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The Use and Effects of Digital Games in Education



Why it would be a good idea to use games in personal finance education?

- ▶ Activates students to think about topics that might not be that relevant for them right now
- ▶ Enables them to take roles that are otherwise not available: for instance, young adult, parent, employee making retirement decisions
- ▶ Through narratives, they may promote future orientation instead of present-mindedness
- ▶ Good examples of programs that are based on role-taking: Finance Park and Biztown by Junior Achievement (and related programs)

Similarities between games and economics

- ▶ Well-defined goals
- ▶ Optimization under constraints
- ▶ Scarcity of resources
- ▶ Opportunity costs
- ▶ Many games involve also exchange and currencies
- ▶ Personal finance curriculum that is based on economics may utilize these similarities



Formal vs. informal learning

- ▶ Learning occurs also outside structured learning situations
- ▶ Because of the similarities of of games and economics, it is possible that much relevant learning can occur in entertainment games in non-structured learning situations (Minecraft, World of Warcraft, The Sims etc.)
- ▶ However, there is a role for a teacher to help students to recognize this learning

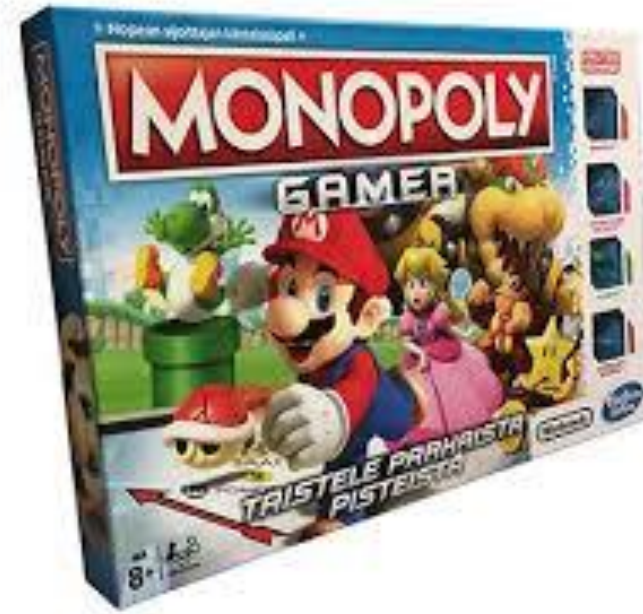
General benefits of games in learning

- ▶ Roletaking
- ▶ Social interaction and teamwork
- ▶ Goal setting
- ▶ Exploration in a safe environment
- ▶ Feedback



Variety of games

- ▶ Digital games
- ▶ Board games
- ▶ Role plays
- ▶ Simulations
- ▶ Escape rooms



Recent research on the use of games in teaching

- ▶ Kalmi & Rahko (2022) JEE
- ▶ Three different game providers
- ▶ Studies classrooms where games were introduced vs. others where they were not in Finnish lower secondary schools
- ▶ Evidence that the use of games helped to improve knowledge, impact on behaviors & attitudes is more uncertain
- ▶ <https://www.tandfonline.com/doi/full/10.1080/00220485.2022.2038320>
- ▶ More evidence on the role of games in the chapter by Kalmi and Sihvonen in the Handbook of Financial Literacy, Cude and Nicolini (eds.), Routledge 2021

Some conclusions

- ▶ Ready-made digital games can help the workload of teachers
- ▶ However, the role of the teachers is not redundant:
 - ▶ - choosing the right games for the right occasion
 - ▶ - relating games to the issues discussed in the curriculum
 - ▶ - facilitating a discussion on the experiences from the game and helping students to reach the learning goals