Training Evaluation: Methods to measure change in comprehension and retention of information

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What is Transfer of Learning?

- The extent to which knowledge, attitudes and skills learned in a training context are positively applied to the job

- TOL refers to how learned behaviors are generalized to the job context AND maintained over a period of time
Human Services Training

- The purpose of training is to improve the fit between the person and requirements of the job.
- Training requires substantial time and allocation of financial and human resources.
- For child welfare, formal classroom training is the primary vehicle for:
  - preparing caseworkers to work with families
  - implementing agency change (policy changes, org. improvement, etc.)
“The Transfer Problem”

- Research suggests that employees transfer very little of what they learn in training (10-20% is a common estimate), begging several questions:
  - Are participants learning?
  - Is formal classroom training always the best way to prepare workers?
    - Most learning occurs informally (coaching, mentoring, performance planning--Lowy et al., 1986)
  - What is the ROI?
Most fields have relied on Kirkpatrick’s (1959) 4-stage model (or adaptations) for the past 40 years.

**Strengths:** Helps link training interventions with training outcomes.

**Limitations:** Doesn’t explain conditions or variables that influence movement between levels, not tied closely enough to levels of learning.
More Recent TOL Research

- More complex models that utilize an “influence” approach to TOL
  - Less emphasis on outcomes
  - More emphasis on individual characteristics of the participants, training environment, and work environment

(Baldwin & Ford, 1988; Holton, 1996; Noe & Schmitt, 1986; Rouiller & Goldstein, 1993; Yamnill & Mclean, 2001)
Individual Attributes that Predict TOL:

- **Motivation** prior to training
- **Self-efficacy** or confidence in ability to cope with the learning task
- **Personality** dimensions such as conscientiousness/goal orientation
- **Expectations** that training will result in better job performance
- **Control** over the conditions of the training (whether and when they attend the training)
- **Ability** including prior knowledge/skill level/strategies

(Baldwin & Ford, 1988; Holton, 1966; Rouiller & Goldstein, 1993; Yamnill & Mclean, 2002; Warr, Allan and Birdi (1999); Baer, Wells, Rosengren, Hartzler, Beadnell and Dunn, in press)
Training Attributes that Predict TOL

- **Quality** of the training
  - Trainer skills/pedagogy
  - Clear learning objectives
  - Content and methods that support desired levels of learning
  - Fidelity of delivery
- **Relevance** of content to the job
- **Alignment** of training to organization mission and values
- **Follow-up** (coaching, mentoring, feedback, peer networks, booster sessions)
- **New ideas** training presents

(Baldwin & Ford, 1988; Holton, 1966; Rouiller & Goldstein, 1993; Yamnill & Mclean, 2002; Arthur, Bennett, Stanush, and McNelly 1998; Baker and Mayer, 1999)
An organization climate that supports the use of the behaviors learned in training is necessary for TOL.

Includes:
- Management, supervisor and peer support
- Opportunity to use
- Time and resources to implement
- Incentives
- Openness to change

(Baldwin & Ford, 1988; Curry, 1996; Holton, 1996; Yamnill & Mclean, 2001; Wehrmann et al., 2002; Baer, et. al., in press)
Learning as the means to an end

- According to the Kirkpatrick model (1959), the trainee must *learn* the content (stage 2) before applying it to the job (stage 3).
- Evidence supports the necessity of learning:
  - Participants who demonstrate knowledge and skill acquisition are more likely to transfer (Rouiller & Goldstein, 1993).
- All three “sets” of input (trainee characteristics, training design and work environment) are related to learning & retention, however, shift in focus from learning as primary outcome to job performance (Yamnill & McLean, 2001).
Demonstrated Barriers to TOL

(Gilley, 2002)

- Delayed application of knowledge and skills
- Fear of change
- Lack of confidence

(Cromwell & Kolb 2004)

- Lack of support from managers and peers
- Organizational policies and procedures
- Workload
Transfer of Learning Model (Holton, 1996)
Training Evaluation in Child Welfare

Child welfare training evaluation has focused primarily on Kirkpatrick’s model levels 1 & 2:

- **Self-reports of training satisfaction**
  - Helpful for formative evaluation
  - Low correlation between satisfaction and learning (Alliger et al., 1997)
  - Some assessment of utility

- **Assessment of learning**
  - Knowledge tests (pre & post)
  - Embedded skills assessments
Evaluating TOL in Child Welfare

- Most rely on self-report
  - Common strategies include action planning with follow-up questionnaires or interviews

- Examples of studies that have examined TOL:
  - Study of caseworkers found that TOL supervisory support predicted retention (Curry et al., 2005)
  - Case study of a human services executive leadership training (Austin et al., 2006) found that opportunity to use and supportive work environment were associated with TOL
  - Experimental study of caseworker training (Antle et al., 2008) found readiness, supervisor support and knowledge gain predicted TOL
TOL initiatives in Child Welfare

- Many state and county training programs are implementing strategies to promote TOL, including:
  - Academy models that foster iterative learning and skills practice and development of peer cohorts
  - Mentoring programs that build in coaching, feedback, and practice opportunities tied to formal training
  - Peer networking opportunities that allow participants to reconvene in person or connect via the web
  - Increased utilization of technology to enhance learning
Limitations of TOL Evaluation in Child Welfare

- Few systematic studies examine effectiveness of TOL strategies
- Few measure TOL beyond self-report
- Low numbers of participants
- Lack of theory driven exploration of what leads to TOL
  - Little attention to role of personal and organizational barriers/facilitators
  - Little or no investigation of relationship of instructional design to TOL
- Confusion regarding relationships between levels of outcomes, especially between learning and transfer
Improving TOL Evaluation

We need:

- Tools to measure TOL beyond self-report (e.g. with skills-based assessments, review of work products, multi-source feedback)

- Measures of learning that use “transfer questions” (Baker and Mayer (1999) to encourage deeper processing and problem solving

- Evaluation designs that explore how individual learning leads to change at the organizational level

- More use of experimental or quasi-experimental designs (e.g. Staged Innovation Design, Campbell, 1969)

- Longitudinal designs that can fully examine the continued application of skills to job performance