Continuous Assessment Through WEBCT Environment Teaching Statistics In Business Administration Degree

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Abstract

Bologna Declaration has meant an unprecedented challenge in Higher Education Teaching. To go from a teaching model based on lectures where student is a passive learner person to a self-learning model where students are active ones and their participation is the cornerstone of this new methodology, is not being feasible, mainly due to the lack of well-organized information and being aware of those implications and changes mean.
The European Higher Education Space (EHES), when being thoroughly developed, shows us goodness quite acceptable in the student's teaching-learning process. To make students take part in its own way to learn about any scientific area will benefit them by a better interpretation of those topics learnt, a better critical sense and a cognitive development according to professional requirements.
It is in this new context, teachers and students both, this experience is framed. We show peculiarities teaching Corporate Statistics, as one the more difficult subjects to understand. Moreover, if we add that subject is taught in English, with a shortage of bibliography adapted to our syllabus, then the level of difficulty to pass it increases.
Either WebCT or Moodle virtual environments provide us with a useful tool to learn by doing in a progressive and continuous way. Nevertheless, all advantages continuous progressive assessment provides us disappear if traditional marking criteria count towards the final grade.

1. Introduction

The EHES shows us goodness quite acceptable in the student's teaching-learning process and his continuous training. To make students take part in their own learning about any scientific area will benefit them by a better interpretation of those topics learnt. A better critical sense and developed cognitive requirements can be achieved.
It is in this new context where this experience is framed. Peculiarities teaching Corporate Statistics are shown, since they maybe are one of the most difficult areas to understand. Educational software platforms as either WebCT or Moodle provide us with a useful tool to learn b doing in a progressive and continuous way. Nevertheless, all advantages of continuous assessment disappear if traditional marking criteria count towards final grade.

2. EHES Learning-Teaching Approach

2.1 Corporate Statistics in the syllabus

Corporate Statistics is a subject which is taught in Bilingual Business Administration Degree at Universidad Rey Juan Carlos. This degree has been running for several years. This compulsory subject consists of 6 ECTS, three hours a week, and second semester. Despite the fact that this subject belongs to a bilingual degree, the language which is taught in means a handicap, sometimes insurmountable, to be understood. A large percentage of students have not got an enough level of English to keep up in class, so the percentage of giving up is quite large in the first month. Assuming that there is not a level exam to get access to degree, except for the university entrance examination, there exist a big problem whose solution seems to be complicated.

With respect to the available time, planning is quite long, so we suggest considering Inference Statistics as a yearly subject facing these degrees based on ECTS methodology.

2.2. Objectives in the subject's frame

The main benefit expected with this project is to encourage self-study, as either additional study method complementary to traditional one, or supplement study method to those students who can not attend classes. So, we try to encourage students to acquire an active role and, not only getting information but taking active part of his own training. For that, student must have at his disposal some information and notes necessary to make his self-study easy. Besides they will have the chance of using the self-assessment tool, in order to get basic knowledge of different subjects.
Regarding teaching aims, we try, on the one hand, to test if in-class courses improve when adding new educational methods based on new technologies. And, on the other hand, make students be able to work and to study. Moreover, these new technologies allow us to establish information and assessment's resource to improve teaching quality, getting feedback between students and teachers, because it is quite difficult during classes, and the limited usage students make of tutorship.
Furthermore, this project tries to find a solution to certain difficulties students have got in Corporate Statistics. On the one hand, the inherent complexity of the subject, whose habits of studying are inappropriate, since they are based on neither hard working nor continuous practice but learning by heart. On the other hand, the necessity for adjustment of the subject to EHES through tutorized learning and an active role of students in acquiring knowledge.

2.3 Educational Innovation Process

As we have said before, this experience tries to adapt gradually the subject to EHES, using certain means for making students' self-study easier, their right tutorization and their appraisal of effort. On the one hand, we exploit resources like virtual campus, as the right way to inform students, offer them different materials and involve them in their own learning. On the other hand, we improve current digital tools and we make some new ones to allow students to check their acquired knowledge, using some resources from a wide database of exercises to a self-assessment multiple choice test. So in that sense, this research means an educational innovation in respect to traditional methods, because it is focused on providing students with tools to get an active learning.
Moreover, this methodology allow us to identify, in some way, those topics student have more difficulties with.

3. Virtual Campus and WebCT Software Platform

New Information and Communications Technologies (NICT) are making changes in society. Because of that, the Universidad Rey Juan Carlos has bet on a higher education which encourages students and teachers the use of its virtual campus, making advantages of new technologies to apply them to distance learning. In that sense, campus has been designed to develop an environment where students can learn no matter what they are from no matter what personal affairs they have. The campus offers students taking contact with teachers and classmates and, moreover, a virtual teaching and learning which allows them to improve their education.
The Virtual Campus at Universidad Rey Juan Carlos is available 24 hours a day. Students can log in and check any information about subject, as notes, schedule, mail, etc., they can check their progress through self-assessment exercises, make contact with teachers and other students through chats, mails, internet forums. So, this way teachers and students can work in a flexible and interactive educational context, increasing quality, effectiveness and contents. Thus, the campus is useful to make educational programming easier, personal and flexible, to put skills into practice, to grade their progress, to reinforce cooperative learning, and so on.

3.1 Advantages of Virtual Campus

The main advantages of Virtual Campus versus in-class learning are:

- Greater autonomy and independence: student is the cornerstone of the teaching and learning process.

- Personal schedule: the subject is already planned at the beginning of the course to follow properly. A number of hours, on average, that some student needs to pass subject are included. That planning gives students flexibility to distribute their time.
- Spatial flexibility: they can get access on internet for any computer.
- Individual Monitoring of personal progress: the software platform allows us to check number of logins for student and the last one.
- Cooperative learning.
- Progressive learning.

3.2 Communication Tools

Communication tools that have been used:

- Chats.
- Internet Forums.
- Campus e-mail.

4. Assessment and Monitoring Methodology

During the last academic year we start to make and to put into practice a preliminary version of a self-assessment tool by levels of difficulty on a web server. This tool consisted of a set of interactive quizzes so that student can check its acquired knowledge after class, and even those students who do not attend.
Multiple choice questions were chosen by teacher among those ones teacher proposed and those suggested by students. At the beginning of the course students were encouraged to raise questions about those topics they were learning with the aim of motivating them, to study in depth, and to make students overcome their fear of exams. And besides, it allows teacher to get an idea about the understanding level of subject and the capacity of students to summarize, to reason out and to connect topics.
Multiple-choice questions were made with Hot Potatoes software (version 6.0), which allows, in an easy way, to generate a database of questions and a webpage with it. Hot Potatoes is a set of six tools to produce digital contents. For any part of the syllabus a set of web pages were created. Each time a page is loaded, the order of questions would change to avoid cheating. Those pages were uploaded on an educational server where students could get other information as info-packages, support materials, links to e-books, and so on, and then students could learn without attending classes.
Nevertheless, although students enjoyed the experience, highlighting advantages of test, it would be appropriate to count on some method for monitoring students, number of times they log in and their results.
For that, it has been necessary to improve the tool so that students type in a password each time they log in. That is the reason why we have chosen the software platform WebCT to develop tests, and to make up for deficiencies. Every student must identify himself with a keyword each time he logs in, and he can get his grade after finishing his multiple choices. So, the user knows, right away, his correct and incorrect answers. This tool is very important in distance learning, and it is in progress now.

4.1 Tool Assessment

As it was not possible to monitor students using the educational tool, we decided to ask them through an online survey.
The main results we got show that a 60% of students who answered the survey used frequently this tools to prepare the exam.
Among other functions, the most important ones for students were downloading information and handouts and the self-assessment tool's usage.
Satisfaction level of tool was great, since the 88% students show they feel good working with it.
Particularly, regarding the appraisal, it is important to emphasize that, if a 29% point out that they had worked frequently with this tool, just a 42% tell that it is the first time they do. Since this information

was collected at the end of the academic year and few weeks before exam, two out of every 5 students are supposed to have worked with this software, and they had even waited for being prepared before use it.
Regarding technical features like easy to use, variety of contents and utility, between a 70% and 80% students thought tool was good or very good. .
Considering active learning matters, a 78.6% students show to agree with the tool, making their learning easier. And, moreover, between a 75% and an 80% declare that this tool allows them to self-assess their level of knowledge and to check what topics they failed and the must improve. An 80% stated that it was very useful to prepare the exam.

4.2. Continuous Assessment Tests (CATs)

Assuming those difficulties with our former tool, in the course of this academic year, the possibility of using some new software platform was considered. A new environment whose access is easier than previous is developed. This environment was planned and programmed from the beginning. Activities were scheduled week by week over mean hours of student workload. Besides, an info-package was upload at Virtual Campus with e-bibliography, handouts and solved exercises. Information at Virtual Campus contained tutorship, C.V., grading methodology, and so on.
Anyway, the most important stage is related to continuous assessment. It consisted of five scheduled tests distributed in the course of the semester according to in-class learning. The first CAT was made by an 80% of enrolled students among who a 67% passed. For the rest of CATs, participation was down till 50%, and increasing number of passed test. It is important to mention that the first CAT was cheated by a large percentage, since there were very similar exercises, with the same errors included. With the aim of purging original works, an in-class test was done, to divide students up two groups, those who would pass continuous assessment and those who would not. That is the reason of dropping tests.
As a final result, nearly a 100% of those students who gave the five CATs in passed, that is, a 60% of enrolled students among who a 75% got a high mark. Despite the fact that these results seem to be extremely good, the percentage of students who passed the final exam was quite low. Some reasons we can guess are traditional grading methods count quite enough in the final mark. And lack of interest, either the language or the syllabus, is shown by students, so they give up.

5. Conclusions

- Due to EHES methodology, several tools have been developed to encourage students self-learning.
- Both questionnaire and CATs have been a big advance in learning and teaching methodology through NICT.
- However, goodness of these new means of teaching and learning diminished because of two reasons. On the one hand, using traditional methods makes continuous assessment be more complementary than supplementary, since class attendance is still compulsory. On the other hand, there are many people at class, over 100 enrolled students in some subjects, what makes monitoring be impossible.

6. Bibliography

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