

APPLICATION OF A SELF-LEARNING METHODOLOGY FOR THE ENHANCEMENT OF THE ORAL COMMUNICATION STUDENT OUTCOME IN INTERNATIONAL BUSINESS STUDIES

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Abstract

Effective oral communication is one of the most demanded student outcomes in the labour market, especially for degree students on International Business. Although this outcome is usually evaluated in several subjects along the curriculum, it is barely worked neither inside nor outside the classroom, mainly due to lack of time and to unavailability of proper learning methodologies. The PIMECOE project, an innovation and educational improvement project on this matter, has developed a self-learning methodology on the Effective Oral Communication student outcome, in which auto-diagnosis tests, self-learning tools and peer assessments are conveniently combined to enhance the proficiency level of the students in an autonomous way. As part of this project, and after some previous successful pilot studies, we have run this methodology with International Business' students within the "*Learning instruments and techniques*" subject during the first semester of the 2018/2019 academic year at the Universitat de València. After carrying out a quantitative analysis of the results, we have found generalised improvements on the proficiency level of the oral communication outcome of the participant students. Satisfaction surveys suggest that the application of this methodology has really helped the student to become conscious of unrealised weaknesses and therefore to boost their oral skills.

Keywords: oral communication, oral skills, student outcomes, self-learning methodologies, peer assessments.

1 INTRODUCTION

Nowadays, communication skills play a major role for student's academic success and future career prospects. In the labor market environment, students must not only possess academic expertise, but also the necessary skills to enhance their employability in the future.

University students are typically exposed to situations, inside and outside of the lecture halls, in which they have to use their oral communication skills. Although the oral communication student outcome is usually evaluated in several subjects along the curriculum, it is barely worked neither inside nor outside the classroom, mainly due to lack of time and to unavailability of proper learning methodologies.

For this reason, the PIMECOE project [1], an innovation and educational improvement project on this matter, has developed a self-learning methodology on the Effective Oral Communication student outcome, in which auto-diagnosis tests, self-learning tools and peer assessments are conveniently combined to enhance the proficiency level of the students in an autonomous way. In this paper, we describe and analyse the results of a pilot study in which we tested this methodology with International Business' students within the "*Learning instruments and techniques*" subject during the first semester of the 2018/2019 academic year at the *Universitat de València*.

The rest of the paper is structured as follows. Section 2 details the conditions in which this pilot study was carried out. Next, Section 3 describes the learning methodology used in this experience. Then, Section 4 reports empirical results on the evaluation of the oral communication student outcome, as well as an analysis on the feedback received by the participants through a satisfaction survey. Finally, Section 5 gives some concluding remarks.

2 PILOT STUDY

The International Business degree of the Faculty of Economics at the *Universitat de València* answers the needs of companies and bodies who work in an international context. Students learn the knowledge and skills required to make proper economic, financial, business and marketing decisions, so that they become suitable to manage the international development of a company. This degree comprehends 4 academic years and 240 credits, this is, 60 credits per year. The “*Learning instruments and techniques*” subject, scheduled at the first year, first semester, aims to facilitate to the student the transition from high school to the university environment using a holistic approach that takes into account not only the specific student outcomes, but also general ones, like autonomous learning, team working, leadership capacity and effective oral communication, among others.

A total number of 74 students have participated in this pilot study. All these students belong to the class group B of the “*Learning instruments and techniques*” subject of the 2018-2019 academic course.

3 METHODOLOGY

In this pilot study we followed the methodology defined in [2], considering in addition the guidelines and recommendations outlined in previous pilot studies [3, 4].

First, students were asked to perform a short oral presentation about an open topic, decided by them (*Oral Practice 1*). As the main focus at this point was to assess their base oral skills, they were recommended to talk about a topic of their interest, just to guarantee that the exposition of contents and ideas was not challenging for them. The only constraint was that they had to perform a Pecha-Kucha-based presentation [5]. Pecha-Kucha is a presentation style consisting of 20 slides that are sequentially and automatically shifted every 20 seconds, for a total length of 6 minutes and 40 seconds. In this experience we chose the mini variant of the Pecha-Kucha format that uses half of the slides, that is, 10 slides × 20 seconds, for a total duration of 3 minutes and 20 seconds. The reason behind the usage of this particular presentation style is that the duration of the oral presentations is truly bounded. Therefore, time slots for presentations are actually respected, and the scalability of the methodology becomes higher. Students were assessed on their mastery level of the oral communication student outcome both by their classmates (*Peer Evaluation*) and by the professor (*Professor Evaluation*) according to a specific evaluation rubric [6], using an on-line form hosted at Google Forms [7] as assessment tool, and the oral presentation of the speaker as evidence. The evaluation rubric consists of five mastery indicators:

- *D1: Transmits relevant information.*
- *D2: Expositions are structured in a coherent way.*
- *D3: Uses language with grammatical, semantical, syntactical and orthographical correctness.*
- *D4: Her/his non-verbal communication transmits tranquility.*
- *D5: Uses support media in a proper way.*

These five indicators were assessed in four levels:

- *D: Not reached.*
- *C: In development.*
- *B: Adequate, good.*
- *A: Excellent, exemplary.*

Evaluation criteria are properly described in the rubric document provided to students and professors [6]. It is important to note that, to perform quantitative analysis of the evaluation data (see Section 4.1), these ratings were mapped to a 1-4 integer scale (D→1, ..., A→4). In addition to these descriptors, evaluators were asked to write down some comments about the oral practice that would be provided afterwards to the speakers as qualitative feedback.

Once the *Oral Practice 1* was completed, an evaluation report inferred from the data collected from both *Peer* and *Professor Evaluations*, was automatically generated and sent by e-mail to each participant student. Figure 1 shows, in the left-most picture, a screenshot of the evaluation form that was employed by students and professors, and, in the right-most picture, a sample of an automatic evaluation report sent to students.

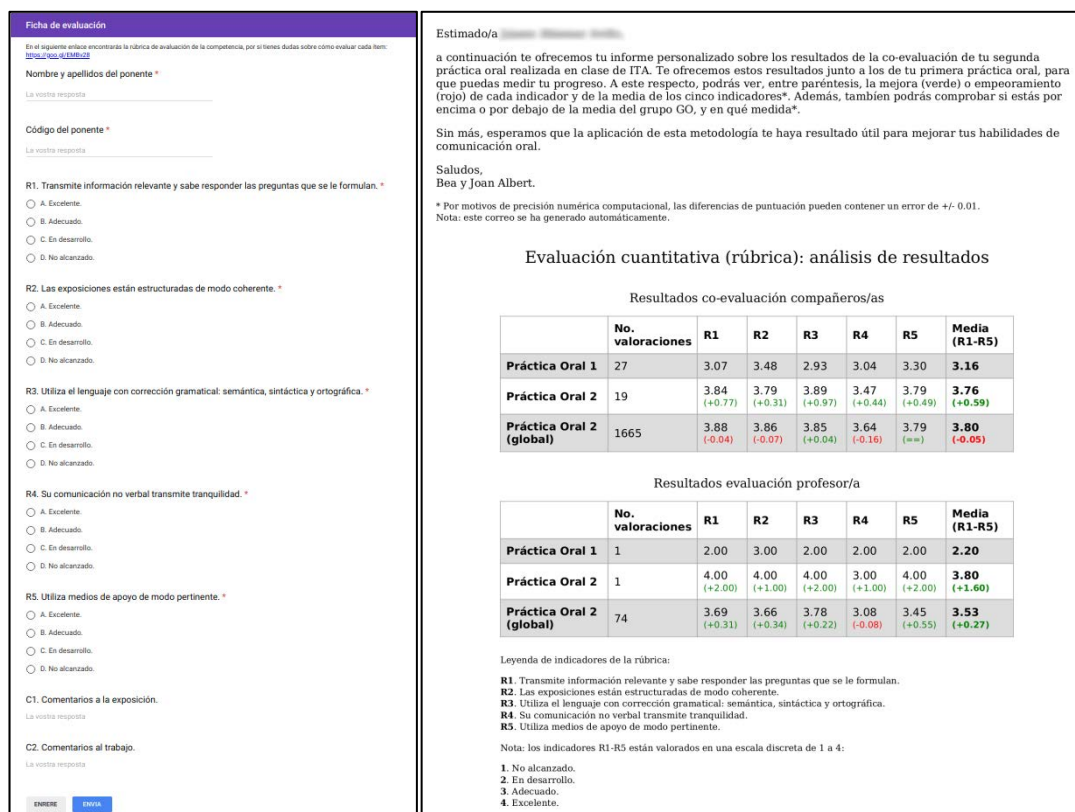


Figure 1. On the left hand, a screenshot of the oral communication evaluation form. On the right hand, an excerpt of an evaluation report that was automatically submitted by e-mail to one of the participants after the oral practice 2.

Second, users were requested to perform a self-diagnosis test at home to assess their initial mastery level of the oral communication outcome [8], using their recent experience on the *Oral Practice 1* as reference. After completing the test, an e-mail was sent to them with the answers accompanied with URL links pointing to on-line self-learning activities, specifically devoted to work every aspect covered by the test [9]. The realization of these activities, to be done at home, was optional for the students.

Next, students were given a period of time (6 weeks) to reflect about their *Oral Practice 1* evaluation results and their auto-diagnosis test, as well as to work with the learning activities. After this period, they were requested to perform a second oral presentation, in order to test their progress on the mastery level of the oral communication outcome. In this occasion, the topic was restricted to “brilliant ideas”: they had to talk about theirs or others’ ideas and/or inventions that, according to some criteria, were brilliant and worth to be spread. However, ideas were freely chosen by them, to ensure an optimum balance of motivation, confidence and uncertainty. Presentations were restricted also to follow the already described Pecha-Kucha mini format, and speakers were assessed again on their mastery level of the oral communication student outcome both by their classmates and by the professor.

Finally, a final evaluation report, similar to the first one they received after the *Oral Practice 1* (see Figure 1), was sent to them. In this report they could compare the results obtained in the second practice against the first, in order to check their progress.

4 RESULTS

In this section, we present the results obtained in the application of the previously described learning methodology with our test subjects. It is divided into two subsections: the first one analyses the results obtained in the evaluation of the oral communication student outcome over the participants, with a focus on their progress; while the second one reviews the feedback received from the participants via a satisfaction survey.

4.1 Student outcome evaluations

As described in Section 2, participant students performed two oral practices: the first one at the beginning of the course, and the second one nearly at the end, after having completed the auto-diagnosis test and after having received complete assessment feedback from the first one. The two practices were assessed according to the oral communication evaluation rubric [6] both by their peers and by their professor. We did two separate analyses, depending on the type of the evaluator, and for each one we measured the progress of the students, comparing the second practice with the first.

Figure 2 shows, on the left-most plot, the results for the peer evaluations, whilst the right-most plot shows the same results but for the professor evaluations. In both cases, we show percentage-scaled average marks, of the first and second oral practices, on each rubric descriptor (D1-D5) and on the mean of all descriptors. These averaged marks, shown in contiguous vertical bars, are accompanied by a third bar that depicts the estimated probability of improvement (PI), which is defined as the percentage of students participating in this study that improved their results from the first to the second oral practice.

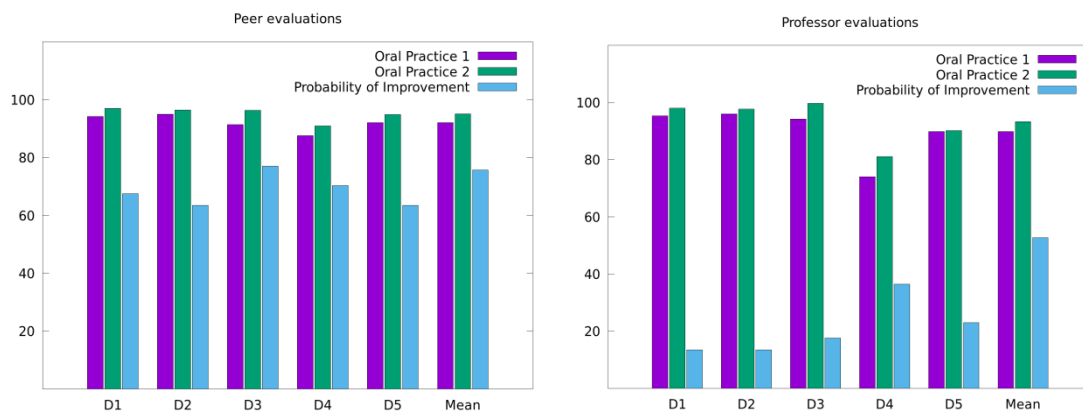


Figure 2. Results of the peer and professor evaluations for the first and second oral practices. It shows, in both cases, percentage-scaled average ratings for each competence descriptor (D1-D5) and for the overall mean. Also, it gives the estimated probability of improvement for each descriptor and for the overall mean.

At a first global glance, one might be surprised by the excellent results achieved in the first oral practice in both evaluations, scoring around 90%. The perceived mastery level of the oral communication outcome in International Business degree students is considerably higher in comparison with students from other bachelor degrees, so these results just empirically confirm this fact.

On the one hand, regarding the *Peer Evaluation*, we collected 1.690 and 1.665 assessment samples in the first and second oral practices, respectively. We can see how, despite the already excellent results achieved in the *Oral Practice 1*, the five rubric descriptors are systematically improved after the *Oral Practice 2*, and so does the overall mean, with an increase from 92% to 95%. It might seem a small gain, but having such a tiny room for improvement, it actually can be considered a quite good enhancement. In addition, estimated PI values are quite satisfactory, as the 76% of the participant students improved their overall mean rating after the *Oral Practice 2*.

On the other hand, regarding *Professor Evaluation*, we gathered 74 samples on each oral practice, that is, one per student. We can draw similar conclusions to peer evaluations: all descriptors improved after the *Oral Practice 2*, and the overall mean increased from 90% to 93%. However, PI values are significantly lower if we compare them with the *Peer Evaluation*. This is explained by the fact that each student was evaluated only by one professor in each oral practice, and that a student achieving the same mark in one descriptor is not an improvement. To put it in an example, if a professor gives a 100% mark to a student in a particular descriptor in both the first and second oral practices, the PI for this student at this descriptor is 0%. Therefore, we can say that PI cannot be properly estimated in this case due to the scarcity of data. Yet, despite of this pessimistic estimation of the PI, 53% of students improved their overall mean according to the professor criteria.

When comparing both evaluation types, we can observe that, although peer assessment is slightly milder than professor assessment, both are consistent in determining which descriptors are well ranked, and which are not. For instance, both agree that descriptors D4 (*Her/His non-verbal communication*

transmits tranquillity”) and D5 (“Uses support media in a proper way”) were the ones in which students revealed more weaknesses, before and after the study.

4.2 Satisfaction surveys

The screenshot shows a Google Forms survey with three main sections:

- A. TEST AUTODIAGNÓSTICO:** Contains questions A1, A2, A3, and A4. A1 asks about the ease of understanding and answering the test. A2 asks for the time spent on the test. A3 asks about the adequacy of the time spent. A4 asks about the usefulness of the test to discover weaknesses and strengths.
- B. ITINERARIO AUTOFORMATIVO:** Contains questions B1 and B2. B1 asks about the number of learning activities completed. B2 asks about the usefulness of the itinerary for improving oral communication competence, with a table for rating different blocks (I-VI).
- C. SATISFACCIÓN GENERAL:** Contains questions D1, D2, and D3. D1 asks about overall satisfaction with the methodology. D2 and D3 are open-ended questions asking what was liked and disliked about the methodology.

Figure 3. Excerpt of the satisfaction survey at Google Forms.

All the participant students were asked to fill and submit an anonymous satisfaction survey, hosted at Google Forms [7], in the last session of the course. Figure 3 shows an excerpt of the survey. It is divided in three parts: satisfaction about the auto-diagnosis test, satisfaction about the self-learning activities, and overall satisfaction. The participants had to answer to a series of questions in the standard 1-5 Likert scale [10]: values closer to 1 respond to a low satisfaction level, whilst values closer to 5 reflects a high satisfaction level. In addition, they had to answer to some quantitative and qualitative questions. In total, we collected 74 samples, one per each participant.

First, regarding the auto-diagnosis test, students felt that it was easy to comprehend and to answer (mean $\mu=4.1$), that it was worth to spend some time doing it for the information it offered back to them ($\mu=3.6$), and that it did help them to reveal their weaknesses and strengths on the oral communication competence ($\mu=3.5$).

Second, regarding the self-learning activities, we asked the students to reveal how much activities they did at their own. Almost two-thirds (63%) of the participants did at least one learning activity (35% did 1-2 activities, 21% did 3-5, 4% did 5-10, and 2% did more than 10), whilst the remaining third of participants did no one. According to the criteria of the participants who did at least one activity, these were useful for them in order to enhance their mastery level of the oral communication competence ($\mu=3.8$).

Finally, participant students reflected a good satisfaction level on the applied learning methodology ($\mu=3.6$). Being asked to express freely what they liked the most about the application of this methodology in the subject, they stated that it helped them a lot to overcome their fears, to control their nerves, to increase their capacity of reflection and to become aware of their weaknesses. Also, they appreciated the possibility to learn, not only from their errors but from the others', as well as the possibility to notice their proficiency gains after the *Oral Practice 2*. In the opposite side, what they disliked the most was the fixed time restriction imposed by the Pecha-Kucha, suggesting that a flexible timing for each slide would be preferable. Also, they complained about poor, useless, barely constructive peer comments, in some cases.

5 CONCLUSIONS

In this paper we have described a pilot study with International Business degree students on the application of an innovative self-learning methodology to develop and improve the oral communication student outcome. Empirical results gathered from peer and professor evaluations confirm that participants improved their mastery level on this outcome at the end of the study, without having to explicitly devote time in class to work on learning activities. Satisfaction surveys convey that this novel methodology was fruitful and worthy to participate in. As for future work, we plan to test this methodology with other student profiles, that is, with other bachelor and/or master degrees, in order to achieve a more holistic view about the state-of-the-art of the mastery level of the oral communication outcome and its ways of improvement.

ACKNOWLEDGEMENTS

This work has been developed within the research project called “Implementación de una plataforma cloud para el desarrollo de una metodología autoformativa de la CT ‘Comunicación Efectiva’ y sus procesos de evaluación” (B20) funded by the Vice-Rectorate for Studies, Quality and Accreditation of the Universitat Politècnica de València.

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