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Original title on 712 A/B: Self-Reported Learning: What Are We Really Measuring?

Revised title: Self-Reported Learning: What Are We Really Measuring?

Presented in (input and Bold one): (WG_x__, CG___, Special Session ____, Poster, Demo, or Tutorial):

This presentation is believed to be:
UNCLASSIFIED AND APPROVED FOR PUBLIC RELEASE
### Self-Reported Learning: What Are We Really Measuring?

Self-Reported Learning: What Are We Really Measuring?

Traci Sitzmann
Advanced Distributed Learning Co-Laboratory
How Accurate are Perceptions of Learning?

- **Adult Learning Theory**
  - Direct own learning (Knowles, 1980)

- **Past research on self-report skills and ability**

- **Current study is a meta-analysis to assess the meaning of self-reported learning data**
Is self-reported learning an indicator of…?

- Course satisfaction
- Trainee motivation
- Self-efficacy
- Actual learning
Key Terms

- Meta-analysis – statistical summary of the research in a literature domain
- Declarative knowledge – trainees’ ability to remember factual information (e.g., define key terms) presented in training
- Procedural knowledge – trainees’ ability to perform a skill (e.g., complete a tax return)
- Self-efficacy – trainees’ confidence in their ability to reach their training goals
Method

- Coded 195 articles, 226 independent samples
- 45,080 trainees
- 76% undergraduate or graduate students
- 19% employees
- 5% military
## Meta-Analytic Notional Example

<table>
<thead>
<tr>
<th>Research report</th>
<th>Sample size</th>
<th>$r$</th>
<th>Total</th>
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<tr>
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<td>.05</td>
<td>$r = .22$</td>
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<td>Report C</td>
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<td>Report D</td>
<td>71</td>
<td>.18</td>
<td></td>
</tr>
</tbody>
</table>
Correlations with Self-Reported Learning

- Declarative Knowledge: 0.27
- Procedural Knowledge: 0.28
Correlations with Self-Reported Learning

- Declarative Knowledge: .27
- Procedural Knowledge: .28
- Training Reactions: .51
- Motivation: .59
- Self-efficacy: .43
Improving the Accuracy of Learning Perceptions

- Practice and Feedback
  - No Practice or Feedback
  - Practice and Feedback

- Delivery Media
  - Web-based Instruction
  - Classroom Instruction
<table>
<thead>
<tr>
<th>Research report</th>
<th>Sample size</th>
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<th>Feedback</th>
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</thead>
<tbody>
<tr>
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</table>
Effects of Practice & Feedback

Corrected Mean Correlation with Self-Report Learning

<table>
<thead>
<tr>
<th></th>
<th>No Practice or Feedback</th>
<th>Practice and Feedback</th>
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</thead>
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<tr>
<td>Declarative Knowledge</td>
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<tr>
<td>Procedural Knowledge</td>
<td>.21</td>
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<tr>
<td>Training Reactions</td>
<td>.62</td>
<td>.40</td>
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<tr>
<td>Motivation</td>
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<td>.36</td>
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<tr>
<td>Self-efficacy</td>
<td>.08</td>
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</table>
Effects of Delivery Media

Corrected Mean Correlation with Self-Report Learning

- Declarative Knowledge
- Procedural Knowledge
- Training Reactions
- Motivation
- Self-efficacy

<table>
<thead>
<tr>
<th>Category</th>
<th>Web-Based</th>
<th>Classroom</th>
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<tr>
<td>Procedural Knowledge</td>
<td>0.26</td>
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<tr>
<td>Training Reactions</td>
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<tr>
<td>Motivation</td>
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<tr>
<td>Self-efficacy</td>
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<td>0.45</td>
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</table>
Implications

- Learners do not always have accurate perceptions of their own learning
- Affect has a strong relationship with judgments of learning
- Training course design can influence the accuracy of students’ perceptions of learning