

TAO Helps Ceneval (Mexico's National Center for Higher Education) Upgrade Their Assessment Program to Meet Increasingly Complex Expectations



BACKGROUND

Ceneval (National Center for Higher Education) Assesses both Knowledge And Skills for over 3,000,000 Test Takers Every Year

Ceneval (National Center for Higher Education) is a Mexican non-profit founded in 1994 by the National Association of Universities and Higher Education Institutions (ANUIES). Ceneval's 20-member Board of Trustees includes principals and presidents of public and

private universities, presidents of Mexico's two university associations and heads of professional and trade associations.

Administering more than 2,000 tests per year for over 3 million test takers, Ceneval focuses on evaluation and assessment of both subject knowledge and skills application. The testing involves 256 different exams, serving over 1,500 high schools and universities.

CHALLENGE

Ceneval launched its computer-based testing program in 2002, working on both item development and national administration. By 2011, they had built a strong platform, successfully automating most of the organizational process. However, with increased governmental expectations, institutions began to require more complex evaluations for better feedback, while keeping costs down.

At this stage of development, Ceneval realized that their item bank needed to be improved, either through further in-house development of the existing system, or the acquisition of new technology. The item bank as it stood was simply unable to accommodate the necessary increase in content complexity. For example, it was limited in that it could work only with single response multiple-choice items. Clearly, improvements

were required. However, at the same time, it was also essential that changes must not compromise existing requirements, which still needed to be fulfilled. Specifically:

- All content must be stored at Ceneval's data centers.
- The system interface must be in Spanish.
- All items must be encrypted.
- Items must be accessible to various team members at different times in the development process, depending on the member profile type: item developer, expert reviewer, and editor, etc.
- The system must manage multiple item banks concurrently.

SOLUTION

Why TAO

In 2011, Ceneval began researching an item bank solution that would allow them to increase the sophistication of their assessments. They found several possible solutions at the ICE 2011 Educational Conference, but each of them presented specific problems that ruled out their use by Ceneval. For example, one system was unable to create test forms. Another could not accommodate a Spanish language interface. Yet another could only process multiple-choice items.

TAO proved to be the most versatile system available, presenting none of the above difficulties. TAO was an attractive solution, because A. its Open Source nature meant it could be installed on Ceneval's servers without any restriction, and B. It was already used by PISA (the Programme for International Student Assessment). Ceneval had a number of sessions with the TAO team, including a technical review and a requirements review. Ultimately, TAO's pay-for-what-you-need approach, the help provided by their user community, and the team's willingness to fast track customizations were all deciding factors in Ceneval's final selection of the platform.

RESULTS

Implementing the TAO Item Bank

Ceneval's first concern was to integrate TAO with their existing system. The seamless incorporation of TAO enabled them to continue managing user access through the Ceneval system, without having to make costly adjustments. They were immediately able to incorporate TAO's templates for developing test items. Without compromising any of their existing capacity, they now had 16 different templates to produce items rather than the single response multiple-choice template to which they had been limited. Moreover, item content in QTI and HTML5 format produced by TAO can be encrypted and saved into Ceneval's system database. This addressed one of Ceneval's major concerns going in, making it possible for anyone with the proper credentials to review items in any browser.

Translation into Spanish was also a concern. Ceneval was pleased to find that TAO's Open Source User Community provided adequate support. In only a few hours, they were able to discover similar translations by other users. This saved many hours of work, resulting in reduced costs. "Now that we can use TAO to build a brand new item bank with richer, more complex items," says Francisco Otero, Director of Information and Communications Technologies at Ceneval since 2002, "we look forward to a TAO-enhanced delivery system in 2014 that will work on both PC and tablets."

At the beginning of our research, we thought there were two possible solutions to our problem: (1) Replace our system altogether; or (2) continue with our own development to make it more flexible," says Mr. Otero. "However, TAO offered a third option, which allowed us to upgrade to a new item bank while keeping the rest of our existing infrastructure. It was exactly what we wanted – the best of both worlds.