

Online Feedback by Tests and Reporting for eLearning and Certification Programs with TCmanager

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ABSTRACT

The evaluation of eLearning success is an indispensable business requirement of education programs: the easy registration of 'visits' to eLearning websites is, however, not sufficient in most cases. Additional metrics from authenticated logins and reports of learning activity and success - as obtained from specific online tests - are required. The aim is to document the acceptance, progress and return of investment (ROI) of eLearning programs, and set up additional training well tailored to the needs of a specific learning community. An example from a corporate certification program proves the applicability of the proposed processes.

Categories and Subject Descriptors:

J.1 [ADMINISTRATIVE DATA PROCESSING]: Education

K.3.1 [COMPUTER USES IN EDUCATION] Distance Learning

K.3.1 [COMPUTER USES IN EDUCATION] Collaborative Learning

General Terms: Management, Human Factors, Economics

Keywords: eLearning, Blended Learning, Online Tests

1. INTRODUCTION

Students and professionals asking for additional knowledge are usually pleased with the wide scope of knowledge sources available electronically and wish to "learn on demand" [4]. This implies a high level of student's independence from locations and time schedules, which have been described by other terms like 'Open learning' or 'Distance learning' previously [2]. However, electronic information sources may eventually turn out to be useless [3] without an editor or moderator. Therefore many training organizations tend to **extend or enhance but not replace** classroom training by web based training (WBT). Then - besides finding skilled multimedia instructors [1] - the integrated administration of the learning program and implementation of a

feedback channel between students and tutors as well as the training organization is critical for the success and of such **blended learning** concepts.

2. INTEGRATED ADMINISTRATION

An integrated administration example is **TCmanager**, a seminar administration system with integrated eLearning platform implementing SCORM™ 1.2 runtime. It provides efficient **operational** support for the **delivery of training** and in order to minimize administrative efforts, collect feedback from eLearning programs and therefore **make eLearning a profitable business**. For students the first visible result is the integrated training catalogue including both classroom training and WBT offerings.

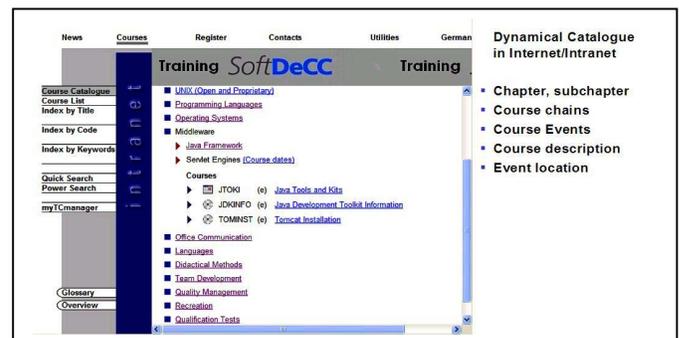


Fig. 1 Integrated internet catalogue

3. AUTHENTICATED ACCESS

Training or test material may be provided anonymously, but authenticated access is needed whenever the information becomes specific to the student, e.g. in a communication channel between trainer and tutor.

In TCmanager authenticated access may be opened even temporarily for selected students and therefore allows to precisely tailor the access to eLearning material: certain students may get access to the eLearning platform at certain times and will be able to execute just the booked eLearning courses.

In addition to authenticated access for students, TCmanager provides authenticated access for *trainers*, who may then inspect their time schedules or even deliver tutorial work from all internet access points available in their current environment.



Fig. 2 Trainer Schedule obtained via authenticated access

4. ONLINE TESTS AND EVALUATIONS

Online tests may be used as (i) anonymous **prerequisite tests** to check the skills level of eLearning students, (ii) **didactical tests** with multiple choice answers and the right answer(s) displayed after each question or even (iii) **tutorial tests** to be configured and used by an eLearning tutor at runtime in order to establish a common level of understanding or just terminology for further learning. Evaluations are then available at runtime and yield a highly useful feedback e.g. to the tutor on the skills level of the students.

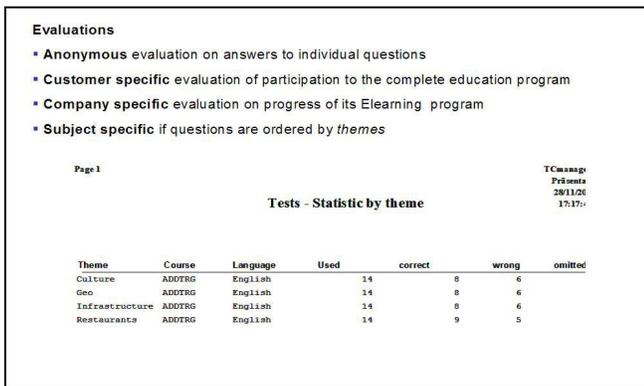


Fig. 3 Online test evaluation: test statistic by theme

5. WORLDWIDE CERTIFICATION EXAMPLE

Integrated administration for eLearning, internet catalogue, authenticated access and online tests have been used by a large corporation wanting to qualify its world wide partners for special tasks and safeguard the qualification by a certification process. The certificate should finally be awarded after passing an elaborate theoretical exam in an independent professional test center and a practical exam in the corporation itself. The preselection should be done according to the same requirements

all over the world and not be influenced by local preferences of regional business responsables.

5.1 Solution

For preselection a set of multiple choice tests was created using its online test creation and configuration functionality. These tests can be executed anonymously by everybody feeling qualified. The quality of the questions was insured by an elaborate review- and translation process, the results of which can be used in the test sequences still at runtime. On preparation for the test every candidate is supported individually by a “personal consultant” pointing to additional educational offerings. Nevertheless the proof of a successful test is a prerequisite to register for personal certification.

5.2 Benefits of the solution

The most important benefits of the solution are the homogeneous standard, cost efficiency, removal of time constraints, transparency of the process and even ongoing progress.

5.3 Project result

The process was successfully implemented and is currently operational. Preselection and comparable qualification is ensured for the candidates entering the costly and time consuming theoretical and practical exams.

Worldwide Certification Process Problem

- world wide certification program - for qualified partners only
- limited resources (time & money) available

Solution

- supply qualification tests on TCmanager eLearning platform
- register preselected and qualified trainees only (world standard)
- select courses with recommendations from TCmanager tests

Benefits

- homogeneous standard, time restrictions removed, cost effective (break even for >500 students), success immediately visible

Fig. 4 The certification process problem

6. REFERENCES

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