

Aligning Qualitative and Quantitative Learning Analytics Data

Quantitative data is any data that can be counted, such as quiz scores, course completion rates, or a reduction in the number of sick days taken by employees in a given period of time. This type of data provides information about the amount or quantity of something. Broadly speaking, quantitative data is objective.

Qualitative data is text-based, such as which training is subjectively the most popular among employees, or what subject students are majoring in. This type of data provides information about characteristics or qualities of something. Broadly speaking, qualitative data is subjective.

When analyzing data from learning management systems (LMS), both quantitative and qualitative taken together reveal more information than looking at each measure individually. Quantitative data answers the “what” and qualitative data answers the “why” and “how” questions about the impact of training, creating a richer data story.

When combining quantitative and qualitative data into a single data story, keep the following in mind. First, know your audience and their priorities. The priorities of executives will be different than the priorities of instructors. Next use visual representations of quantitative data, such as graphs and charts, as much as possible. This makes quantitative data much easier to understand. Finally, tell your data story in a logical way, moving from quantitative to qualitative, explaining important connections to your audience.

Look for alignment between quantitative data, for example quiz scores, and qualitative data, for example learner satisfaction with training. If these are aligned, quiz scores will reflect learning by students passing the quiz, and learners will leave feedback about the course indicating their satisfaction with it.

If these two metrics are not aligned, quiz scores may show that students passed the quiz but left feedback that they did not find the course useful. Or conversely, students may not have passed the quiz, but left feedback that the course was enjoyable or fun. This misaligned data gives you information about the impact of the course. You can use this information to make changes in the course.