

REFERENCES

- Aljraiwi, S. (2019). Effectiveness of gamification of web-based learning in improving academic achievement and creative thinking among primary school students. *International Journal of Education and Practice*, 7(3), 242–257. <https://doi.org/10.18488/journal.61.2019.73.242.257>
- Andika, I. P., Putra, S., Vina, M., & Paramita, A. (2023). *The Use of Digital Educational Games as Learning Media : A Study on Elementary School Teachers*. 7(2), 212–219.
- Arifin, Zaenal. (2009). *Evaluasi Pembelajaran*. (Bandung: PT Remaja Rosdakarya, 2009)
- Audia, C., Yatri, I., Aslam, Mawani, S., & Zulherman. (2021). Development of Smart Card Media for Elementary Students. *Journal of Physics: Conference Series*, 1783(1). <https://doi.org/10.1088/1742-6596/1783/1/012114>
- Ayu, A., Pitaloka, D., Rostika, R. D., & Wahyuningsih, Y. (2022). *The Development of Digital Book Media Materials for Asean Countries Learning in Elementary School*. 4(2), 102–110.
- Bourke, B. (2020). Using Gamification to Engage Higher-Order Thinking Skills. *Research Anthology on Developing Critical Thinking Skills in Students*, September, 632–652. <https://doi.org/10.4018/978-1-7998-3022-1.ch033>
- Camilleri, M. A., & Camilleri, A. C. (2019). Student-Centred Learning Through Serious Games. *INTED2019 Proceedings*, 1(March), 2043–2052. <https://doi.org/10.21125/inted.2019.0578>
- Cheung, S. Y., & Ng, K. Y. (2021). Application of the Educational Game to Enhance Student Learning. *Frontiers in Education*, 6(March), 1–10. <https://doi.org/10.3389/educ.2021.623793>
- Chin Teoh, S., Keong Ch, C., & Zura Zaibidi, N. (2021). *ICT versus Conventional Teaching and Learning Approach in Education: An Overview of Advantages and Disadvantages ENABLING KNOWLEDGE SHARING BEHAVIOUR THROUGH SOCIAL MEDIA ANALYSIS View project dynamical system View project*. September. <https://www.researchgate.net/publication/354775728>

- Chinyelu, O.-C., & Fomsi, E. F. (2019). Gamification-Influence on Elementary Pupils' Learning Outcomes and Engagement in English Language. *International Journal of English Language Teaching*, 7(2), 50–62. www.eajournals.org
- Chiruguru, S. B. (2020). The Essential Skills of 21 st Century Classroom – President Barak Obama Research. *Shingania University*, 10(1). <https://doi.org/10.13140/RG.2.2.36190.59201>
- Delipiter Lase. (2019). EDUCATION AND INDUSTRIAL REVOLUTION 4.0 Delipiter. *Jurnal Handayani (JH)*, 10(1), 48–62. <https://doi.org/10.24114/jh.v10i1>
- Dirgantara, H. B., & Septanto, H. (2021). A Prototype of Web-based Picture Cards Matching Video Game for Memory Improvement Training. *IJNMT (International Journal of New Media Technology)*, 8(1), 1–9. <https://doi.org/10.31937/ijnmt.v8i1.1730>
- Eltem, Ö., & Berber, A. (2021). The use of educational games within the structure and properties of matter unit in science class. *Participatory Educational Research*, 8(2), 200–219. <https://doi.org/10.17275/per.21.36.8.2>
- Firmansyah, M. D. (2020). *Desain Gamifikasi untuk Meningkatkan Aktivitas Mahasiswa Pada E-Learning Universitas Jember Menggunakan MDA Framework*. 65.
- Fitriyadi, N., & Wuryandani, W. (2021). Is educational game effective in improving critical thinking skills? *Jurnal Prima Edukasia*, 9(1), 107–117. <https://doi.org/10.21831/jpe.v9i1.35475>
- Gopo, C. (2022). The role of technology in the 21st century education of learners. *The Official Research Journal of Tagum City Division*, 18(6), 357–361. <https://www.researchgate.net/publication/359849731%0AThe>
- Gunadi, G., Haryono, H., Purwanti, E., Raya, B. R., Pinoh Barat Melawi, T., & Kalimantan, W. (2022). The Analysis of 21 st Century Learning Implementation and Competency Achievement of Junior High School Students in 3T Regions. *Innovative Journal of Curriculum and Educational Technology*, 11(1), 10–18.
- Gunawan, I. M. A. A., Padmadewi, N. N., & Utami, I. G. A. L. P. (2022). The

- Analysis Of 4C Skills Representation In Eleventh Grade Senior High School's English Textbook. *Jurnal Pendidikan Bahasa Inggris Indonesia*, 10(1), 66–76. <https://doi.org/10.23887/jpbi.v10i1.883>
- Hanafie, N. K., Bakhtiar, B., & Darmawati, D. (2022). The Effect of Online Games on Changes in Student Behavior in Middle Schools. *International Journal on Advanced Science, Education, and Religion*, 5(2), 48–59. <https://doi.org/10.33648/ijoaser.v5i2.178>
- Handican, R., & Setyaningrum, W. (2021). Developing a Mobile Game Using Scientific Approach to Support Mathematics Learning. *Edumatika : Jurnal Riset Pendidikan Matematika*, 4(1), 47–58. <https://doi.org/10.32939/ejrpm.v4i1.607>
- Hariadi, M. F., Kuswandi, D., & Wedi, A. (2021). Development of Gamification Based Supplementary Listening Materials to Improve Students' High Order Thinking Skills. 609(Icite), 128–133.
- Hidayatulloh, I., Pambudi, S., Surjono, H. D., & Sukardiyono, T. (2021). Gamification on Chatbot-Based Learning Media: a Review and Challenges. *Elinvo (Electronics, Informatics, and Vocational Education)*, 6(1), 71–80. <https://doi.org/10.21831/elinvo.v6i1.43705>
- Hikmat, M. H. (2022). Approval the Integration of 21St Century Skills in English Learning At Smp N 2 Kartasura.
- Hussein, M. H., Ow, S. H., Cheong, L. S., & Thong, M. K. (2019). A Digital Game-Based Learning Method to Improve Students' Critical Thinking Skills in Elementary Science. *IEEE Access*, 7, 96309–96318. <https://doi.org/10.1109/ACCESS.2019.2929089>
- James, T. C., & Lee, O. (2011). Using Likert-type scales in the social sciences. *Journal of Adult Education*, 40(1), 19–22.
- Jong, B. S., Lai, C. H., Hsia, Y. T., Lin, T. W., & Lu, C. Y. (2013). Using game-based cooperative learning to improve learning motivation: A study of online game use in an operating systems course. *IEEE Transactions on Education*, 56(2), 183–190. <https://doi.org/10.1109/TE.2012.2207959>
- Krisbiantoro, B. (2020). The effectiveness of gamification to enhance students mastery on tenses viewed from students creativity. *Journal of Advanced*

- Multidisciplinary Research*, 1(2), 73. <https://doi.org/10.30659/jamr.1.2.73-97>
- Lopez-Lopez, S. (2012). The Importance of Using Technology-Enhanced 21st Century Literacy Skills To Support Culture and Diversity In The Classroom. *Northwest Journal of Teacher Education*, 9(2). <https://doi.org/10.15760/nwjte.2012.9.2.16>
- Maslin, N. M. (2021). Impact of Modern Technology. *HF Communications*, 3, 165–182. <https://doi.org/10.1201/b12574-14>
- Menggo, S., Ndiung, S., & Midun, H. (2022). Integrating 21st-century skills in English material development: What do college students really need? *Englisia: Journal of Language, Education, and Humanities*, 9(2), 165. <https://doi.org/10.22373/ej.v9i2.10889>
- Pambudi, S., Sukardiyono, T., & Surjono, H. D. (2018). The Development of Mobile Gamification Learning Application for Web Programming Learning. *Journal of Physics: Conference Series*, 1140(1). <https://doi.org/10.1088/1742-6596/1140/1/012046>
- Panggabean, F. T. M., Pardede, P. O., Sitorus, R. M. D. S., Situmorang, Y. K., Naibaho, E. S., & Simanjuntak, J. S. (2021). Application of 21st Century Learning Skills Oriented Digital-Age Literacy to Improve Student Literacy HOTS in Science Learning in Class IX SMP. *Jurnal Mantik*, 5(3), 1922–1930. <https://iocscience.org/ejournal/index.php/mantik/article/view/1796>
- Ramaila, S., & Molwele, A. J. (2022). The Role of Technology Integration in the Development of 21st Century Skills and Competencies in Life Sciences Teaching and Learning. *International Journal of Higher Education*, 11(5), 9. <https://doi.org/10.5430/ijhe.v11n5p9>
- Ratama, I. P., Padmadewi, N. N., & Artini, L. P. (2021). Teaching the 21st Century Skills (4Cs) in English Literacy Activities. *Journal of Education Research and Evaluation*, 5(2), 223. <https://doi.org/10.23887/jere.v5i2.30849>
- Setiawan, A., Praherdhiono, H., & Suthoni, S. (2019). Penggunaan Game Edukasi Digital Sebagai Sarana Pembelajaran Anak Usia Dini. *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran) Kajian Dan Riset Dalam Teknologi Pembelajaran*, 6(1), 39–44. <https://doi.org/10.17977/um031v6i12019p039>
- Sholeh, M. (2020). Differences in Conventional Learning with E-learning |

Universal Journal. *Universal Journal*, 2(1), 1–10.
<https://uipmcenter.net/ojs/index.php/journal/article/view/6>

Vacide Erdoğan. (2019). Integrating 4C Skills of 21st Century into 4 Language Skills in EFL Classes. *International Journal of Education and Research*, 7(11), 113–127. www.ijern.com

Wahyuni, L. G. E., & Tantri, A. A. S. (2020). English Learning Media for EFL Elementary Learners. *Advances in Social Science, Education and Humanities Research*, 394(Icirad 2019), 209–216.

Wong, H. Y. (2015). Technology and its {Influence} on {Education} in the 21st {Century}. *Catalyst*, 11(1), 64–68.
<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=112988043&lang=es&site=ehost-live>

Zirawaga, V. S., Olusanya, A. I., & Maduki, T. (2017). Gaming in Education: Using Games as a Support Tool to Teach History. *Journal of Education and Practice*, 8(15), 55–64. <https://files.eric.ed.gov/fulltext/EJ1143830.pdf>

