta: Direktorat Jenderal PAUD, DIKDAS, dan DIKMEN.
- Hulu, F., & Nugroho, B. (2022). Gambaran Regulasi Diri Dalam Belajar Siswa SMP Bunda Hati Kudus Grogol Tahun Pelajaran 2021 / 2022. *JURNAL PSIKO EDUKASI*, 20(2), 133–150.
- Jamil, M. A., Fuadiyah, S., Helendra, & Darussyamsu, R. (2022). Analisis Deskriptif Tingkat Kemampuan Literasi Digital pada Pembelajaran Biologi. *Journal on Teacher Education*, 4(2), 640–648. <https://doi.org/10.31004/jote.v4i2.8785>

- Kaminske, A. N., Kuepper-tetzel, C. E., Nebel, C. L., Sumeracki, M. A., & Ryan, S. P. (2020). Transfer : A Review for Biology and the Life Sciences. *CBE-Life Science Education*, 19(3), 1–11. <https://doi.org/10.1187/cbe.19-11-0227>
- Kasriyati, D., Andriani, R., & Syalshabillah, A. (2024). Students' Perception : Students' Digital Literacy Skill in Senior High School. *J-SHMIC: Journal of English for Academic*, 11(2), 157–167.
- Khatiri, P., & Dutta, S. (2018). Divergent Thinking- It's Time to Change the Box! *Research Review Journal*, 3(10), 1004–1011.
- Khoiri, N. (2018). *Metodologi penelitian pendidikan: ragam, model, dan pendekatan*. Semarang: Southeast Asian Publishing.
- Khoiriyah, M. I. (2023). Dampak Pencemaran Lingkungan Terhadap Kesehatan Masyarakat Pesisir. *Zahra: Journal of Health and Medical Research*, 3(4), 315–322.
- Khoirunnisa, S., Rakhmawati, D., & Mustianah. (2024). Tingkat Self Regulated Learning Siswa Kelas X Sma Negeri 14 Semarang. *Ristekdik: Jurnal Bimbingan Dan Konseling*, 9(1), 118. <https://doi.org/10.31604/ristekdik.2024.v9i1.118-125>
- Kholid, M. N., Imawati, A., Swastika, A., Maharani, S., & Pradana, L. N. (2021). How are Students' Conceptual Understanding for Solving Mathematical Problem ? *Journal of Physics: Conference Series*, 1776, 1–8. <https://doi.org/10.1088/1742-6596/1776/1/012018>
- Latipah, E. (2010). Strategi Self Regulated Learning dan Prestasi Belajar : Kajian Meta Analisis. *Jurnal Psikologi*, 37(1), 110–129.
- Lengkana, H. D., & Pramudiyanti. (2022). Hubungan Antara Kompetensi Literasi Digital Dengan Penguasaan Konsep Pada Pembelajaran Daring Materi Biologi Sel. *JURNAL BIOTERDIDIK: WAHANA EKSPRESI ILMIAH*, 10(1), 84–92. <https://doi.org/10.23960/jbt.v10.i1.23945>
- Li, F., Cheng, L., Wang, X., Shen, L., Ma, Y., & Islam, A. Y. M. A. (2025). The causal relationship between digital literacy and students ' academic achievement : a meta-analysis. *Humanities and Social Sciences Communications*, 12, 108–120. <https://doi.org/10.1057/s41599-025-04399-6>
- Livingstone, S., Haddon, L., & Görzig, A. (2011). *Risks and safety on the internet The perspective of European children Kids Online network*. London: EU Kids Online.
- Mallipa, I., & Murianty, R. (2022). Self-Regulated Learning Development: Students' Perception to Explicit Instructional Support in Online Learning. *International Journal of Education*, 14(2), 85–94. <https://doi.org/10.17509/ije.v14i2.43879>
- Marzano, R. J. (2003). *What Works in Schools: Translating Research Into Action*. Virginia: Association for Supervision and Curriculum Development.
- Milarika, N. P. O., Candiasa, I. M., & Widiartini, N. K. (2018). Pengaruh Persepsi Siswa Pada Mata Pelajaran Biologi Dan Ekspektasi Karir Terhadap Regulasi Diri Dan Hasil Belajar Biologi. *Jurnal Penelitian Dan Evaluasi Pendidikan Indonesia*, 8(2), 100–111. <https://doi.org/10.23887/jpepi.v8i2.2751>
- Mirmoadi, B. S., & Satwika, Y. W. (2022). Hubungan Antara Literasi Digital Dengan Self Regulated Learning pada Mahasiswa. *Jurnal Dinamika Manajemen Pendidikan*, 7(1), 8–23. <https://doi.org/https://doi.org/10.26740/jdmp.v7n1.p8-23>
- Muallimin, E. Z., Fridani, L., & Nurjannah. (2023). Teacher Strategies in Efforts to Improve Digital Literacy Skills of Children Aged 7-8 Years (Case Study on Elementary School Teachers in South Jakarta). *EDUTEC: Journal Of Education and Technology*, 7(2), 690–704.
- Mulyawati, D., Nurhuda, & Tarsidi, I. (2020). Self-Regulated Learning Constructions

- for First Middle School Students. *Advances in Social Science, Education and Humanities Research*, 399(Icepp 2019), 40–42. <https://doi.org/10.2991/assehr.k.200130.076>
- Mustofa, & Budiwati, B. H. (2019). Proses Literasi Digital Terhadap Anak: Tantangan pendidikan Di Zaman Now. *Pustakaloka*, 11(1), 114–130. <https://doi.org/https://doi.org/10.21154/pustakaloka.v11i1.1619>
- Ng, W. (2012). Computers & Education Can we teach digital natives digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>
- Nitiasih, P., Mahayanti, N., & Wijayanti, N. (2018). Junior High School Students' Self-Regulated Learning. *International Journal of Language and Literature*, 2(1), 30–36. <https://doi.org/10.23887/ijll.v2i1.16091>
- Nugroho, C., & Nasionalita, K. (2020). Indeks Literasi Digital Remaja di Indonesia Digital Literacy Index of Teenagers in Indonesia. *Jurnal Pekommas*, 5(2), 215–223. <https://doi.org/10.30818/jpkm.2020.2050210>
- O'Neill, G., & Murphy, F. (2010). *Assessment: Guide to Taxonomies of Learning*. Dublin: UCD Teaching and Learning.
- Oktariani, & Ekadiansyah, E. (2020). Peran Literasi dalam Pengembangan Kemampuan Berpikir Kritis. *Jurnal Penelitian Pendidikan, Psikologi Dan Kesehatan (J-P3K)*, 1(1), 23–33. <https://doi.org/10.51849/j-p3k.v1i1.11>
- Oktavia, R. (2021). Tingkat Literasi Digital Siswa Ditinjau Dari Penggunaan Teknologi Informasi Sebagai Mobile Learning Dalam Pembelajaran Biologi Pada Siswa Mengengah Atas (Sma) Kecamatan Kuala Nagan Raya. *Bionatural*, VII(2), 26–34.
- Ongowo, R. O., & Hungi, S. K. (2014). Motivational Beliefs and Self-Regulation in Biology Learning: Influence of Ethnicity, Gender and Grade Level in Kenya. *Creative Education*, 05(04), 218–227. <https://doi.org/10.4236/ce.2014.54031>
- Pantiwati, Y., Prihanta, W., & Nurrohman, E. (2022). An Analysis on The Concept Comprehension Skill Through the Two-Tier Multiple Choice in Online Assessment. *(JEP) Jurnal Eksakta Pendidikan*, 6(2), 128–135. <https://doi.org/10.24036/jep/vol6-iss2/694>
- Pelikan, E. R., Luftenegger, M., Holzer, J., Korlat, S., Spiel, C., & Schober, B. (2021). Learning during COVID-19 : the role of self-regulated learning , motivation , and procrastination for perceived competence. *Z Erziehungswiss*, 24(2), 393–418. <https://doi.org/10.1007/s11618-021-01002-x>
- Pintrich, P. R. (2000). The Role of Goal Orientation in Self-Regulated Learning. In B. Onique, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of Self Regulation* (pp. 451–502). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-012109890-2/50043-3>
- Pratiwi, I. W., & Wahyuni, S. (2019). Faktor-faktor yang Mempengaruhi Self Regulation Remaja dalam Bersosialisasi. *Jurnal Psikologi Pendidikan Dan Pengembangan SDM*, 8(1), 1–11.
- Radiusman. (2020). Studi literasi: pemahaman konsep siswa pada pembelajaran matematika. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, 6(1), 1–8. <https://doi.org/https://dx.doi.org/10.24853/fbc.6.1.1-8>
- Rahayu, R., Iskandar, S., & Abidin, Y. (2022). Inovasi Pembelajaran Abad 21 dan Penerapannya di Indonesia. *Jurnal Basicedu*, 6(2), 2099–2104. <https://doi.org/10.31004/basicedu.v6i2.2082>
- Rahayu, S., Dewahrani, Y. R., Nurkhofiyya, A., & Ristanto, R. H. (2021). Scaffolding self-

- regulated learning through Android-based mobile media on hormone system. *AIP Conference Proceedings*, 1–5. <https://doi.org/10.1063/5.0041777>
- Rahimi, M., & Yadollahi, S. (2017). Effects of offline vs . online digital storytelling on the development of EFL learners ' literacy skills. *Cogent Education*, 2(1), 1–13. <https://doi.org/10.1080/2331186X.2017.1285531>
- Rahmadi, I. F., & Hayati, E. (2020). Literasi Digital, Massive Open Online Course, dan Kecakapan Belajar Abad 21 Mahasiswa Generasi Milenial. *Jurnal Studi Komunikasi Dan Media*, 24(1), 91–104.
- Raschintasofi, M., Humairo, N., Rasywir, E., & Feranika, A. (2022). Analisis Tingkat Pemahaman Mahasiswa Universitas Dinamika Bangsa Dalam Pembelajaran Daring Menggunakan Algoritma K-Nearst Neighbor. *Jurnal Manajemen Teknologi Dan Sistem Informasi (JMS)*, 1(2), 69–77. <https://doi.org/10.33998/jms.2022.2.1.29>
- Rashidova, S. (2024). The Term “Concept” as a Basic Concept of Cognitive Semantics. *European International Journal of Pedagogics*, 04(06), 38–42. <https://doi.org/https://doi.org/10.55640/eijp-04-06-08>
- Reinke, N. B., Kynn, M., & Parkinson, A. L. (2019). *Conceptual Understanding of Osmosis and Diffusion by Australian First-year Biology Students*. 27(9), 17–33.
- Rinjani, S. D., Samsuri, T., & Yusuf. (2022). Evaluasi Pemahaman Konsep Mahasiswa Pendidikan Biologi Pada Materi Ekologi. *Reflection Journal*, 2(2), 46–55.
- Riyanti, R., & Setyawan, D. (2021). Penerapan Model Pembelajaran Flipped Classroom Dengan Media Pembelajaran Video Interaktif Untuk Meningkatkan Pemahaman Konsep Biologi Mahasiswa. *QUANTUM: Jurnal Inovasi Pendidikan Sains*, 12(2), 316–326.
- Rochmatika, I., & Yana, E. (2022). Pengaruh Literasi Digital Dan Gaya Belajar Terhadap Kemampuan Berpikir Kritis Siswa SMAN 1 Tukdana. *Perspektif Pendidikan Dan Keguruan*, 13(1), 64–71. [https://doi.org/10.25299/perspektif.2022.vol13\(1\).9491](https://doi.org/10.25299/perspektif.2022.vol13(1).9491)
- Rohatgi, A., Scherer, R., & Hatlevik, O. E. (2016). Computers & Education The role of ICT self-efficacy for students' ICT use and their achievement in a computer and information literacy test. *Computers & Education*, 102, 103–116. <https://doi.org/10.1016/j.compedu.2016.08.001>
- Rusdi, Dewahrani, Y. R., & Sholihah, T. (2022). The Relationship Between Self-Regulated Learning and Higher-Order Thinking Skills on Musculoskeletal System Topics. *Bioedukasi: Jurnal Pendidikan Biologi*, 15(1), 74–81. <https://doi.org/10.20961/bioedukasi-uns.v15i1.50181>
- Rusdi, Ristanto, R. H., Prabowo, G. O., & Sarwono, E. (2023). Self-regulated Learning and Digital Literacy : Relationship with Conceptual Understanding of Excretory System. *Journal of Science Learning*, 6(1), 1–10. <https://doi.org/10.17509/jsl.v6i1.47269>
- Rusmin, L. O. (2024). Analisis Pencemaran Lingkungan Terhadap Masyarakat Dusun Kranjang Desa Wayame Kecamatan Teluk Ambon. *Pattimura Mengabdikan Kepada Masyarakat*, 2(2), 217–222. <https://doi.org/https://doi.org/10.30598/pattimura-mengabdikan.2.2.217-222> ANALISIS
- Salmiah, Daud, F., Hartono, Nurhayati, B., & Hartati. (2025). Hubungan antara Efikasi Diri , Regulasi Diri dan Motivasi Belajar dengan Hasil Belajar Biologi Peserta. *JiIP (Jurnal Ilmiah Ilmu Pendidikan)*, 8(7), 8072–8080. <https://doi.org/https://doi.org/10.54371/jiip.v8i7.8600>
- Sands, D. (2014). Concepts and conceptual understanding : what are we talking about ? *New Directions in the Teaching of Physical Sciences*, 10(1), 7–11. <https://doi.org/10.11120/ndir.2014.00030>

- Sari, N., Sarjana, K., Turmuzi, M., & Hayati, L. (2023). Analisis hubungan self-regulated learning dengan prestasi belajar siswa. *Journal of Classroom Action Research*, 5(Special Issue), 269–278. <https://doi.org/https://doi.org/10.29303/jcar.v5iSpecialIssue.4290>
- Sestiani, R. A., Septiana, A. C., Putri Setiawan, X. P., & Muhid, A. (2022). Edukasi Literasi Digital untuk Meningkatkan Self Regulated Learning pada Mahasiswa. *Philanthropy: Journal of Psychology*, 6(2), 202. <https://doi.org/10.26623/philanthropy.v6i2.5299>
- Siddiq, F., Scherer, R., & Tondeur, J. (2016). Computers & Education Teachers ' emphasis on developing students ' digital information and communication skills (TEDDICS): A new construct in 21st century education. *Computers & Education*, 92–93, 1–14. <https://doi.org/10.1016/j.compedu.2015.10.006>
- Sigit, D. V., Ristanto, R. H., Nurrismawati, A., Komala, R., Prastowo, P., & Katili, A. S. (2023). Ecoliteracy's contribution to creative thinking : a study of senior high school students. *Journal of Turkish Science Education*, 20(2), 356–368.
- Simorangkir, A., Napitupulu, M. A., & Sinaga, T. (2020). Analisis Kesulitan Belajar Siswa Pada Materi Sistem Ekskresi Manusia. *Jurnal Pelita Pendidikan*, 8(1), 1–11.
- Sinatra, G. M., & Taasobshirazi, G. (2018). *The Self-Regulation of Learning and Conceptual Change in Science*. Taylor & Francis Group. <https://doi.org/https://doi.org/10.4324/9781315697048-10>
- Siyoto, S., & Sodik, M. A. (2015). *Dasar Metodologi Penelitian*. Yogyakarta: Literasi Media Publishing.
- Soemarko, D. S., Fadlyana, E., Haryanto, B., Buftheim, S., Hartono, B., Wasito, E., & Basrowi, R. W. (2023). Linking Jakarta's Typical Indonesian Urban Context, Air Pollution, and Child Health. *The Open Public Health Journal*, 16(1), 1–6. <https://doi.org/10.2174/18749445-v16-e230831-2023-109>
- Sompotan, D. D., & Sinaga, J. (2022). Pencegahan Pencemaran Lingkungan. *SAINTEKES: Jurnal Sains, Teknologi Dan Kesehatan*, 1(1), 6–16. <https://doi.org/10.55681/saintekes.v1i1.2>
- Song, Y., Lv, S., Wang, M., Wang, Z., & Dong, W. (2025). The Impact of Digital Learning Competence on the Academic Achievement of Undergraduate Students. *Behavioral Sciences*, 15(7), 840–865. <https://doi.org/https://doi.org/10.3390/bs15070840>
- Spires, H. A., Paul, C. M., & Kerkhoff, S. N. (2019). Digital Literacy for the 21st Century. In *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 2235–2242). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-5225-7659-4.ch002>
- Starkey, L. (2020). A review of research exploring teacher preparation for the digital age. *Cambridge Journal of Education*, 50(1), 37–56. <https://doi.org/10.1080/0305764X.2019.1625867>
- Sugiyono. (2015). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Bandung: Alfabeta.
- Susanti, F., Ratnawati, W., & Jazwita, D. I. (2020). Literasi Digital Facebook Dan Whatsapp Terhadap Motivasi Belajar Generasi Milenial. *Jurnal Lokabmas Kreatif: Loyalitas Kreatifitas Abdi Masyarakat Kreatif*, 1(2), 35. <https://doi.org/10.32493/jlklklk.v1i2.p35-40.6371>
- Syefrinando, B., Sukarno, Ariawijaya, M., & Nasukha, A. (2022). the Effect of Digital Literacy Capabilities and Self-Regulation on the Student'S Creativity in Online Physics Teaching. *Jurnal Pendidikan IPA Indonesia*, 11(3), 489–499. <https://doi.org/10.15294/jpii.v11i3.31811>

- Syuhada, G., Akbar, A., Hardiawan, D., Pun, V., Darmawan, A., Heryati, S. H. A., Siregar, A. Y. M., Kusuma, R. R., Driejana, R., Ingole, V., Kass, D., & Mehta, S. (2023). Impacts of Air Pollution on Health and Cost of Illness in Jakarta, Indonesia. *International Journal of Environmental Research and Public Health*, 20(4), 2916–2930. <https://doi.org/10.3390/ijerph20042916>
- Tarumasely, Y. (2022). Pengaruh Self Regulated Learning dan Digital Literacy Terhadap Hasil Belajar IPA Siswa Kelas VII SMP. *Jurnal Pendidikan Dan Kewirausahaan*, 10(2), 536–553. <https://doi.org/10.47668/pkwu.v10i2.434>
- Tazijan, F., Bakar, R. A., & Ramli, N. F. M. (2022). The Drive of Digital Literacy Skills in the 21st Century. *International Journal of Practices in Teaching and Learning (IJPTL)*, 2(1), 1–7.
- Tosepu, R. (2024). *Pencemaran Lingkungan*. Purbalingga: Eureka Media Aksara.
- Urgo, K., Arguello, J., & Capra, R. (2019). Anderson and Krathwohl ' s Two-Dimensional Taxonomy Applied to Task Creation and Learning Assessment. *ICTIR '19: Proceedings of the 2019 ACM SIGIR International Conference on Theory of Information Retrieval*, 117–124. <https://doi.org/10.1145/3341981.3344226>
- Vuorikari, R., Punie, Y., Carretero, S., & Brande, L. Van den. (2016). *DigComp 2.0: The Digital Competence Framework for Citizens*. Luxemburg Publication European Union. <https://doi.org/10.2791/11517>
- Wardyaningrum, A. R., & Suyanto, S. (2019). Improving Students' Conceptual Understanding of Biology through Quipper School. *Journal of Physics: Conference Series*, 1233(1). <https://doi.org/10.1088/1742-6596/1233/1/012001>
- Weinsteiin, C. E., Acee, T. W., & Jung, J. (2011). Editorial. In *Strategic and self-regulated learning for the 21st century: The merging of skill, will and self-regulation*. HKU Press. <https://doi.org/10.1002/tl>
- Widiyatmoko, A., & Shimizu, K. (2018). An overview of conceptual understanding in science education curriculum in Indonesia. *Journal of Physics: Conference Series*, 983(1). <https://doi.org/10.1088/1742-6596/983/1/012044>
- Winanda, V., & Yana, E. (2021). Faktor Yang Mempengaruhi Hasil Belajar Kognitif Siswa Dalam Pembelajaran Jarak Jauh Berbasis E-Learning. *Perspektif Pendidikan Dan Keguruan*, XII(2), 147–152. [https://doi.org/https://doi.org/10.25299/perspektif.2021.vol12\(2\).9386](https://doi.org/https://doi.org/10.25299/perspektif.2021.vol12(2).9386)
- Winne, P. H., & Marzouk, Z. (2019). *Learning strategies and self-regulated learning*. Cambridge University Press. <https://doi.org/https://doi.org/10.1017/9781108235631.028>
- Yani, N. F., Wulandari, S. Z., & Naufalin, L. R. (2021). Pengaruh Kecerdasan Emosional dan Self Regulated Learning terhadap Literasi Digital Siswa SMA Negeri 2 Purwokerto. *Business and Accounting Education Journal*, 2(2), 152–159. <https://doi.org/10.15294/baej.v2i2.53405>
- Zaenudin, H. N., Fahrul, A., Affandi, M., Priandono, T. E., Endriski, M., & Haryanegara, A. (2020). Tingkat Literasi Digital Siswa SMP Di Kota Sukabumi. *Jurnal Penelitian Komunikasi*, 23(2), 167–180. <https://doi.org/10.20422/jpk.v23i2.727>
- Zamista, A. A., & Charona, M. S. (2023). Tingkat Literasi Digital dan Pengaruhnya terhadap Keterampilan Abad-21 Mahasiswa ditinjau dari Perspektif Gender. *Cetta: Jurnal Ilmu Pendidikan*, 6(4), 745–756. <https://doi.org/10.37329/cetta.v6i4.2760>
- Zamnah, L. N. (2019). Analisis Self-Regulated Learning yang Mmemperoleh Pembelajaran Menggunakan Pendekatan Problem-Centered Learning dengan Hands-On Activity. *ANARGYA: Jurnal Ilmiah Pendidikan Matematika*, 2(1), 56–63.

Zimmerman, B. J. (2000). *Attaining self-regulation: a social cognitive perspective*. In: Boekaerts M, Pintrich PR, Zeidner M (eds) *Handbook of self-regulation*. New York: Academic Press.

Zimmerman, B. J., & Schunk, D. H. (2011). *Handbook of self-regulation of learning and performance*. New York: Routledge.

