# Best Practices in Learning Analytics, GenAI dashboards

NPULS: LA Team

#### 2025-02-05

### Reading list

Here is relevant research you may consider interesting.

- 1. Alfredo et al. (2024): Human-Centred Learning Analytics and AI in Education: AmSystematic Literature Review.
- 2. Chen et al. (2024): Designing a Dashboard for Transparency and Control of Conversational AI.
- 3. *Harik et al.* (2024): Analog and Multi-Modal Manufacturing Datasets Acquired on the Future Factories Platform.
- 4. **Jin et al.** (2024): Chatting with a Learning Analytics Dashboard: The Role of Generative AI Literacy onnLearner Interaction with Conventional and Scaffolding Chatbots
- 5. Knoth et al. (2024): AI Literacy and Its Implications for Prompt Engineering Strategies.
- Liang et al. (2024): TaskMatrix.AI: Completing Tasks by Connecting Foundation Models with Millions of APIs.
- 7. Patterson et al. (2021): Carbon Emissions and Large Neural Network Training.
- 8. Roustan and Bastardot (2025): The Clinicians' Guide to Large Language Models: A General Perspective With a Focus on Hallucinations.
- 9. *Tillmanns et al. (2025)*: Mapping Tomorrow's Teaching and Learning Spaces: A Systematic Review on GenAI in Higher Education
- 10. Wang et al. (2024): The 8th AI City Challenge.
- 11. Yu et al. (2024): Can ChatGPT RevolutionizemLanguage Learning? Unveiling the Power of AI in Multilingual Education Through User Insights and Pedagogical Impact.

#### Your feedback is most welcome



Figure 1: Add your best practices and references in this form at any time.

## References

- Alfredo, Riordan, Vanessa Echeverria, Yueqiao Jin, Lixiang Yan, Zachari Swiecki, Dragan Gašević, and Roberto Martinez-Maldonado. 2024. "Human-Centred Learning Analytics and AI in Education: A Systematic Literature Review." Computers and Education: Artificial Intelligence 6 (June): 100215. https://doi.org/10.1016/j.caeai.2024.100215.
- Chen, Yida, Aoyu Wu, Trevor DePodesta, Catherine Yeh, Kenneth Li, Nicholas Castillo Marin, Oam Patel, et al. 2024. "Designing a Dashboard for Transparency and Control of Conversational AI." https://doi.org/10.48550/ARXIV.2406.07882.
- Harik, Ramy, Fadi El Kalach, Jad Samaha, Devon Clark, Drew Sander, Philip Samaha, Liam Burns, et al. 2024. "Analog and Multi-Modal Manufacturing Datasets Acquired on the Future Factories Platform." https://doi.org/10.48550/ARXIV.2401.15544.
- Jin, Yueqiao, Kaixun Yang, Lixiang Yan, Vanessa Echeverria, Linxuan Zhao, Riordan Alfredo, Mikaela Milesi, et al. 2024. "Chatting with a Learning Analytics Dashboard: The Role of Generative AI Literacy on Learner Interaction with Conventional and Scaffolding Chatbots." https://doi.org/10.48550/ARXIV.2411. 15597.
- Knoth, Nils, Antonia Tolzin, Andreas Janson, and Jan Marco Leimeister. 2024. "AI Literacy and Its Implications for Prompt Engineering Strategies." Computers and Education: Artificial Intelligence 6 (June): 100225. https://doi.org/10.1016/j.caeai.2024.100225.
- Liang, Yaobo, Chenfei Wu, Ting Song, Wenshan Wu, Yan Xia, Yu Liu, Yang Ou, et al. 2024. "TaskMatrix.AI: Completing Tasks by Connecting Foundation Models with Millions of APIs." *Intelligent Computing* 3 (January). https://doi.org/10.34133/icomputing.0063.
- Patterson, David, Joseph Gonzalez, Quoc Le, Chen Liang, Lluis-Miquel Munguia, Daniel Rothchild, David So, Maud Texier, and Jeff Dean. 2021. "Carbon Emissions and Large Neural Network Training." https://doi.org/10.48550/ARXIV.2104.10350.
- Roustan, Dimitri, and François Bastardot. 2025. "The Clinicians' Guide to Large Language Models: A General Perspective With a Focus on Hallucinations." *Interactive Journal of Medical Research* 14 (January): e59823. https://doi.org/10.2196/59823.
- Tillmanns, Tanja, Alfredo Salomão Filho, Susmita Rudra, Peter Weber, Julia Dawitz, Emma Wiersma, Dovile Dudenaite, and Sally Reynolds. 2025. "Mapping Tomorrow's Teaching and Learning Spaces: A Systematic Review on GenAI in Higher Education." *Trends in Higher Education* 4 (1): 2. https://doi.org/10.3390/higheredu4010002.
- Wang, Shuo, David C. Anastasiu, Zheng Tang, Ming-Ching Chang, Yue Yao, Liang Zheng, Mohammed Shaiqur Rahman, et al. 2024. "The 8th AI City Challenge." https://doi.org/10.48550/ARXIV.2404.09432.
- Yu, Hao, Yunyun Guo, Hailiang Yang, Weiyu Zhang, and Yan Dong. 2024. "Can ChatGPT Revolutionize Language Learning? Unveiling the Power of AI in Multilingual Education Through User Insights and Pedagogical Impact." European Journal of Education 60 (1). https://doi.org/10.1111/ejed.12749.