Pitch Challenge: Fostering Soft Skills in Undergraduate Students of Telecommunication Engineering

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Abstract

An elevator pitch is a short summary used to quickly and simply define a process, product, service, organization, or event and its value proposition. The name comes from the idea that it should be possible to deliver the summary within the time span of an elevator ride, so anywhere between 30 seconds and 2 minutes, which means the key points need to get across quickly. In this particular educational context, technical students have been encouraged to defend, under the typical rules of the elevator pitch, the knowledge acquired during the semester in a specific subject. This contribution focuses on the classroom experience and how the transversality of the activity can help students to strive and think in a different way than they are used to in the classroom of a technical career.

Keywords: Education; learning environments; partnership; collaboration; evaluation

1. Introduction

Soft skills are the additional or supplementary skills needed by engineers necessary in today's global scenario. Strong communication and interpersonal skills are essential to enhance employability. Soft skills provide students with a solid conceptual and practical background for building, managing and developing teams. They play an important role in overall personality development, thus enhancing the student's career perspectives. Some of the soft skills necessary for success are quality leadership, teambuilding, conflict management skills, interpersonal skills, self-management skills, empathy, negotiation, personal effectiveness, goal orientation, flexibility, problem-solving skills or written and oral communication skills. It is on this last skill that the present study is focused, since it is considered a crucial one within the transversal competencies that an engineer must acquire, and which is not always promoted as much as it would be desirable in the curricula. In addition, the development of speaking skills in today's professional context is increasingly critical for any student in higher education, both at the undergraduate and graduate within and beyond the university stage.

Many universities are promoting skills linked to entrepreneurship, given the enormous change entrepreneurship that is taking place in the labor in the workplace at all levels (Schipper, M., & van der Stappen, E., 2018 ; Klofsten. 2000). In this context, the ability to convey ideas in an agile, clear and simple way, in a convincing and even attractive manner, has become a key element (Pereira, O. P., & Costa, C., 2018; Wee, 2004) in the set of transversal competencies that aim to make the student more proactive (Ferrando-Rocher, 2020; San Tan and Frank Ng, 2006). Thus, as an activity to develop this transversal competencie as part of a flipped classroom system, some authors have approached it by using an activity known as "elevator pitch" with really satisfactory results (Lacka-Badura, 2020; Miranda-Benavides, 2020; Romero, 2017).

The elevator pitch is a mastery experience that replicates the situation of a person having the duration of an elevator ride to pitch an idea, product, service or business to a potential investor. In this scenario, the promoter's hypothetical client owns the item and, in return for investment, the investor may become a substantial shareholder in the entity yet to be incorporated. The potential ‘investor’ has agreed to listen to the presentation. However, this elevator pitch approach may not be relevant in the first instance to an engineering student. Here it is not so important to sell an idea to an investor but to be able to communicate effectively and in a very short space of time a certain topic. Thus, the investor in this case becomes the rest of the students, whom the presenter must convince of the reason for the knowledge acquired and how useful it is for him.

The activity described here was carried out during the 2020-2021 academic year in the Signals and Systems course of the Telecommunications Engineering degree (Image and Sound speciality) at the University of Alicante, in Spain.

2. Methodology

The methodology was based on three main blocks: 1) preparation, 2) challenge and 3) feedback. It is described below:

1) First, the activity is explained and put into context. There are countless resources that make it easy to illustrate what an elevator pitch is. However, this activity has a particular structure since it is far from trying to sell a business idea, but rather to transmit in a concrete way some acquired knowledge and to know how to defend it in front of classmates. Thus, students were encouraged to make a draft of their presentation, following the outline in Fig.1. In this way they could cooperatively check whether the content and length of the text to be defended was appropriate.

2) Pitch Challenge: The term 'challenge' is a term used in social networks to define a viral trend in which the rest of the people are invited to perform a challenge, to do something, either for a charitable cause or just for fun. By integrating this trend into the activity, we propose to turn the elevator pitch activity into a challenge, which motivates students to a healthy competitiveness. Thus, in the challenge, each of the students must present their 2minute pitch to the rest of the class, in which they must specify what they have learned during the course, why they believe it is valuable and what it will be useful for them in the future. Of course, this activity was carried out in the last week of the course, so that the students had a global vision of the course to defend in their pitch.

3) Feedback: After the individual presentation, the activity does not end, but after the different pitches there is a round of discussion and feedback from the rest of the students. Once each round is finished, a collective evaluation of the strengths and areas of improvement of each presentation is made, so that the presentation becomes an excellent tool for improving the skill.

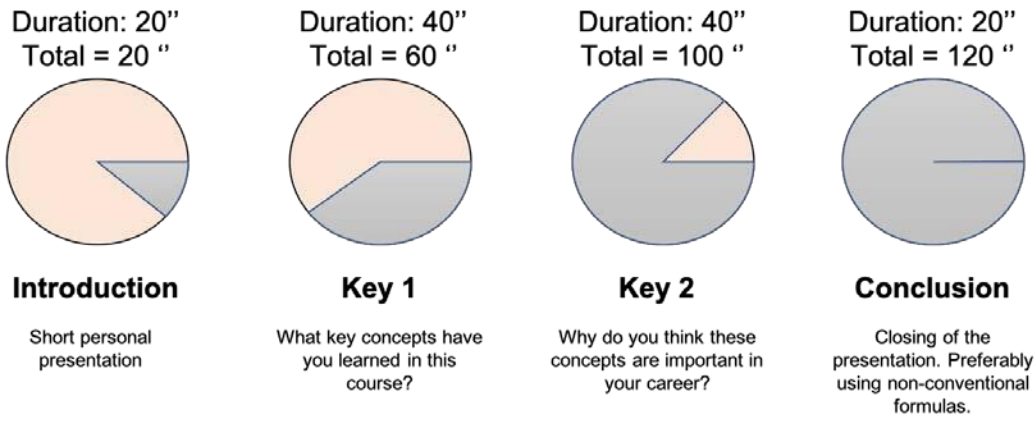

Fig. 1 .- Flow chart of the proposed elevator pitch

3. Results

The activity was carried out in the high-performance group in the Signals and Systems course of the second year of the telecommunication engineering degree at the University of Alicante (UA). The total number of students enrolled in this group in the academic year 20202021 was 14. The students participating in the experience were 11. The activity was carried out in week 15 of the course (at the end of the term) and had a total duration of 3 hours. One hour of preparation, one hour of realization and one hour of feedback. At the end of the experience, the students freely expressed their opinions, among which the following stand out:

- First subject in which they carried out this activity.
- Useful and motivating activity.
- An activity that encourages reflection on the contents.

Finally, it should be noted that this experience is framed within the Basic Transversal Competences of the subject and verified by the National Agency for Quality Assessment and Accreditation (Agencia Nacional de Evaluación de la Calidad y Acreditación – ANECA). The objective of the competency CT2 is that students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the development and defense of arguments.

4. Conclusions and discussion

An elevator pitch has been proposed to stimulate oral communication skills in a 2nd year course of the telecommunication engineering degree at the UA. The activity, under the name of "Pitch Challenge" makes use of the well-known elevator pitch technique used mainly in marketing. In the absence of tangible results, being a budding activity, it is expected that it can be consolidated within the study guide of the subject in future years, in order to assess whether it has a positive performance, a good acceptance and a real and beneficial impact on students.

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