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Data Driven Training: statistics at the service of eLearning

The best way to manage human resources is to do it with numbers.

Measuring performance is the key to improving it. In this way, all decisions can be evaluated for the results they achieve. In today's competition, mistakes can be very costly. Everything ends up in the ROI, even the benefits of professionally done training. It is necessary to follow the entire journey of employees to better understand the limits and opportunities of a course, such as its effects on the work. For this reason, selecting and using the right tools, such as DynDevice, is an important decision for a company.

The added value of an LMS

To understand the benefits of a Learning Management System, it's helpful to think about all the parties it involves. Certainly, the end users are students and employees, who will take the courses provided in **eLearning**. The content then, is created by an expert, who condenses his knowledge into the lessons. If these were the only subjects it addresses, the system could be limited to a teleconferencing tool: the teacher explains, the student learns. The reality is more articulated.
In a company there is, at a certain level of the organization, a manager who establishes that an LMS is the best tool among the various training choices and that the investment is capable of making the promised contribution. But how to measure this contribution? A first answer is the one common to any productive investment: it's appropriate if it allows you to **reduce costs, increase productivity, or improve quality**. For example, a good warehouse management system enables you to speed up logistics. With accounting software, you can also keep costs under control.

For an investment in eLearning, improving quality means having employees who have learned the knowledge necessary to perform the most complex tasks, who are aware of the best procedures and relevant standards, and who are able to find a solution to even new problems. In short, having competent staff.
That translates the investment made into cost savings, increased turnover, or both. Therefore, you can also evaluate the investment in training in terms of **ROI**, the index that relates the added value of the investment to its initial cost. The only caution is to consider all factors in the calculation.

If you can't measure it, you can't improve it.

This is the theory. Practice needs numbers, as economist Peter Drucker says, "**you can't manage what you can't measure**".
This is where you can understand the advantages mentioned above. An LMS is software that can collect a wide variety of measurements, both those about the course itself and those about the attendees. To better define the discourse, let's refer to the case of **DynDevice LMS**. For each user, the software measures:

- the total number of courses to which the user has access (is enrolled);
- the courses completed with expired enrollment;
- the completed courses with unexpired enrollment;
- unfinished courses with expired enrolment;
- unfinished courses with enrolment that has not expired (courses in progress);
- the progress of the courses;
- the traceability of each activity carried out while connected to the system and the duration;
- the traceability of the use of individual learning units structured in Learning Objects (LO);
- the regularity and progressiveness of use of the system by the user;
- the methods and passing of learning tests and learning assessments.

And again, at a greater level of detail, the statistics include:

the list of courses in which the user is enrolled;

the list of completed, unfinished, expired courses;

- the progress status of the courses
- the start and end date of the courses
- the number of attempts for each section;
- the results achieved;
- the times of fruition.

At the course level instead, statistics concern aspects such as:

- the total number of users enrolled;
- users who have completed the course and have expired enrollment;
- users who have completed the course and whose enrolment has not expired;
- users who have not completed the course but whose enrolment has expired;
- users who have not completed the course and have enrolment that has not expired (users who are taking the course);
- average satisfaction.

These measurements make it possible to form a complete report to evaluate both the performance of the users and any corrections to the course. The first is functional to the second: a user who does not reach the minimum score on a test may have to revise some lessons; while, if more than one person does not reach the target, it may be necessary to modify all or part of the course program. Here is where the topic of training management, that "M" for Learning Management System, begins to gain significance.

Decisions, not just information

The measurements listed shouldn't come as much of a surprise: management systems are designed specifically for this. The problem, if anything, is not knowing what to do with all this information. Is it really necessary to know the time of use of every single lesson? It depends on our management needs. Business work needs to be fluid and continuous. Every obstacle is evaluated and addressed. Once the problem is solved, the work continues, perhaps with updated procedures and modified teams. Not all decision-making models reach an in-depth level of evaluation: sometimes the speed of decision-making matters more than the depth of analysis. In the collective imagination, the figure of the elderly founder comes to mind, who owes his success to his habit of making decisions according to his instincts. And even if some turned out to be wrong, obstinacy and stubbornness were the way to overcome difficulties. Someone then experienced what it was like to try to argue for alternative solutions.

Today, in a context of increased competition, a wrong choice is paid for. Sometimes very dearly. Certainly, a management that is aware that every obstacle can be overcome and is convinced that obstinacy can make a difference is indispensable. But a budget that has been exceeded, a market share that has been lost - perhaps in favor of stronger competitors - and a lack of liquidity are problems that no manager would want to have to report to his superiors, especially if they are unforeseen. Today, more than anything else, effectiveness and efficiency are essential: get the result and do it without wasting the available resources. Training is no exception.

An LMS, therefore, helps us to **make sense of the data**: we need the time spent on each individual lesson. And how. Taken alone, it gives us an indication of the individual person. That person may have had a work snag and suspended the course. And if repeated, it could indicate that that employee has an excessive workload or that procedures don't allow them to handle the regular routine. Observed across multiple employees, it could indicate that that team is having difficulty managing time and turnover. If there is an assessment test on this lesson, its result could then tell us that the lesson was too simple and redundant, if the result of the responses is more than satisfactory. Or that the group did not give the right importance to the concepts expressed. With this example alone, you can see how the usefulness of a piece of data grows in proportion to its connection with all the others. More data, more correlations, better conclusions. And if the operation is too complex, no problem, **Artificial Intelligence (AI)** takes care of it. Maybe with a chatbot, to which collaborators can explain why they can't finish the lesson at that moment, and that tells them how to retrieve it.

The beauty of data is that there's no real limit to how you can aggregate it, if you're clear about the contribution you're asking of it. A **Data-Driven Commpany** applies this philosophy in every area of management. Even to Human Resources management: understand, anticipate and support the career path of each employee; find, motivate and train talents and leaders; increase and preserve the wealth of skills and abilities. These are all functions that contribute best when they draw information from multiple

areas of the organization. Of course, each business has its own specific needs. The SME with fifty employees and a single area of business is quite different from the subsidiary of a multinational with tens of thousands. It goes without saying that even here, customization of analysis and monitored functions is essential.

To clarify the concept, let's take the DynDevice case and see what extensions there are for human resource management. These are the functions that can be performed:

- Manage the personal details of all employees
- Manage their profiles and associated skills
- Automate eLearning course enrolments
- Manage risk prevention procedures
- Manage projects and orders
- Organize remote meetings
- Monitor business discussions
- Manage attendance
- Use Knoledge Management
- Manage company visits
- Manage payroll
- Track and evaluate expense reimbursements
- Book and manage shared resources

As you can see, we're well beyond simple eLearning: with these, course delivery is embedded in a continuum: assessing contributors to select which courses; streamlining procedures for content delivery; tracking, recording and linking together those ancillary activities that would otherwise be just a chronological chore.

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