

Análisis del impacto de las nuevas tecnologías de la información y la comunicación en la enseñanza universitaria de la Contabilidad

Analysis of the impact of new information and communication technologies in university accounting education

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Resumen

Los objetivos principales de esta investigación son: desarrollar un entorno virtual intentando mejorar el existente en la UNED, fomentar la colaboración entre profesores tutores y de la Sede Central e intentar aplicar un sistema sólido de evaluación continua que permita al estudiante demostrar sus conocimientos y habilidades, no sólo al final del proceso, sino durante todo el proceso formativo.

No obstante, el objetivo más ambicioso fue trabajar intensamente en el desarrollo de una nueva metodología adaptada al EEES que requiere dos cambios fundamentales: en el docente por un lado, que se convierte en guía y estímulo en lugar de mero transmisor de conocimientos, y en el estudiante por otro, que debe potenciar sus destrezas y lograr el aprendizaje autónomo de nuevas habilidades en materia contable.

Palabras clave: TIC en la educación; contabilidad; EEES; educación virtual; educación a distancia.

Abstract

The primary objectives of this research are to develop a virtual environment trying to improve existing UNED, foster collaboration between teachers and tutors Headquarters and try to apply a robust system of continuous evaluation that allows the student to demonstrate their knowledge and skills, not only at the end of the process, but throughout the training process.

However, the more ambitious goal was to work intensively on the development of a new methodology adapted to the EHEA that requires two fundamental changes in the teaching on the one hand, that becomes guidance and encouragement rather than mere transmission of knowledge, and in the student by another, which should enhance their skills and achieve autonomous learning new skills in accounting.

Key words: ICT in education, accounting, EHEA virtual education, distance education.

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Introduction

The new framework of the EHEA marks a before and after in the teaching of all disciplines and also in the teaching of Accounting.

In the project that we have carried out, a proposal focused on the development of new techniques and methods applied to the teaching and learning of Accounting at the university level is offered, taking into account all the requirements of the EHEA.

Our work has focused on the subject "Basic Accounting" of the study plan of the Diploma in Tourism. It is an introductory first-year subject, although the approach is transversal so that the results obtained in the project could be transferred to other subjects with similar content in different degree courses. In addition, this subject is maintained in the Degree in Tourism that began its implementation in the 2010/2011 academic year, so that the experiences collected are used for the new degree subject.

Content development

Our intention with this project is to take a first step in a new approach to the teaching of Accounting within the EHEA framework, which could serve as a reference to other subjects with the same characteristics. In order to better monitor the student's work in this first experience, and in order to create adequate mechanisms to transmit knowledge to a heterogeneous group of participants, we limited the number of , initially to 50, although we later increased it to 75 given the large number of stakeholders.

Due to the circumstance that we have just mentioned, the collaboration of the teaching team with the network of tutors was fundamental, as well as the use of all the virtual tools within our reach.

To develop our work, the contribution of the students was essential. For this reason, we collected your requests throughout the course in the forums and, through forms and surveys, we asked for your opinion and suggestions to analyze which were the strong points to strengthen and the weak points to work on and improve in the future. .

Although the objectives of the project will be widely developed in the table that we expose later, we can advance the following as main objectives: develop a virtual environment trying to improve the one already existing in the UNED, promote collaboration between tutors and professors from the Central Headquarters, and try to apply a solid continuous

evaluation system that allows the student to demonstrate their knowledge and skills, not only at the end of the training process.

However, perhaps the most ambitious objective of the project was to start working intensely on the development of a new methodology that requires a change in the teaching activity, but also a change in the student's activity to enhance their skills and encourage tutored learning in the development of new accounting skills.

Below is a table with the different **objectives** of the project:

El objetivo prioritario del proyecto fue desarrollar una nueva metodología de la enseñanza de la Contabilidad en la cual se definan:

- Las competencias a desarrollar por los profesores implicados, tanto los miembros del equipo docente como de los profesores tutores.
- Las relaciones entre los miembros del equipo docente y los profesores tutores.
- Las tareas a desarrollar por el estudiante, buscando el mejor resultado en el proceso de aprendizaje.

Una vez definidos los extremos anteriores, establecimos un plan de mejoras y propuestas de los cursos virtuales, que comprendían el desarrollo de:

- Materiales destinados a la preparación de la asignatura, con carácter de interactividad.
- Actividades virtuales (autoevaluación, aprendizaje basado en problemas, etc.)
- Pautas para fomentar el trabajo en grupo.
- Comunicaciones periódicas y preestablecidas entre profesores y alumnos.

Para finalizar, propusimos un sistema de evaluación continua que implicó más activamente a los alumnos en la adquisición de conocimientos.

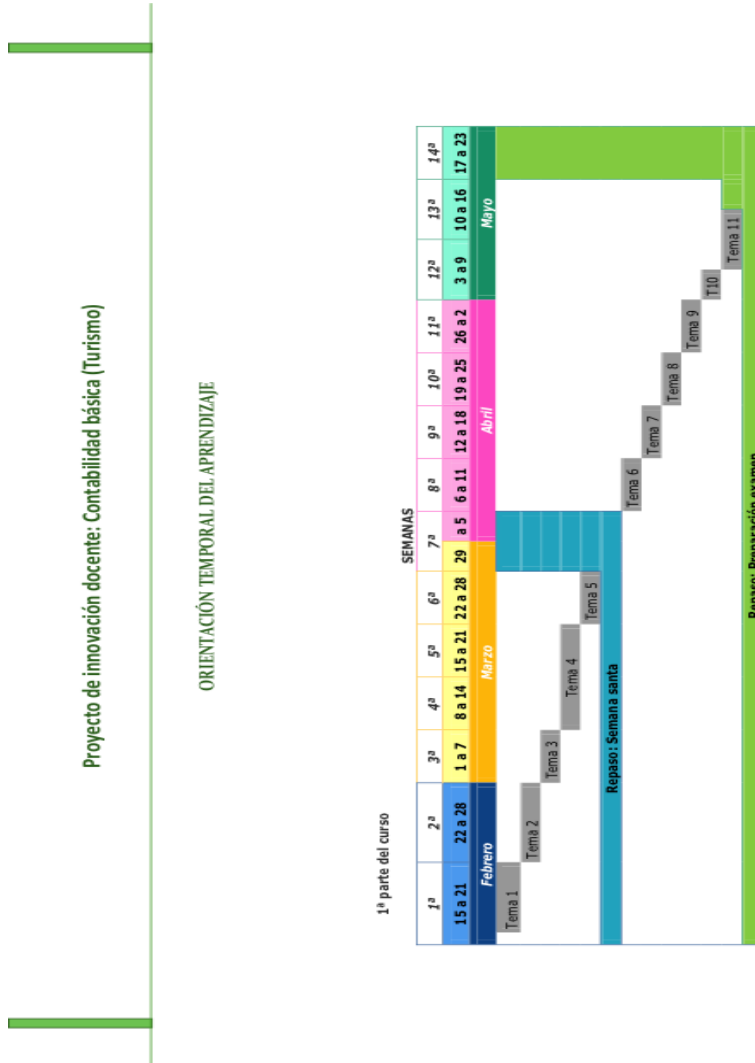
- Para ello, realizamos pruebas de autoevaluación de los alumnos al finalizar cada tema y pusimos otras actividades recopilatorias en los que debían tener asimilados varios capítulos. Por último, también se les planteó una actividad en grupo.

Table 1: Objectives

○ *Work design and planning*

At the beginning of the project, we provided the students with a "Learning Time Orientation" to guide them in the programming of the study of the subject's syllabus and a

"Schedule" with the activities that they had to carry out each week so that they could organize their work. We show them below:



Box 2: Time orientation of learning

Proyecto de innovación docente: Contabilidad Básica (Turismo)

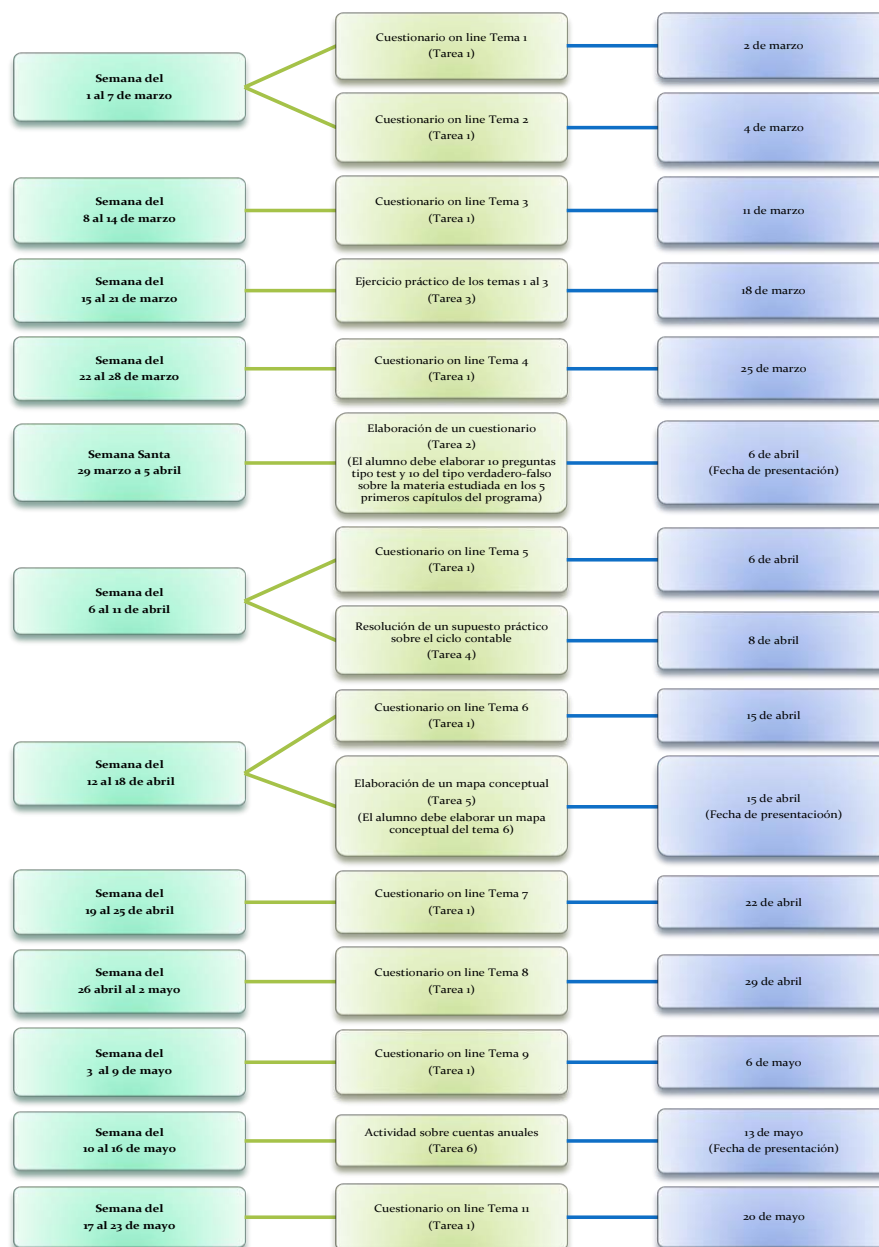


Table 3: Schedule of activities

- Instruments applied

Different types of activities have been carried out in the project, which required the use of tools such as:

- Hot Potatoes to prepare self-assessment tests for each topic that were later imported from the “questionnaires” application of the WebCT platform.
- The use of the "work" tool to collect the answers given by the students to the practical assumptions that were raised and later corrected by the tutors.
- The “Groups” tool to carry out the development of a cooperative activity.
- The “Questionnaire-Surveys” tool to collect data from a survey on personal circumstances (availability of time, computer equipment, previous knowledge, etc.) and opinion about the project.
- In addition, in the course in general, different course tools were used to add links of interest, course guides, calendar planning, web pages with information, FAQ section, etc.
 - *Number of students who have participated with selection procedures and assignment to groups*

To select the students interested in participating in the project, we sent a message to the Bulletin Board forum with a description of the project and instructions so that they could tell us if they were interested in participating.

Interested people had to send a message to a forum created for this purpose asking to be included in the project. Your request would be approved in strict order of submission.

As we have indicated previously, although we initially limited the possible participants to 50 people, we decided to expand it to 75, since a few hours after the students were able to access the course, the initial quota had been completed.

One of the proposed activities required group work. To prepare them, we took into account the number of activities carried out so far by each student and the grades they had achieved in them. We tried to create groups as homogeneous as possible so that each of them included people who had done all the activities with a good grade, some who had not done too many, students who were average, and some who seemed to drop out. There were 7 groups of about 10-11 students each.

○ *Number of tutors who have participated*

At the beginning, and since it was the first experience of this type that we carried out, we thought to have the help of a single tutor teacher. After seeing that many students were interested in participating and increasing the number of those who finally took part, we decided to have another teacher to help us correct the tests that were not self-assessed, so that the final number of tutors who helped us with the Network were two.

○ *Development of the activities carried out*

Different types of activities have been carried out in the project:

- Self-assessment tests for each topic that included multiple choice questions with 4 alternatives, questions in which gaps had to be filled, others of the "true or false" type, and activities in which they had to link terms from one column with the terms from another.
- Practical assumptions whose realization required mastering several chapters
- Elaboration by the students of multiple choice and true or false type questions.
- Realization by the participants of a conceptual map of one of the topics
- Development of a group activity to find solutions to questions about given financial reports.
- Survey on personal circumstances (availability of time, computer equipment, previous knowledge, etc.) and opinion about the project.

○ *Analyzes performed*

The surveys given to the students were very useful to us, thanks to which we have obtained the following general conclusions regarding the following questions:

Question asked: Would you remove any tasks from the project? Why?

- *Summary of the answers given by the students:*
- *Delete map: 9 (although many complain about technical difficulties)*
- *Eliminate group activity: 8 although many are to be done before or due to difficulties in getting everyone started*
- *Elaborate test: 1*

Conclusion:

The activities that they seem to have liked the least are those of creating a conceptual map of a topic (it also seems that what was most difficult for many people was to map it with computer tools) and the group activity (some people complained that it was carried out on dates close to the exams and others that some classmates did not give the expected answer).

Paradoxically, in another of the questions, these were the favorite activities of a few students, although it was not the general tone that was seen in this question.

Question asked: Would you add any tasks to the project? Which and why?

- *Summary of the answers given by the students:*
- *More accounting assumptions: 4*
- *Most practical: 3*
- *More tests: 2*
- *A global exercise similar to 4 at the end: 2*

- *A test of all the essay-type topics*
- *More on topic 7*
- *More on depreciation, benefits and taxes*
- *Review exams or more examples*
- *More team activities*
- *A map activity for each theme*

Conclusion

Some people demanded more practical examples similar to the one in the exam, although in the final conclusions for the majority the ones proposed in the project were sufficient or sometimes even too many.

Question Asked: What task has been the most difficult for you? Why?

Summary of the answers given by the students:

- Task 3 (ex. Practical topics 1 to 3): 5
- Task 2 (test elaboration): 0
- Task 4 (accounting cycle): 16
- Task 5 (map): 11
- Task 6 (group): 19

Conclusion:

Once again, it is observed that the questions that cost them the most were those of the conceptual map and the group activity due to the circumstances described above.

Task 4 on the accounting cycle seems to have been difficult for them since it was the first in which they had to apply knowledge of various topics and if they made a mistake at the beginning, they dragged it along throughout the exercise.

Question asked: Which task was the easiest for you? Why?

Summary:

Task 3 (ex. Practical topics 1 to 3): 9

Task 2 (test elaboration): 14

Task 4 (accounting cycle): 2

Task 5 (map): 6

Task 6 (group): 2

Quiz: 7

Conclusion:

The easiest activity for them was the one in which they raised the questions and therefore did not face "unknown" questions to which they had to answer.

Suggestions to improve the project:

Summary of the answers given by the students:

The project seems good: 38

Extension 1 week

Choose day to do the tests online or always open: 5

Overwhelmed deadlines: 4

Extend a delivery day to the weekend: 2

Have solutions without waiting for colleagues who repeat: 3

Does not like group activity: especially because it is close to exams: 2

Expand number of students: 3

Good forums: 4

Some useless forum posts: 3

To be done in other subjects: 7

Some difficulty due to lack of computer knowledge

very clear book

Give more instructions to the coordinators of the group activity with more time

It accumulates a lot after Easter

Cancel exam because one plays it in one day

Time spent much higher than the one that came in the programming

Lots of time to correct homework

Problems quizzes signs punctuation

Latest more complex topics

Put topic 6 before Easter

Add quizzes to review

Give less time for questionnaires because if you know them enough

Do longer quizzes and put on a global group activity

To help in exam grade

Greater speed in forum or mail responses

Very broad topic

Conclusion:

In general, the participants value the project very well.

As a negative aspect, we could mention the difficulty we had for the tutors to correct technical problems that were finally solved.

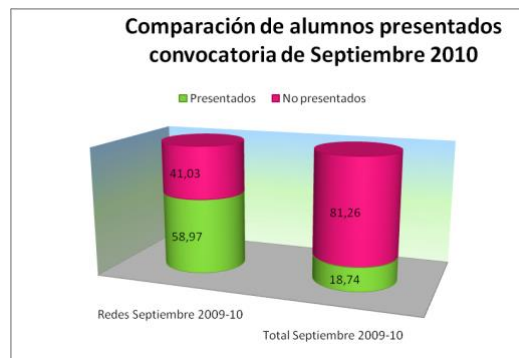
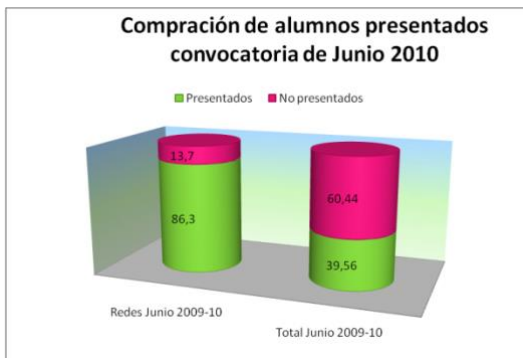
Many students complain that the deadlines were very rigid (more because of the delivery date than the dates, since if we want to set the pace of study, they must have a delivery date).

Some found themselves very overwhelmed with time and many did not like the group task (especially) and the concept map task, although paradoxically for other classmates they were the tasks they liked the most.

○ Description of the results

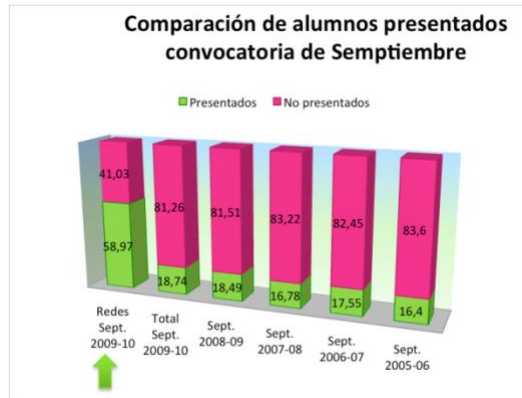
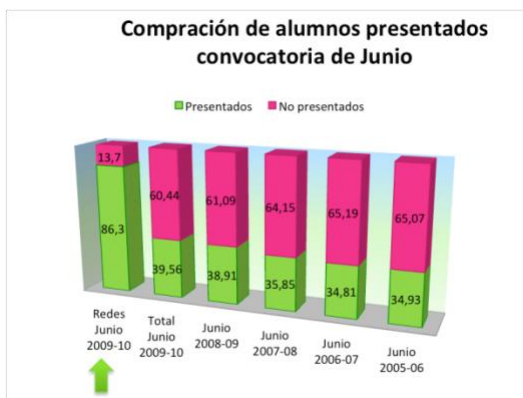
Below are several graphs comparing the students who have participated in the network project with their classmates who did not participate in it, both in terms of their participation in the exams and the grades obtained.

This same study is repeated comparing these results with the previous 5 years.



Graph 1: Students presented in June

Graph 2: Students presented in September



Graph 3: Comparison presented in June

Graph 4: Comparison presented in September

Thanks to these graphs we can see that the percentage of students who participated in the network project who took the exams in both the June and September sessions was much higher than that of the students who did not participate in the project.

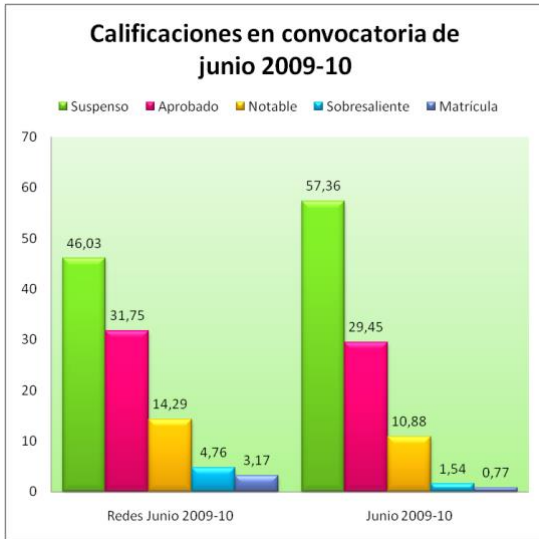
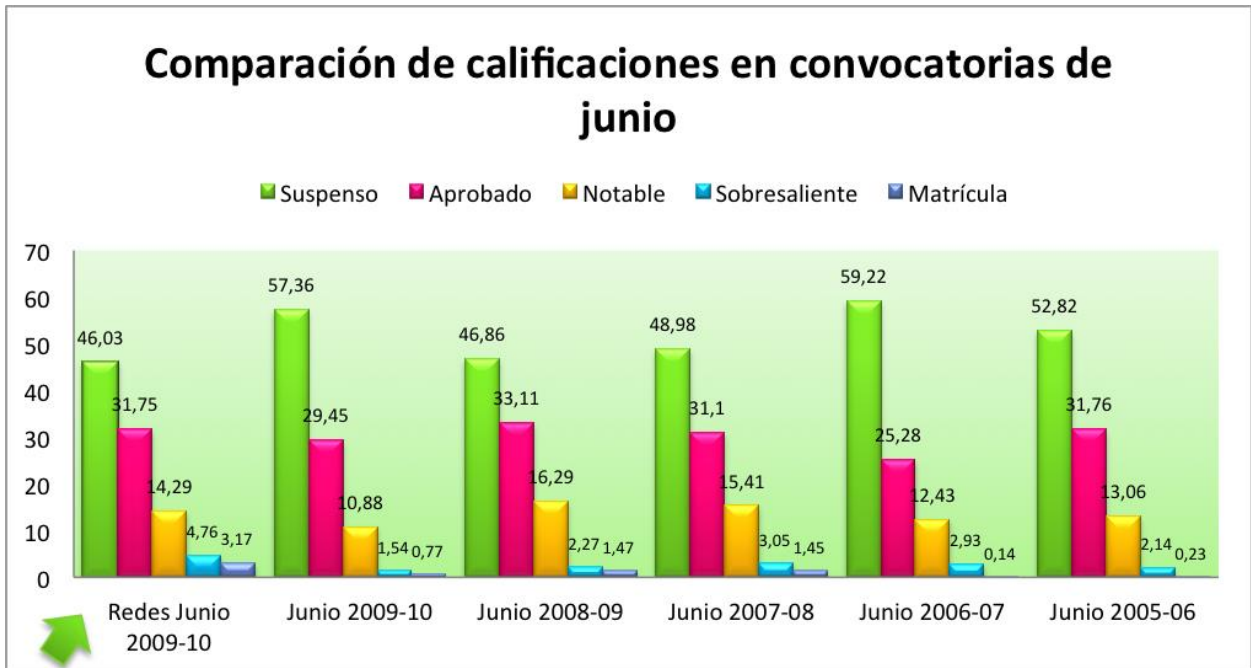


Chart 5: Ratings June 2009-10

Chart 6: Ratings September 2009-10

In these graphs it can be seen that the percentage of approved students and students with higher grades is significantly higher in the group of students who participated in the network project, especially in the June session.

This trend is repeated in the following years as can be seen in the following tables:



Graph 7: Comparison of grades in June call

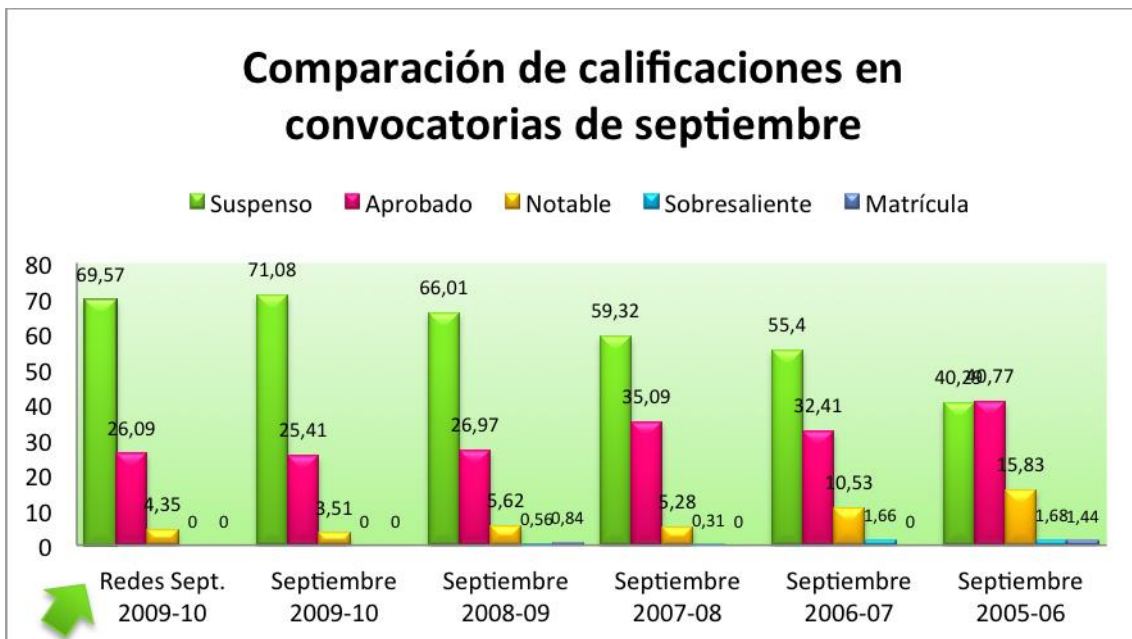


Gráfico 8: Comparativa calificaciones en convocatoria de septiembre

Conclusions

Most of the students liked the project very well and were grateful for the opportunity to participate in it. They argued that, although sometimes the deadlines were very tight, this forced them to keep up with the subject and they even came to like a discipline that at first they viewed with certain reservations (most tourism students prefer subjects with less numerical content).

Some students also complained about the delay with which the tests that the tutors had to evaluate were corrected (this was motivated by technical problems with their role, which in principle did not allow them to have access and correct in the "Jobs"). However, we think that this tool was very good since it integrated the notes in the reports that the platform gives about the students and allowed them to upload the solution without the rest of the students seeing it.

Another of the most repeated aspects was a certain restlessness of the students to meet the deadlines, especially due to the difficulties of connecting on a specific day of the week. Actually they were given two (Thursday and Friday) although some students have asked that it could also be on the weekend. We believe that this last point could be feasible, although the deadlines must be marked and closed so that they follow the planning that makes the evaluation of the subject "continuous".

Another point that could be improved is the concentration of activities after Easter (of which we were aware before starting), but when preparing the project the dates we had did not allow us to make another approach.

Despite these small remarks, the general trend is that the project was very useful to them and they considered it desirable that it be generalized to all students and to other subjects, so our feeling after the effort was very positive.

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