

Real-life problems in large-scale economics education

The role of simulation games

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November 24, 2025

How to offer real-life problems to large student cohorts?

- There is an increased focus in Higher Education on "Future skills" (Ehlers and Kellermann, 2019)
 - Individual development skills (autonomy, self-initiative)
 - Object-related skills (creativity, ability to adjust)
 - Organization-related skills (sense-making, cooperation skills)
- Offering 'real-life' problems helps students to develop these skills by
 - Practicing with complex challenges that require initiative and decision-making
 - Combining materials from their studies to creatively solve these problems
 - Truly cooperating (i.e., not just dividing tasks) and together setting goals and discussing values
- Teaching these skills remains challenging, especially for undergraduate students

Challenges to overcome

- Many innovations target graduate students
 - Motivated students
 - High level of independence
 - Small cohorts
- How to offer real-life challenges to undergraduate students?
 - Students are still orienting to what they want
 - Requires more structure and support
 - Large cohorts

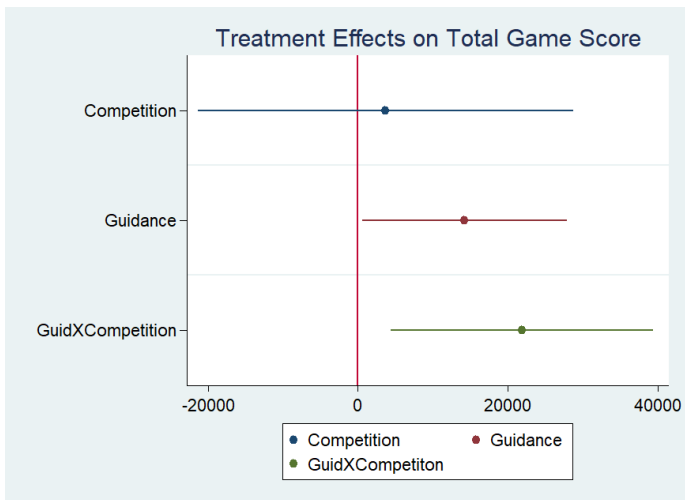
Simulation games

- Simulation games can approach the experience of real-life problems
 - Allow players to interact and to approximate the complexity of real-life problems
 - Provide students a sandbox to experiment and make decisions in a failure-safe environment
 - Provide immersion to make students care about the problems they solve
- Suitable for large-scale education
 - Can be digitized and can offer frequent feedback without a lecturer
 - Breaks down information, helping students navigate complex problems
 - Can be tailored to a program and facilitate large cohort sizes

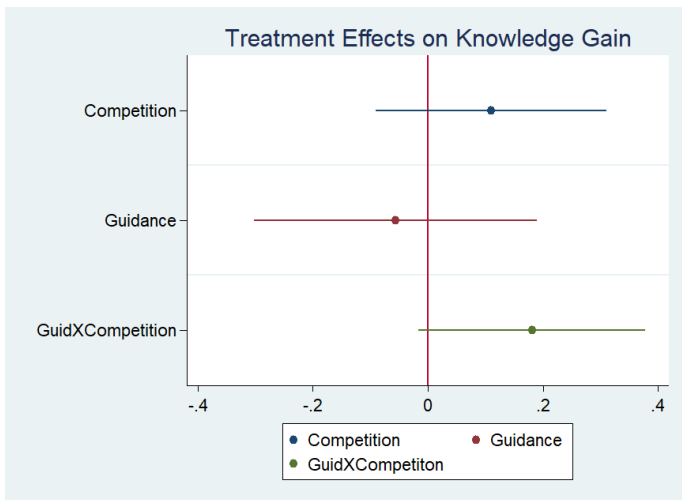
The EOR game

- Simulation game developed for the bachelor's Econometrics and Operations Research
 - Is a fixed part of the program
 - Can be played only using a computer
 - Was played by 200 students simultaneously in 2024
- Students play every year of the bachelor's for 20-30 hours
 - During the first year, they discover how to deal with complex problems
 - During the second year, they begin to apply the theory from their course units
 - During the third year, they will be able to apply the knowledge from the entire Bachelor's programme

The EOR game



The EOR game



The E&BE game

- Simulation game developed for the bachelor's in Economics and Business Economics
 - E&BE game
 - To be piloted with 300 students in May 2026
- Builds on the EOR game but adjusted to the E&BE program
 - Showcases the different tracks of the program
 - Emphasizes interaction and the social nature of economics
 - Allows students to explore different roles and set different objectives

Questions

Thank you for your attention!

Questions?

Ehlers, U.-D. and Kellermann, S. A. (2019). Future skills: The future of learning and higher education. Technical report, Karlsruhe.