

# **Training Tests**

A Summary of Workforce Research Evidence Relevant to the Child Welfare Field

#### What are training tests?

For this purpose, training tests include any form of knowledge assessment intended to gauge learning from training. Tests can be of varying lengths, formats (e.g., true/false, multiple choice, short answer), or labels (e.g., quiz, learning checks). The important feature is that they require learners to practice retrieving training-related information from memory. Thus, the focus here is on knowledge and understanding, versus skill acquisition.

## Why are training tests valuable?

Training tests are valuable because the act of taking a test improves subsequent learning outcomes. More specifically, people who take a test perform better on later assessments of learning than both a) people who do nothing with the learned material and b) people that spend a comparable amount of time restudying the learned information (Adesope et al., 2017; Schwieren et al., 2017). This phenomenon is known as the *testing effect*, the *retrieval practice effect*, or *test-enhanced learning* (Pan & Rickard, 2018). The effect is stronger when the test includes both multiple-choice and short-answer questions and, if only one of the two formats is used, multiple-choice questions are better (Adesope et al., 2017). The effect is also stronger when the test includes explanatory feedback, feedback available for extended review, or subsequent review of materials (Pan & Rickard, 2018).

Thus, despite sometimes having a negative reputation, tests can not only assess knowledge but also serve as valuable learning tools. It is recommended that training include low-stakes practice tests or quizzes or other retrieval practice activities. The value of this strategy is summed up well with the following quote: "Attempting recall of information from memory, as occurs when taking a practice test, is one of the most potent training techniques known to learning science" (Pan & Rickard, 2018, p. 1). Even in the case of low-stakes testing, it is important to follow guidelines for writing effective items. For further information, see <a href="Haladynaetal.(2002)">Haladynaetal.(2002)</a> and <a href="Butler(2018)">Butler(2018)</a>.

#### **QIC-WD Takeaways**

➤ Taking a test improves subsequent learning outcomes, even more than spending a comparable amount of time restudying the learned information; this phenomenon is known as the testing effect, the retrieval practice effect, or test-enhanced learning.

- ► The testing effect is stronger when the test includes both multiple-choice and short-answer questions and when feedback is provided.
- ► It is recommended that training include low-stakes practice tests or quizzes or other retrieval practice activities.
- For guidelines on writing effective items, see <u>Haladyna et al. (2002)</u> and <u>Butler (2018)</u>.

#### References

Adesope, O. O., Trevisan, D. A., & Sundararajan, N. (2017). Rethinking the use of tests: A meta-analysis of practice testing. *Review of Educational Research*, *87*, 659–701.

Butler, A. C. (2018). Multiple-choice testing in education: Are the best practices for assessment also good for learning? *Journal of Applied Research in Memory and Cognition*, *7*, 323–331.

Haladyna, T. M., Downing, S. M., & Rodriguez, M. C. (2002). A review of multiple-choice itemwriting guidelines for classroom assessment. *Applied Measurement in Education*, *15*, 309–333.

Pan, S. C., & Rickard, T. C. (2018). Transfer of test-enhanced learning: Meta-analytic review and synthesis. *Psychological Bulletin*, *144*, 710–756.

Schwieren, J., Barenberg, J., Dutke, S. (2017). The testing effect in the psychology classroom: A meta-analytic perspective. *Psychology Learning & Teaching*, *16*, 179–196.

### Author(s)

Megan Paul, PhD, University of Nebraska-Lincoln

## **Suggested Citation**

Paul, M. (2021, March 24). *Umbrella summary: Training tests.* Quality Improvement Center for Workforce Development. <a href="https://www.qic-wd.org/umbrella/training-tests">https://www.qic-wd.org/umbrella/training-tests</a>

For general information about Umbrella Summaries, visit <a href="https://www.qic-wd.org/umbrella-summaries-faq">https://www.qic-wd.org/umbrella-summaries-faq</a>

For more information about the QIC-WD, visit qic-wd.org or contact: Michelle Graef, Project Director, at mgraef1@unl.edu.

This Summary was developed with funding from the Department of Health and Human Services, Administration for Children and Families, Children's Bureau, Grant #HHS-2016-ACF-ACYF-CT-1178. The content of this publication does not necessarily reflect the view or policies of the funder, nor does mention of trade names, commercial products or organizations imply endorsement by the US Department of Health and Human Services.