AI翻轉教育

# 參考文獻

Aznar Díaz, I., Hinojo Lucena, F. J., Cáceres Reche, M. D. P., & Romero Rodríguez, J. M. (2020). Pedagogical approaches in the knowledge society: The flipped classroom method for the development of creativity and dialogical learning. <https://doi.org/10.3991/ijet.v15i03.11664>

van Leeuwen, A., Bos, N., van Ravenswaaij, H., & van Oostenrijk, J. (2019). The role of temporal patterns in students' behavior for predicting course performance: A comparison of two blended learning courses. *British Journal of Educational Technology*, *50*(2), 921-933. <https://doi.org/10.1111/bjet.12616>

Jang, H. Y., & Kim, H. J. (2020). A meta-analysis of the cognitive, affective, and interpersonal outcomes of flipped classrooms in higher education. *Education Sciences*, *10*(4), 115. <https://doi.org/10.3390/educsci10040115>

Hsia, L. H., & Hwang, G. J. (2020). From reflective thinking to learning engagement awareness: A reflective thinking promoting approach to improve students’ dance performance, self‐efficacy and task load in flipped learning. *British Journal of Educational Technology*, *51*(6), 2461-2477. <https://doi.org/10.1111/bjet.12911>

Hendrik, H., & Hamzah, A. (2021). Flipped classroom in programming course: A systematic literature review. *International Journal of Emerging Technologies in Learning (iJET)*, *16*(2), 220-236. <https://doi.org/10.3991/ijet.v16i02.15229>

Divjak, B., Rienties, B., Iniesto, F., Vondra, P., & Žižak, M. (2022). Flipped classrooms in higher education during the COVID-19 pandemic: findings and future research recommendations. *International journal of educational technology in higher education*, *19*(1), 9. <https://doi.org/10.1186/s41239-021-00316-4>

Kazanidis, I., Pellas, N., Fotaris, P., & Tsinakos, A. (2019). Can the flipped classroom model improve students’ academic performance and training satisfaction in Higher Education instructional media design courses?. *British Journal of Educational Technology*, *50*(4), 2014-2027. <https://doi.org/10.1111/bjet.12694>

Sezer, B., & Abay, E. (2019). Looking at the impact of the flipped classroom model in medical education. *Scandinavian Journal of Educational Research*, *63*(6), 853-868. <https://doi.org/10.1080/00313831.2018.1452292>

Xiu, Y. (2020). Flipped University Class: A Study of Motivation and Learning. *Journal of Information Technology Education: Research*, *19*. <https://doi.org/10.28945/4500>

Koh, J. H. L. (2019). Four pedagogical dimensions for understanding flipped classroom practices in higher education: A systematic review. *Educational Sciences: Theory and Practice*, *19*(4), 14-33. <https://doi.org/10.12738/estp.2019.4.002>

Zheng, L., Bhagat, K. K., Zhen, Y., & Zhang, X. (2020). The effectiveness of the flipped classroom on students’ learning achievement and learning motivation. *Journal of Educational Technology & Society*, *23*(1), 1-15. <https://www.jstor.org/stable/26915403>

Stover, S., & Houston, M. A. (2019). Designing flipped-classes to be taught with limited resources: Impact on students’ attitudes and learning. *Journal of the Scholarship of Teaching and Learning*, *19*(3). <https://doi.org/10.14434/josotl.v19i2.23868>

Velde, R. V. D., Blignaut–van Westrhenen, N., Labrie, N. H., & Zweekhorst, M. B. (2021). ‘The idea is nice… but not for me’: First-year students’ readiness for large-scale ‘flipped lectures’—what (de) motivates them?. *Higher Education*, *81*(6), 1157-1175. <https://doi.org/10.1007/s10734-020-00604-4>

Price, C., & Walker, M. (2021). Improving the accessibility of foundation statistics for undergraduate business and management students using a flipped classroom. *Studies in Higher Education*, *46*(2), 245-257. <https://doi.org/10.1080/03075079.2019.1628204>

Chuang, H. H., Weng, C. Y., & Chen, C. H. (2018). Which students benefit most from a flipped classroom approach to language learning?. *British Journal of Educational Technology*, *49*(1), 56-68. <https://doi.org/10.1111/bjet.12530>

Cho, H. J., Zhao, K., Lee, C. R., Runshe, D., & Krousgrill, C. (2021). Active learning through flipped classroom in mechanical engineering: improving students’ perception of learning and performance. *International Journal of STEM Education*, *8*(1), 46. <https://doi.org/10.1186/s40594-021-00302-2>

Han, F. (2023). Relations between students’ study approaches, perceptions of the learning environment, and academic achievement in flipped classroom learning: Evidence from self-reported and process data. *Journal of Educational Computing Research*, *61*(6), 1252-1274. <https://doi.org/10.1177/07356331231162823>

Guo, J. P., Yang, L. Y., Zhang, J., & Gan, Y. J. (2022). Academic self-concept, perceptions of the learning environment, engagement, and learning outcomes of university students: relationships and causal ordering. *Higher Education*, *83*(4), 809-828. <https://doi.org/10.1007/s10734-021-00705-8>

Biggs, J. B. (1989). Approaches to the enhancement of tertiary teaching. *Higher education research and development*, *8*(1), 7-25. <https://doi.org/10.1080/0729436890080102>

Trigwell, K., & Prosser, M. (2020). Exploring teaching and learning in higher education. In *Exploring University Teaching and Learning: Experience and Context* (pp. 1-13). Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-50830-2_1>

Nelson Laird, T. F., Seifert, T. A., Pascarella, E. T., Mayhew, M. J., & Blaich, C. F. (2014). Deeply affecting first-year students' thinking: Deep approaches to learning and three dimensions of cognitive development. *The journal of higher education*, *85*(3), 402-432. <https://doi.org/10.1080/00221546.2014.11777333>

Joshi, N., & Lau, S. K. (2023). Effects of process-oriented guided inquiry learning on approaches to learning, long-term performance, and online learning outcomes. *Interactive Learning Environments*, *31*(5), 3112-3127. <https://doi.org/10.1080/10494820.2021.1919718>

Bettinger, E. P., & Baker, R. B. (2014). The effects of student coaching: An evaluation of a randomized experiment in student advising. *Educational Evaluation and Policy Analysis*, *36*(1), 3-19. <https://doi.org/10.3102/0162373713500523>

Krumm, A. E., Waddington, R. J., Teasley, S. D., & Lonn, S. (2014). A learning management system-based early warning system for academic advising in undergraduate engineering. In *Learning analytics: From research to practice* (pp. 103-119). New York, NY: Springer New York. <https://doi.org/10.1007/978-1-4614-3305-7_6>

Gibson, A., Aitken, A., Sándor, Á., Buckingham Shum, S., Tsingos-Lucas, C., & Knight, S. (2017, March). Reflective writing analytics for actionable feedback. In *Proceedings of the seventh international learning analytics & knowledge conference* (pp. 153-162). <https://doi.org/10.1145/3027385.3027436>

Kaendler, C., Wiedmann, M., Rummel, N., & Spada, H. (2015). Teacher competencies for the implementation of collaborative learning in the classroom: A framework and research review. *Educational Psychology Review*, *27*(3), 505-536. <https://doi.org/10.1007/s10648-014-9288-9>

Ocumpaugh, J., Baker, R., Gowda, S., Heffernan, N., & Heffernan, C. (2014). Population validity for educational data mining models: A case study in affect detection. *British Journal of Educational Technology*, *45*(3), 487-501. <https://doi.org/10.1111/bjet.12156>

Chen, B., Resendes, M., Chai, C. S., & Hong, H. Y. (2018). Two tales of time: Uncovering the significance of sequential patterns among contribution types in knowledge-building discourse. In *Learning Analytics* (pp. 20-33). Routledge.

Matcha, W., Gasevic, D., Jovanovic, J., Pardo, A., Lim, L., Maldonado-Mahauad, J., ... & Tsai, Y. S. (2020). Analytics of Learning Strategies: Role of Course Design and Delivery Modality Authors. *Journal of Learning Analytics*, *7*(2), 45-71. <https://doi.org/10.18608/jla.2020.72.3>

Jovanović, J., Gašević, D., Dawson, S., Pardo, A., & Mirriahi, N. (2017). Learning analytics to unveil learning strategies in a flipped classroom. *The Internet and Higher Education*, *33*, 74-85. <https://doi.org/10.1016/j.iheduc.2017.02.001>

Han, F., Ellis, R. A., & Pardo, A. (2022). The descriptive features and quantitative aspects of students’ observed online learning: how are they related to self-reported perceptions and learning outcomes?. *IEEE Transactions on Learning Technologies*, *15*(1), 32-41. <https://doi.org/10.1109/TLT.2022.3153001>

Hodges, L. C. (2020). Student engagement in active learning classes. In *Active learning in college science: The case for evidence-based practice* (pp. 27-41). Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-33600-4_3>

Odum, M., Meaney, K. S., & Knudson, D. V. (2021). Active learning classroom design and student engagement: An exploratory study. *Journal of Learning Spaces*, *10*(1).

Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International society for technology in education. <https://doi.org/10.47362/EJSSS.2022.3208>

Hendrik, H., & Hamzah, A. (2021). Flipped classroom in programming course: A systematic literature review. *International Journal of Emerging Technologies in Learning (iJET)*, *16*(2), 220-236. <https://doi.org/10.3991/ijet.v16i02.15229>

Holmes, W. (2020). Artificial intelligence in education. In *Encyclopedia of education and information technologies* (pp. 88-103). Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-10576-1_107>

Fernandes, C. W., Rafatirad, S., & Sayadi, H. (2023, June). Advancing personalized and adaptive learning experience in education with artificial intelligence. In *2023 32nd Annual Conference of the European Association for Education in Electrical and Information Engineering (EAEEIE)* (pp. 1-6). IEEE. <https://doi.org/10.23919/EAEEIE55804.2023.10181336>

Wang, S., Christensen, C., Cui, W., Tong, R., Yarnall, L., Shear, L., & Feng, M. (2023). When adaptive learning is effective learning: comparison of an adaptive learning system to teacher-led instruction. *Interactive Learning Environments*, *31*(2), 793-803. <https://doi.org/10.1080/10494820.2020.1808794>

Almassri, M. A., & Zaharudin, R. (2023). Effectiveness of Flipped classroom pedagogy in programming education: A meta-analysis. *International Journal of Instruction*, *16*(2), 267-290. <https://doi.org/10.29333/iji.2023.16216a>

Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. *International journal of educational technology in higher education*, *18*(1), 54. <https://doi.org/10.1186/s41239-021-00292-9>

Strielkowski, W., Grebennikova, V., Lisovskiy, A., Rakhimova, G., & Vasileva, T. (2025). AI‐driven adaptive learning for sustainable educational transformation. *Sustainable Development*, *33*(2), 1921-1947. <https://doi.org/10.1002/sd.3221>

Xu, W., & Ouyang, F. (2022). The application of AI technologies in STEM education: a systematic review from 2011 to 2021. *International Journal of STEM Education*, *9*(1), 59. <https://doi.org/10.1186/s40594-022-00377-5>

Gligorea, I., Cioca, M., Oancea, R., Gorski, A. T., Gorski, H., & Tudorache, P. (2023). Adaptive learning using artificial intelligence in e-learning: A literature review. *Education Sciences*, *13*(12), 1216. <https://doi.org/10.3390/educsci13121216>

Kwak, M., Jenkins, J., & Kim, J. (2023). Adaptive programming language learning system based on generative AI. *Issues in Information Systems*, *24*(3). <https://doi.org/10.48009/3_iis_2023_119>

Er-Rafyg, A., Zankadi, H., & Idrissi, A. (2024). AI in adaptive learning: Challenges and opportunities. *Modern artificial intelligence and data science 2024: Tools, techniques and systems*, 329-342. <https://doi.org/10.1007/978-3-031-65038-3_26>

Holmes, W. (2020). Artificial intelligence in education. In *Encyclopedia of education and information technologies* (pp. 88-103). Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-10576-1_107>

Wang, S., Christensen, C., Cui, W., Tong, R., Yarnall, L., Shear, L., & Feng, M. (2023). When adaptive learning is effective learning: comparison of an adaptive learning system to teacher-led instruction. *Interactive Learning Environments*, *31*(2), 793-803. <https://doi.org/10.1080/10494820.2020.1808794>

Fernandes, C. W., Rafatirad, S., & Sayadi, H. (2023, June). Advancing personalized and adaptive learning experience in education with artificial intelligence. In *2023 32nd Annual Conference of the European Association for Education in Electrical and Information Engineering (EAEEIE)* (pp. 1-6). IEEE. <https://doi.org/10.23919/EAEEIE55804.2023.10181336>

Strielkowski, W., Grebennikova, V., Lisovskiy, A., Rakhimova, G., & Vasileva, T. (2025). AI‐driven adaptive learning for sustainable educational transformation. *Sustainable Development*, *33*(2), 1921-1947. <https://doi.org/10.1002/sd.3221>

Edgcomb, A., Vahid, F., Lysecky, R., & Lysecky, S. (2017, March). Getting students to earnestly do reading, studying, and homework in an introductory programming class. In *Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education* (pp. 171-176). <https://doi.org/10.1145/3017680.3017732>

AlJarrah, A., Thomas, M. K., & Shehab, M. (2018). Investigating temporal access in a flipped classroom: procrastination persists. *International Journal of Educational Technology in Higher Education*, *15*(1), 1-18. <https://doi.org/10.1186/s41239-017-0083-9>

Morais, P., Ferreira, M. J., & Veloso, B. (2021). Improving student engagement with Project-Based Learning: A case study in Software Engineering. *IEEE Revista Iberoamericana de Tecnologias del Aprendizaje*, *16*(1), 21-28. <https://doi.org/10.1109/RITA.2021.3052677>