

DAFTAR PUSTAKA

- Aichner, T., Grünfelder, M., Maurer, O., & Jegeni, D. (2021). Twenty-Five Years of Social Media: A Review Of Social Media Applications and Definitions From 1994 to 2019. *Cyberpsychology, Behavior, and Social Networking*, 24(4), 215-222.
- ALshammari, F. L. (2024). Video-Based Microlearning and the Impact on Programming Skills and Technology Acceptance. *Journal of Education and e-Learning Research*, 11(1), 155-165.
- Amarasekara, I., & Grant, W. J. (2019). Exploring the Youtube Science Communication Gender Gap: A Sentiment Analysis. *Public Understanding of Science*, 28(1), 68-84.
- Ansermet, J. P., & Brechet, S. D. (2019). *Principles of Thermodynamics*. Cambridge University Press.
- Archer, L., Moote, J., & MacLeod, E. (2020). Learning that physics is 'not for me': Pedagogic work and the cultivation of habitus among advanced level physics students. *Journal of the Learning Sciences*, 29(3), 347-384.
- Ariyani, A., & Rusilowati, A. (2023, June). Identification and remediation of misconceptions on thermodynamics law for students with interactive demonstration. In *AIP Conference Proceedings* (Vol. 2614, No. 1). AIP Publishing.
- Bilyalova, A. A., Salimova, D. A., & Zelenina, T. I. (2020). Digital transformation in education. In *Integrated science in digital age: ICIS 2019* (pp. 265-276). Springer International Publishing.
- Branch, R. M. (2009). *Instructional design: The ADDIE approach* (Vol. 722). New York: Springer.
- Buchem, I., & Hamelmann, H. (2010). Microlearning: a strategy for ongoing professional development. *eLearning Papers*, 21(7), 1-15.
- Cengel, Y. A. (2019). *Thermodynamics: an engineering approach*. NINTH EDITION. McGraw-Hill Education. New York: USA.
- Chan, B. C. C., & Kohnke, L. (2019). Incorporating reflective writing with automatic speech recognition. *English Australia Journal*, 35(2), 45-49.
- Chen, D., Ayoob, A., Desser, T. S., & Khurana, A. (2022). Review of learning tools for effective radiology education during the COVID-19 era. *Academic Radiology*, 29(1), 129-136.
- Comp, G., Dyer, S., & Gottlieb, M. (2021). Is TikTok the next social media frontier for medicine?. *AEM Education and Training*, 5(3).

- Conde-Caballero, D., Castillo-Sarmiento, C. A., Ballesteros-Yáñez, I., Rivero-Jiménez, B., & Mariano-Juárez, L. (2024). Microlearning through TikTok in Higher Education. An evaluation of uses and potentials. *Education and Information Technologies*, 29(2), 2365-2385.
- Darmayasa, J. B., Aras, I., & Mucti, A. (2023). *Microlearning: Teori dan Implementasinya di Perguruan Tinggi*. Syiah Kuala University Press.
- De Gagne, J. C., Park, H. K., Hall, K., Woodward, A., Yamane, S., & Kim, S. S. (2019). Microlearning in health professions education: scoping review. *JMIR medical education*, 5(2), e13997.
- Deguchi, A., Hirai, C., Matsuoka, H., Nakano, T., Oshima, K., Tai, M., & Tani, S. (2020). What is society 5.0. *Society*, 5(0), 1-24.
- Dixit, R. K., Yalagi, P. S., & Nirgude, M. A. (2021, April). Breaking the walls of classroom through Micro learning: Short burst of learning. In *Journal of Physics: Conference Series* (Vol. 1854, No. 1, p. 012018). IOP Publishing.
- Dolasinski, M. J., & Reynolds, J. (2020). Microlearning: A new learning model. *Journal of Hospitality & Tourism Research*, 44(3), 551-561.
- Drew, C. (2017). Edutaining audio: an exploration of education podcast design possibilities. *Educational Media International*, 54(1), 48-62.
- Fatirul, A. N., & Walujo, D. A. (2022). *Metode Penelitian Pengembangan Bidang Pembelajaran (edisi khusus mahapeserta didik pendidikan dan pendidik)*. Pascal Books.
- Fidan, M. (2023). The effects of microlearning-supported flipped classroom on pre-service teachers' learning performance, motivation and engagement. *Education and Information Technologies*, 28(10), 12687-12714.
- Fujii, K. K. (2023). *Learning in Short Bursts: A Content Analysis of Professional Development Microlearning Videos* (Doctoral dissertation, University of Hawai'i at Manoa).
- Ganesan, V. (2018). *Thermodynamics: basic and applied*. McGraw-Hill Education.
- Gerbaudo, R., Gaspar, R., & Gonçalves Lins, R. (2021). Novel online video model for learning information technology based on micro learning and multimedia micro content. *Education and Information Technologies*, 26(5), 5637-5665.
- González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: systematic review. *Sustainability*, 14(3), 1493.
- Gottlieb, M., & Dyer, S. (2020). Information and disinformation: social media in the COVID-19 crisis. *Academic emergency medicine*, 27(7), 640.

- HAN, T. I. (2020). A study on the characteristics satisfaction in digital convergence based micro-learning. *Journal of Digital Convergence*, 18(6), 287-295.
- Harman, S. E., & Alper, A. (2024). The Effect of Online Table Course Videos Created with the Micro-Learning Method on Learning According to the Participants' View. *Malaysian Online Journal of Educational Technology*, 12(3), 93-106.
- Hetmańczyk, P. (2023). Digitalization and its impact on labour market and education. Selected aspects. *Education and Information Technologies*, 1-16.
- Hisan, L. K., & Mudzakir, A. (2024). Development of Geography Microlearning Media Content Assisted by Instagram Platform to Learn Inland Waters for High School Students. *Future Space: Studies in Geo-Education*, 1(2), 236-255.
- Ikhlās, R. Z., Japakiya, R., & Muzayanah, T. (2023). Utilization of Canva Application as a Learning Media Video Creation. *Journal of Social Science Utilizing Technology*, 1(3), 158-169.
- Kapp, K. M., & Defelice, R. A. (2019). *Microlearning: Short and sweet*. Association for Talent Development.
- Khlaif, Z. N., & Salha, S. (2021). Using TikTok in education: a form of micro-learning or nano-learning?. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 12(3), 213-218.
- Kohnke, L. (2021). Optimizing microlearning materials for mobile learning. In *Microlearning in the digital age* (pp. 80-94). Routledge.
- Kohnke, L. (2023). *Using technology to design ESL/EFL microlearning activities*. Springer Nature.
- Kohnke, L., & Jarvis, A. (2023). Addressing Language and Study Skills Challenges in Online Undergraduate EMI Courses. *Education Sciences*, 13(9), 958.
- Köster, J. (2018). *Video in the age of digital learning*. Berlin/Heidelberg, Germany: Springer International Publishing.
- Kusuma, C., & Gautama, S. A. (2023). Learning media based-explainer animated model development for primary school students. *Air Pollution Links With Traffic and Respiratory Health*, 36.
- Lee, Y. M., Jahnke, I., & Austin, L. (2021). Mobile microlearning design and effects on learning efficacy and learner experience. *Educational Technology Research and Development*, 69(2), 885-915.
- Lee, W. W., & Owens, D. L. (2004). *Multimedia-based instructional design: computer-based training, web-based training, distance broadcast training, performance-based solutions*. John Wiley & Sons. Pfeiffer: San Francisco

- Lemon, N. (2018). Collaborating and co-curating knowledge: Participatory engagement on Twitter between galleries, libraries, archives and museums (GLAM) and education audiences. *Australasian Journal of Popular Culture*, 7(1), 93-106.
- Leong, K., & Sung, A. (2022). Retraining and Reskilling Financial Participants in the Digital Age. In *Financial Data Analytics: Theory and Application* (pp. 3-21). Cham: Springer International Publishing.
- Li, L. (2022). Reskilling and upskilling the future-ready workforce for industry 4.0 and beyond. *Information Systems Frontiers*, 1-16.
- Mana, L. H. A. (2021). Respon peserta didik terhadap aplikasi tiktok sebagai media pembelajaran bahasa indonesia. *JIRA: Jurnal Inovasi Dan Riset Akademik*, 2(4), 418-429.
- Mikrajuddin, A. (2016). *Fisika Dasar 1*. Bandung: Institut Teknologi Bandung, 783.
- Mitrovic, J. (2022). Some ideas of James Watt in contemporary energy conversion thermodynamics. *Journal of Modern Physics*, 13(4), 385-409.
- Muller, E., & Peres, R. (2019). The effect of social networks structure on innovation performance: A review and directions for research. *International Journal of Research in Marketing*, 36(1), 3-19.
- Mulyatiningsih, Endang. 2011. *Riset Terapan Bidang Pendidikan dan Teknik*. UNY Press: Yogyakarta. Hal. 145
- Nakata, T. (2019). Learning words with flash cards and word cards. *The Routledge handbook of vocabulary studies*, 304-319.
- Pal, S., Pramanik, P. K. D., Majumdar, T., & Choudhury, P. (2019). A semi-automatic metadata extraction model and method for video-based e-learning contents. *Education and Information Technologies*, 24(6), 3243-3268.
- Pham, H. H., Nguyen, N. T. N., Dinh Hai, L., Nguyen, T. T., & Nguyen, V. A. L. (2024). Science mapping the knowledge base on microlearning: using Scopus database between 2002 and 2021. *Journal of Research in Innovative Teaching & Learning*.
- Pratiwi, D. A., & Riandy Agusta, A. (2020). Instagram Sebagai Media Pembelajaran Microlearning Di Era Masyarakat 5.0. In *Seminar Nasional Kolaborasi PGSD, Magister Manajemen Pendidikan, PG PAUD, Dan Magister PG PAUD Universitas Lambung Mangkura* (pp. 269-278).
- Purnama, A., Lestari, Y., Yennita, Y., Fakhruddin, F., & Zulhelmi, Z. (2019, October). Analysis of learning difficulties using the certainty of response index of thermodynamic material. In *Proceedings of the UR International Conference on Educational Sciences* (pp. 562-568).
- Puslitjaknov, T. (2008). *Metode penelitian pengembangan*.

- Puspitarini, Y. D., & Hanif, M. (2019). Using Learning Media to Increase Learning Motivation in Elementary School. *Anatolian Journal of Education*, 4(2), 53-60.
- Ramdani, N. S., Nugraha, H., & Hadiapurwa, A. (2021). Potensi pemanfaatan media sosial tiktok sebagai media pembelajaran dalam pembelajaran daring. *Akademika: Jurnal Teknologi Pendidikan*, 10(02), 425-436.
- Radjawane, M. M., Tinambunan, A., & Jono, S. (2021). Fisika untuk SMA/MA Kelas XI(1st ed.; Aslizar, Ed.). Jakarta: Kemdikbudristek
- Román-Sánchez, D., De-La-Fuente-Rodríguez, J. M., Paramio, A., Paramio-Cuevas, J. C., Lepiani-Díaz, I., & López-Millan, M. R. (2023). Evaluating satisfaction with teaching innovation, its relationship to academic performance and the application of a video-based microlearning. *Nursing Open*, 10(9), 6067-6077.
- Safitri, A. A., Rahmadhany, A., & Irwansyah, I. (2021). Penerapan teori penetrasi sosial pada media sosial: Pengaruh pengungkapan jati diri melalui TikTok terhadap penilaian sosial. *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 3(1), 1-9.
- Salleh, D., Ibrahim, M., & Khairudin, N. (2023, June). Micro learning: A creative technological move to boost study interest. In *AIP Conference Proceedings* (Vol. 2608, No. 1). AIP Publishing.
- Sankaranarayanan, R., Leung, J., Abramenska-Lachheb, V., Seo, G., & Lachheb, A. (2023). Microlearning in diverse contexts: A bibliometric analysis. *TechTrends*, 67(2), 260-276.
- Saputra, V. H., Pasha, D., & Afriska, Y. (2020, April). Design of English learning application for children early childhood. In *Proceeding International Conference on Science and Engineering* (Vol. 3, pp. 661-665).
- Saslow, W. M. (2020). A history of thermodynamics: the missing manual. *Entropy*, 22(1), 77.
- Septianawati, P., Mustikawati, I. F., Kusuma, I. R., Pratama, T. S., & Paramita, H. (2023). Peningkatan Pengetahuan Mengenai Dampak Cyberbullying Terhadap Kesehatan Mental Pada Remaja. *Jurnal Pengabdian Kedokteran Indonesia*, 4(1), 30-40.
- Shabadurai, Y., Chua, F. F., & Lim, T. Y. (2022). Investigating the employees 'perspectives and experiences of microlearning content design for online training. *International Journal of Information and Education Technology*, 12(8), 786-793.
- Silalahi, A. (2018). Development research (penelitian pengembangan) dan research & development (penelitian & pengembangan) dalam bidang pendidikan/pembelajaran. *Research Gate*, July, 1-13.

- Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). Influences of the industry 4.0 revolution on the human capital development and consumer behavior: A systematic review. *Sustainability*, 12(10), 4035.
- Spatioti, A. G., Kazanidis, I., & Pange, J. (2022). A comparative study of the ADDIE instructional design model in distance education. *Information*, 13(9), 402.
- Sugiyono, P. D. (2020). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*.
- Sulistiani, H., Isnain, A. R., Rahmanto, Y., Saputra, V. H., Lovika, P., Febriansyah, R., & Chandra, A. (2023). Workshop Teknologi Metaverse Sebagai Media Pembelajaran. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, 4(1), 74-79.
- Sumiharsono, R., & Hasanah, H. (2017). *Media pembelajaran: buku bacaan wajib dosen, guru dan calon pendidik*. Pustaka Abadi. Jember: Jawa Timur.
- Sung, A., Leong, K., & Lee, C. (2023). A study of learners' interactive preference on multimedia microlearning. *Journal of Work-Applied Management*, 15(1), 96-119.
- Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65, 101565.
- Tiwow, N., Wantah, E., & Mamentu, M. (2023). Analisis Kebutuhan Pengembangan Media Pembelajaran Berbasis Tiktok Pada Mata Pelajaran Komputer Akuntansi di SMK Negeri 1 Sonder. *SEIKO: Journal of Management & Business*, 6(1), 657-661.
- Torgerson, C., & Iannone, S. (2019). *Designing microlearning*. Association for Talent Development. USA
- Tseng, S. S. (2021). The influence of teacher annotations on student learning engagement and video watching behaviors. *International Journal of Educational Technology in Higher Education*, 18(1), 7.
- Turns, S. R., & Pauley, L. L. (2020). *Thermodynamics: concepts and applications*. Cambridge University Press.
- van Alten, D. C., Phielix, C., Janssen, J., & Kester, L. (2020). Self-regulated learning support in flipped learning videos enhances learning outcomes. *Computers & Education*, 158, 104000.
- Wakam, G. K., Palmon, I., Kulick, A. A., Lark, M., Sonnenday, C. J., & Waits, S. A. (2022). Adapting to the times: combining microlearning videos and twitter to teach surgical technique. *Journal of Surgical Education*, 79(4), 850-854.

- Wijaya, A. I., & Romadhon, D. R. Penggunaan Tiktok Sebagai Media Pembelajaran Fisika. Integrasi Keilmuan dan Keislaman Melalui Literasi Digital Menuju Indonesia Emas 2045, 22.
- Wulandari, A. P., Salsabila, A. A., Cahyani, K., Nurazizah, T. S., & Ulfiah, Z. (2023). Pentingnya media pembelajaran dalam proses belajar mengajar. *Journal on Education*, 5(2), 3928-3936.
- Yang, Y., Liu, K., Li, S., & Shu, M. (2020). Social media activities, emotion regulation strategies, and their interactions on people's mental health in COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 17(23), 8931.
- Yulisa, Y., Hakim, L., & Lia, L. (2020). Pengaruh video pembelajaran fisika terhadap pemahaman konsep peserta didik SMP. *Jurnal Luminous: Riset Ilmiah Pendidikan Fisika*, 1(1), 37-44.
- Yüksel, H. G., Mercanoğlu, H. G., & Yılmaz, M. B. (2022). Digital flashcards vs. wordlists for learning technical vocabulary. *Computer Assisted Language Learning*, 35(8), 2001-2017.
- Zhang, J., & West, R. E. (2020). Designing Microlearning Instruction for Professional Development Through a Competency Based Approach. *TechTrends*, 64(2), 310-318.

