

IS THE APPLICATION OF NEW TECHNOLOGIES A SYNONYM FOR QUALITY OF HIGHER EDUCATION?

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Abstract

The higher education is currently linked to the application of new technologies. But does this mean that the quality of the higher education depends on how we apply new technologies? Obviously, the professor has to deal with new challenges as the motivation of the students, innovation, contents, media, developments....

In this paper we analyze the perception that a group of fresher's has of the application of new technologies to their subject of Economics. In particular, the paper studies the use of a platform for evaluating their progress on the subject.

Keywords - Innovation, New technologies, higher education.

1. INTRODUCTION

In the last 10 years there has been a fast development of the application of new technologies in higher education. Any University that considers itself as innovative and progressive has e-learning platforms. Several reasons explain the fast development of the e-learning systems [1]: the diversity of learners, in terms of background, age, origins, also the economic uncertainty of present times, and finally because the increase competition and accountability demands.

The e-learning possibilities are very extended and nobody rejects the fact that Information Technologies provides mobility and accessibility to students and lecturers in terms of space and time. This way, the relationship between students and professors changes, there is not a need of a physical meeting between the tutor-student. Tutors have the flexibility and freedom to shape and extend the platform for getting their main aim: teach and evaluate to their students the acknowledged acquired. However, even when the application of IT to higher education sounds very attractive at first, it requires an additional work from both sides, the tutor has to update the platform constantly, explaining very accurately what he is expecting from the student and how the teaching/evaluating process is developing. At the same time students need to learn how to use the new tools, not only do they have to learn a subject in particular, but also all the technological requirements the course is implying.

2. WHY TO INNOVATE?

The first thing it should be considered is the innovation term. What does innovation mean? Innovation could be defined as the application of a new technology or process in order to get an improvement. So the purpose of any innovation should be the motivation for improving. The improvement in education could be drawn as follows:

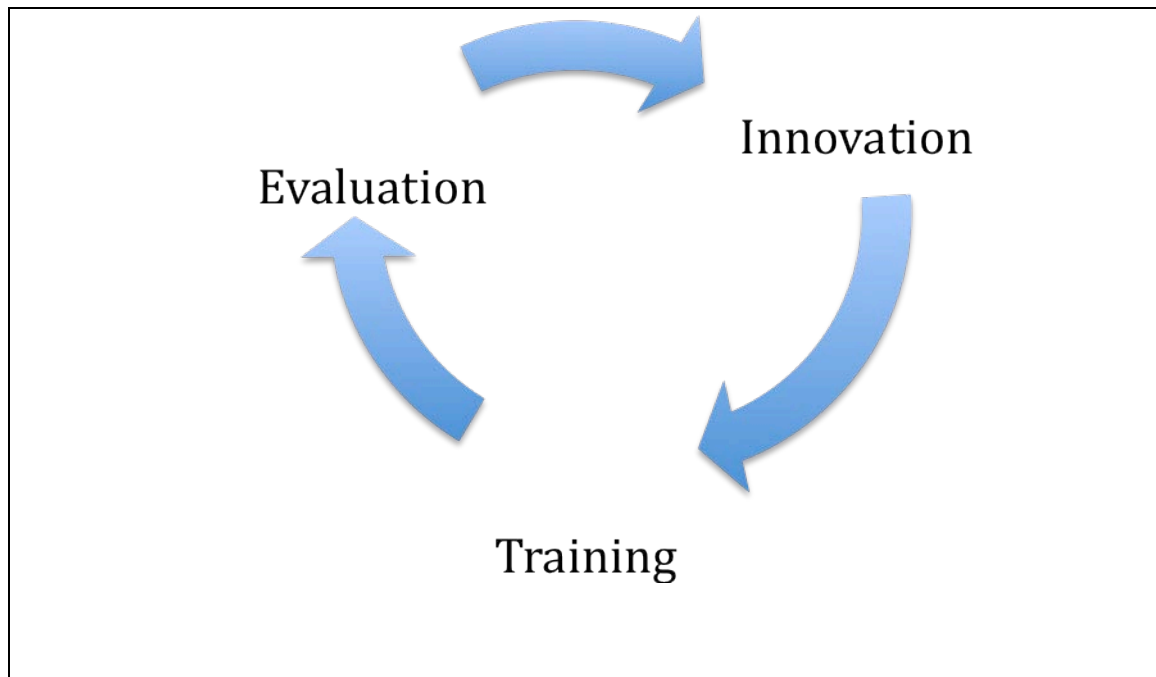


Figure 1. The innovation process

Professors make changes in education that are usually very ambitious. However the real changes of the innovative processes are not the expected ones, generally are smaller and slower.

Other barriers of the application of innovative processes are the students, who prefer traditional ways of education rather than new ways.

If innovate means to work harder even when it means to learn better the student will directly reject it. [2]

The innovative process can't be imposed by force, it has to be an alternative, as each person is an agent of change".

De la Torre [3] describes the innovative process as a tree, at the roots are the explanations and context of any innovation: why and for what; from where.

In the branches is the strategy that answer how, what and for whom. Finally at the leaves of the tree are the evaluation of the innovative process, the results, and improvement of the quality.

3. METHODOLOGY

This paper focuses on the particular case of the application of new technologies to the course of Economics of Aeronautics taught at Polytechnic University of Valencia. The students of the course are freshmen (90 students) and even when they are used to surfing in Internet, they have never got in touch with an educational platform.

The duration of the course is a semester; the tutor uploads the platform all of the content in different formats, including short videos, tasks, exercises, and even exams are temporized.

A questionnaire was developed and passed to the students at the end of the semester analyzing the level of satisfaction of the students with the application of IT to the course.

The questionnaire was built according to the use done of the platform during the course.

In particular the students were asked 3 Yes/ No questions, a fourth one asking for their level of satisfaction with the platform and a final question analyzing the strong and weak points of the platform use and its application to the platform.

Following the questionnaire is shown:

TABLE 1 Questionnaire:

Question 1. Do you think the use of the platform improves the quality of the teaching?

Yes	
No	

Question 2. Half of the exercises of the subject were propose and solved throw the platform with the application Tasks. Do you think is better to use this application than not use it?

Yes	
No	

Question 3. Do you think the timed tests are a good tool to evaluate the subject?

Yes	
No	

Why?

Question 4. Step from 0 to 10 your level of satisfaction of the use of the platform by the subject. 1 means completely unsatisfied, 10 means completely satisfied.

1	2	3	4	5	6	7	8	9	10
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Question 5. Analyze the strong and weak points of the platform and its applications.

Strong points	Weak points

4. RESULTS

The professor passed the questionnaire at the end of the semester, this was completely anonym, and the results obtained are shown as follows:

Questions:	YES	NO
Question 1. Do you think the use of the platform improves the quality of the teaching?	The 100% of the students, answered YES.	
Question 2. Half of the exercises of the subject were propose and solved throw the platform with the application Tasks. Do you think is better to use this application than not use it?	55% answered YES	45 % answered NO
Question 3. Do you think the timed tests are a good tool to evaluate the subject?	56% answered YES -Between the reasons they said:	44% answered NO. Some of the reasons were: The main goal is to finish the

<p>Why?</p>	<ul style="list-style-type: none"> -All contents can be evaluated -Forces student to work on real time, with a limit time. -The student has to study more often. -It is useful for grading yourself and be ready for the final exams. -It means regular homework. -The tests reduce the stress of the student at the final exam, and also are easier to check out. 	<ul style="list-style-type: none"> test on time and not the knowledge of contents. -There are a lot of variables that influence the result of the test not only the time you have been studying the subject. -The test itself is a good tool for evaluating the subject but not when is timed. -The wrong answers penalize -Sometimes computers or Internet fails. -The student feels under pressure. 				
<p>Question 4. Step from 0 to 10 your level of satisfaction of the use of the platform by the subject. 1 means completely unsatisfied, 10 means completely satisfied.</p>	<p>The mean and mode are both equal to 7.</p> <p>The minimum value of the level of satisfaction was 4, and the maximum 9.</p>					
<p>Question 5. Analyze the strong and weak points of the platform and its applications.</p>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Strong points</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> -Freedom of access any time, any place. -Easy and fast update of information in the media. -The professor does not have to be in class. -You can't lose information. -Fast diffusion of information through ads -Fast communication student-professor </td> </tr> </tbody> </table>	Strong points	<ul style="list-style-type: none"> -Freedom of access any time, any place. -Easy and fast update of information in the media. -The professor does not have to be in class. -You can't lose information. -Fast diffusion of information through ads -Fast communication student-professor 	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Weak points</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> -The timed tests and/or exercises are stressing. -Not all information is on the platform the student needs to read complementary information at books. -The information should be organized in a different way. -Too many files. -The student has to check the poliformat constantly. -Not everybody has internet at home. </td> </tr> </tbody> </table>	Weak points	<ul style="list-style-type: none"> -The timed tests and/or exercises are stressing. -Not all information is on the platform the student needs to read complementary information at books. -The information should be organized in a different way. -Too many files. -The student has to check the poliformat constantly. -Not everybody has internet at home.
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5. CONCLUSIONS

The students evaluate the use of new technologies. This way the professor has some feedback about the innovation applied. Of course, there are many issues to improve but also, the professor can observe an improvement in the quality of the teaching as consequence of the use of the technological tools.

The study reflects which ways the IT's are improving and stimulating the learning and/or the weaknesses of the technologies applied.

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