



Umbrella Summary

Pre-Training Interventions

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

What are pre-training interventions?

Pre-training interventions refer to strategies that are implemented prior to training, for the purpose of enhancing training outcomes. Thus far, the primary strategies that have been most frequently investigated include (a) attentional advice, (b) meta-cognitive strategies, (c) advance organizers, (d) goal orientation, and (e) preparatory information (Cannon-Bowers et al., 1998; Mesmer-Magnus & Viswesvaran, 2010).

- ▷ Attentional advice includes guidance to orient the learner to what they will learn. Examples include going over the main learning objectives or highlighting essential aspects of the training and how they relate to the job.
- ▷ Meta-cognitive strategies include approaches for learners to reflect on their thoughts and engage in self-assessments of their learning. Examples include asking themselves if they know why they are doing something or if they understand the connections between concepts. Though these strategies are employed during training, they are learned prior to training.
- ▷ Advance organizers are verbal or visual tools that help learners understand the overall structure of the training content. Examples include outlines, flow charts, timelines, and Venn diagrams. Again, though these are often used throughout training, the idea here is that they are reviewed before training.
- ▷ Goal orientation refers to an expectation for trainees about how to direct their attention and efforts while learning. There are two primary types of goal orientation: mastery and performance. A mastery orientation involves focusing on the learning process and developing true understanding and competence, whereas a performance orientation involves focusing on achieving outcomes, such as doing well on a test, particularly relative to others. Though people tend to differ in their tendency to have one goal orientation or the other (Payne et al., 2007), the idea here is that trainees are given specific directions on where to focus their efforts. It is important to note that though there are two common types of goal orientation, studies often just compare a single type of orientation with no goal orientation; in other words, the two types are only rarely directly compared to one another.
- ▷ Preparatory information includes an explanation to trainees about what to expect in the training process or training environment and how to handle challenges, especially if they may experience something unexpected or stressful. An example would be

explaining to trainees what to expect in a role-play scenario or simulation and how to manage their emotions and uncertainty about how to proceed.

Why are pre-training interventions valuable?

Pre-training interventions are valuable because they have moderate or large effects on a variety of learning outcomes. There are many specific types of learning outcomes that have been examined in this area (e.g., knowledge organization, skill automaticity, attitude change), but they all fall in the broad categories of cognitive learning, skill-based learning, and affective learning (Mesmer-Magnus & Viswesvaran, 2010):

- ▷ Considering all outcomes, attentional advice and goal orientation have the largest overall impact; they affect all three types of outcomes, and they produce the largest differences in outcomes (compared to trainees who did not receive the interventions). Though providing any type of learning goal is better than none, mastery goals yield better outcomes overall.
- ▷ Meta-cognitive strategies and advance organizers have smaller, but still valuable, effects on cognitive and skills outcomes; they do not affect affective outcomes.
- ▷ Preparatory information has modest effects on skills and affective outcomes, and the effect on cognitive outcomes is unknown.

Looking at the same findings from an outcome perspective, here are the key findings (Mesmer-Magnus & Viswesvaran, 2010):

- ▷ Cognitive learning is most influenced by the use of attentional advice and goal orientation, followed by metacognitive strategies and then advanced organizers (the effect of preparatory information here is unknown).
- ▷ Skill-based learning is most influenced by advance organizers (especially graphic organizers, vs. text), attentional advice, and by mastery goal orientation (vs. no goal orientation). Meta-cognitive strategies, preparatory information, and performance goals (vs. no goal) also have effects, though they are smaller.
- ▷ Affective learning is most strongly affected by providing attentional advice and a goal orientation. More specifically, trainee's attitudes about training, their belief in their ability to do what they have learned, and their intention to use what they learned in training on the job are most influenced when a performance goal orientation is used. Attentional advice, mastery goals, and preparatory information also have effects, though they are smaller.

Though these interventions vary in their effectiveness for different learning outcomes (even beyond the more general findings described here), they nonetheless have fairly wide applicability, especially for training that has diverse goals. For training that is extensive, as is often the case with initial training in child welfare, it is probably more practical to implement a standard set of approaches, rather than trying to tailor them to the goals of each curriculum. In addition to being widely effective, these pre-training interventions are also fairly easy and affordable to implement, relative to other types of strategies.

QIC-WD Takeaways

- ▶ There are five pre-training interventions that have been most widely studied: attentional advice, meta-cognitive strategies, advance organizers, goal orientation, and preparatory information.
- ▶ All five strategies affect outcomes in one or more categories of learning outcomes (i.e., cognitive, skills, or affective).
- ▶ Attentional advice and goal orientation have the largest overall impact, followed by metacognitive strategies, advanced organizers, and preparatory information.
- ▶ Though the interventions vary in their effectiveness for different learning outcomes, they have wide applicability and are relatively easy to implement.

References

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