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# Data analysis of an online course: measuring effectiveness

***What are the most significant data on the effectiveness of online training?***

The digitisation of training using eLearning tools has made a huge amount of data available to trainers and companies. Just think of your **LMS, learning management system** and the information it offers on **participation**, performance and, in general, the activities of each individual student in an online course. The need to interpret this data and use it in the correct way to improve training and, within the company, student performance, is what has led to the emergence of models of analysis through **learning analytics**.

Without going into too much detail, the aim of this science of numbers applied to learning is to understand and predict student behaviour in order to improve the **training experience**. Starting from the data produced on an LMS, what are the most important indicators to measure the effectiveness of an online course?

## Track learning times

For several reasons, the **timing of learning and completion of a course** is important to determine its effectiveness. For example, observing how much time the average student spends on each module can help to understand any gaps in the student's knowledge or indicate that there is room for improvement in writing and course design. Similarly, the course completion date can be used to understand on average, how long it takes a student to acquire certain skills and be ready to apply them in the workplace. Quizzes can be used to test the skills learnt and with a simulation or **blended learning** encounter, they can be put into practice.

## Monitoring student involvement

The main way to determine how effective an online course is is to understand how active the students have been. In non-compulsory **continuing education**, students can freely choose the courses to attend and put real self-managed learning into practice. While trainees can learn freely, how, when and where they want, the trainer obtains **important metrics** on course attendance. For the instructional designer, it is also interesting to understand the habits of self-managed students: knowing when they connect, how long it could help to insert new training modules when students are more active, making the training even more effective.

## Analysing student performance

Another way to measure student involvement is to analyse data on participation during **social learning** moments: the questions asked during a webinar or in a virtual classroom, the support given to colleagues on the LMS forum are all opportunities to evaluate the answers of the beneficiaries according to the training received. In this case, the way in which the knowledge learned has been transformed into **skills** in order to improve work performance is also analysed.

An LMS is an authoritative source of data on student behaviour, which is also useful for the **assessment of training needs**. Even the simplest indicators, such as those that track course progress and completion times, course attendance and participation in virtual forums and meetings, can make a fundamental contribution to assessing the effectiveness of an online course.

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