

DAFTAR PUSTAKA

- Alismail, H.A dan McGuire, P. 2015. *21st Century Standards and Curriculum: Current Research and Practice. Journal of Education and Practice*, Vol. 6(6), 150-154.
- Al-Tabany, T. I. B. 2015. *Mendesain Model Pembelajaran Inovatif, Progresif dan Kontekstual: Konsep, Landasan dan Implementasinya pada Kurikulum 2013 (Kurikulum Tematik Integratif/KTI)*. Jakarta : Prenamedia Group.
- Ambrose, S. 2010. *10 Definition of Learning* diakses dari <http://thelearningcoach.com/learning/10-definitions-learning/>.
- Annisa, R., Efendi, M. H., Damris. 2019. *Peningkatan Kemampuan Berpikir Kreatif Siswa dengan Menggunakan Model Project Based Learning berbasis STEAM (Science, Technology, Engineering, Arts, dan Mathematics) pada Materi Asam dan Basa di SMAN 11 Kota Jambi. Journal of the Indonesian Society of Integrated Chemistry*. 10(2), 14-22.
- Aristantia, G. 2017. *Penerapan Science, Technology, Engineering, Art, and Mathematics Pada Tema Air dan Kita Untuk Meningkatkan Penguasaan Konsep dan Mengetahui Profil Karakter Peserta Didik SMP. Skripsi*. Universitas Pendidikan Indonesia.
- Anis, F. & Shefa, D. R. 2021. *Pengaruh Pembelajaran STEAM Berbasis PJBL (Project-Based Learning Terhadap Keterampilan Berpikir Kreatif dan Berpikir Kritis. Jurnal Pendidikan Indonesia*, X(1), 209-215.
- Becker, K & Park, K. 2011. *Effects of Integrative Approaches Among Science, Technology, Engineering, and Mathematics (STEAM) Subjects` Learning: a Preliminary Meta-Analysis. Journal of STEM Education*, Vol. 12, 5-6.
- Davidi, E.I.N., Sennen, E., & Supardi, K. 2021. *Integrasi Pendekatan STEM (Science, Technology, Art, Engineering, and Mathematic) Untuk Peningkatan Keterampilan Berpikir Kritis Siswa Sekolah Menengah Atas. Scholaria: Jurnal Pendidikan dan Kebudayaan*, 11(1), 11-22.
- Destia, I. 2017. *Penerapan Pendekatan Science, Technology, Engineering, Arts, and Mathematics (STEAM) dalam Upaya Mengembangkan Kemampuan Berpikir Kreatif Peserta Didik melalui Project Based Learning. Skripsi*. UIN Jakarta.
- Elnefi, P. 2019. *Pembelajaran Seni Tari Berbasis Proyek Dengan Pendekatan STEAM (PJBL-STEAM) Terhadap Cara Berpikir Kreatif Siswa. Skripsi*. Universitas Pendidikan Indonesia.
- Fatimah, C. 2017. *Penerapan Pendekatan STEAM (Science, Technology, Engineering, Art, and Mathematics) Dalam Upaya Mengembangkan*

- Keterampilan Abad 21 Menggunakan Project Based Learning. Skripsi. Universitas Negeri Jakarta.*
- Guba, Egon G., & Yvonna, S. Lincoln. 1994. *Competing Paradigms in Qualitative Research*. California : Sage Publication.
- Islamyah, D. G., Yasa, P., & Rachmawati, D. O. 2019. *Penerapan Model Pembelajaran Inkuiri Terbimbing Berbasis STEM guna Meningkatkan Kemampuan Berpikir Kritis Siswa Kelas X MIPA SMAN Tahun Ajaran 2018/2019*. *Jppf*, 8(2), 86-94.
- Ismayani, A. 2016. *Pengaruh Penerapan STEM Project Based Learning terhadap Kreativitas Matematis Siswa SMK*. *Indonesia Digital Journal of Mathematics and Education*, 3(4), 264-272.
- Johnstone. 1991. *Why Is Science Difficult to Learn? Things Are Seldom What They Seem*. *Journal of Computer Assisted Learning*, 7, 75-83.
- Kivunja, C. 2014. *Teaching Students to Learn & to Work with 21st Century Skills: Unpacking The Career and Life Skills Domain of The New Learning Paradigm*. *Australia International Journal of Higher Education*, 4(1).
- Kuhn, M. 2015. *Encouraging Teachers to W.A.I.T Before Engaging Students In Next Generation Science Standards STEAM Activities*. *The STEAM Journal*. 2, 1-8.
- Kuslan, L.I. dan Stone, A.H. 1968. *Teaching Children Science: An Inquiry Approach*, Belmont: Wadsworth Publishing Company. Inc.
- Kholilur, R. 2022. *Pengelolaan Model Pembelajaran Project Based Learning (PJBL) Dalam Meningkatkan Keterampilan Abad ke 21 di SD Smart School Jakarta Selatan*. Tesis. Universitas Islam Negeri Syarif Hidayatullah Jakarta.
- Lestari, S. 2021. *Pengembangan Orientasi Keterampilan Abad 21 pada Pembelajaran Fisika melalui Pembelajaran PjBL-STEAM Berbantuan Spectra-Plus*. *Ideguru: Jurnal Karya Ilmiah Guru*, 6(3), 272-279. <https://doi.org/10.51169/ideguru.v6i3.243>.
- Lucas, G. 2003. *Instructional Module Project-Based Learning* <http://www.edutopia.org/teachingmodules/pdfs.pbl.pdf>.
- Miles, M.B & Huberman, A.M. 1984. *Analisis Data Kualitatif*. Terjemahan oleh Tjetjep Rohendi Rohidi. 1992. Jakarta. Penerbit Universitas Indonesia.
- Nurhaifa, I., Hamdu, G., & Suryana, Y. 2020. *Rubrik Penilaian Kinerja pada Pembelajaran STEM Berbasis Keterampilan 4C*. *Indonesian Journal of Primary Education*, 4(1), 101-111.
- Okudan., G. E., dan Rzasa, S. E. 2004. *A Project-Based Approach to Entrepreneurial Leadership Education*. *Journal Technovation*. XX, 1-16
- Park, H., Byun, S., Sim, J., Han, H., & Baek, Y. 2016. *Teachers' Perceptions and Practices of STEAM Education in South Korea*. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(7), 179-182.

- Partnership for 21st century Skill*. 2009. *21st Century Skills Map*. <http://science.nsta.org/ps/Final21stCenturyMapScience.pdf>.
- Rifqah, A. H. 2019. *Efektivitas Model Pembelajaran STEAM (Science, Technology, Engineering, Art, and Mathematics)*. Skripsi. Universitas Muhammadiyah Malang.
- Siregar, E dan Nara, H. 2014. *Teori Belajar dan Pembelajaran*. Bogor : Ghalia Indonesia.
- Spiko, D., N. Jalal, P.T. Cerrato & M. Marcello. 2017. *Emerging Design: Transforming the STEAM Learning Landscape with the Support of Digital Technologies*. *Interaction Design and Architecture(s) Journal*, 9(34), 5-6.
- Stohlmann, M., Moore, T., & Roehrig, G. 2012. *Considerations for Teaching Integrated STEM Education*. *Journal of Pre-College Engineering Education Research*, 2(1), 28-34.
- Sund, R.B., dan Trowbridge, L. W. 1973. *Teaching Science by Inquiry in the Secondary School. Second edition*. Columbus, Ohio: Charles E. Merrill Publishing Company.
- Suparno. 1997. *Filsafat Konstruktivis Dalam Pendidikan*. Yogyakarta: Kanisius.
- Syarifah, M. E. S. 2019. *Persepsi Guru Kimia Mengenai Keterampilan Abad 21*. Skripsi. Universitas Islam Negeri Syarif Hidayatullah.
- Trilling, B dan Fadel. 2009. *21st Century Skills: Learning for Life in Our Times*, John Wiley and Sons, 978-0-47-055362-6.
- Wahyuni, I. P., Alanindra, S. & Harlita. 2019. *Penerapan Model Pembelajaran Project Based Learning untuk Meningkatkan Keterampilan Oral Communication Peserta Didik Kelas X MIPA 4 SMA Negeri 5 Surakarta*. *Proceeding Biology Education Conference*, 16(1), 95-100.
- Windasari, N. S., Yamtinah, S. & Vh, S. 2020. *Pengaruh Model Project Based Learning Terintegrasi STEM (PjBL-STEM) Terhadap Kemampuan Berpikir Tingkat Tinggi pada Materi Asam-Basa Kelas XI di SMA Negeri 3 Surakarta*. *Jurnal Pendidikan Kimia*, 9(1), 47-53.
- Yakman, G.G. 2008. *STEAM Education: An Overview of Creating a Model of Integrative Education*. Retrieved from <http://steamedu.com/wp-content/uploads/2014/12/2008-PATT-Publication-STEAM.pdf>.
- Zalaznick, M. 2015. *Putting The "A" in STEAM from Damag.me/steam*.