

Game-Based Learning Analytics Workshop (GBLA25)

3rd March 2025, 13:30–17:00 GMT, Dublin, Ireland

as part of LAK25 Conference

This workshop was organised as part of the pre-conference program for the 14th International Conference on Learning Analytics and Knowledge (LAK25). The Game-Based Learning Analytics Workshop (GBLA25) workshop was designed as an in-person event, held in the afternoon on 3rd March 2025.

Game-Based Learning Analytics (GBLA) is an emerging field that combines game design principles with learning analytics to create personalized, engaging, and data-driven educational experiences. Despite significant contributions in this space, there has been a lack of structured collaboration within the learning analytics community. This workshop aimed to address that gap by bringing together researchers and practitioners interested in the intersection of games and learning analytics. Through this half-day workshop, we aimed to formalize a community around GBLA, set foundational principles, and coordinate initial scholarly contributions while laying the groundwork for the establishment of a special interest group within the Society of Learning Analytics and Research (SoLAR).

There were six abstracts presented at the workshop, of which two were later accepted as short papers after review by the organizing committee for CEUR publication. These contributions covered a range of topics including open game data infrastructure as well as approaches to design and evaluation of learning analytics in educational games.

Abstract Submissions:

- *Open Game Data: An infrastructure for Learning Analytics Research*
- *Using analytics based on large audiences to develop real-time classifiers and interventions for a science exploration game*
- *What Can Educational Games Tell Us About Learner Engagement?*
- *Assessing Reliability in Game-Based Adaptive Learning Systems with A/A Tests*

Accepted Short Papers:

- *SIMVA: Serious Games Learning Analytics based on Standards and Open Code*
- *Investigating Conversational Patterns with Generative AI NPCs in Role-Play for Elementary Students' Social and Emotional Learning*

The workshop began with a welcome and a collaborative introduction activity to establish and understand the community in attendance, their background in learning analytics and games, and orient to initial challenges. This was followed by an overview of relevant literature relating to learning analytics and educational games as well as the presentation of a number of thought-provoking questions. We then transitioned into a series of micro-talks by participants presenting on the submitted abstracts to establish some of the current work and challenges encountered by members of the community. After a short break, we moved onto an analysis of a number of educational games with embedded learning analytics as a basis for further discussing emergent insights and challenges. After this analysis,

participants contributed to a collaborative whiteboard that concretized the questions, priorities, opportunities, and challenges that had been raised over the course of the session in addition to anything else that emerged from the activity. At the conclusion of this activity, those contributions were synthesized into a series of themes around which the foundations of GBLA can be oriented that included: purpose, definition, data collection, design challenges, commercial games, legality / ethics, integration into formal education, validation, measurement, and suitability for different student populations. These findings will serve as the basis for future contributions in the space and a catalyst for this new SoLAR special interest group.

The organizing committee would like to sincerely thank all the authors and presenters for their contributions to the workshop, as well as all participants for their active engagement in discussions. We are especially grateful to our invited speakers and the organizing committee for their insights and contributions to the panel discussion, which provided valuable perspectives and helped shape the collective dialogue.

Organizing Committee

- Maurice Boothe Jr., New York University, USA
- Xavier Ochoa, New York University, USA
- David Gagnon, University of Wisconsin - Madison, USA
- Luke Swanson, University of Wisconsin - Madison, USA
- Erik Harpstead, Carnegie Mellon University, USA