SATISFACTION ANALYSIS OF "FOOD SAFETY AND QUALITY MANAGEMENT" MASTER DEGREE'S STUDENTS WITH THE "COMUNICAT" METHODOLOGY FOR THE ENHANCEMENT OF THE "EFFECTIVE ORAL COMUNICATION" STUDENT OUTCOME

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Abstract

The main goal of the present study is to analyze the satisfaction level of the students from the master degree "Food Safety and Quality Management" with the "ComunicaT" methodology, which was applied to improve the mastery level of the "Effective Oral Communication" student outcome. This methodology is being developed under an innovative and educational improvement research project funded by the Universitat Politècnica de València, and the general idea behind it is that the student, after performing an auto-diagnosis test, becomes capable to autonomously improve its oral communication skills. Thereby, the student, starting from his initial mastery level on this student outcome, follows a self-formative, adapted learning itinerary with proper learning activities for him/her to enhance his masterliness on this topic. The methodology has been carefully designed by several university lecturers coming from different universities, with a wide range of different profiles. It is mandatory to retrieve feedback from the students that participated in this methodology, in order to make it better, simpler and more efficient in further applications. With the results obtained in this work we assess the satisfaction level of the students with the "ComunicaT" methodology, and we identify improvement opportunities that can be exploited in the future.

Keywords: Oral communication, self-learning, auto-diagnosis.

1 INTRODUCTION

University subjects must work and develop at the same time subject-specific skills and transversal skills through proper activities carefully designed to do it. This would facilitate the learning process of both types of student outcomes at the same time. However, the reality is that due to the reduced duration of the courses and the extensive curricula to cover, teachers usually prioritize the work on specific skills to the detriment of the transversal ones. As a result, in many subjects there is no curricular alignment between the skills worked in the classroom and the skills evaluated at the end of the course.

To solve this situation, a group of teachers from the Universitat Politècnica de València (UPV) and the Universitat de València (UV) proposed a methodology to evaluate the initial level of proficiency of a really common student outcome (oral communication) and according to these exploratory results propose to the students a specific self-learning itinerary. This methodology has been called "Comunica't" [1].

The methodology is centered in the general student outcome "effective oral communication". Its main objective is to create and provide students with a self-diagnostic tool that allows them to know their mastery level of the aforementioned competence, followed by an auto-formative itinerary composed of different training activities adapted to the result obtained in the self-diagnosis tool, with the final objective of developing the transversal competence at the appropriate mastery level. We have also presented the objectives, tasks, and the scheduled work plan. All the methodology can be followed through the web of the project. The website is a means of support for the efficient development of a self-formative methodology for the improvement of the mastery level of the effective oral communication student outcome. The website is also used for the dissemination of the results of the project in order to make available to the world educational community an innovative solution to develop a student outcome that is not typically worked in the classroom, but is evaluated and highly demanded in the labour market [2].

Throughout the project, different actions have been carried out: a) design of a self-assessment test of the student's effective communication result [3], b) development of an auto-formative itinerary based on

the initial level of proficiency [4] and c) evaluation of the impact of the methodology in different groups of students [5-7].

In a step forward, the objective of this work is to evaluate the satisfaction a group of students that followed the Comunica't methodology during the subject "Audits of food quality" with the methology.

2 METHODOLOGY

2.1 Description and the context of the subject: "Audits of food quality"

The subject "Audits of food quality" belong to the Master of Food Safety and Quality Management offered by the Polythechnic University of Valencia. The subject aims to design audit plans to assess quality and food safety, as well as develop the basic competencies of an auditor. In the 2017-2018 academic year the subject was studied by 32 students, of which 30 participated in this experience.

2.2 Working plan with the students

In the first part, students were asked to prepare a short presentation of a topic related to the subject (i.e. private food quality systems –IFS, BRC, Global Gap…). During the presentation, students were evaluated from their class-mates with the help of a digital rubric hosted on a web server. After the presentations, teachers collected all the remarks from the class-mates and elaborated an individual report for each of the students. The report not only included information given by class-mates, but also recommendations of the teachers. In the third step, a self-evaluation test was given to the students to help them to reflect on their weak and strong points in the preparation and execution of the oral presentation [3]. Based on the mark of this co- and auto-evaluation, students were invited to work on specific activities to reinforce their weaknesses [4]. At the end of the course, students were asked to prepare a new presentation, which was again evaluated by their class-mates and the teachers of the subject following the initial rubric. After the whole process, students had to prepare a portfolio that gathered all their reflections on their weaknesses, strengths and how the different proposed activities had contributed to improve their communication skill.

2.3 Assessment of student satisfaction with the methodology

To assess the satisfaction of the student with the methology, a satisfaction survey that included 12 questions was carried out by the student. A five-point scale from "strongly agree" (scored as 5) to "strongly disagree" (scored as 1) was used to score the level of agreement with different statements. Surveys were conducted through Poliformat, a teaching platform developed by the Universitat Politècnica de València (Polytechnic University of València).

3 RESULTS

Figures 1-4 shows the percentage of students who gave each of the scores between 1 (totally disagree) and 5 (totally agree) to different satisfaction questions.

As it can be observed in Figure 1, 85% of the students agreed that questions of the self-evaluation test were formulated so that they could be easily understood.

Students were also asked about the time that they invested in carrying out the self-evaluation test. Figure 2a shows that most of the students took from 8-12 minutes to complete the self-evaluation test. Despite this time investment, 90% of the students agreed that this time was suitable.

Students also evaluated the simplicity of the procedure to calculate their level of competence. As it can be in figure 3 more than 70% of the students agreed strongly agreed that the calculation of the level of proficiency of the different areas of domain were simple.
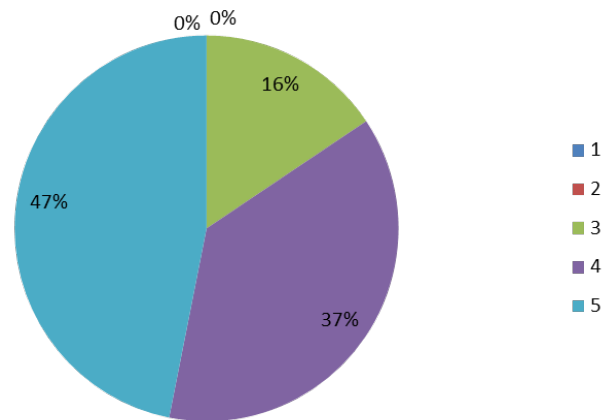
Understanding of the questions

Figure 1. Satisfaction of the students with the understanding of the questions.

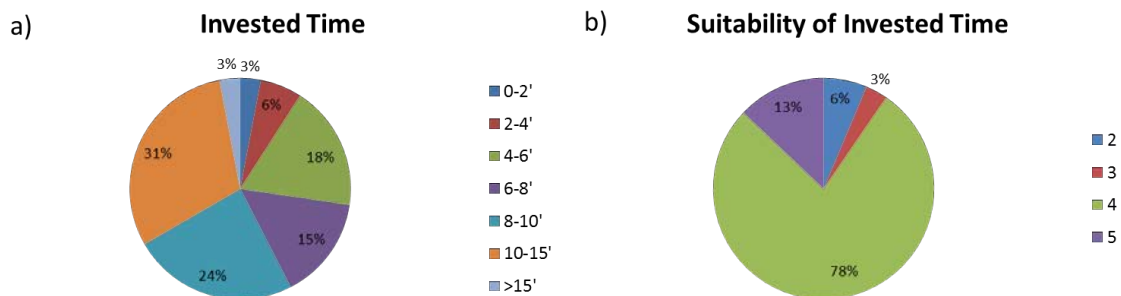a) **Invested Time**   b) **Suitability of Invested Time**

Figure 2. a) Time invested by the students to fulfill the self-evaluation test and b) opinion of the student with respect the suitability of the invested time in relation to the information obtained.
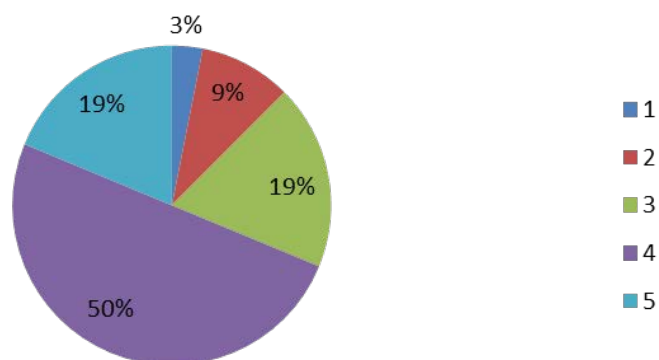
Simplicity of the level of proficienty calculation

Figure 3. Satisfaction of the students with the simplicity of the procedure to calculate their proficiency level.

Similarly, students were asked about the ease of selecting the activities that they had to carry out during the self-learning phase based on their results. Again, as it can be seen in Figure 4, the 70% of the respondents answered that it was easy to know what activities should be carried out. However, the use of a web application that made the automatic calculation of the level of competence and proposed activities would greatly simplify the process. This is also considered by the authors one of the lines of improvement of the methodology.

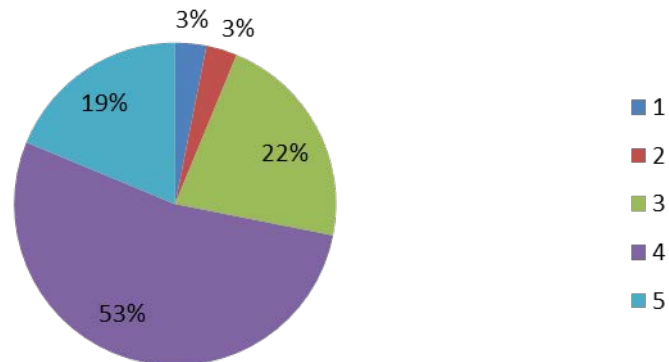## Simplicity of the selection of activities

Figure 4. Satisfaction of the students with the simplicity of the selection of the recommended activities from the pool of available activities.

Figure 5 shows the satisfaction of students with the activities included for the self-learning itinerary. As it can be seen, the level of satisfaction did not vary significantly as a function of the block of activities. It can also be seen that 70-75% of the respondents were satisfied or really satisfied with the proposed activities, and that more that 92% of the respondents were satisfied or really satisfied with the activities as a whole.
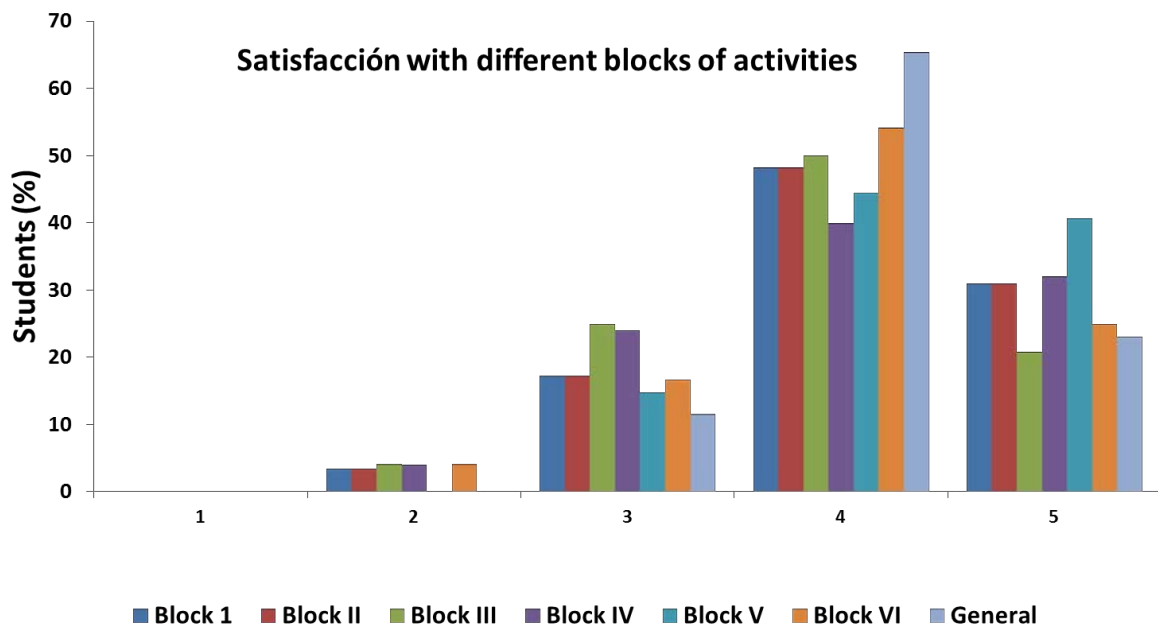

Figure 5. Satisfaction of the students with the different blocks of activities proposed.

Finally, figure 6 shows global satisfaction of the students with the methodology. As it can be seen, 75% of the students were satisfied or really satisfied with the methodology, despite the fact that they had invested lot of time in accomplish all the proposed tasks: prepare a presentation, present the topic in front of theirs class-mates, read a report, complete a self-evaluation test, complete different tasks, and prepare a new presentation.
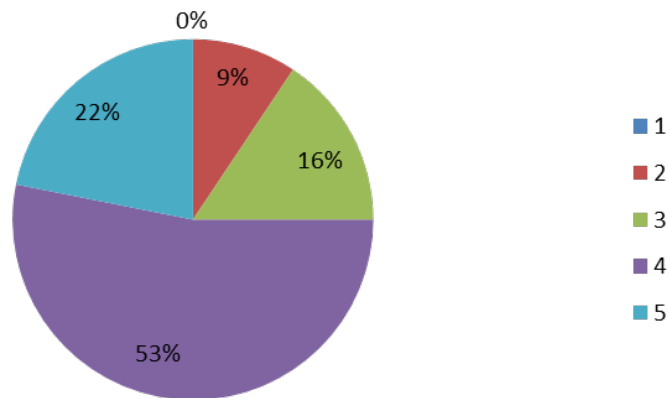
General satisfaction

Figure 6. Global satisfaction of the students with the methodology of the Comunica't project.

4   CONCLUSIONS

The proposed methodology based on self-assessment and self-learning requires a significant effort in terms of time on the part of the students. However, based on the academic results and the results of the satisfaction survey, the methodology successfully contributes to the development of the effective communication competence of the students. To further facilitate the development of competence, students propose to have a web application that integrates all phases of the methodology.

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