DESIGN COGNITION IN ENTREPRENEURSHIP EDUCATION: Preliminary findings in a game-based activity

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Introdução
The dissemination of design thinking in the popular business press and academic journals seems to trigger a series of analysis attempting to rescue the research tradition. One of the efforts made by these analyses was to interpret the two design thinking streams that seemed to be incompatible after 2000. On the one side is the design discourse or the traditional design thinking approach and on the other side is the management discourse or the new design thinking movement (Johansson & Woodilla, 2010).

Problema de Pesquisa e Objetivo
Design thinking hype distorts the notion of its original concept and its teaching and learning practices. In this sense, we present preliminary findings on how undergraduate students might use design thinking to solve problems in an entrepreneurship course. In doing so, we argue in favour of a pedagogy that fosters the design cognition rather than prescribed methods or tools (e.g., IDEO approach). We build on Garbuio et al. (2018)'s argument that we should teach cognition as explicit content instead of design tools and processes usually employed as a pedagogical perspective.

Fundamentação Teórica
Garbuio et al. (2018) proposed four different cognitive acts in design to be applied in entrepreneurship education (EE): abductive reasoning, framing, analogical reasoning, and mental simulation. Among the possible pedagogical interventions to build this bridge between design thinking and EE is the use of games (Neck & Greene, 2011). Therefore, we proposed a pedagogical activity in which students played a board game intended to provide an introductory experience in entrepreneurship. Furthermore, after playing the game, the students were invited to redesign the game they just played.

Metodologia
This game was applied in an undergraduate entrepreneurship course in Brazil. This course was entirely dedicated to games and simulations. The professor who collected data had 12 students and the activities consumed 15 hours including gameplay and game design. Data was collected through video-recording, classroom photos, four students' interviews (1h each), and students' final reports that described their overall impressions. In this paper, we focused our analysis on video-segments of one group that was brainstorming for their ideas for game design.

Análise dos Resultados
The students started to frame the problem and creating possible solutions to address it. New ideas were proposed to overcome the constraints and analogies ground on the real world were used to promote and explain their design concepts. The design ideas were also summarized through the use of mental simulations as a way to test the game design concepts and present arguments to convince the team members. The design gradually evolved, and through negotiations and agreements, the final concept was shaped attempting to balance the project constraints and the group consensus.

Conclusão
Our preliminary findings promoted a new understanding of design thinking in teaching and learning EE context. We support the argument that a reinterpretation of design thinking in teaching and learning practices in business discourse is needed (Johansson-Skoldberg, Woodilla and Cetinkaya, 2013), especially for young and undergraduate students who have either no, or very limited, business experience.

Referências Bibliográficas
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