Games and the learning of mathematics outside the classroom

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Playing games is a recreational activity that is also highly recognized as a potentially rich activity for the teaching and learning.

Main goal

This study intends to analyze how the use of mathematical games outside the classroom contributed to the mathematical learning of the students, considering the influence of specific characteristics of the games, given the students’ previous mathematical knowledge.
Methodology

Qualitative and interpretative study

Two student case studies

Data collection

three months

observation

interviews to the students

interviews to the students’ teacher

development of a logbook
Peter

Like

Computer games


David

Dislike

Board games

http://www.mathplayground.com/HauntedFractions/HFGameLoader.html
Computer games have a stronger potential to engage students than board games. Certain features of the games are central to promote student engagement:

- The possibility to play at different mathematical levels
- The possibility to keep getting better marks

Playing games outside the classroom promotes an improvement in mathematics knowledge and increases students’ involvement in class work.