

# Do the Most Satisfied Students Learn the Most?

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## Training Evaluation Team

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In a recent meta-analysis by ADL, researchers analyzed data from 136 studies and 27,020 trainees to determine the relationship between trainees' reactions to a course and course outcomes (Sitzmann, Brown, Casper, Ely, & Zimmerman, 2008). Trainee reactions refer to students' reported satisfaction with a training course and are typically measured with a post-training survey. Results suggest that instructors may use trainee reactions to measure the quality of a training program. However, trainee reactions do not appear to indicate whether trainees learned the intended course content.

## What Does This Mean For Instructional Designers?

The researchers suggest that instructional designers can use trainee reactions to evaluate course characteristics such as:

- Instructor style (e.g., using personal examples and humor, providing and inviting feedback, smiling and making eye contact, addressing and being addressed by students by name, showing facial expressions)
- Human interaction (meaningful interactions with the instructor and/or other trainees during the course)

However, if training goals are for trainees to learn new knowledge and skills, the researchers suggest using learning measures (such as exams) to understand whether the goals of the course were met. The relationship between trainee reactions and cognitive learning outcomes is not strong enough to warrant the use of reactions as evidence of learning.

If it is not practical to collect learning measures, the researchers suggest that it is useful to measure whether trainees feel confident that they can achieve goals or tasks related to the content that was taught in the course. This measure is referred to as post-training self-efficacy. Post-training self-efficacy was the best predictor of procedural knowledge and training transfer. Thus, the researchers recommend regularly including post-training self-efficacy in end-of-training survey instruments. Assessing trainees' self-efficacy provides a cost-effective predictor of post-training knowledge transfer.

Trainee reactions do influence trainees' receptivity to attitude change. Therefore, if the training goal is to change emotions, motivation, or attitudes (e.g., motivational speakers, soft skills training), instructional designers should utilize design features that foster satisfaction. For example, designers might build instructor–student interaction into training, and organizations can select personable, lively, and humorous trainers.

The meta-analysis also suggests that the relationship between trainee reactions and post-training motivation, self-efficacy, and declarative knowledge was strongest when training was delivered via technology. Thus, it makes sense to be particularly sensitive to reactions in technology-delivered courses. Designing technology-based courses that trainees feel are useful and interesting should improve reactions and enhance training effectiveness.

## What Does this Mean for Instructors?

Instructors may also be interested in how to enhance the satisfaction of trainees in their courses. Instructor style, including verbal and nonverbal communication behaviors, was strongly related to reactions. This suggests that instructors should aim for an open, relaxed style to make trainees comfortable and enhance trainee satisfaction. Because anxious trainees also had lower satisfaction, instructors who teach challenging courses where trainees might be anxious could utilize anxiety-reduction techniques. For instance, the class might engage in brief relaxation exercises during breaks and the instructor might try to be supportive of trainees who appear anxious. Such instructor behaviors may facilitate trainee satisfaction.

## References

Sitzmann, T., Brown, K., Casper, W. J., Ely, K., & Zimmerman, R. D. (2008). A review and meta-analysis of the nomological network of trainee reactions. *Journal of Applied Psychology, 93*, 280-295.