

Using an Elevator Pitch Competition to Introduce Engineering Students to Entrepreneurship

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Introduction

An elevator pitch is a succinct description of a product or idea with the intention of allowing the listener to review the main information in a brief period. An elevator pitch is aimed at creating interest in a project, product, or idea. Characteristics of a good elevator pitch include, a) concise but persuasive, b) uses clear language, and d) highlights the specifics of the idea or product.

The purpose of this project was to introduce first semester engineering students to the first phases of entrepreneurship using an elevator pitch competition. Entrepreneurship is the process of finding a need in the market, developing a creative solution or product to fill that need, and marketing it with the goal of developing a successful business. The entrepreneurship process is divided into five phases: idea generation, opportunity evaluation, planning, company formation and growth. Entrepreneurship is about recognizing opportunities in the market and acting on them. It requires to think creatively, to innovate, and to move from an idea into a prototype.

The elevator pitch competition was developed within the context of a first-year engineering seminar. Students were divided into small groups and were tasked at identifying a need based on common problems faced and to devise a solution or product to fill that need. The proposed solution was presented using an elevator pitch format. This paper summarizes the process used for idea generation and summarizes the different products and ideas presented by the students.

Methodology

The Elevator Pitch Competition is a video submission competition that challenged students to make a convincing and engaging “Elevator Pitch” of a product idea. Prior to the final competition, students enrolled in a first-year engineering seminar at a land-grant institution in the Mid-Atlantic region were divided into teams of 3-4 students each and each team were asked to identify problems and to brainstorm potential solutions. This brainstorming session led to a list of problems and potential products. That list was further discussed and was refined. In four weeks, students went from a list of several potential ideas and products to only one product that they believed was viable and could solve a need in the market. Each team further refined their idea and presented the idea in a 90-second video submission. That video submission was evaluated in each classroom, and one winner was selected per classroom. The winners of each classroom were evaluated by a group of first year engineering students, who selected the winning idea.

Each elevator pitch was rated using a rubric that considered, a) if the pitch entices you or draw you in (COMPELLING), if the pitch delivered all details needed (INFORMATIVE), how likely are you to use this product (NEXT STEPS), quality and professionalism of the presentation (DELIVERY), and the overall impression of the pitch and product (OVERALL RATE).

Table 1. Criteria used to evaluate each elevator pitch submitted

Criteria
Compelling
Informative
Next Steps
Delivery
Overall Impression

Results

The final ideas presented by students included products that represented a re-design of an existing product as well as some brand-new ideas. Table 2 summarizes some of the ideas presented by students in class.

Table 2. Students' ideas for product

Examples of products proposed by students
Water bottle with a heating and cooling mechanism
Smart light bulb
Socks with extra padding and extra stitching for longer duration
Re-sealable cereal bag
Folding desk to save space and to move easily
iPhone case that will allow for proper ventilation of the phone
Redesign of a pencil to decrease weight while adding a bigger eraser
Automatic system to clean and disinfect a toilet

A survey based on a 7-point Likert scale (strongly agree – 7; strongly disagree – 1; neither agree nor disagree -4) was completed at the end of the semester and provided some information on how students felt about the activity and about entrepreneurship. Student indicated that the activity allowed them to think about the development of new products (4.63 ± 1.69) and they are thinking about becoming successful entrepreneurs (5.08 ± 1.65). Several groups went beyond the scope of the activity and developed a prototype of their idea.

This work in progress paper summarizes our first integration of idea generation and an elevator pitch competition in our first-year engineering program. Some of the ideas developed by students deserved further review and consideration as they could be potential products. In the future, we plan to integrate the competition and the topics of entrepreneurial mindset

Conclusion

The elevator pitch competition allowed students to think about engineers as creative problem solvers and to recognize the importance of engineering in the development of new products. The activity was scaffolded by the instructor and the product or idea was fully developed by students outside class time.

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