STATISTICAL ANALYSIS BIG ACADEMIC OPEN COURSE

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Abstract

The growing demand for enrolment of undergraduate students in Public Education Institutions generates the need for new ways of conducting the teaching and learning process. In this paper we analyze the BAOC (Big Academic Open Course), school courses for large groups, this is an alternative modality to cover the growing demand of students enrolled in Engineering curses at the Autonomous Metropolitan University with large groups.

Big Academic Open Course is characterized by attending groups of 70 to 250 students during a school term. Unlike a MOOC course, learning activities and assessments have set dates. Its characteristics are based on b-learning and MOOCs applied to school courses. The main advantage is that it optimizes the physical and human resources to attend a larger number of students, breaking the time-space paradigm. Dropout levels are similar to courses offered in face-to-face mode.

The objective of this work is to analyze the data of the field study, of this modality to compare it with the traditional modality. The results obtained show an average approval rate of 68%, while the average retention rate is 61%. 88% of students consider the modality useful and 76% would like to take other courses in this modality.

Keywords: b-learning, MOOC, cooperative learning, mode of conducting the teaching-learning process.

1   INTRODUCTION

Until 2010, the UAM (Autonomous Metropolitan University) Campus Azcapotzalco offered the course of NMI (Numerical Methods in Engineering), giving attention to 2 groups of 50 students (maximum) per quarter per assigned teacher, so a maximum of 300 students on average per year was attended. For which two classrooms were required with capacity for 50 students each and two professors.

In 2011, modifications were approved to 10 study plans of the Engineering Degrees of the Division of CBI (Basic Sciences and Engineering) at UAM Azcapotzalco, which caused the demand to exceed the offer by more than 100%. The classrooms and professors insufficiency limited attention of a large number of students, so that the need to have conduction modalities of teaching-learning process alternatives was seen, its objective: to optimize the physical and human resources of the Institution to satisfy the demands for enrollment in courses such as Numerical Methods and Engineering.

The above situation is a problem that occurs in the UAM [1] and is not exclusive to it [2,3]. To attend a larger number of students, a virtual learning environment (VLE) was used, which allowed us to take advantage of the institution's physical and human resources [4].

Then arises the Big Academic Open Course (BAOC), the modality considers that the course is offered in an academic context, where a grade must be assigned to the student in a pre-established time. Because of this, as recommended in [5], there are face-to-face activities to validate that student has obtained the knowledge and skills set in the course objectives. This model is not as flexible as the MOOC, however, when using its techniques [6], it allows attending large school groups (of 100 and up to 250 students in the case of the UAM). Between these techniques are: use of short videos of specific topics, work is integrated with interactive multimedia materials, encouraging autonomous work, exercises and practical activities are incorporated, problem solving [7]. Almost 90% of the course activities are carried out online, this allows the course to have a greater scope and it is possible to attend a larger number of students.

This modality is described in detail in [8].

It has the following characteristics: