

Educational Gaming Environments Group Projects

The Educational Gaming Environments group (EdGE) at TERC is a research design and development team that is investigating the possibilities—and challenging the assumptions—of game-based learning environments. EdGE is designing compelling game experiences that gamers like to play where the game mechanics are embedded in fundamental science education concepts. EdGE works at the forefront of the 'Games for Good' and 'Serious Games' movements—supporting and measuring engagement in productive scientific collaboration, public science learning, and crowdsourcing in games.



The following list includes active EdGE at TERC projects.

You may also access [past EdGE projects](#).

- [Leveling Up](#) —

Principal Investigator: [Jodi Asbell-Clarke](#)

Funders: [National Science Foundation](#)

Website: <http://edge.terc.edu/>

EdGE and its commercial game design partner, GameGurus, are creating Leveling Up, a series of games on multiple media platforms. The Leveling Up games will use cutting-edge digital tools such as augmented reality and data collection apps on mobile handhelds (e.g., iPhones), creating a transmedia experience that supports and measures standards-based high school science. [More »](#)

- [Revealing the Invisible: Data-Intensive Research Using Cognitive, Psychological, and Physiological Measures to Optimize STEM Learning](#) —

Principal Investigator: [Jodi Asbell-Clarke](#)

Co-PI: [Elizabeth Rowe](#)

Funder: [The National Science Foundation](#)

Investigators from TERC, Landmark College, and the Massachusetts Institute of Technology will collaborate to examine the relationships among: (1) patterns of play in a digital game ("Impulse") ... [More »](#)

- [SportsLab 2020](#) —

Principal Investigators: [Jamie Larsen](#) and [Jodi Asbell-Clarke](#)

Funders: [National Science Foundation](#)

Website: <http://edge.terc.edu/>

This project is developing and testing a collaborative game-based interactive environment where students, ages 12-18 form a product design team to create a concept model and pitch for a sport product design challenge. Participants, sport researchers, and product experts determine the best pitches with awards for top designs. SportsLab:2020 brings together [More »](#)

- [Taking Games to School: Exploratory Study to Support Game-Based Teaching and Learning in High School Science Classes](#) —

Principal Investigator: [Jodi Asbell-Clarke](#)

Funder: [The National Science Foundation](#)

Website: <http://edge.terc.edu/>

This project aims to study how teachers can be involved in making science learning games more effective, and how educational science games can better support good teaching. [More »](#)

- [Zoombinis: The Full Development Implementation Research Study of a Computational Thinking Game for Upper Elementary and Middle School Learners](#) —

Principal Investigator: [Jodi Asbell-Clarke](#)

Funder: [The National Science Foundation](#)

Website: <http://edgeatterc.com/edge/about/projects/>

This Full Design and Development project for the Implementation Research Strand of DRK12 is studying the educational impact of the re-release of the award-winning educational computer game: *The Logical Journey of the Zoombinis*. [More »](#)