

REFERENCES

- [1] X. Zheng, “English as an International Language Project-Based Learning : A Focus on Young Chinese Learners ’ Beliefs,” vol. 15, no. 8, pp. 1–12, 2022, doi: 10.5539/elt.v15n8p1.
- [2] S. Harshalatha and Y. Sreenivasulu, “Exploring Academic Writing Needs and Challenges Experienced by ESL Learners : A Literature Review,” vol. 14, no. 3, pp. 406–412, 2024, doi: 10.5430/wjel.v14n3p406.
- [3] A. Chaudhary and S. Al Zahrani, “Error Analysis in the Written Compositions of EFL Students : A Classroom Study,” vol. 10, no. 2, pp. 357–366, 2020, doi: 10.5539/ijel.v10n2p357.
- [4] M. A. Samad, “Understanding EFL Learners ’ Errors in Language Knowledge in Ongoing Assessments,” vol. 15, no. 9, pp. 1–8, 2022, doi: 10.5539/elt.v15n9p1.
- [5] H. Chen, C. Chen, and W. V. Wu, “Effects of Flipped Learning on Language Learning Outcomes : A Meta-Analysis Investigating Moderators,” no. June, pp. 1–20, 2025, doi: 10.1177/21582440251331298.
- [6] P. Qi, “A systematic review of flipped classroom approaches in language learning,” vol. 16, no. 4, 2024.
- [7] V. Lin, G.-Z. Liu, and N.-S. Chen, “The effects of an augmented-reality ubiquitous writing application: a comparative pilot project for enhancing EFL writing instruction,” *Comput. Assist. Lang. Learn.*, vol. 35, no. 5–6, pp. 989–1030, Jul. 2022, doi: 10.1080/09588221.2020.1770291.
- [8] K. Mangaroska and M. Giannakos, “Learning Analytics for Learning Design: A Systematic Literature Review of Analytics-Driven Design to Enhance Learning,” *IEEE Trans. Learn. Technol.*, vol. 12, no. 4, pp. 516–534, 2019, doi: 10.1109/TLT.2018.2868673.
- [9] E. T. Khor, “education sciences A Systematic Review of the Role of

Learning Analytics in Supporting Personalized Learning,” 2024.

- [10] Ó. Cuéllar and M. Contero, “Personalized and Timely Feedback in Online Education : Enhancing Learning with Deep Learning and Large Language Models,” 2025.
- [11] M. Shao and X. Liu, “Impact of the Flipped Classroom on Students ’ Learning Performance via Meta-Analysis,” pp. 82–109, 2021, doi: 10.4236/jss.2021.99007.
- [12] H. Yaseen, A. S. Mohammad, N. Ashal, H. Abusaimh, and A. Ali, “The Impact of Adaptive Learning Technologies , Personalized Feedback , and Interactive AI Tools on Student Engagement : The Moderating Role of Digital Literacy,” pp. 1–27, 2025.
- [13] H. Sharif and A. Atif, “education sciences The Evolving Classroom : How Learning Analytics Is Shaping the Future of Education and Feedback Mechanisms,” 2024.
- [14] E. Namaziandost, “Integrating flipped learning in AI-enhanced language learning: Mapping the effects on metacognitive awareness, writing development, and foreign language learning boredom,” *Comput. Educ. Artif. Intell.*, vol. 9, p. 100446, 2025, doi: <https://doi.org/10.1016/j.caeai.2025.100446>.
- [15] N. U. Publikoa and N. U. Publikoa, “Flipping the EFL classroom in a secondary education setting : Students ’ perceptions and academic performance,” pp. 35–57, 2017.
- [16] U. States, “Learning Analytics and Educational Data Mining : Towards Communication and Collaboration,” no. February, 2026, doi: 10.1145/2330601.2330661.
- [17] C. Romero and S. Ventura, “Educational data mining and learning analytics: An updated survey,” *WIREs Data Min. Knowl. Discov.*, vol. 10, no. 3, p. e1355, May 2020, doi: <https://doi.org/10.1002/widm.1355>.

- [18] D. J. Lemay, C. Baek, and T. Doleck, "Computers and Education : Artificial Intelligence Comparison of learning analytics and educational data mining : A topic modeling approach," *Comput. Educ. Artif. Intell.*, vol. 2, no. March, p. 100016, 2021, doi: 10.1016/j.caeai.2021.100016.
- [19] R. S. Baker and G. Siemens, "Learning Analytics and Educational Data Mining," pp. 1–29, 2019.
- [20] P. Ruengtam, "Reframing flipped studio learning for transformative pedagogy in architecture and built environment education," no. February, 2026, doi: 10.3389/feduc.2026.1726937.
- [21] J. O'Flaherty and C. Phillips, "The use of flipped classrooms in higher education: A scoping review," *Internet High. Educ.*, vol. 25, Feb. 2015, doi: 10.1016/j.iheduc.2015.02.002.
- [22] M. Zikril *et al.*, "Flipped Classroom and its Effects on Student ' s Academic Performance and Behaviour," vol. 14, no. 9, pp. 399–415, 2024, doi: 10.6007/IJARBSS/v14-i9/22372.
- [23] M. Bond, "Facilitating student engagement through the flipped learning approach in K-12: A systematic review," *Comput. Educ.*, vol. 151, p. 103819, 2020, doi: <https://doi.org/10.1016/j.compedu.2020.103819>.
- [24] G. Lampropoulos, "Learning Analytics and Educational Data Mining in Augmented Reality , Virtual Reality , and the Metaverse : A Systematic Literature Review , Content Analysis , and Bibliometric Analysis," 2025.
- [25] "Enhancing Teaching and Learning Through Educational Data Mining and Learning Analytics: An Issue Brief".
- [26] W. Murtini, "THE EFFECT OF PERFORMANCE ASSESSMENT AND GRAMMAR MASTERY UPON THE WRITING ABILITY OF THE FOURTH SEMESTER STUDENTS OF THE ENGLISH STUDY PROGRAM OF FKIP UNMAS DENPASAR IN THE ACADEMIC YEAR 2012 / 2013," vol. 1, 2013.

- [27] E. Vula, “Strategies for Enhancing ESL Writing Proficiency : Insights from a Pre-University Educational Setting,” pp. 367–377, 2024.
- [28] U. Udayana, S. Menggo, U. Katolik, I. Santu, and P. Ruteng, “Empowering Students ’ Writing Skill through Performance Assessment,” vol. 4, no. 3, pp. 432–441, 2020.
- [29] Y. Tao and J. Yu, “Cultural threads in writing mastery : a structural analysis of perfectionism , learning self-efficacy , and motivation as mediated by self-reflection in Chinese EFL learners,” pp. 1–18, 2024.
- [30] C. J. Braniger *et al.*, “English Language Teaching,” vol. Vol. 15, N, pp. 1–23, 2022.
- [31] A. Kanwal, “Examining the Effect of Flipped Learning on Proficiency in English Writing Grammar via Inflectional Morphemes,” vol. 14, no. 4, pp. 1118–1126, 2024.
- [32] A. B. Ustun, K. Zhang, F. G. Karaoğlu-Yılmaz, and R. Yılmaz, “Learning analytics based feedback and recommendations in flipped classrooms: an experimental study in higher education,” *J. Res. Technol. Educ.*, vol. 55, no. 5, pp. 841–857, Sep. 2023, doi: 10.1080/15391523.2022.2040401.
- [33] F. Ariani *et al.*, “The Effect of Flipped Digital Classroom and Student Engagement on English Writing Skills,” vol. 11, no. 2, pp. 976–997, 2024.
- [34] M. Öztürk and Ü. Çak, “Flipped learning design in EFL classrooms : implementing self-regulated learning strategies to develop language skills,” 2021.
- [35] D. Y. Chang, “Flipping EFL low-proficiency students ’ learning : An empirical study,” 2023, doi: 10.1177/13621688231165474.
- [36] M. A. Chatti, A. L. Dyckhoff, U. Schroeder, and H. Thüs, “A Reference Model for Learning Analytics,” vol. 9, pp. 1–22.

- [37] G. Siemens, “Connectivism :,” 2006.
- [38] B. Williamson, S. Bayne, and S. Shay, “The datafication of teaching in Higher Education : critical issues and perspectives,” 2020.
- [39] F. Learning, “What Is Flipped Learning ? The Four Pillars of F-L-I-P TM,” vol. 501, no. c, 2014.
- [40] P. Strelan, A. Osborn, and E. Palmer, “The flipped classroom: A meta-analysis of effects on student performance across disciplines and education levels,” *Educ. Res. Rev.*, vol. 30, p. 100314, 2020, doi: <https://doi.org/10.1016/j.edurev.2020.100314>.
- [41] Z. Pan, L. Biegley, A. Taylor, and H. Zheng, “A Systematic Review of Learning Analytics – Incorporated Instructional Interventions on Learning Management Systems,” vol. 7750, pp. 1–21, 2024.
- [42] S. Heikkinen, M. Saqr, J. Malmberg, and M. Tedre, “Supporting self-regulated learning with learning analytics interventions – a systematic literature review,” *Educ. Inf. Technol.*, vol. 28, no. 3, pp. 3059–3088, Sep. 2022, doi: 10.1007/s10639-022-11281-4.
- [43] C. G. Valenzuela, C. G. González, A. Rojas, and M. Tagle, “Learning analytics in higher education : a preponderance of analytics but very little learning ?,” *Int. J. Educ. Technol. High. Educ.*, 2021, doi: 10.1186/s41239-021-00258-x.
- [44] D. Ifenthaler, J. Yin, and K. Yau, “Utilising learning analytics to support study success in higher education : a systematic review,” *Educ. Technol. Res. Dev.*, vol. 68, no. 4, pp. 1961–1990, 2020, doi: 10.1007/s11423-020-09788-z.
- [45] E. Seng and N. C. Chuan, “Integrating Learning Analytics into the Flipped Classroom : A Study on Data-Enabled Flipped Learning,” vol. 10, 2023, doi: 10.4236/oalib.1110692.

- [46] I. T. Education, “The Impact of a Learning Analytics Based Feedback System on Students ’ Academic Achievement and Self- Regulated Learning in a Flipped Classroom,” vol. 26, no. 1, 2025.
- [47] H.-J. Chen, C.-H. Chen, and W.-C. V. Wu, “Effects of Flipped Learning on Language Learning Outcomes: A Meta-Analysis investigating Moderators,” *SAGE Open*, vol. 15, no. 2, p. 21582440251331296, 2025.
- [48] S.-M. Lee, “The effectiveness of machine translation in foreign language education: a systematic review and meta-analysis,” *Comput. Assist. Lang. Learn.*, vol. 36, no. 1–2, pp. 103–125, Jan. 2023, doi: 10.1080/09588221.2021.1901745.
- [49] *Educational Research_ Planning, Conducting, and Evaluating Quantitative and Qualitative Research, 4th Edition*. 2011.
- [50] S. Heikkinen, M. Saqr, J. Malmberg, and M. Tedre, “Supporting self - regulated learning with learning analytics interventions – a systematic literature review,” *Educ. Inf. Technol.*, pp. 3059–3088, 2023, doi: 10.1007/s10639-022-11281-4.