



CRITICAL ANALYSIS OF THE SENIOR THESIS PROCESS IN AEROSPACE ENGINEERING

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Resumen.- Se analizan distintos aspectos del proceso de elaboración del Trabajo Fin de Grado (TFG) desde la perspectiva del estudiante, puesto que no se dispone de ninguna retroalimentación que pueda mejorar el proceso, de por sí complejo, de su realización. Se concluye que, con carácter general, el alumnado está satisfecho con la actual implementación del TFG, aunque se identifican algunos puntos de mejora relativos a la formación en gestión del tiempo y software de modelización

Abstract.- The process of development of the Senior Thesis (abbreviated as TFG in Spanish) is critically analyzed from the perspective of the student. Currently there are no mechanisms to obtain the student's feedback about the TFG elaboration process, which has great complexities. The detailed analysis concludes that, in general, students are satisfied with the development of the project. However, some areas such as the training in time management and modelling software need to be improved.

Context

From the experiences of the last years, this study aims at identifying the most important problems that have been perceived by the students when they elaborate their senior thesis (TFG).

In particular, it is intended to know the opinion of recent graduates on different key issues for the realization of the TFG as:

- TFG specific educational objectives
- TFG follow up by the supervisor
- Writing and oral communication skills (Soft Skills);
- Time management in the execution of the project and estimation of the actual workload, etc.

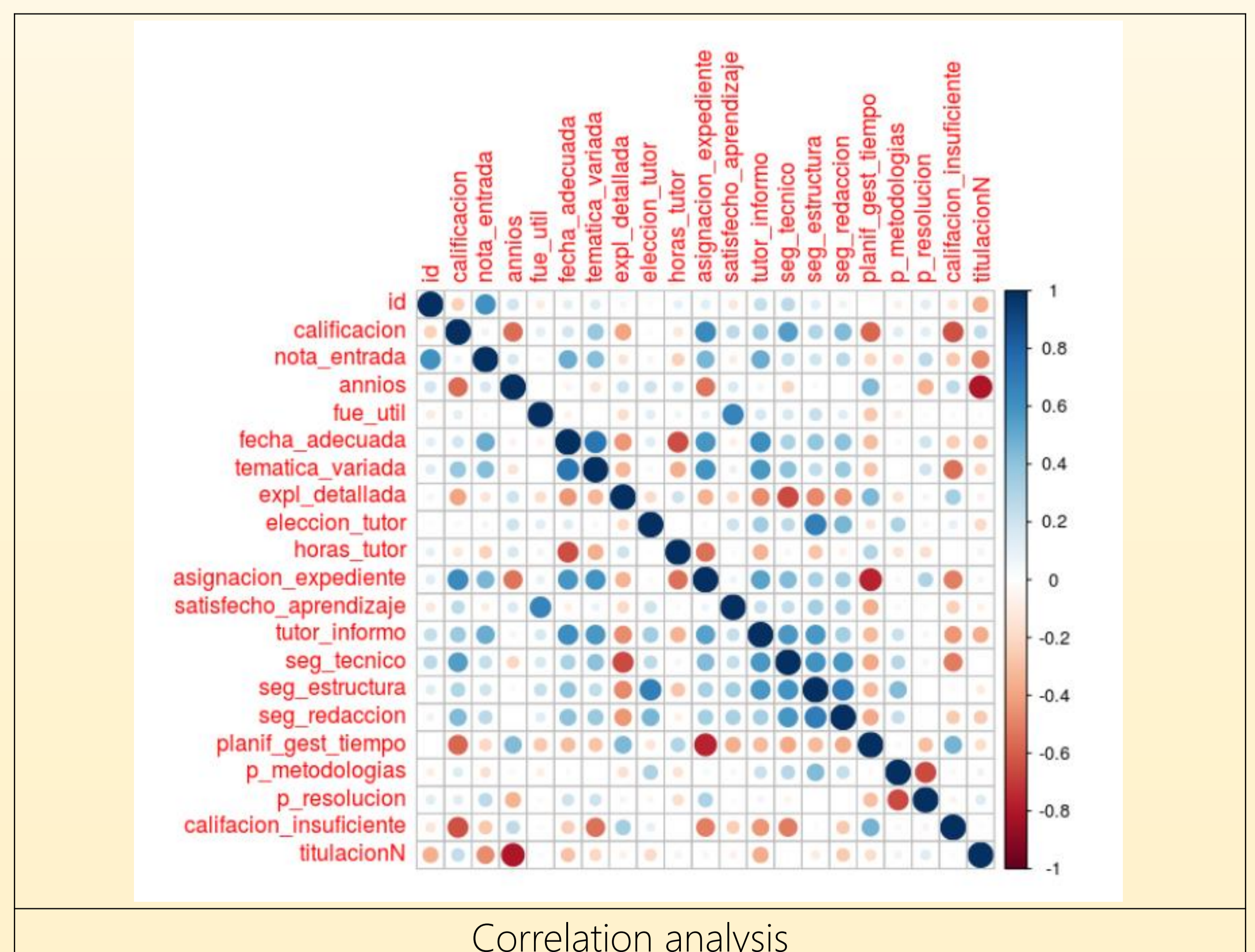
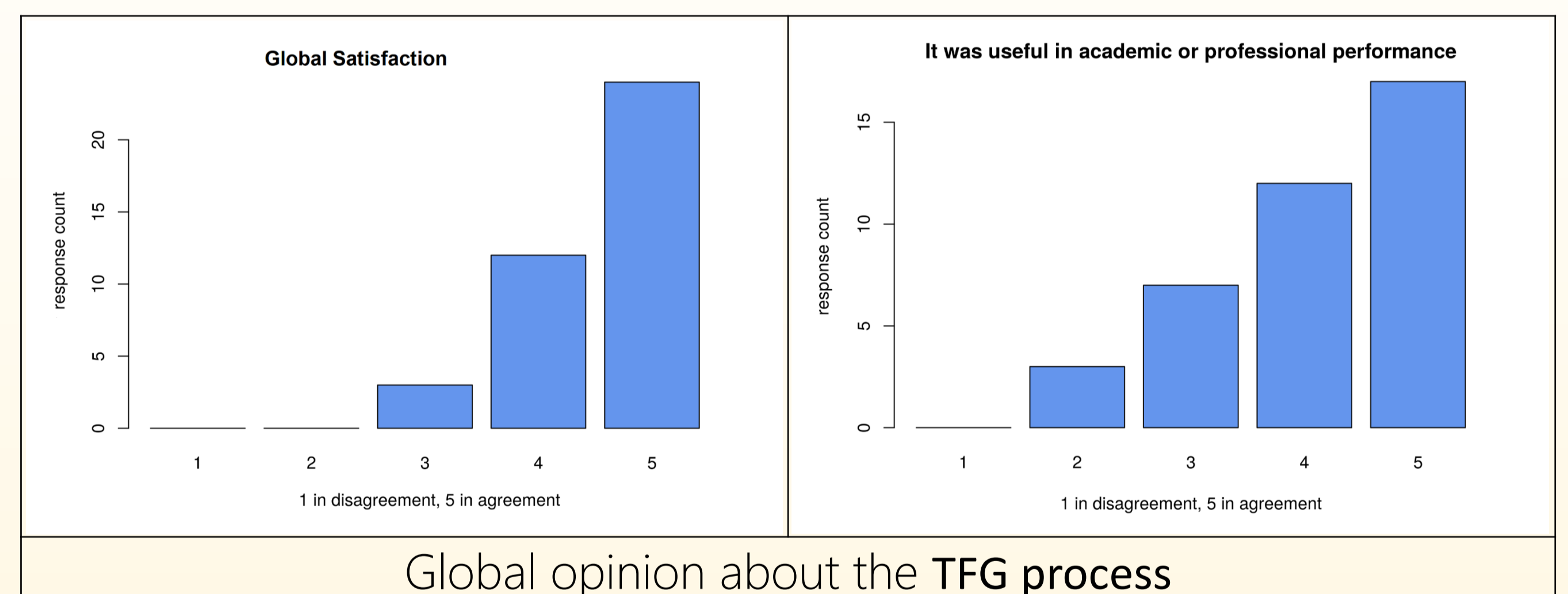
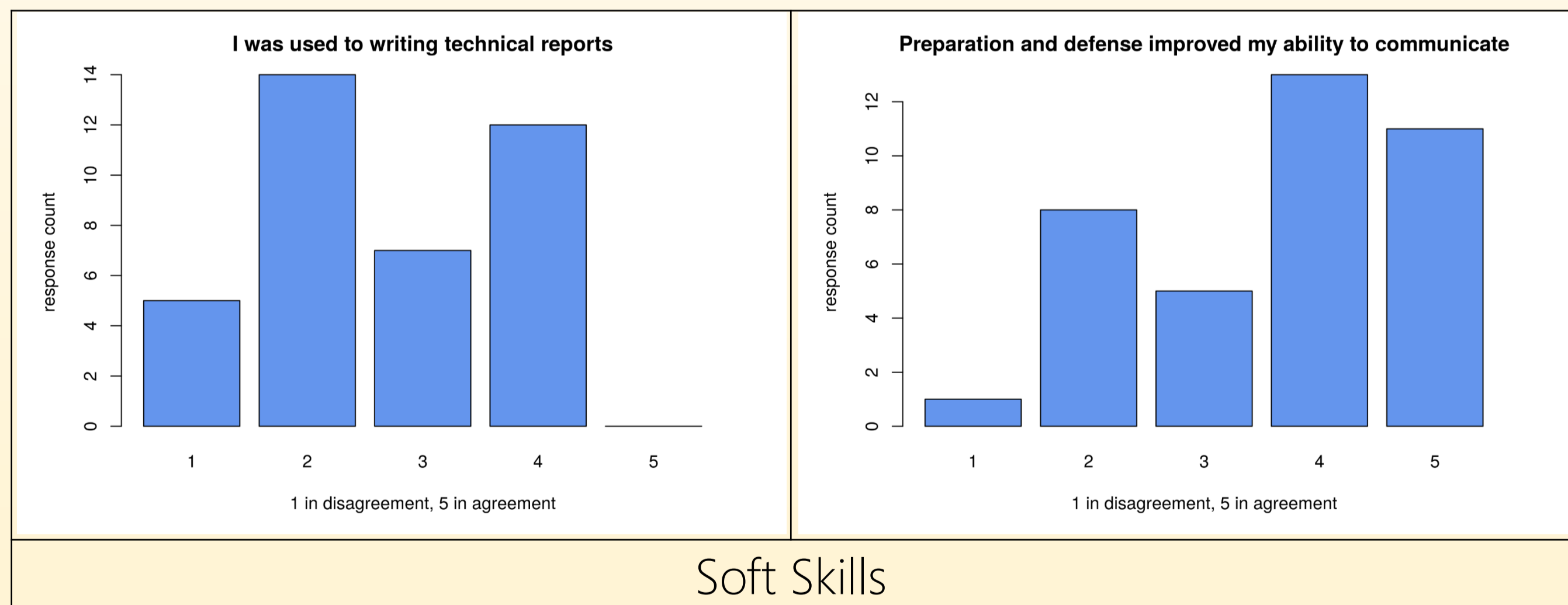
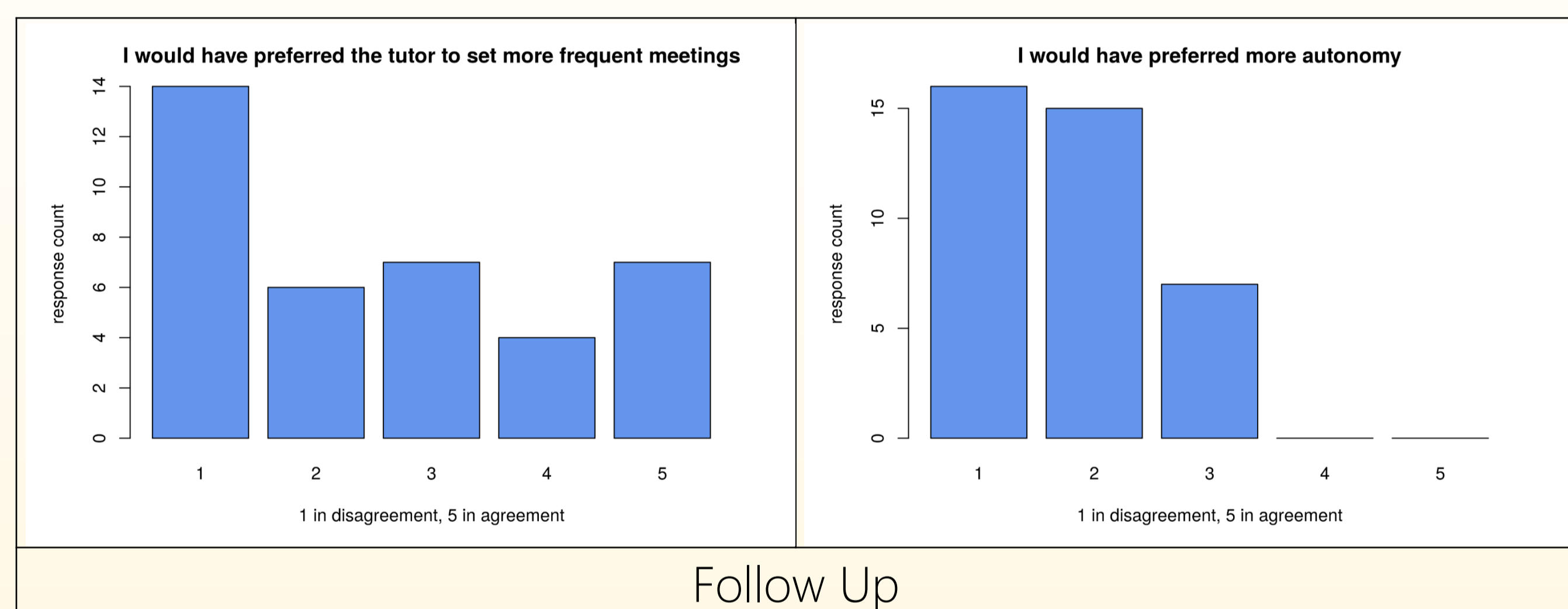
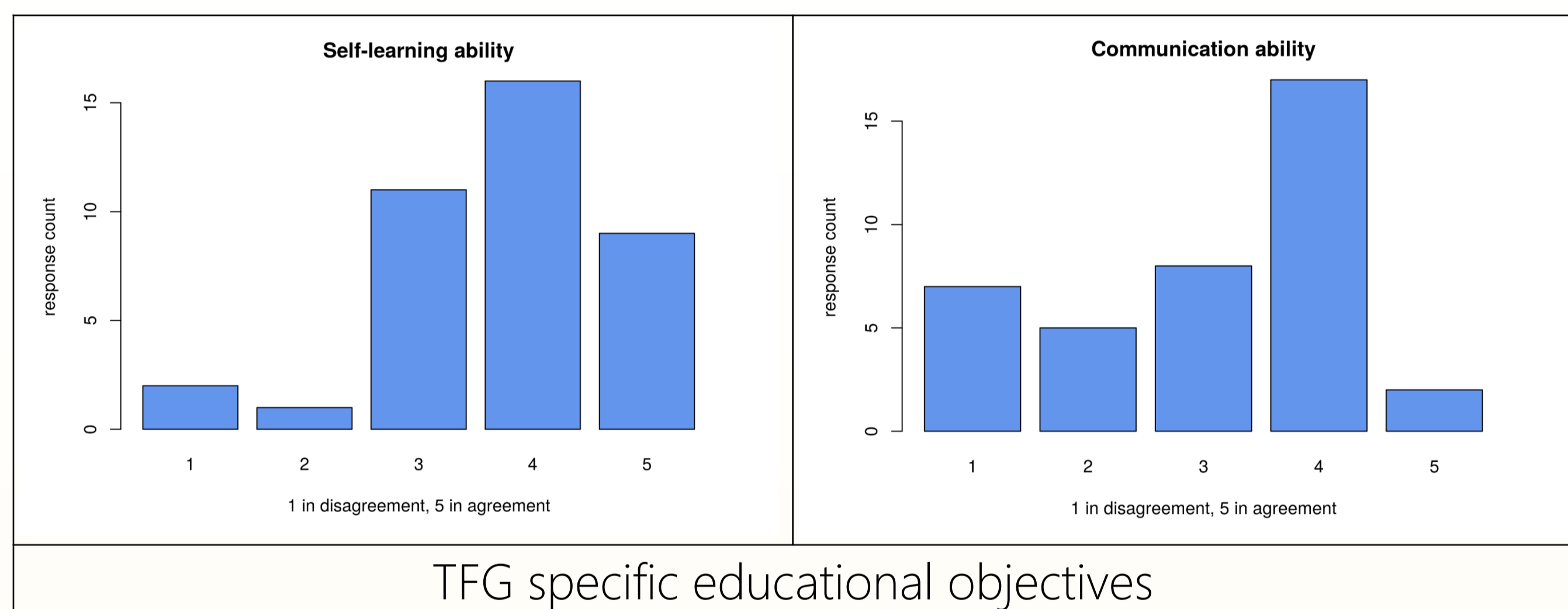
Methodology

A quantitative procedure has been followed by preparing a survey divided into six blocks with 46 questions. It was answered online (SurveyMonkey) by 39 graduates.

Survey design was the result of different discussions carried out by the authors of this work, taking advantage of the experience acquired in the past years. Typically, the total number of TFGs supervised each year is about 30.

The results were interpreted by performing a statistical data analysis. We introduced 73 variables of quantitative and qualitative nature, measuring some of them with a 5 point Likert scale. A descriptive and a correlation analysis were done. Next, we show some of the most important results.

Results



Conclusions

- The students are **satisfied** with the development of the TFG supervised by lecturers from the Aerospace Engineering Area. They also consider that it has been **very useful** for their **professional or academic career**.
- The students show that TFG development has enhanced **competences** that promote greater **autonomy**, better **communication skills**, etc.
- Some **training needs** were identified, especially in terms of **time management** and the use of software and **simulation tools**.
- From the perspective of the **teaching staff**, especial attention needs to be paid to the high **dedication** that requires the **supervision** of high end TFGs.