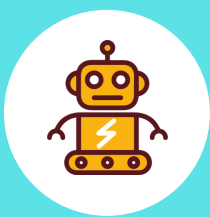


# THE IMPACT OF SERIOUS GAMES IN MATHEMATICS FLUENCY: A STUDY IN PRIMARY EDUCATION

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## INTRODUCTION



**Seripus game,** education (in its various forms) is the main objective, rather than entertainment, focusing on a specific content regardless of the form and structure used



**Gamification,** as a potential complement, precisely because it is a key strategy in the motivational field. Gamification can be developed in parallel by reinforcing motivation in a non-game context.



**Academic performance,** provides assistance to the learner through a virtual coach, guiding the learner to develop strategies to overcome the difficulty detected in the learner's pathway

## METHODOLOGY AND RESULTS

The objective of this study was to investigate the impact that the use of serious games has on work at primary school level.

Quasi-experimental  
pretest-posttest design

12 primary school  
classrooms between the  
first and fourth grades  
284 students

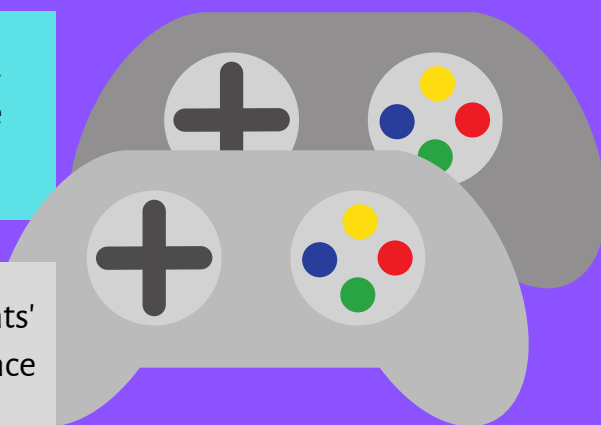
«Basic Math Operation  
Task» (BMOT)

Serious games and  
improving  
mathematical fluency

Serious games and  
gamification in the  
classroom

Novice versus  
experienced teachers

Post-test and students'  
academic performance



## CONCLUSIONS



Greater progress in mathematical fluency is observed in those classrooms that have used the gamification strategy, as well as greater use of the programme and a higher number of solved activities.



The choice of relevant content for teachers is shown to be a key factor in order to have an impact on school work by bringing various skills into play, especially mathematical and digital skills.



The students, who are clearly motivated and involved in the proposal, are offered digital game experiences with great isomorphisms with the usual ones in their leisure time, which helps to bridge the gap between school and social reality.

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