



A Proposal on E-learning Quality Assessment in Higher Education Initiative of Andalusian Virtual Campus

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Abstract

The present situation of Information Communication and Technologies (ICT) in all areas of society makes them very valuable tools if used properly. In particular, at Universities, and within the new methodological and educational changes proposed on the European Space for Higher Education, there exists a great interest in improving and adapting the traditional learning model introducing new training initiatives in the form of e-learning. However, it is necessary to establish mechanisms to ensure control and improve the quality of these new initiatives. This paper presents the experience carried out jointly by ten Spanish public Universities in the assessment and improvement of their joint e-learning academic offer through the Andalusian Virtual Campus (Campus-Andaluz-Virtual, CAV) initiative. We describe a model of procedure to quality assessment of e-learning activities and explain the details of the used method.

We present some interesting data and conclusions from obtained results. For instance, the mere fact of establishing measurable goals that define the quality of the e-learning can guide professors and support teams on improving their subjects from the beginning. We have also seen the importance of carrying out joint collaborative actions among institutions of higher education with common interests and objectives. The use of a peer review process in quality assessment at the institutional level can get interesting results from the joint experience, which is already being used successfully in other initiatives to evaluate the quality of e-learning. Furthermore, it is important that all stakeholders work together at different levels to ensure the success of the final result. For this reason, a very important aspect is the definition of common objectives and adequate training of stakeholders. We have also noted the importance of an integral process of assessment and improvement throughout the whole e-learning action, which, in our case, has been structured into three phases: preliminary, process and final assessments.

1. Introduction

The Andalusian Virtual Campus made up of the ten public Andalusian Universities, within the Digital University Project promoted by the Ministry of Economy, Innovation and Science of La Junta de Andalucía aims to develop online teaching through all units of online education. This initiative was launched in the 2006/07 academic year and allows students from 10 public universities in Andalucía to enrol (10 places by university for each subject) in any of the offered online subjects which can be freely chosen.

Everybody knows the need to assess the subjects in order to detect the shortcomings of the system and to try to eliminate these weaknesses, assessments and procedures carried out with different methodologies in the face-to-face regulated university degree studies [1]. It is intended to highlight the



need to evaluate, from a holistic perspective, the online subjects in order to provide possible suggestions for improvement in the EEES.

The assessment procedure which is proposed defines what aspects of an online formative action should be evaluated and provides an application method for obtaining a quality assessment and some recommendations for improvement. The initiative arises with the main goal of homogenizing the desirable quality criteria that all the online subjects offered through the CAV should have. This work describes the implementation of the CAV assessment method and presents some of the experiences and conclusions obtained. The method consists of three phases which assess different aspects of formative action lifetime. However, we will focus on the first phase because, as showed below, it has reported the best impact on improving subjects.

The article is structured in the following way: In the following section the quality assessment method applied in the CAV describing each of its stages is discussed in detail. The third section focuses on one phase, the so-called initial assessment. Then, the results obtained are displayed. Finally, the conclusions of this contribution are summarized in the last section.

2. Assessment Method Proposal

In the 2008-09 academic year, University managers agreed on how to certify the quality of e-learning subjects in CAV. For this task there have been taken into account aspects as the experience gained during these years and other more general approaches as the framework of the European Higher Education Area [2, 3]. The level of satisfaction and the opinion of students have also been taken into account [4] since the CAV creation and, this initiative has demonstrated overall increasingly positive results [5]. The result is a set of the guidelines for a comprehensive assessment procedure that covers all mentioned aspects and is divided into three phases as discussed below.

2.1 Method Phases

We propose a process of formal quality assessment divided into three stages: Initial, Process and Product (Figure 1). This assessment consists of the discrimination of compliance or not in a series of criteria of each stage, as well as the identification of strengths and weaknesses of the formative action in each one, getting some partial and final results and certification.

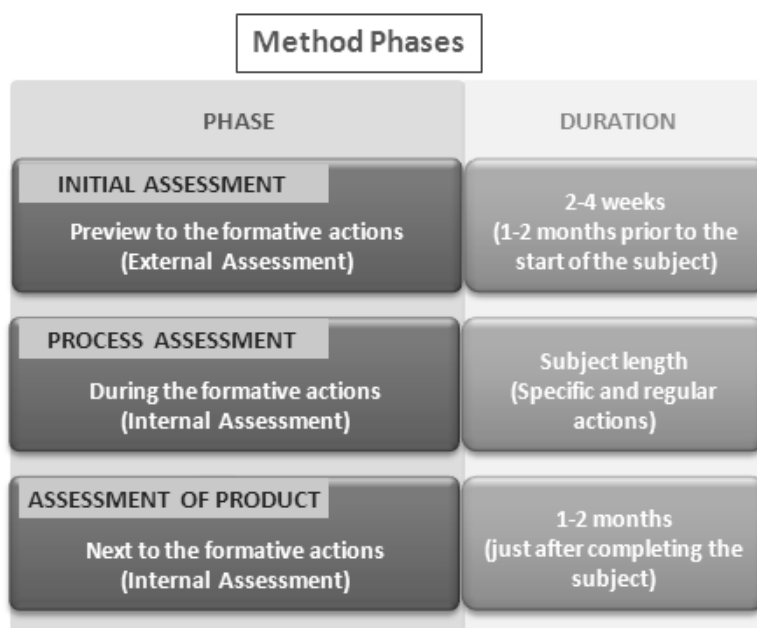
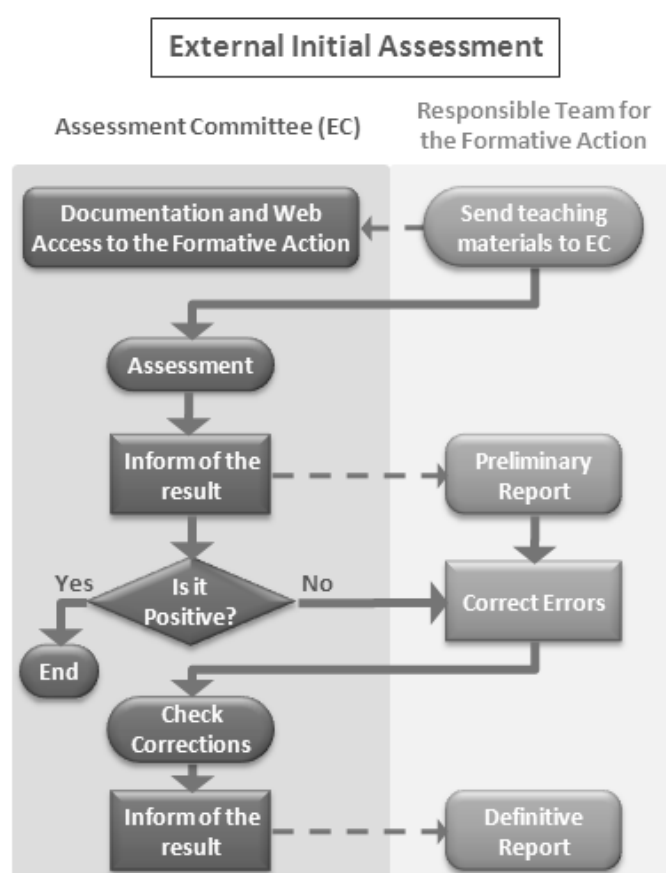


Fig.1. Phases of Quality Assessment Method.



The **Initial Assessment**-prior to the beginning of the formative action- has consisted of the review and assessment, by an external committee of experts, of the information and available resources in the online course developed along eight dimensions: identification, structure, objectives and competencies, content, activities and assessment, usability and accessibility, resources and bibliography and, finally, communication tools of the formative action. The assessment is carried out by assessors from the participating Universities in a peer-review process. This period can detect possible gaps or errors of the available information in an online course before its implementation in order to cover minimum quality criteria, thus ensuring the beginning of the formative action in a proper way (Figure 2).

Fig.2. External Initial Assessment.



The second phase, **Process Assessment**, which is carried out internally, is meant to detect and improve proceedings during the development of each formative action related to the work of the personnel involved (professors, technicians, support staff), the participation of students and some other academic and technical issues that may arise.

Finally, the **Product Assessment**, also carried out internally by each university, appreciates both the results of participation and performance (number and percentage of students enrolled, dropout rate and qualifications in the first and second call), the professors (summary of the process assessment phase) and the satisfaction of students and professors through questionnaires that measure planning, contents, participation in activities, usability and accessibility, as well as the overall rating among others.

As a result, a final assessment report will be obtained, conducted by the university responsible for the formative action, whose result may be: **positive**, the formative action, even if it is susceptible of improvement, will be developed normally; **conditional positive**, it will mean that its implementation for the next academic year is conditional upon the inclusion/modification of certain criteria listed in the



report and, finally, **negative report**, if very serious incidents have been detected which will prevent the formative action from being conducted in future editions.

3. Initial Assessment Process

The External Initial Assessment (EIA) started a month before the beginning of the subjects. The assessment team of the university is composed of: a) two technicians in e-learning, training professors in computer science and telecommunications, and b) two advisers, trained professors in psychopedagogy, all of them with extensive experience in e-learning. They also have the backing of a computer technician and a pedagogical advisor who support e-learning.

In a first stage, before the beginning of the formative action, an internal preliminary assessment was carried out as training for assessment team.

During peer-review process it was decided that subjects from each University would be assessed by experts from two other universities of CAV to validate obtained results.

The EIA is organized into two stages. In the first one, assessment equipment generates and submits a preliminary report. Next, the evaluated university has a period to make changes or allegations of the received reports. During this period of just over one month, the support team helped the professor with advising and developing improvement actions to address the problems identified. After receiving reports with amendments and arguments, the external assessment team makes a second review of affected subjects. Finally, reviewers generate and submit the definitive EIA report.

3.1 Discussion about initial assessment experience

The application of the assessment process has raised doubts and discovered deficiencies both in the subjects and in the assessment process itself. The EIA revealed discrepancies in the type of information that was provided to students in the subjects.

The first obstacle of the external evaluators was technology. The assessment team had to become familiar with different Learning Management Systems (LMS). Moreover, some problems related to permissions assigned to evaluators preventing them from having access to some resources of the subjects were detected.

Other problem was related with the interpretation of some assessment questions which were ambiguous.

It was also decided among the evaluators to add comments to explain the rating issued. Also in those cases in which an item was partially fulfilled it was assessed with a "conditional yes".

In most cases, the two external assessments for each formative action were consistent and complementary.

Finally, it was observed that most of suggested improvement actions were carried out. In general it was proved that professors had interest in achieving those actions.

3.2 Initial Assessment Analysis Results

As a result, there was observed a significant improvement in the assessment of the subjects over the different assessments. The results showed increases ranging from 8% to 70% in some of the subjects, especially those carrying one or two years teaching; professors did not have sufficient experience on e-learning. But with suggestions reported and adequate technical support, the actions carried out have achieved very high growth rates in subject quality. In the most veteran subjects, 3 or 4 courses, the dynamics of the courses had enabled them to improve annually but, the increase experimented in this course has been significant too.

Interesting results on the indicators, which were worse scored initially, have been obtained. The worst scored item was about the use of standard formats for contents (SCORM-IMS.AICC...), which indicate that there is an initial tendency to reuse materials from traditional teaching (.ppt/.doc/.pdf...). These formats prevent from taking greater advantage of possibilities for student interaction with LMS, which misses part of the potential they offers for student tracking. Other problems are technical, such as hyperlinks that do not work or missing content in different formats to download.

In a large number of cases, there were no suitable temporary planning guidance to students; they were not properly informed about contact person to ask questions about technical, academic or



development of the subject; sometimes they were not told specifically on the objectives and competencies to be acquired with any content/activity to be accomplished. All of this demonstrates [6] the need for a particularly detailed study guide that allows students to continue the activity at any time. With respect to the final assessment we would like to emphasize the excellent results expressed by the students in the anonymous survey of satisfaction [4] of 08/09 course. In this survey, the average score for subjects in a Likert scale from 1 to 6 was 4.73 and interest in re-enrol in a course of CAV was 5.02. Indeed, an increase of 5% in student enrolment was detected on the following course with a current total average of 1.52 subjects per student.

We believe these results show us that students feel comfortable with this style of learning and it is up to their expectations.

4. Conclusions

The results obtained after the issuance of the final reports on initial assessment were generally excellent. This proposal is the result of an interdisciplinary and joins work in CAV initiative which emerges to meet the demands of institutions, rating agencies and learners to establish criteria that could take into account all the realities in the current high educational landscape.

We can conclude that the mere fact of establishing measurable goals that define the quality of the e-learning can guide professors and support teams on improving their subjects from the beginning.

We have also seen the importance of carrying out joint collaborative action among institutions of higher education with common interests and objectives.

The use of a peer-review process at the institutional level can get interesting results from the joint experience, which is already being used successfully in other initiatives to evaluate the quality of e-learning.

Furthermore, it is important that all stakeholders work together at different levels to ensure the success of the final result: institutional managers for providing human and financial resources to sustain the process, professors who have an interest and appropriate training to adapt their training activities, and technical and assessment teams to guide the implementation of the procedure.

For this reason, a very important aspect is the definition of common objectives and adequate training of stakeholders.

We have also noted the importance of integral process of assessment and improvement throughout the e-learning action, which, in our case, has been established with the initial, process and final assessments phases.

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