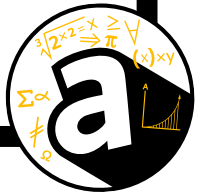


Beyond entertainment: asmodee champions scientific research on the power of board games

Researcher biographies and additional resources



1 Cognitive benefits of short board game sessions in teenagers

Dr. Léa Martinez

Léa Martinez is a Doctor of Cognitive Psychology. She completed her thesis on board games and cognitive functions at the CeRCA lab (Research Center on Cognition and Learning), University of Poitiers, funded by Asmodee. Her work focuses on the relationships between modern board game play, cognitive functioning and academic learning. She also studies the specific characteristics of board games as moderators of these links. Sensitive to the challenges of scientific dissemination, she took on a Sustainability Project Manager position, in charge of promoting research at Asmodee. As such, she became co-lead of the Game in Lab program.



Additional resources on this topic:

Léa Martinez's PhD thesis manuscript (FR):
"Effects of Board Game Practice on Cognitive Functioning: From Adolescents to Adults"

This thesis explores the cognitive effects of board game practice in adolescents and young adults. It reveals positive associations between gameplay and attention, executive functioning, and academic learning, and highlights how factors like play frequency, age, social interaction, and game material influence these outcomes. The findings suggest board games can have immediate cognitive benefits and should be further studied for their unique characteristics.



PhD presentation by Léa Martinez (video – 2024 – FR):

A presentation of Léa Martinez's PhD research on the cognitive effects of modern board games. The talk explores key research questions, methodology, and findings that shed new light on the link between gameplay and executive functions.



Canada Plays highlight video (video - 2025 - EN):

Discover the highlights from the conference «Beyond Play: Exploring the Cognitive and Social Values of Board Games», presented by Dr. Léa Martinez at Canada Plays, a national event organized by Asmodee Canada.



Conference by Léa Martinez at Canada Plays (video - 2025 - EN):

Dr. Léa Martinez presented Beyond Play: Exploring the Cognitive and Social Values of Board Games, at Canada Plays, a talk on how games support children's cognitive skills, learning and social interaction. She presented 3 key scientific research projects that reveal the cognitive and academic impact of board games.



Exclusive interview with Dr. Léa Martinez at Canada Plays (video - 2025 - EN):

Talking about how board games support cognitive and social development and why this is interesting for game, education and health professionals. Participation from Mélanie Watier, VP Purchasing and Marketing at asmodee, Canada, on why board game research matters for game professionals.

2 Cognitive and academic benefits of school-based board game sessions in children

Pr. Jorge Moya-Higueras

Jorge Moya-Higueras is a Senior Lecturer in Neuropsychology at the Department of Pedagogy and Psychology, at the University of Lleida, Spain and Principal Investigator in the NeuroPGA (Neuropsychology, Genes and Environment) research team, focusing on how genetic and environmental factors influence cognitive processes. His recent work includes studies on the use of modern board games to enhance executive functions in socially vulnerable children.

Publication by Jorge Moya-Higueras (2024 - EN): **Benefits of Playing at School: Filler Board Games Improve Visuospatial Memory and Mathematical Skills**

This study examines the effectiveness of using modern board games in schools to improve memory and math skills in children. The results show that both memory and math-focused board games led to measurable gains in cognitive and academic performance, suggesting their value as educational tools.

Publication by Jorge Moya-Higueras (2024 - EN): **Do You Play in class? Board Games to Promote Cognitive and Educational Development in Primary School: A Cluster Randomized Controlled Trial**

This large-scale study evaluated the impact of a classroom-based board game program on executive functions and academic skills in primary school students. Results showed that students who played modern board games during class made greater gains in cognitive updating and academic performance compared to those in traditional lessons, suggesting that gameplay can be a more effective approach to learning and development.

Additional resources on this topic:

Publication by Jorge Moya-Higueras (2019 - EN): ***"A Pilot Study of the Efficacy of a Cognitive Training Based on Board Games in Children with Attention-Deficit/Hyperactivity Disorder: A Randomized Controlled Trial"***

This study evaluated the effects of a board game-based intervention on children with ADHD. Results showed significant improvements in short-term memory and conduct problems in the group that received executive function training through board games. The findings suggest that board games may be an effective therapeutic or preventive tool for managing ADHD symptoms.

Publication by Jorge Moya-Higueras (2022 - EN): **Impact on Executive Dysfunctions of Gamification and Nongamification in Playing Board Games in Children at Risk of Social Exclusion**

This study tested the effectiveness of gamification in board and card game-based cognitive interventions for socially vulnerable schoolchildren. While both gamified and non-gamified approaches led to improvements in executive functioning, the non-gamified group showed greater progress, suggesting that the intrinsic motivation of play may be more effective than added gamification elements.

Publication by Jorge Moya-Higueras (2023 - EN): **Just Play Cognitive Modern Board and Card Games, It's Going to Be Good for Your Executive Functions: A Randomized Controlled Trial with Children at Risk of Social Exclusion**

This study evaluated the impact of modern board and card games on executive functions in children at risk of social exclusion. Results showed improvements in cognitive flexibility, inhibition, and working memory, suggesting that playing such games, regardless of type, can positively support cognitive development in vulnerable populations.

Publication by Jorge Moya-Higueras (2023 - EN): **Board Game-based Intervention to Improve Executive Functions and Academic Skills in Rural Schools: A Randomized Controlled Trial**

This randomized controlled trial explored the use of commercial board games to train executive functions and academic skills in children from rural schools. Results showed that the board game group improved significantly in cognitive flexibility and calculus performance, suggesting that structured play can be as effective, or even more effective, than traditional classroom methods for cognitive and academic development.



3 Cognitive benefits of a metacognitive program with board games in children

Anick Pelletier

Anick Pelletier is an Educational therapist working at Optineurones Clinic in Quebec City, Canada. With 20 years of experience, and passionate about board games, she has been using them in her work since 2002. Thanks to her expertise, she conducted an analysis of the cognitive processes present in the board games that she then uses with pupils and students. She also conducted the JeuMETACOGITE program, using board games at school to foster children's cognitive, metacognitive and academic skills.


Pr. Céline Lanoë

Pr. Céline Lanoë is a Senior Lecturer in Educational Psychology at the University of Caen Normandy and a researcher at the Caen Normandy Psychology Laboratory (LPCN), France. Her work focuses on the relationships between cognitive control, language, and academic learning, with a particular interest in metacognition, self-regulation, and inclusion. She has co-led the JeuMETACOGITE research project, which explored how board games can foster children's cognitive and metacognitive development.


Pr. Amélie Lubin

Pr. Amélie Lubin is a Senior Lecturer in Educational Psychology at the University of Caen Normandy and a researcher at the Caen Normandy Psychology Laboratory (LPCN), France. She conducts research on the development of mathematical cognition in children, particularly on the roles of self-regulation and metacognition. Her work combines behavioral methods and brain imaging, with an interest in pedagogical applications. She has co-led the JeuMETACOGITE research program, using board games to develop children's cognitive and metacognitive skills.

Additional resources on this topic:

 **Conference “The JeuMETACOGITE educational program: enhancing executive functioning through a metacognitive approach while playing at school” by Amélie Lubin and Céline Lanoë (video – 2023 - EN):**

A presentation of their research program, which explores how board games used in the classroom can support children's thinking and learning. The study looks at how a metacognitive approach (i.e., teaching children to reflect on their thinking) combined with structured gameplay can help develop executive functions like attention, planning, and self-control. The presentation covers the program's goals, scientific foundations, and experimental approach, and highlights key findings. Results show that when metacognitive strategies and gameplay are used together, children's executive functions improve significantly.

 **Conference “Programme de recherche JEuMETACOGITE Évaluer l'impact de l'enseignement du cerveau et d'un entraînement par le jeu de société pour améliorer les apprentissages chez des élèves de 9 - 10 ans” by Anick Pelletier at the Cannes Games Festival (video – 2024 - FR):**

Presentation of the research program, shared at the Cannes Festival of Games. The study explores how combining board games with metacognitive strategies in the classroom can help children develop key executive functions such as attention, planning, and self-control. It outlines the program's goals, scientific basis, and experimental design. Results show significant improvements when gameplay and self-reflection are used together.

