

Crafting Success: Unveiling the Entrepreneurship Odyssey - A Dynamic Research Roadmap Board Game for Aspiring Innovators and Business Leaders

This chapter introduces the Research Methods Roadmap board game, designed to revolutionise the learning experience for students and researchers alike. Addressing the intricate nature of teaching and learning research methods presents a notable challenge with recognition that there is a dearth of innovative pedagogical approaches to teaching. In response to this, I created a board game designed specifically to cultivate a dynamic and enjoyable learning atmosphere within the classroom. Remarkably, no comparable product exists in the realm of research methods education, making this creation a pioneering endeavour in this field.

By blending entertainment with education, this dynamic game serves as a powerful tool for enhancing comprehension and mastery of research methods. Offering a novel approach, the game invites students in entrepreneurship to immerse themselves in a vibrant and safe learning environment. Within this setting, students are encouraged to embrace risk in their decision-making processes, fostering an atmosphere conducive to exploration and innovation.

Through engaging with fundamental principles of entrepreneurship including pitching, communication, resource allocation, risk management and competitiveness, players embark on an experiential research journey. This hands-on experience not only fosters deeper understanding but also injects an element of enjoyment into the learning process, making it both educational and fun.

The board game:

Context of entrepreneurial pedagogy

Entrepreneurship researchers tend to have a prevailing preference for positivist approaches; however, this previously dominated methodology is being balanced with the recognition of more qualitative methodologies being adopted over time (McDonald et al., 2015). Aldrich and Baker (1997) view the adoption of diverse methods as a

welcome change to entrepreneurial research. In recognition of the changing landscape for entrepreneurial research with an increase in qualitative methods (Perren and Ram, 2004) and case studies (Stake, 2003) a board game was designed to align with typical entrepreneurial values of creativity combined with simulation preferences. The benefits of this board game align with several principles of entrepreneurship pedagogy such as the elements of competition, which allows students to experience the complexities of decision-making in a controlled and engaging setting. Entrepreneurial pedagogy typically incorporates experiential learning, real-world applications, and practical experiences to help students develop the skills needed to identify, create, and pursue entrepreneurial opportunities. This board game serves as a dynamic tool to facilitate experiential learning within this pedagogical framework. The goal of entrepreneurial pedagogy in higher education is to prepare students to think entrepreneurially, take calculated risks, adapt to change, and effectively navigate the dynamic landscape of entrepreneurship and innovation. Using this board game, specifically designed for research methods, students can actively apply and benefit from entrepreneurship skills within the entrepreneurial pedagogical framework.

The objective of the Research Methods Roadmap board game

This board game, depicted in figure 1, was designed to be used as a teaching resource to drive student engagement and progression for students undertaking research methods (RM) within business schools (Stevens cited in Remenyi, 2022). Students navigate a qualitative, quantitative, or mixed-methods road using small electric cars, engaging in discussions and reflections at designated stops to enhance their understanding of research philosophy and research methods. At each stop the player is awarded an electric car charge by their lecturer, depending on their ability to pitch and articulate their understanding and application of research methods. The objective of the game is to get the highest possible battery charge, whilst navigating five key stops highlighted in figure 1:

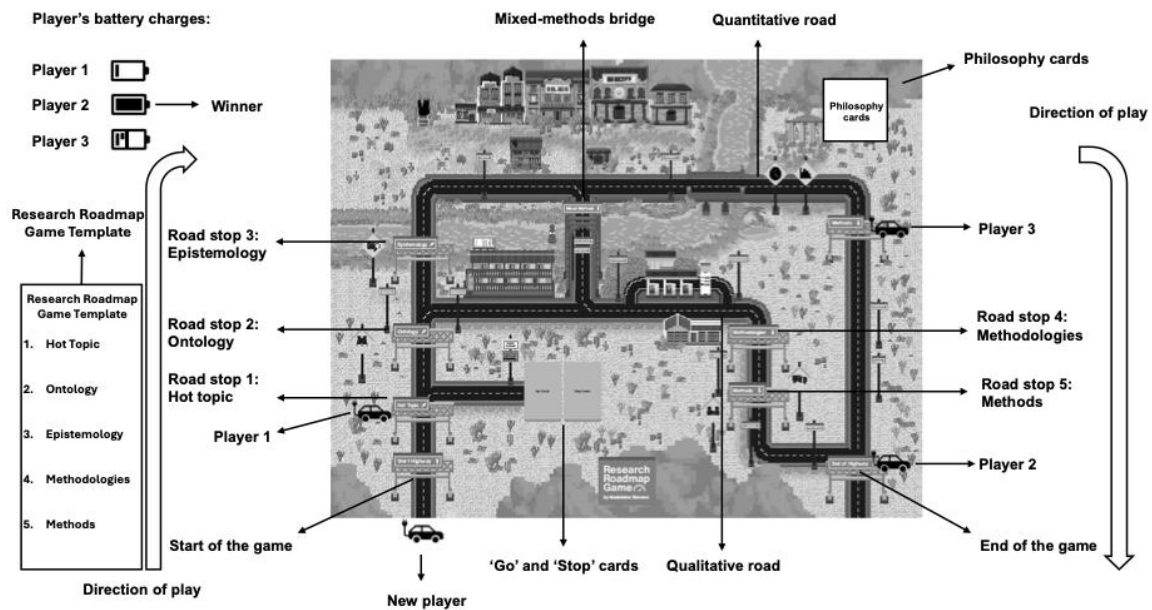


Figure 1: Overview of the Research Methods Roadmap board game (author)

Game mechanics:

The game components are represented in table 1:

Game component	Function
Game board (one)	The game board serves as the setting for the three distinct roadmaps; qualitative, quantitative and mixed-methods, each offering unique pathways and challenges for players to navigate
Electric cars (eight)	The electric cars come in an array of colours, serving as avatars for each player to navigate on the game board
Battery chargers (eight)	Each player possesses an individual battery charger capable of receiving up to five charges, acquired at each of the five key road stops. These charges symbolise progress and contribute to deciding the player with the highest scores. The lecturer determines the magnitude of the battery charge, bestowing either a five, then or twenty-point boost to player's energy reserves. This discretionary approach adds an element of unpredictability and excitement to the game, keeping participants on their toes.
Go cards (ten)	At the initial stop, 'Hot Topic', players with a research topic can draw up to three Go cards, determined by the number rolled on the die. Each card

	contains a question on the reverse side, which the players answer, giving them an opportunity to enhance their charge.
Stop cards (ten)	At the initial stop, 'Hot Topic', players without a research topic can equally draw up to three Stop cards, determined by the number rolled on the die. Each card contains a question on the reverse side, which the players answer, giving them an opportunity to enhance their charge.
Hot Topic die (one)	This die has the following faces: two x pick up one card; two x pick up two cards; two x pick up three cards. Player's roll this die at the first stop; 'Hot Topic'.
Philosophy cards (six)	When students get to the second and third stops, 'Ontology' and 'Epistemology", they roll a die that either gives them an option of one card or no card. If the die indicates one card, the player gets to pick a philosophy card that has summary reminders of the key principles of research philosophy. The same rules apply at each of the two stops respectively
Philosophy die (one)	This die has the following faces: 3 x no card; 3 x one card. Player's roll this die at the Ontology.
Game template (eight)	Each player gets a Research Roadmap game template for notetaking whilst playing the game.

The game accommodates two to eight players, allowing for flexible group dynamics and fostering collaborative engagement. The game is played over 12 weeks, after a taught seminar each week, which explains the key concepts of research methods. There exists flexibility for the lecturer to adapt the frequency according to their specific course content and learning objectives. This adaptable approach ensures alignment with the varied needs and pacing of different educational contexts. Players navigate the roadmap, stopping at each of the five key stops as indicated in figure 1.

At the first stop, known as "Hot Topic", players roll a die to determine how many cards to collect; either one, two or three. If they already have a designated research topic, they gather the same number of 'go' cards as indicated by the dice. If they haven't selected a research topic yet, they collect the same number of 'stop' cards as indicated by the dice. Each player then reads out the questions on their cards, which serve as prompts, aiding them in articulating their topic within the framework of research philosophy.

The second stop, 'Ontology' players roll the die, where they could either land on a 'one card' or 'no card'. If they get the 'one card' option, they get to pick one of the

philosophy cards; ontology which has helpful reminders of the key principles of ontology and the difference between subjectivism and objectivism. This helps remind the player which research road to choose.

At the third stop, 'Epistemology' players roll the die, where they could either land on a 'one card' or 'no card'. If they get the 'one card' option, they get to pick one of the philosophy cards; ontology which has helpful reminders of the key concepts of epistemology, including a choice of constructivism, interpretivism, positivism, post-positivism or pragmatism. This card serves as a helpful reminder of each of the paradigms of epistemology.

At the fourth stop, 'Methodologies', the player confirms their chosen route for data collection, informed by their research philosophy, choosing either qualitative, quantitative or mixed-methods research.

At the fifth and final stop, 'Methods', the player discusses their chosen method of data collection, such as surveys, interviews and focus groups.

Students are allocated a battery charge at each stop by the lecturer, based on their ability to articulate their understanding of their research in line with theory. This component supports key entrepreneurial skills of communication and pitch, whilst operating within the boundaries of resource management. This helps the students to learn to make efficient use of the limited opportunities to get battery charges which range from 5, 10 to 20 units. The battery charges are tokens of reward for completing the research milestones and mastering key concepts of innovative thinking.

The integration of risk and uncertainty into the game, emphasises the importance of risk management in entrepreneurship.

To recognise the importance of decision-making and dynamic competition factors, a competition element is structured within the game where the player with the highest battery charge at the end of the roadmap wins the game.

Facilitated learning:

While the game incorporates a competitive aspect, a fundamental tenet of gamification, it actively cultivates collaboration among students. Participants are encouraged to take detailed notes, diligently recording feedback from both fellow participants and the facilitator. This collaborative environment unfolds as players articulate their decision-making processes and explore their topic areas on the game

map. This component of the game promotes collaboration and teamwork, reflecting the reality that many successful businesses are built through effective teamwork, encouraging students to work together to solve problems and achieve common goals. Students are also provided with a supporting template with the same key road stops as the respective roadmaps, which can be used for individual note taking. During and after playing the game, the lecturer provides feedback to students to help them reflect on their decisions, discuss outcomes, and draw connections between the game and real-world entrepreneurial challenges. This reflection process enhances the learning experience.

According to Adamou (2019) to conform to the requirements of a game; essential components are necessary which are mapped to entrepreneurial skills in figure 2 below:

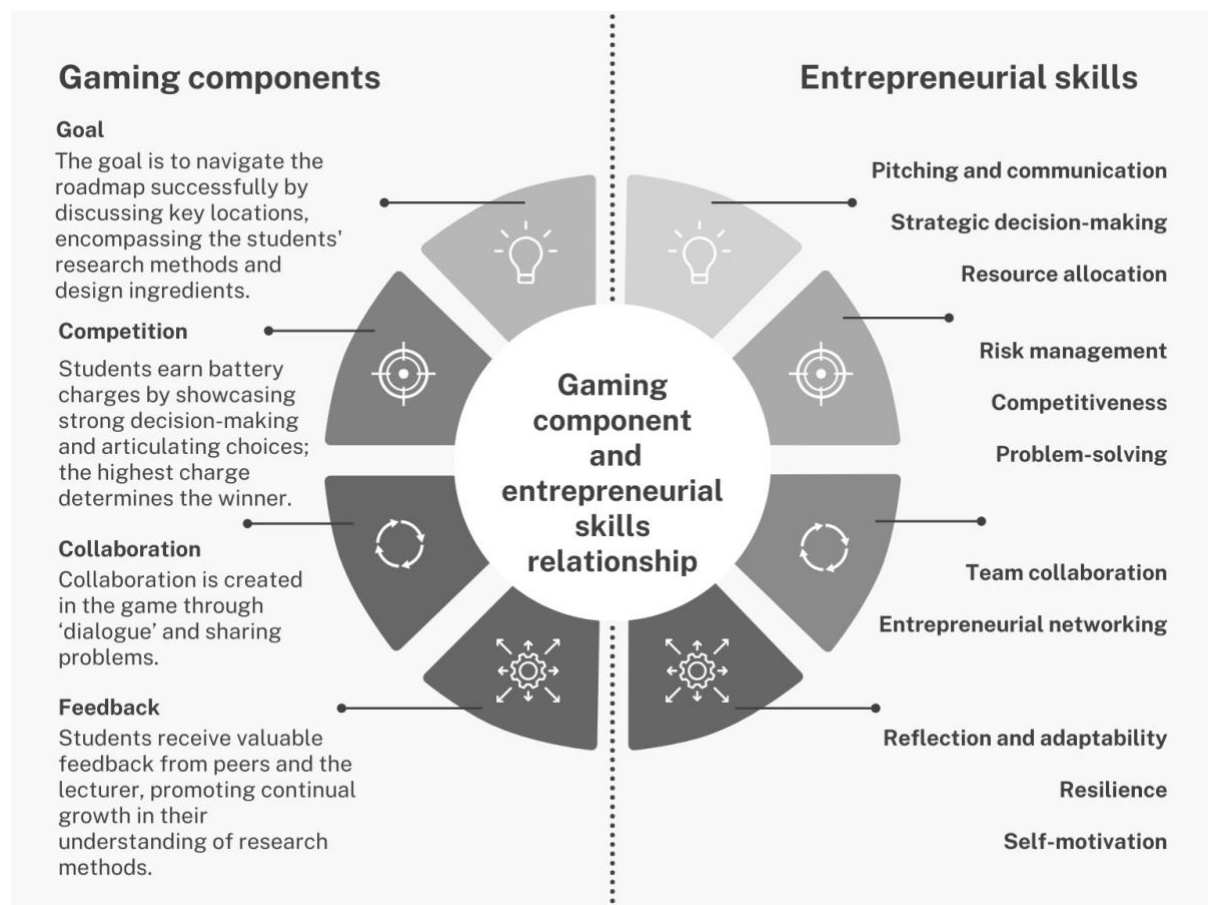


Figure 2. Gaming component and entrepreneurial skills relationship (author)

The game is designed to encourage learning through increasing dialogue amongst students, facilitated by the course instructor. This element of the game supports entrepreneurial networking, which emphasises the significance of building and leveraging relationships in the entrepreneurial ecosystem. This can include forming partnerships, seeking mentorship and collaborating with other players.

Throughout the game, players pitch their research and application of their topic to the relevant stop within the context of research methodology and justify the means of their decision-making. This helps develop their communication and persuasion skills, essential for entrepreneurs when seeking investment or partnerships. These key skills are highlighted as essential for professional readiness in the contemporary workforce, as emphasised by the World Economic Forum (2023). By using the learner's own words combined with the skill of gentle probing, suitable props and intuitive gaming, this roadmap game aims to develop key entrepreneurial skills pitching and communication skills.

The research methods roadmap allows lecturers to provide formative feedback which is aimed to be supportive and to drive improvement, yet also analytical and critical which explicitly links to the learning outcomes of the research methods proposal (Chen, 2005). This notation is supported by Gobet et al. (2004) who posit that board-game education is subject to good teaching and coaching techniques to foster the development of high performance.

Student satisfaction

After an initial pilot study with master's students over three years, there was a substantial rise in the pass rate from 55% to 92%. Student feedback for all three of the pilot sessions indicates a 100% satisfaction rate. In addition, qualitative comments from students included:

"I enjoyed exploring different methods of data collection - in particular, testing dissertation topics on the 'road map' were very interesting." (Level 7 student)

“It has been great to also visualise the paths we need to take through the road map!

Thank you!” (Level 7)

“I feel a lot more confident to approach this in the future.” (Level 7)

“Brainstorming and chatting with fellow students regarding subject ideas.” (Level 7)

Recognising the need for enhanced game mechanics, further testing and development of the game are essential, with a steering committee being put in place to achieve this goal.

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