

## DAFTAR PUSTAKA

- [1] Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia. (2023). Latar Belakang Kurikulum Merdeka Pertanggal 13 Oktober 2023.[Online]. Diakses tanggal 13 Oktober 2023 dari <https://pusatinformasi.guru.kemdikbud.go.id/hc/en-us/articles/6824331505561-Latar-Belakang-Kurikulum-Merdeka>.
- [2] Arrum Permata S. Tuti, \*Mawardi Mawardi & Okta Suryani, “Flipped Classroom System Based on Guided Inquiry Learning Model Using Discord Application on Reaction Rate”, 2023.
- [3] Resmol, K., & Leasa, M. (2022). The effect of learning cycle 5E+ Powtoon on students’ motivation: The concept of animal metamorphosis. *JPBI (Jurnal Pendidikan Biologi Indonesia)*, 8(2), 121-128.
- [4] Kurdi, M. S. (2021). Realitas virtual dan penelitian pendidikan dasar: tren saat ini dan arah masa depan. *CENDEKIA: Jurnal Ilmu Sosial, Bahasa dan Pendidikan*, 1(4), 60-85.
- [5] Degli Innocenti, E., Geronazzo, M., Vescovi, D., Nordahl, R., Serafin, S., Ludovico, L. A., & Avanzini, F. (2019). Mobile Virtual Reality for musical genre learning in primary education. *Computers & Education*, 139, 102-117.
- [6] Kamińska, D., Sapiński, T., Wiak, S., Tikk, T., Haamer, R. E., Avots, E., ... & Anbarjafari, G. (2019). Virtual Reality and its applications in education: Survey. *Information*, 10(10), 318.
- [7] Bogusevschi, D., Muntean, C., & Muntean, G. M. (2020). Teaching and learning physics using 3D virtual learning environment: A case study of combined Virtual Reality and virtual laboratory in secondary school. *Journal of Computers in Mathematics and Science Teaching*, 39(1), 5-18.
- [8] Martín-Gutiérrez, J., Mora, C. E., Añorbe-Díaz, B., & González-Marrero, A. (2017). Virtual technologies trends in education. *Eurasia journal of mathematics, science and technology education*, 13(2), 469-486.
- [9] Le, Q. T., Pedro, A., & Park, C. S. (2015). A social Virtual Reality based construction safety education system for experiential learning. *Journal of Intelligent & Robotic Systems*, 79, 487-506.
- [10] Maghool, S. A. H., Moeini, S. H. I., & Arefazar, Y. (2018). An educational application based on Virtual Reality technology for learning architectural details: challenges and benefits. *Archnet-IJAR: International Journal of Architectural Research*, 12(3), 246.
- [11] Le, Q. T., Pedro, A. K. E. E. M., Lim, C. R., Park, H. T., Park, C. S., & Kim, H. K. (2015). A framework for using mobile based Virtual Reality and augmented reality for experiential construction safety education. *International Journal of Engineering Education*, 31(3), 713-725.
- [12] Sutcliffe, A. (2003). *Multimedia and Virtual Reality: designing multisensory user interfaces*. Psychology Press.
- [13] Adamovich, S. V., Fluet, G. G., Tunik, E., & Merians, A. S. (2009). Sensorimotor training in Virtual Reality: a review. *NeuroRehabilitation*, 25(1), 29-44.
- [14] Jufrida, J., Basuki, F. R., Rinaldo, F., & Purnamawati, H. (2020). Analisis permasalahan pembelajaran IPA: studi kasus di SMPN 7 muaro jambi. *Jurnal Pendidikan Sains (JPS)*, 8(1), 50-58.

- [15] Gultom, P., Salim, A., & Nuryadin, R. (2024). Systematic Literature Review: Pemanfaatan Virtual Reality (VR) Sebagai Alternatif Media Pembelajaran. *Jurnal Pendidikan, Bahasa dan Budaya*, 3(2), 72-80.
- [16] Khlaisang, J., & Songkram, N. (2019). Designing a virtual learning environment system for teaching twenty-first century skills to higher education students in ASEAN. *Technology, Knowledge and Learning*, 24, 41-63.
- [17] Kamińska, D., Sapiński, T., Wiak, S., Tikk, T., Haamer, R. E., Avots, E., ... & Anbarjafari, G. (2019). Virtual Reality and its applications in education: Survey. *Information*, 10(10), 318.
- [18] Levac, D. E., Huber, M. E., & Sternad, D. (2019). Learning and transfer of complex motor skills in Virtual Reality: a perspective review. *Journal of neuroengineering and rehabilitation*, 16, 1-15.
- [19] Checa, D., & Bustillo, A. (2020). A review of immersive Virtual Reality serious games to enhance learning and training. *Multimedia Tools and Applications*, 79(9), 5501-5527.
- [20] Vafadar, M. (2013). Virtual Reality: opportunities and challenges. *International Journal of Modern Engineering Research (IJMER)*, 3(2), 1139-1145.
- [21] Merchant, Z., Goetz, E. T., Cifuentes, L., Keeney-Kennicutt, W., & Davis, T. J. (2014). Effectiveness of Virtual Reality-based instruction on students' learning outcomes in K-12 and higher education: A meta-analysis. *Computers & education*, 70, 29-40.
- [22] Smith, S. J., Farra, S. L., Ulrich, D. L., Hodgson, E., Nicely, S., & Mickle, A. (2018). Effectiveness of two varying levels of Virtual Reality simulation. *Nursing education perspectives*, 39(6), E10-E15.
- [23] Arianti, Y., & Aminin, Z. (2014). Penggunaan Multimedia Untuk Meningkatkan Kemampuan Menyimak Anak di Kelompok A PGTKIT Anak Cinta Islam Kecamatan Gayungan Kota Surabaya. *E-Journal UNESA PAUD Teratai*, 3(3).
- [24] Ariatama, S., Adha, M. M., Röhman, R., Hartino, A. T., & Eska, P. U. (2021). Penggunaan Teknologi Virtual Reality (Vr) Sebagai Upaya Eskalasi Minat Dan Optimalisasi Dalam Proses Pembelajaran Secara Online Dimasa Pandemi. In *Semnas FKIP 2021, SEMINAR NASIONAL PENDIDIKAN FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN*, Universitas Lampung 16 Februari 2021, Bandar Lampung.
- [25] Obrist, M., Velasco, C., Vi, C., Ranasinghe, N., Israr, A., Cheok, A., ... & Gopalakrishnakone, P. (2016). Sensing the future of HCI: Touch, taste, and smell user interfaces. *interactions*, 23(5), 40-49.
- [26] PwC. (n.d.). Bagaimana realitas virtual mendefinisikan kembali pelatihan keterampilan lunak. [Online]. Diakses tanggal 28 November 2024 dari <https://www.pwc.com/us/en/tech-effect/emerging-tech/virtual-reality-study.html>.
- [27] Babateen, H. M. (2011). The role of virtual laboratories in science education. In 5th international conference on distance learning and education IPCSIT (Vol. 12).
- [28] Sutaka, A. (2011). Penggunaan laboratorium riil dan virtuil pada pembelajaran kimia dengan metode eksperimen ditinjau dari gaya belajar dan sikap ilmiah siswa (Studi Kasus Pada Pokok Bahasan Laju Reaksi Kelas XI di SMA Negeri 1 Klaten Semester Gasal Tahun Pelajaran 2010/20 (Doctoral dissertation, UNS (Sebelas Maret University)).
- [29] Tortora, G. J., & Derrickson, B. (2017). *Principles of Anatomy and Physiology* (15th ed.). John wiley & sons.
- [30] Marieb, E. N., & Hoehn, K. (2019). *Human Anatomy & Physiology* (11th ed.). Pearson.
- [31] Sherman, W. R., & Craig, A. B. (2018). *Understanding Virtual Reality: Interface, application, and design*. Morgan Kaufmann.

- [32] Georgiou, J., Dimitropoulos, K., & Manitsaris, a. (2007). A Virtual Reality laboratory for distance education in chemistry. *World Academy of Science, Engineering and Technology*, 1(11), 345–352.
- [33] Mihelj, M., Novak, D., & Beguš, S. (2013). *Virtual Reality Technology and Applications*. Springer. <https://doi.org/10.1007/978-94-007-6910-6>
- [34] Parisi, T. (2015). *Learning Virtual Reality: Developing immersive experiences and applications for desktop, web, and mobile*. " O'Reilly Media, Inc."
- [35] Unity Technologies. (n.d.). Unity - Game Engine. Diakses pada 23 Maret 2024, dari <https://unity.com/>
- [36] Blender Foundation. (n.d.). Blender - a 3D modelling and rendering package. Diakses pada 23 Maret 2024, dari <https://www.blender.org/>
- [37] Meta. (n.d.). Oculus. Online. Diakses pada 23 Maret 2024, dari <https://www.meta.com/oculus>.
- [38] Nasuha Zolkefly, N., Ismail, I., Safei, S., Nor Wan Shamsuddin, S., & Azhar M. Arsad, M. (2018). Head Gesture Recognition and Interaction Techniques in Virtual Reality: a Review. *International Journal of Engineering & Technology*, 7(4.31), 437-440. <https://doi.org/10.14419/ijet.v7i4.31.23725>.
- [39] Dastbaz, M; *Designing Interactive Multimedia Systems*, International Edition, Mcgraw-Hill, 2003
- [40] M. Albarka Umar and C. Zhanfang, "A Comparative Study of Dynamic Software Testing Techniques," *Int. J. Adv. Netw. Appl.*, pp. 4575–4584, 2020.
- [41] Ansfridus, M. (2022). *IMPLEMENTASI BLACK BOX TESTING PADA SISTEM TECHNO EXPERTISE ACADEMY (TEA)(STUDI KASUS: ASTRA CREDIT COMPANIES)* (Doctoral dissertation, Universitas Atma Jaya Yogyakarta).
- [42] Jaya, M. S., Gumilang, P., Wati, T., Andersen, Y. P., & Desyani, T. (2019). Pengujian black box pada aplikasi sistem penunjang keputusan seleksi calon pegawai negeri sipil menggunakan teknik equivalence partitions. *Jurnal Informatika Universitas Pamulang*, 4(4), 131-136.
- [43] A. Kurniawan, A. Maulana, V. R. Sukma, W. Keumala, and A. Saifudin, "Jurnal Teknologi Sistem Informasi dan Aplikasi Pengujian Black Box pada Aplikasi Penjualan Berbasis Web Menggunakan Metode Equivalent Partitions (Studi Kasus: PT Arap Store)," vol. 3, no. 1, pp. 2654–4229, 2020, [Online]. Available: <http://openjournal.unpam.ac.id/index.php/JTSI50>
- [44] Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*.
- [45] Borg, W. R. & Gall, M. D. (2003). *Educational research: an introduction* (7th ed.). New York: Longman, Inc
- [46] Ishtiaq, M. (2019). Book Review Creswell, JW (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Thousand Oaks, CA: Sage. *English Language Teaching*, 12(5), 40.