AN EXPERIENCE WITH DIGITAL LEARNING RESOURCES USED IN STATISTICS EDUCATION FOR UNDERGRADUATE STUDENTS OF ENGINEERING CAREERS

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The multimedia environments attempt to contribute to change the education view from an academic type of knowledge transmission to a student's construction of new abilities and capacities, which allow them to learn in a constant and autonomous way.

The purpose of this work is to show the main results of an experimental application of digital learning resources, which were created and used in courses of Probability and Statistics for undergraduate student of engineering careers. These environments were tested in four courses of different programs where students had all the resources available in a b-learning platform and online access to the SPSS software. Students had six hours a week. A minimum of two of them were carried out in a computing laboratory where students performed interactive and constructive activities specially designed for problem-solving learning.

The main results of the experience are:

- Generation and implementation of b-learning technology represent a qualitative and quantitative step forward in the assurance of the quality of teaching, as its delivery means a necessary improvement and subsequent methodological change in teaching staff.
- Achieving students skills to learn and continue learning autonomously and continuously.
- Students connect to the site regularly, even during holidays; also in this environment they had support because students could print published material.
- The use of statistical software was highly valued by students. According to their views this allowed them to "see" how complex methods operate, which is difficult to understand only on paper.
- Students' opinions were collected through focus groups and opinion surveys. In general, such opinions contributed to project improvement. They confirmed certain cultural resistance to a process of education not exhibiting learning with specific characteristics. Among the most important issues, we found the absence of computer culture, having the teacher as an exhibitor, and not having autonomy in the process of learning.

In general, this experience emphasizes how important it is in the development of a strategy of change to attempt to improve the relevance and responsiveness of the educational offer with new social demands to be addressed by the University of the new century.

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