

## DAFTAR PUSTAKA

- [1] Dimiyati (2017). Pemanfaatan Teknologi Sebagai Media Pembelajaran Daring (on line) Bagi Guru dan Siswa Di SMK NU Rogojampi. Jurnal Pengabdian Masyarakat J-DINAMIKA, 2(2): 96100
- [2] Lizcano D, Lara JA, White B, et al. Blockchain-based approach to create a model of trust in open and ubiquitous higher education. Journal of Computing in Higher Education. 2020;32:109–134. doi: 10.1007/s12528-019-09209-y.
- [3] Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The differencebetween emergency remote teaching and online learning. Educause Review. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- [4] Maatuk AM, Elberkawi EK, Aljawarneh S, Rashaideh H, Alharbi H. The COVID-19 pandemic and E-learning: challenges and opportunities from the perspective of students and instructors. J Comput High Educ. 2022;34(1):21-38. doi: 10.1007/s12528-021-09274-2. Epub 2021 May 3. PMID: 33967563; PMCID: PMC8091987.
- [5] Reimann, P., & Bannert, M. (2019). Self-Regulation of Learning and Performance in Computer-SupportedCollaborative Learning Environments. In Handbook of Self-Regulation of Learning and Performance(pp. 285–303). <https://doi.org/10.4324/9781315697048-19>
- [6] Nikolaki, E., Koutsouba, M., Lykesas, G., Venetsanou, F., & Savidou, D. (2017). The Support and Promotion of Self-Regulated Learning in Distance Education. European Journal of Open, Distance and E-Learning, 20(1). Retrieved from <http://www.eurodl.org/?p=current&sp=brief&article=746>
- [7] J. Cerón et al., "*Self Regulated Learning* in Massive Online Open Courses: A State-of-the-Art Review," in IEEE Access, vol. 9, pp. 511-528, 2021, doi: 10.1109/ACCESS.2020.3045913.

- [8] B. J. Zimmerman and A. R. Moylan, “Self-regulation: Where metacognition and motivation intersect,,” in *Handbook of Metacognition in Education*. New York, NY, USA: Routledge, 2009, pp. 299–315
- [9] M. Boekaerts, “Self-regulated learning: Where we are today,” *Int. J. Educ. Res.*, vol. 31, no. 6, pp. 445–457, 1999, doi: 10.1016/S0883-0355(99)00014-2.
- [10] P. H. Winne and A. F. Hadwin, “Studying as self-regulated learning,” in *Metacognition in Educational Theory and Practice*. Mahwah, NJ, USA: Lawrence Erlbaum Associates Publishers, 1998, pp. 277–304.
- [11] P. R. Pintrich, “The role of motivation in promoting and sustaining *Self Regulated Learning*,,” *Int. J. Educ. Res.*, vol. 31, no. 6, pp. 459–470, 1999
- [12] Efklides dan Hadwin [27] A. Efklides, “Metacognition and affect: What can metacognitive experiences tell us about the learning process?” *Educ. Res. Rev.*, vol. 1, no. 1, pp. 3–14, 2006, doi: 10.1016/j.edurev.2005.11.001.
- [13] Järvelä dan Miller [28] S. Järvelä, M. Miller, and A. Hadwin, “Self regulation, co-regulation, and shared regulation in collaborative learning environments,” in *Handbook of Self-Regulation of Learning and Performance*, 2nd ed., New York, NY, USA: Taylor & Francis Group, 2018, pp. 83–106
- [14] Jansen, A. (2021). *Self-Regulated Learning Strategies and Student Outcomes in Ninth Grade Biology Using Blended Learning Strategies: A Quantitative Regression Study* (Doctoral dissertation, Northcentral University).
- [15] W. Wong dan AW Fu, “Pengelompokan Dokumen Tambahan untuk Klasifikasi Halaman Web,” dalam *Memungkinkan Masyarakat dengan Teknologi Informasi*, 2002, hlm. 101–110.
- [16] RS Baker dan K. Yacef, “Keadaan penambangan data pendidikan pada tahun 2009: Tinjauan dan visi masa depan,” *JEDM| Jurnal Penambangan Data Pendidikan*, vol. 1, tidak. 1, hal. 3–17, 2009.
- [17] Paembonan, Solmin, and Hisma Abduh. "Penerapan Metode Silhouette Coefficient untuk Evaluasi Clustering Obat." *PENA TEKNIK: Jurnal Ilmiah Ilmu-Ilmu Teknik* 6.2 (2021): 48-54.

- [18] Nuankaew, P., Nasa-Ngium, P., & Nuankaew, W. S. (2022, December). Self-Regulated Learning Styles in Hybrid Learning Using Educational Data Mining Analysis. In *2022 26th International Computer Science and Engineering Conference (ICSEC)* (pp. 208-212). IEEE.
- [19] Elsayed, A., Caeiro-Rodríguez, M., Mikic-Fonte, F., & Llamas-Nistal, M. (2019). Research in learning analytics and educational data mining to measure self-regulated learning : A systematic review. In *Proceedings of world conference on mobile and contextual learning 2019* (pp. 46–53). <https://www.learntechlib.org/p/210600/>
- [20] Oding, H., Shanti, M., & Firdaus, E. A. (2021). STRATEGI PEMASARAN PRODUK INDUSTRI KREATIF MENGGUNAKAN ALGORITMA K-MEANS CLUSTERING BERBASIS PARTICLE SWARM OPTIMIZATION. *Jurnal Nuansa Informatika*, 15, 1– 13
- [21] Metisen, B. M., & Sari, H. L. (2015). Analisis clustering menggunakan metode K-Means dalam pengelompokkan penjualan produk pada Swalayan Fadhila. *Jurnal media infotama*, 11(2)
- [22] R. Bie, R. Mehmood, S. Ruan, Y. Sun, and H. Dawood, “Adaptive fuzzy clustering by fast search and find of density peaks,” *Personal and Ubiquitous Computing*, vol. 20, no. 5, pp. 785–793, 2016.
- [23] G. Qian, Y. Wu, D. Ferrari, P. Qiao, and F. Hollande, “Semisupervised clustering by iterative partition and regression with neuroscience applications,” *Computational intelligence and neuroscience*, vol. 2016, 2016.
- [24] S. Engström, “Differences and similarities between female students and male students that succeed within higher technical education: profiles emerge through the use of cluster analysis,” *International Journal of Technology and Design Education*, vol. 28, no. 1, pp. 239–261, 2018.
- [25] P. Nerurkar, A. Shirke, M. Chandane, and S. Bhirud, “Empirical Analysis of Data Clustering Algorithms,” *Procedia Computer Science*, vol. 125, pp. 770–779, Jan. 2018.

- [26] J. MacQueen, "Some methods for classification and analysis of multivariate observations," in Proceedings of the fifth Berkeley symposium on mathematical statistics and probability, 1967, vol. 1, pp. 281–297.
- [27] R. Mehmood, G. Zhang, R. Bie, H. Dawood, and H. Ahmad, "Clustering by fast search and find of density peaks via heat diffusion," Neurocomputing, vol. 208, pp. 210–217, 2016.
- [28] M. Ester, H.-P. Kriegel, J. Sander, and X. Xu, "A density-based algorithm for discovering clusters in large spatial databases with noise.,", in Kdd, 1996, vol. 96, pp. 226–231.
- [29] A. Rodriguez and A. Laio, "Clustering by fast search and find of density peaks," Science, vol. 344, no. 6191, pp. 1492–1496, 2014.
- [30] L. Zappia and A. Oshlack, "Clustering trees: a visualisation for evaluating clusterings at multiple resolutions," bioRxiv, 2018.
- [31] Ahmad Rosidi, and Edy Nurcahyo. 2020. "Penerapan New Normal (Kenormalanbaru) Dalam Penanganan Covid-19 Sebagai Pandemi Dalam Hukum Positif." Ournal Ilmiah Rinjani: Media Informasi Ilmiah Universitas Gunung Rinjani 8.2 (21): 193–97.
- [32] Werdiningsih, T., Triyono, M. B., & Majid, N. W. A. (2019). Interactive multimedia learning based on mobile learning for computer assembling subject using the principle of multimedia learning (Mayer). International Journal of Advanced Science and Technology, 28(16), 711–719.
- [33] Nurcahyo, A., Ishartono, N., & Sudiby, NA (2020). Implementasi Pembelajaran Interaktif Kalkulus Dengan Wolfram Cdf Player Pada Kelas Semu Schoology. A KSIOMA: Jurnal Program Studi Pendidikan Matematika, 9(4), 883. <https://doi.org/10.24127/ajpm.v9i4.3137>
- [34] Farida, A., & Sudiby, N. A. (2022). Implementation of the *K-means* Algorithm on Learning Outcomes and Self-Regulated Learning. UNION Jurnal Ilmiah Pendidikan Matematika, 10(2), 147-154. DOI: 10.30738/union.v10i2.12233

- [35] Santosa, E. B. (2020). Implementasi Data Mining Self Regulated Learning Siswa pada Lingkungan Belajar Daring di Perguruan Tinggi. *Edudikara: Jurnal Pendidikan Dan Pembelajaran*, 5(2), 123–132. <https://doi.org/10.32585/edudikara.v5i2.218>
- [36] Çebi, A., Güyer, T. Students' interaction patterns in different online learning activities and their relationship with motivation, self-regulated learning strategy and learning performance. *Educ Inf Technol* **25**, 3975–3993 (2020). <https://doi.org/10.1007/s10639-020-10151-1>
- [37] Kizilcec, R., Piech, C., & Schneider, E. (2013). Deconstructing disengagement: Analyzing learner subpopulations in massive open online courses. In D. Suthers, K. Verbert, E. Duval, & X. Ochoa (Eds.), LAK '13: Proceedings of the third international conference on learning analytics and knowledge (pp. 170–179). ACM. <https://doi.org/10.1145/2460296.2460330>
- [38] Li, H., Flanagan, B., Konomi, S., & Ogata, H. (2018). Measuring behaviors and identifying indicators of self-regulation in computer-assisted language learning courses. *Research and Practice in Technology Enhanced Learning*, 13, Article 19. <https://doi.org/10.1186/s41039-018-0087-7>
- [39] Valdiviezo, P., Reátegui, R., & Sarango, M. (2013). Student behavior patterns in a virtual learning environment. In M. M. Larrondo Petrie, H. Alvarez, I. E. Esparragoza, & C. Rodriguez Arroyave (Eds.), *Innovation in engineering, technology and education for competitiveness and prosperity: Proceedings of the 11th Latin American and Caribbean conference for engineering and technology* (pp. 1–8). LACCEI. <http://www.laccei.org/LACCEI2013-Cancun/RefereedPapers/RP091.pdf>
- [40] Yot-Domínguez, C., & Marcelo, C. (2017). University students' self-regulated learning using digital technologies. *International Journal of Educational Technology in Higher Education*, 14, Article 38. <https://doi.org/10.1186/s41239-017-0076-8>

- [41] Zheng, J., Xing, W., Zhu, G., Chen, G., Zhao, H., & Xie, C. (2020). Profiling self-regulation behaviors in STEM learning of engineering design. *Computers & Education*, 143, Article 103669. <https://doi.org/10.1016/j.compedu.2019.103669>
- [42] Panadero, E., Jonsson, A., & Botella, J. (2017). Effects of self-assessment on self-regulated learning and self-efficacy: Four meta-analyses. *Educational Research Review*, 22, 74-98
- [43] Yamasari, Y., Rochmawati, N., Qoiriah, A., & Wintarti, A. Reduksi Dimensi untuk Meningkatkan Kinerja Pengklasteran Perilaku Siswa pada Sistem e-Learning. *Jurnal Nasional Teknik Elektro dan Teknologi Informasi*, 10(2), 139-147.(K-Means ++)
- [44] Kausar, Samina & Xu, Huahu & Hussain, Iftikhar & Wenhao, Zhu & Zahid, Misha. (2018). Integration of Data Mining Clustering Approach in the Personalized E-Learning System. *IEEE Access*. PP. 1-1. 10.1109/ACCESS.2018.2882240.
- [45] Araka, E., Oboko, R., Maina, E. ., & Gitonga, R. . (2022). Using Educational Data Mining Techniques to Identify Profiles in Self-Regulated Learning: An Empirical Evaluation. *The International Review of Research in Open and Distributed Learning*, 23(1), 131–162. <https://doi.org/10.19173/irrodl.v22i4.5401>
- [46] Cicchinelli, A., Veas, E., Pardo, A., Pammer-Schindler, V., Fessl, A., Barreiros, C., & Lindstädt, S. (2018). Finding traces of self-regulated learning in activity streams. In A. Pardo, K. Bartimote-Aufflick, & G. Lynch (Chairs), LAK '18: Proceedings of the eighth international conference on learning analytics and knowledge (pp. 191–200). ACM. <https://doi.org/10.1145/3170358.3170381>
- [47] Maldonado-Mahauad, J., Pérez-Sanagustín, M., Kizilcec, R., Morales, N., & Munoz-Gama, J. (2018). Mining theory-based patterns from big data: Identifying self-regulated learning strategies in massive open online courses. *Computers in Human Behavior*, 80, 179–196. <https://doi.org/10.1016/j.chb.2017.11.011>

- [48] Matcha, W., Gašević, D., Uzir, N. A., Jovanović, J., & Pardo, A. (2019). Analytics of learning strategies: Associations with academic performance and feedback. In S. Hsiao, J. Cunningham, K. McCarthy, G. Lynch, C. Brooks, R. Ferguson, & U. Hoppe (Chairs), LAK '19: Proceedings of the ninth international conference on learning analytics and knowledge(pp. 461–470). ACM. <https://doi.org/10.1145/3303772.3303787>
- [49] Sun, Z., Lu, L., & Xie, K. (2016). The effects of self-regulated learning on students' performance trajectory in the flipped math classroom. In C. K. Looi, J. L. Polman, U. Cress, & P. Reimann (Eds.), Transforming learning, empowering learners: The international conference of the learning sciences (ICLS) 2016, Volume 1 (pp. 66–73). International Society of the Learning Sciences.  
[https://www.isls.org/icls/2016/docs/ICLS2016\\_Volume\\_1\\_30June2016.pdf](https://www.isls.org/icls/2016/docs/ICLS2016_Volume_1_30June2016.pdf)
- [50] Yamasari, Y., Qoiriah, A., Rochmawati, N., Yustanti, W., Wintarti, A., & Ahmad, T. (2021, September). Clustering the Students' Behavior on the e-Learning using the Density-Based Algorithm. In *2021 International Seminar on Application for Technology of Information and Communication (iSemantic)* (pp. 22-27). IEEE
- [51] Sulisworo, D., Fitriyanawati, M., Maryani, I., & Hidayat, S. (2020). Students' self-regulated learning (SRL) profile dataset measured during Covid-19 mitigation in Yogyakarta, Indonesia. *Data in Brief*, 33, 106422. DOI: 10.1016/j.dib.2020.106422
- [52] Zimmerman, B.J. (2000). *Attaining self-regulation: A social cognitive perspective*. In M. Boekaerts, P.R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 13-39). Academic Press
- [53] Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into practice*, 41(2), 64-70.



- [54] Jia, M. (2021). "The influence of distance learning during COVID-19 pandemic on student's self-regulated learning in higher education: a qualitative study," in 2021 5th International Conference on Digital Technology in Education (New York, NY: Association for Computing Machinery), 47–52. doi: 10.1145/3488466.3488492
- [55] Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667-686
- [56] Schunk, D. H., & Zimmerman, B. J. (2007). Motivation and self-regulated learning: Theory, research, and applications. Routledge.
- [57] Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- [58] Pajares, F. (2002). Overview of social cognitive theory and of self-efficacy. Retrieved from <https://www.uky.edu/~eushe2/Pajares/eff.html>
- [59] Flavell, J.H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911.
- [60] Corno, L., & Mandinach, E. B. (1983). The role of cognitive engagement in classroom learning and motivation. *Educational psychologist*, 18(2), 88-108.
- [61] Reeve, J. (2006). Teachers as facilitators: What autonomy-supportive teachers do and why their students benefit. *The Elementary School Journal*, 106(3), 225-236.
- [62] Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press
- [63] Zimmerman, B.J. (2000). *Attaining self-regulation: A social cognitive perspective*. In M. Boekaerts, P.R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 13-39). Academic Press.
- [64] Cho, M. H., & Heron, M. L. (2015). Self-regulated learning: The role of motivation, emotion, and use of learning strategies in students' learning experiences in a self-paced online mathematics course. *Distance Education*, 36(1), 80-99.



- [65] Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education*, 27, 1-13.
- [66] Kramarski, B., & Michalsky, T. (2009). Investigating preservice teachers' professional growth in self-regulated learning environments. *Journal of Educational Psychology*, 101(1), 161-175.
- [67] Picciano, A. G. (2017). Theories and frameworks for online education: Seeking an integrated model. *Online Learning*, 21(3), 166-190.
- [68] Conteh, A. A., & Fashoto, S. G. (2020). The Benefits of E-Learning during the COVID-19 Pandemic in Higher Education: A Case Study of Njala University. Research Square. <https://doi.org/10.21203/rs.3.rs-34239/v1>
- [69] K. DeFreitas and M. Bernard, "Comparative Performance Analysis of Clustering Techniques in Educational," IADIS Int. J. Comput. Sci. Inf. Syst., vol. 10, no. 2, pp. 65–78, 2015
- [70] Benjamin, J.A., Deborah, S.G., David, R.M., Anna, M.R., Thomas, G.S. dan Leah, E.S. 2006. Adapting K-Medians to Generate Normalized Cluster Centers. Proceedings of the 2006 SIAM Conference on Data Mining to be published. Vol. 15. 165-175.
- [71] Vercillis, C. 2009. Business Intelligence: Data Mining and Optimization for Decision Making. Milan: WILEY.
- [72] Han, J., Kamber, M. 2006. Data Mining: Concept and Techniques. Waltham: Morgan Kauffman Publisher.
- [73] K. Dobashi, "Automatic data integration from Moodle course logs to pivot tables for time series cross section analysis," Procedia Comput. Sci., vol. 112, pp. 1835–1844, 2017.
- [74] Sihombing, Pardomuan & Arsani, Ade & Pratiko, Wisnu. (2023). Komparasi Performa Fuzzy C-Means dan Random Forest (Studi Kasus: Indeks Modal Sosial Indonesia). 3. 142-150.
- [75] Apuke, O. D. (2017). Quantitative Research Methods: A Synopsis Approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40-47. DOI: 10.12816/0040336.

- [76] Vartanian, T. P. (2010). *Secondary data analysis*. Oxford University Press.
- [77] Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business Press.
- [78] Riffe, D., Lacy, S., & Fico, F. (2019). *Analyzing media messages: Using quantitative content analysis in research*. Routledge
- [79] Gaumer Erickson, A. S., Soukup, J. H., Noonan, P. M., & McGum, L. (2015). *Selfregulation questionnaire*. Lawrence, KS: University of Kansas, Center for Research on Learning.
- [80] Noonan, P. M., & Gaumer Erickson, A.S. (2018). *The skills that matter: Teaching intrapersonal and interpersonal competencies in any classroom*. Thousand Oaks, CA: Corwin.
- [81] Boone, W. J., Staver, R. J., & Yale, S. M. (2014). *Rasch Analysis in the Human Sciences*. London: Springer.
- [82] Sumintono, B., & Widhiarso, W. (2015). *Aplikasi Pemodelan Rasch pada Assessment Pendidikan [The application of the Rasch Model on Education Assessment]*. Cimahi: Trim Komunikata.
- [83] Stoica, P.; Selen, Y. (2004), "Model-order selection: a review of information criterion rules", *IEEE Signal Processing Magazine* (July): 36–47, doi:10.1109/MSP.2004.1311138, S2CID 17338979
- [84] Taddy, Matt (2019). *Business Data Science: Combining Machine Learning and Economics to Optimize, Automate, and Accelerate Business Decisions*. New York: McGraw-Hill. p. 90. ISBN 978-1-260-45277-8. The AIC is an estimate for OOS deviance.