

DAFTAR PUSTAKA

- [1] L. Kent, C. Snider, J. Gopsill, and B. Hicks, "Mixed Reality in design prototyping: A systematic review," *Design Studies*, vol. 77, p. 101046, Jul. 2021.
- [2] L. M. Daling and S. Schlittmeier, "Effects of Augmented Reality-, Virtual Reality-, and Mixed Reality-Based Training on Objective Performance Measures and Subjective Evaluations in Manual Assembly Tasks: A Scoping Review," *Human Factors*, vol. 64, pp. 001 872 082 211 051–001 872 082 211 051, May 2022.
- [3] L. López-Faican and J. Jaen, "EmoFindAR: Evaluation of a mobile multiplayer augmented reality game for primary school children," *Computers & Education*, vol. 149, p. 103814, May 2020.
- [4] J. Bacca, S. Baldiris, R. Fabregat, S. Graf, and Kinshuk, "Augmented Reality Trends in Education: A Systematic Review of Research and Applications," *Journal of Educational Technology & Society*, vol. 17, no. 4, pp. 133–149, 2014.
- [5] M. Nair and R. E. Fernandez, "Advancing Mixed Reality Digital Twins Through 3d Reconstruction of Fresh Produce," *IEEE Access*, vol. 12, pp. 4315–4327, 2024.
- [6] J. H. Shin, S. J. Park, M. A. Kim, M. J. Lee, S. C. Lim, and K. W. Cho, "Development of a digital twin pipeline for interactive scientific simulation and mixed reality visualization," *IEEE Access*, vol. 11, pp. 100 907–100 918, 2023.
- [7] L. Gong, A. Fast-Berglund, and B. Johansson, "A Framework for Extended Reality System Development in Manufacturing," *IEEE Access*, vol. 9, pp. 24 796–24 813, 2021.
- [8] K. I. Ismara, M. Supriadi, and S. A. Al Mubarak, "Enhancing Basic Electrical Safety of Heavy Equipment in Indonesian Vocational Schools Using Virtual Reality Technology," *IEEE Access*, vol. 12, pp. 117 899–117 907, 2024.
- [9] N. Koteleva, V. Valnev, and I. Frenkel, "Investigation of the Effectiveness of an Augmented Reality and a Dynamic Simulation System Collaboration in Oil Pump Maintenance," *Appl. Sci.*, vol. 12, no. 1, p. 350, Jan. 2022.
- [10] K. Azzam, F. Pate, M. Breidi, Y. Choi, C. Jiang, and C. Mousas, "Mixed Reality: A Tool for Investigating the Complex Design and Mechanisms of a Mechanically Actuated Digital Pump," *Actuators*, vol. 12, no. 11, p. 419, Nov. 2023.
- [11] L. Frizziero, C. Leon-Cardenas, M. Freddi, A. Grassoni, and A. Liverani, "Augmented reality applied to design for disassembly assessment for a volumetric pump with rotating cylinder," *Production & Manufacturing Research*, vol. 11, no. 1, p. 2199815, Dec. 2023.

- [12] G. Lan, Q. Lai, B. Bai, Z. Zhao, and Q. Hao, "A Virtual Reality Training System for Automotive Engines Assembly and Disassembly," *IEEE Trans. Learning Technol.*, vol. 17, pp. 754–764, 2024.
- [13] L. Ritucci, L. Frizziero, and A. Liverani, "Maintainability Approach: Hydraulic Pump with External Gears Explored with Design for Disassembly and Augmented Reality," *Applied Sciences*, vol. 11, no. 2, p. 666, Jan. 2021.
- [14] W. Aiken, L. Carden, A. Bhabhrawala, P. Branco, G.-V. Jourdan, and A. Berg, "Strategic Digitalization in Oil and Gas: A Case Study on Mixed Reality and Digital Twins," *IEEE Access*, vol. 12, pp. 87 248–87 267, 2024.
- [15] T. Tullis and B. Albert, *Measuring the User Experience (Second Edition)*, T. Tullis and B. Albert, Eds. Boston: Morgan Kaufmann, 2013.
- [16] N. Koteleva, G. Buslaev, V. Valnev, and A. Kunshin, "Augmented Reality System and Maintenance of Oil Pumps," *International Journal of Engineering*, vol. 33, no. 8, pp. 1620–1628, Aug. 2020.
- [17] K. Azzam, M. Pate, Y. Choi, F. Jiang, and M. Breidi, "Design validation of a mechanically actuated digital pump using mixed reality technology," School of Engineering Technology, Purdue University, Jun. 2023.
- [18] A. Levy, G. Konidaris, R. Platt, and K. Saenko, "Learning Multi-Level Hierarchies with Hindsight," *arXiv: arXiv:1712.00948*, Sep. 2019.
- [19] B. McDonald, "A step-by-step teaching technique for teachers with adult students of mathematics," *Adult Educ. Q.*, vol. 63, no. 4, pp. 357–372, Nov. 2013.
- [20] H. Crogman, V. D. Cano, E. Pacheco, R. B. Sonawane, and R. Boroan, "Virtual reality, augmented reality, and mixed reality in experiential learning: Transforming educational paradigms," *Education Sciences*, 2025.
- [21] S. P. Chand, "Constructivism in Education: Exploring the Contributions of Piaget, Vygotsky, and Bruner," *International Journal of Science and Research (IJSR)*, vol. 12, no. 6, pp. 1729–1731, Jun. 2023.
- [22] M. Coban, Y. I. Bolat, and I. Goksu, "The potential of immersive virtual reality to enhance learning: A meta-analysis," *Educ. Res. Rev.*, vol. 36, p. 100452, 2022.
- [23] M. Grieves and J. Vickers, "Digital Twin: Mitigating Unpredictable, Undesirable Emergent Behavior in Complex Systems (Excerpt)," Aug. 2016.
- [24] M. A. Ilgin and S. M. Gupta, "Environmentally conscious manufacturing and product recovery (ECMPRO): A review of the state of the art," *J. Environ. Manage.*, vol. 91, no. 3, pp. 563–591, Jan. 2010.

- [25] J. S. Simonoff, *Smoothing Methods in Statistics*, corr. 2nd printing ed., ser. Springer Series in Statistics. New York, Heidelberg: Springer, 1998.
- [26] K. L. Boedec, "Sensitivity and specificity of normality tests and consequences on reference interval accuracy at small sample size: a computer-simulation study." *Veterinary clinical pathology*, vol. 45 4, pp. 648–656, 2016.
- [27] L. Von Klinggraeff and et al., "Scientists' perception of pilot study quality was influenced by statistical significance and study design," *Journal of Clinical Epidemiology*, vol. 159, pp. 70–78, Jul. 2023.
- [28] M. XU, D. Fralick, J. Zheng, B. Wang, X. M. Tu, and C. Feng, "The differences and similarities between two-sample t-test and paired t-test," *Shanghai Archives of Psychiatry*, vol. 29, pp. 184 – 188, 2017.
- [29] L. Hespanhol, C. S. Vallio, L. M. Costa, and B. Saragiotto, "Understanding and interpreting confidence and credible intervals around effect estimates." *Brazilian journal of physical therapy*, 2019.
- [30] Y. Ouyang, J. Liu, T. Tong, and W. Xu, "A rank-based high-dimensional test for equality of mean vectors," *Computational Statistics & Data Analysis*, vol. 173, p. 107495, Sep. 2022.
- [31] M. Wood, "Statistical inference using bootstrap confidence intervals," *Significance*, vol. 1, 2004.
- [32] H. E. Akyüz, M. Abu-Shawiesh, and B. M. G. Kibria, "Simulation comparison of modified confidence intervals based on robust estimators for coefficient of variation: skewed distributions case with real applications," *Arab Journal of Basic and Applied Sciences*, vol. 31, pp. 192 – 205, 2024.
- [33] M. R. Rhea, "Determining the Magnitude of Treatment Effects in Strength Training Research Through the Use of the Effect Size," *J Strength Cond Res*, vol. 18, no. 4, p. 918, 2004.
- [34] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Routledge, 2013.
- [35] M. A. Nikitina and I. Chernukha, "Nonparametric statistics. part 3. correlation coefficients," *Theory and practice of meat processing*, 2023.
- [36] C. Brydges, "Effect size guidelines, sample size calculations, and statistical power in gerontology," *Innovation in Aging*, vol. 3, 2019.
- [37] O. G. Eyieyien, C. Idemudia, P. O. Paul, and T. I. Ijomah, "Advancements in project management methodologies: Integrating agile and waterfall approaches for optimal outcomes," *Engineering Science and Technology Journal*, 2024.

- [38] C. Adick, “Bereday and hilker: origins of the ‘four steps of comparison’ model,” *Comparative Education*, vol. 54, no. 1, pp. 35–48, Jan. 2018.
- [39] Microsoft Corporation, “Mixed Reality Toolkit (MRTK) 3 overview,” 2023. [Online]. Available: <https://learn.microsoft.com/en-us/windows/mixed-reality/mrtk-unity/mrtk3-overview/>
- [40] Bloomsbury Publishing, “Central Limit Theorem,” in *QFINANCE Calculation Toolkit*, Bloomsbury Publishing, Ed. London: Bloomsbury Information Ltd., 2013, pp. 59–60.
- [41] E. Mullet and G. Chasseigne, “Assessing information integration processes: a comparison of findings obtained with between-subjects designs versus within-subjects designs,” *Quality & Quantity*, vol. 52, no. 4, pp. 1977–1988, Jul. 2018.
- [42] C. Nahas, M. Gandit, and E. Monfort, “Engagement in computerized cognitive training instructions by older people. A within-subject design to evaluate comprehension and acceptability of serious games instructions,” *Front. Aging*, vol. 6, p. 1297704, Feb. 2025.
- [43] C. Avram and M. Mărușteri, “Normality assessment, few paradigms and use cases,” *Revista Romana de Medicina de Laborator*, vol. 30, pp. 251 – 260, 2022.
- [44] S. Kwak, “Are Only p-Values Less Than 0.05 Significant? A p-Value Greater Than 0.05 Is Also Significant!” *Journal of Lipid and Atherosclerosis*, vol. 12, no. 2, pp. 89–95, May 2023.
- [45] M. Georgsson and N. Staggers, “Quantifying usability: an evaluation of a diabetes mhealth system on effectiveness, efficiency, and satisfaction metrics with associated user characteristics,” *Journal of the American Medical Informatics Association : JAMIA*, vol. 23, pp. 5 – 11, 2015.
- [46] C. Martinie, P. A. Palanque, R. Fahssi, J. Blanquart, C. Fayollas, and C. Seguin, “Task model-based systematic analysis of both system failures and human errors,” *IEEE Transactions on Human-Machine Systems*, vol. 46, pp. 243–254, 2016.
- [47] J. M. Ferreira, S. T. Acuña, Óscar Dieste Tubío, S. Vegas, A. Santos, F. D. Rodríguez, and N. J. Juzgado, “Impact of usability mechanisms: An experiment on efficiency, effectiveness and user satisfaction,” *Inf. Softw. Technol.*, vol. 117, 2020.
- [48] S. Asmussen, P. Fiorini, L. Lipsky, T. Rolski, and R. Sheahan, “Asymptotic behavior of total times for jobs that must start over if a failure occurs,” *Math. Oper. Res.*, vol. 33, pp. 932–944, 2007.
- [49] J. Toledo, A. C. Salgado, C. C. Gozum, and B. P. Custodio, “Usability assessment of a philippine commuting navigation application,” pp. 286–293, 2020.

- [50] J. Lötsch, D. Kringel, and A. Ultsch, “Revisiting fold-change calculation: Preference for median or geometric mean over arithmetic mean-based methods,” *Biomedicines*, vol. 12, 2024.
- [51] M. Q. R. Pembury Smith and G. D. Ruxton, “Effective use of the McNemar test,” *Behav Ecol Sociobiol*, vol. 74, no. 11, p. 133, Nov. 2020.
- [52] M. P. Fay and K. Lumbard, “Confidence intervals for difference in proportions for matched pairs compatible with exact McNemar’s or sign tests,” *Statistics in Medicine*, vol. 40, no. 5, pp. 1147–1159, Feb. 2021.
- [53] M. Sarvesh, R. Kang, H. Nam, S. Park, R. Hugo, F. Maurer, and K. Kim, “Extended Reality and Digital Twin in the Oil and Gas Pipeline Industry: A Systematic Review on Applications, Trends, and Future Directions,” in *2024 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*. Bellevue, WA, USA: IEEE, Oct. 2024, pp. 710–719.
- [54] A. R. Husainovna, “The Use Of Digital Twins In The Oil And Gas Industry,” Sep. 2024, pp. 30–38.
- [55] B. Wang, X. Hu, P. Li, and P. S. Yu, “Cognitive structure learning model for hierarchical multi-label text classification,” *Knowl. Based Syst.*, vol. 218, p. 106876, 2021.