



The Retrospective Pretest Method for Evaluating Training

The webinar will begin at 1 p.m. EST

While you wait, please answer the poll question in the upper right corner of your screen.

Introductions

Miranda Lee	Lori Wingate	Goldie MacDonald
		
		

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Behind the Scenes

Mike Lesiecki



Janet Pinhorn



Tim Suchomski



Emma Perk





NETWORKS



**MARICOPA
COMMUNITY
COLLEGES**



EvaluATE



**WESTERN MICHIGAN
UNIVERSITY**

Materials



**2
FOR
1** Retrospective Pretests



Retrospective Pretest | December 9, 2015
The Retrospective Pretest Method for Evaluating Training
The slides and recording for this webinar are available from www.evaluate-ate.org/webinars/2015-dec/

Overview
A retrospective pretest, administered after an intervention, is a single-item self-report measure. It is useful for assessing knowledge and changes in knowledge, self-efficacy, confidence, and level of a skill, and level of an attitude. The method of the retrospective pretest is straightforward and easy to use. The method of the retrospective pretest is straightforward and easy to use. The method of the retrospective pretest is straightforward and easy to use.

Design
The use of retrospective pretest questions identified on the knowledge, skills, attitudes, or behavior that are the focus of the intervention being evaluated.

Analysis & Visualization
The use of retrospective pretest questions identified on the knowledge, skills, attitudes, or behavior that are the focus of the intervention being evaluated.

Using Results
The use of retrospective pretest questions identified on the knowledge, skills, attitudes, or behavior that are the focus of the intervention being evaluated.



Slides

Handout

Recording

www.evaluate-ate.org/webinars/2015-dec/

Objectives

By the end of the webinar, you will be able to

- 1 design retrospective pretest questions.
- 2 analyze and report data gathered using this method.
- 3 use the evaluation data for training accountability, improvement, or planning.



what • *how* • *why*
is the retrospective pretest method?

what • *how* • *why*

Retrospective pretest

Respondents rate their knowledge, skill, attitude, or behavior before and after an **intervention** in a single data collection event

“

Any planned effort that is designed to produce specific changes in people's thoughts, feelings, or behaviors*

”

*Mathison, S. (2005). *Encyclopedia of evaluation*. Thousand Oaks, CA: Sage.

what • how • why

Anatomy of a retrospective pretest question

Question prompt so respondents know what they are being asked to do

	NOW				BEFORE the webinar			
RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

what • how • why

Anatomy of a retrospective pretest question

	NOW				BEFORE the webinar			
RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Aspect of participant's knowledge, skill, attitude, or behavior that you need to measure in order to assess the quality or outcomes of an intervention

what • how • why

Anatomy of a retrospective pretest question

	NOW				BEFORE the webinar			
RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Distinct headers/response areas for post- and pre- ratings

what • how • why

Anatomy of a retrospective pretest question

	NOW				BEFORE the webinar			
RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rating scale: Response options arranged in hierarchical order

Real-world example from Jessica Crowell,
Centers for Disease Control and Prevention

1) How would you rate your...

a. ability to access climate-change projections relevant to your health department **BEFORE** beginning BRACE Step One?

1	2	3	4	5
Low		Medium		High

b. ability to access climate-change projections relevant to your health department **AFTER** implementing BRACE Step One?

1	2	3	4	5
Low		Medium		High

2) If your ability increased, please check the boxes for each source that contributed to this increase in ability:

- Webinars delivered by the CDC's Climate & Health Program
- Data on Environmental Public Health tracking portal
- April 2014 grantee meeting at the CDC
- National Climate Assessment regional outlooks
- Collaboration with other grantees
- Other non-CDC facilitated collaborations

Real-world example from Sharon Gusky,
Northwestern Connecticut Community College

After the workshop						Prior to the workshop				
Very Weak	Weak	Average	Strong	Very Strong		Very Weak	Weak	Average	Strong	Very Strong
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Rate your ability to define the term metacognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Rate your knowledge of metacognition practices that can be used with students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Cheryl Eschbach
Michigan State University Extension
(formerly at Oregon State University Extension & Family Health)

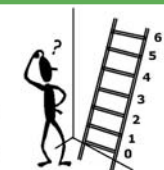
Real-world example from

The Parenting Skills Ladder

Look at the Parenting Skills Ladder. Some people feel their skills in certain areas are low. Others see their skills as higher.

First, think about where you are on the ladder **NOW** for each of the skills below.

Then, think back to **BEFORE** you participated in the parenting class. Where were you then?





CIRCLE the number for where you are on the ladder

Parenting Skills	NOW						BEFORE							
	Low					High	Low					High		
1. Know normal behavior for my child(ren)'s age level	0	1	2	3	4	5	6	0	1	2	3	4	5	6
2. Show my child(ren) love and affection frequently	0	1	2	3	4	5	6	0	1	2	3	4	5	6
3. Listen to my child(ren) to understand their feelings	0	1	2	3	4	5	6	0	1	2	3	4	5	6
4. Help my child(ren) feel good about themselves	0	1	2	3	4	5	6	0	1	2	3	4	5	6
5. Set and stick to reasonable limits and rules	0	1	2	3	4	5	6	0	1	2	3	4	5	6
6. Know fun activities to help my child(ren) learn	0	1	2	3	4	5	6	0	1	2	3	4	5	6
7. Find positive ways to guide and discipline my child(ren)	0	1	2	3	4	5	6	0	1	2	3	4	5	6
8. Play with my child(ren) frequently	0	1	2	3	4	5	6	0	1	2	3	4	5	6
9. Protect my child(ren) from unsafe situations	0	1	2	3	4	5	6	0	1	2	3	4	5	6
10. Talk with other parents to share experiences	0	1	2	3	4	5	6	0	1	2	3	4	5	6
11. Deal with the day-to-day stresses of parenting	0	1	2	3	4	5	6	0	1	2	3	4	5	6
12. Understand my goals and values as a parent	0	1	2	3	4	5	6	0	1	2	3	4	5	6

Marilyn Barger & Marie Boyette Florida
FLATE
Hillsborough Community College

Real-world example from

Post-Visit Survey – "Made in Florida" Advanced Manufacturing Tour
Thank you for joining our tour today!

Surveys are anonymous. You do not need to write your name on this survey. We would like to know the following: School Name _____ County _____
 Male Female Grade in School: _____
 Ethnicity: Asian Black Hispanic White Other _____

Instructions: Please circle YES or NO for each statement. 1) is a short answer question.

1) What did you like most about this tour? (Please write at least two sentences and use the back of this page if needed.)

YES NO 2) I was considering a career in advanced manufacturing before the tour.

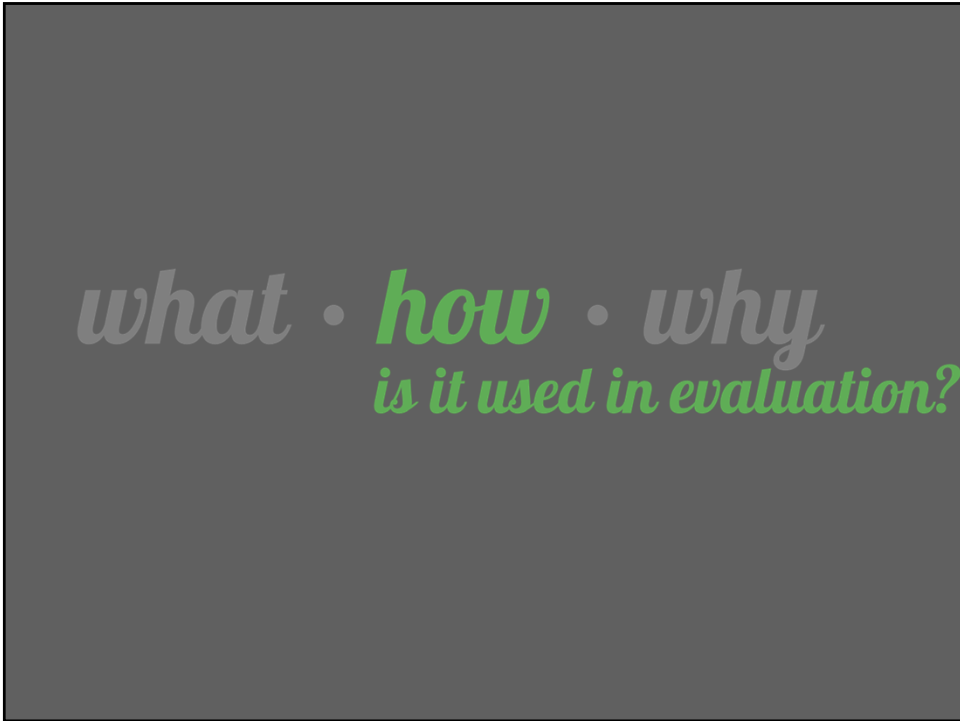
YES NO 4) Today I learned about technologies used in advanced manufacturing industries.

YES NO 5) This tour gave me new information about careers in advanced manufacturing.

YES NO 6) The tour helped me understand how STEM subjects (science, technology, engineering and math) are put to work in advanced manufacturing industries.

YES NO 7) I would recommend that other students have the opportunity of this tour.

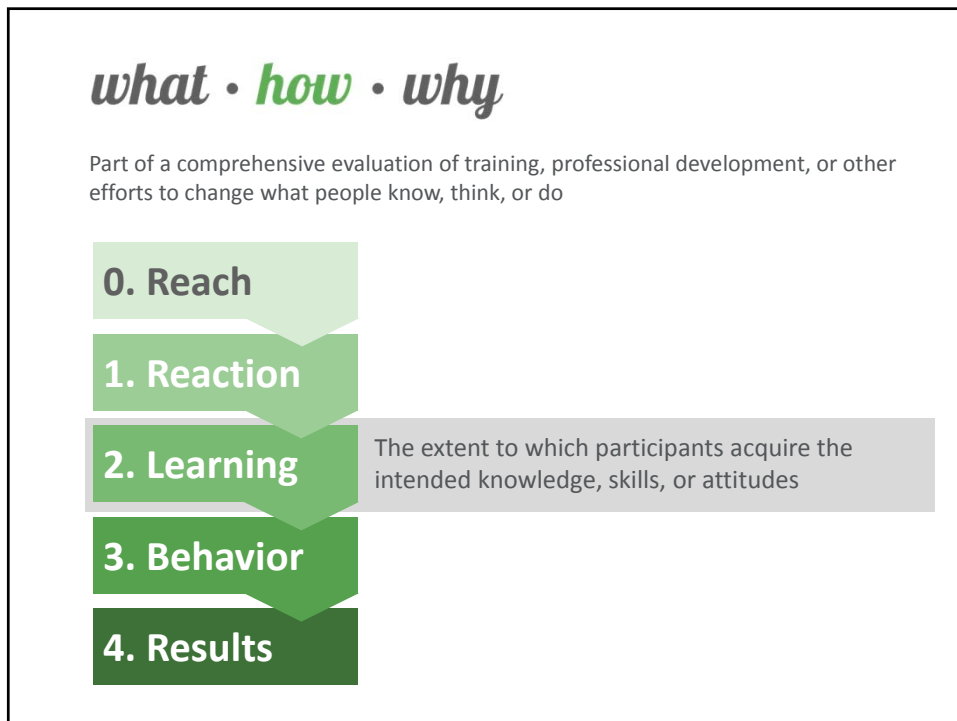
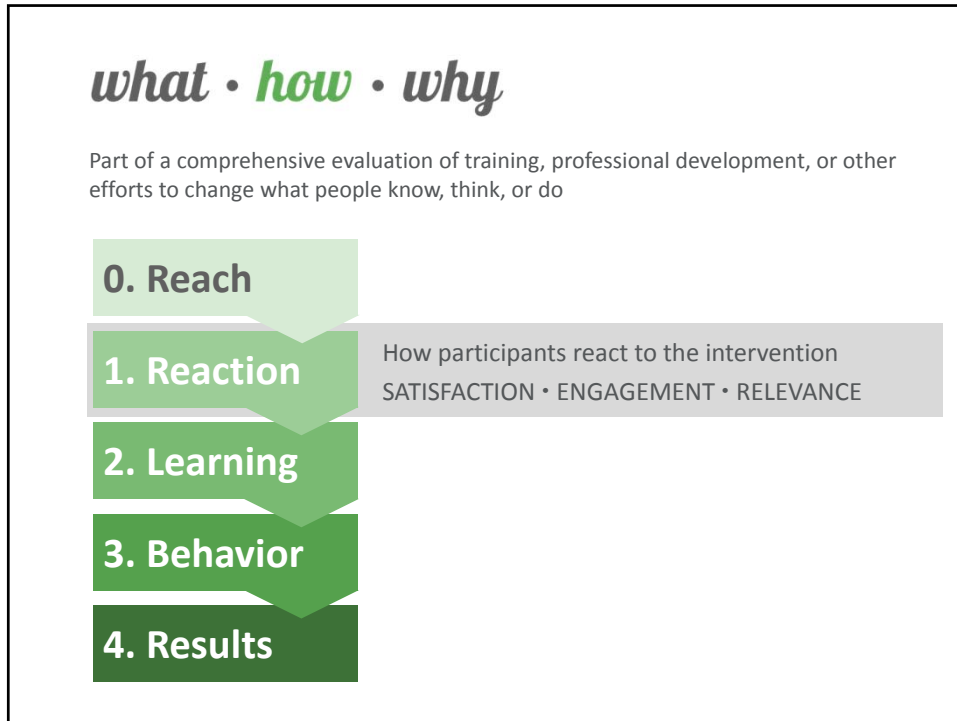
YES NO 8) After taking this tour, I am considering a career in advanced manufacturing.

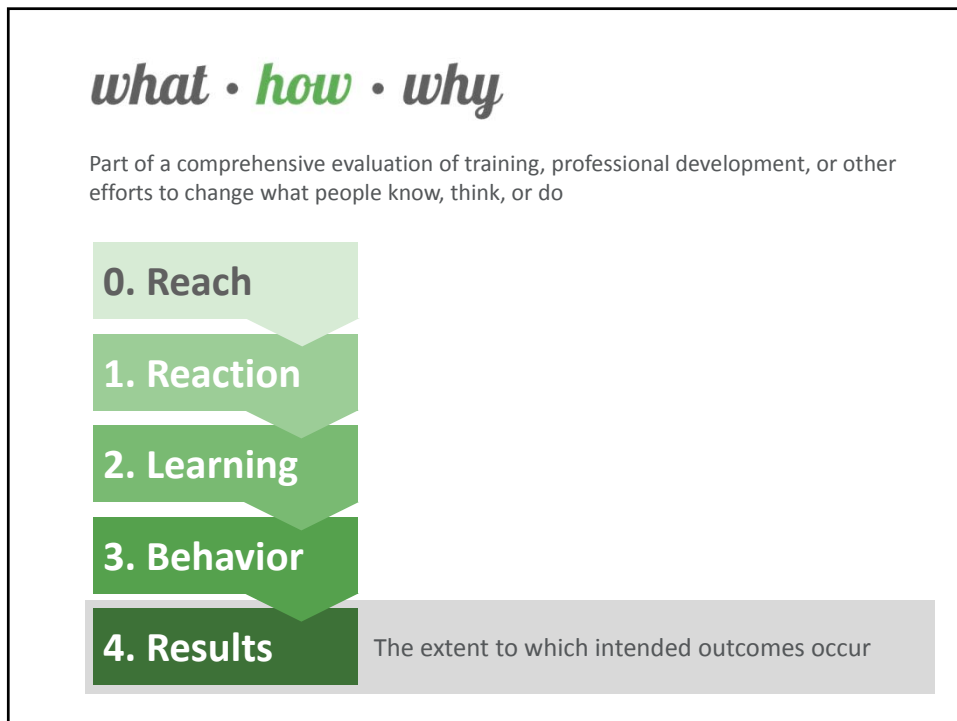
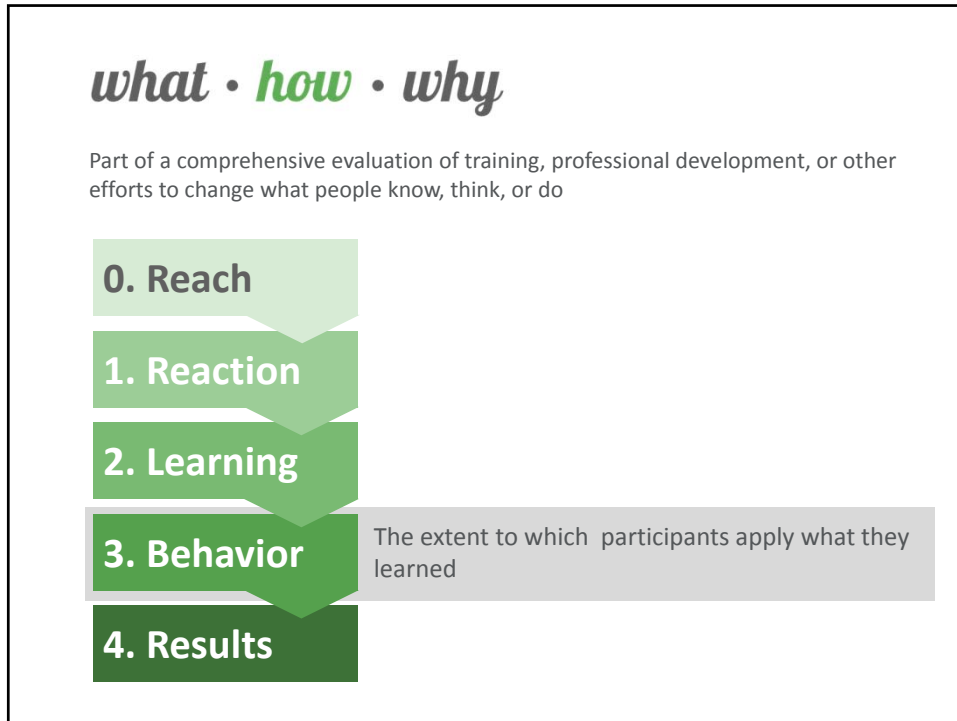


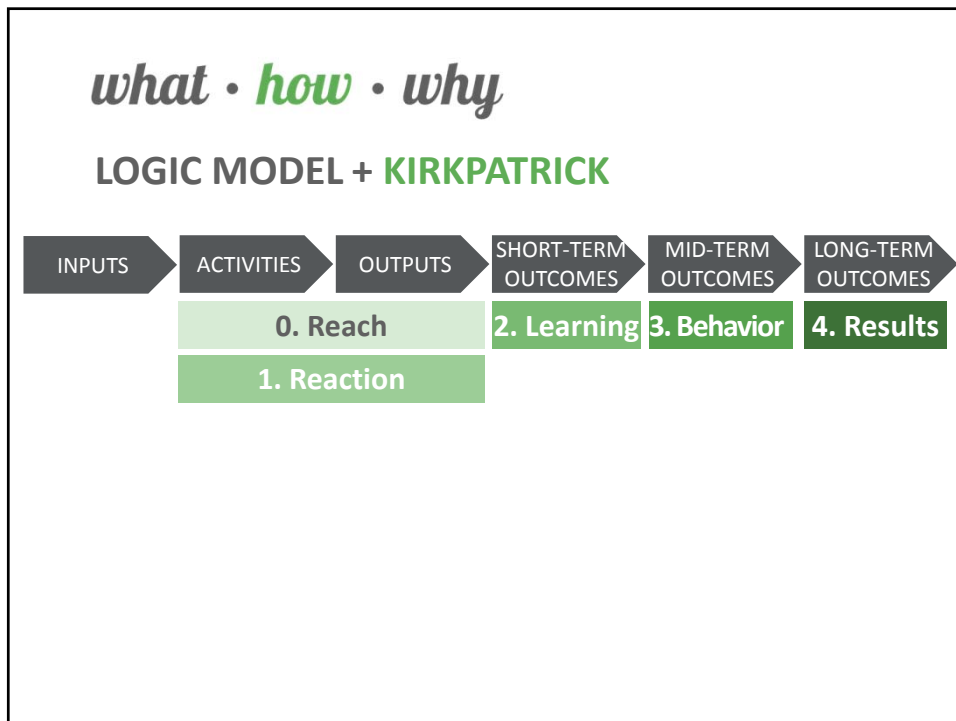
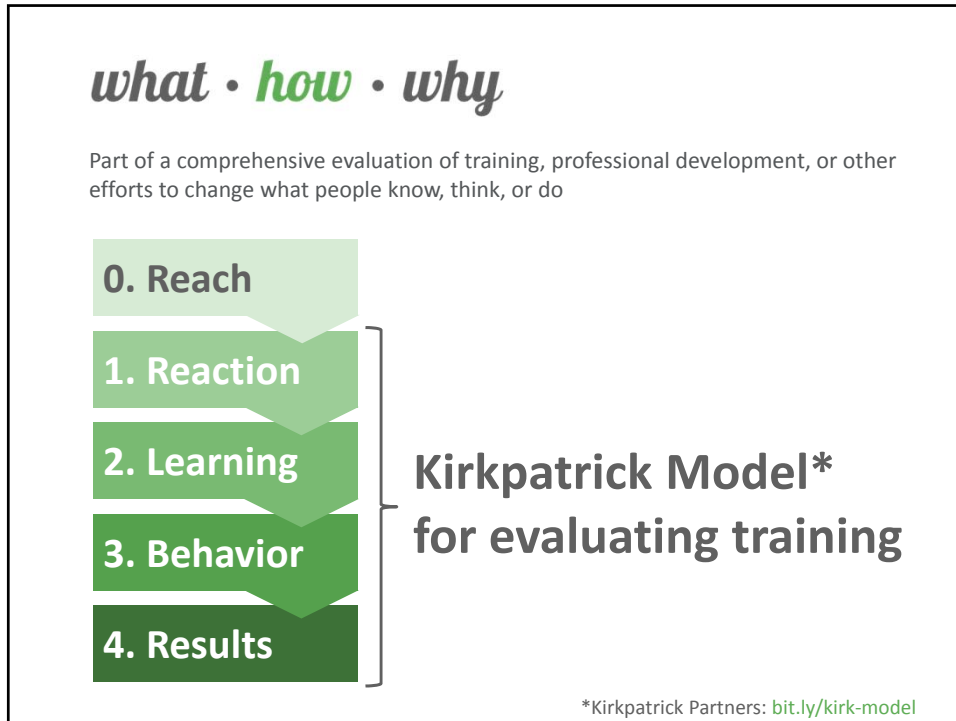
what • how • why

Part of a comprehensive evaluation of training, professional development, or other efforts to change what people know, think, or do

0. Reach	The extent to which the intended audience was reached
1. Reaction	
2. Learning	
3. Behavior	
4. Results	







what • how • why

LOGIC MODEL + KIRKPATRICK

SHORT-TERM
OUTCOMES

Learning

Knowledge
Skills
Attitudes
Motivation
Self-efficacy

MID-TERM
OUTCOMES

Behavior

Application of content
Change in practice

“ an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments* ”

*American Psychological Association: bit.ly/self-eff

what • how • why

Retrospective pretest data are collected in conjunction with other data from participants

Feedback survey from a recent EvaluATE workshop

The screenshot shows a survey form with the following sections:

- 1. What is your role in the ATE program?** (Multiple choice: Principal investigator, Other ATE project senior staff, External/Internal evaluator, Other)
- 2. Select the response that best represents your opinion in relation to each statement below:** (Likert scale: Strongly Disagree, Disagree, Agree, Strongly Agree)
 - a. The workshop held my interest.
 - b. The workshop's content is relevant to my work.
 - c. I will use what I learned from this workshop in my work.
 - d. I will share what I learned from this workshop with my colleagues.
 - e. I would recommend this workshop to my colleagues.
- 3. For each workshop objective, rate your knowledge/skill level NOW and BEFORE the workshop using the following 5-point scale:** (Scale: 1=Entry/Novice, 2=Proficient/Skilled, 3=Master/Expert)
- WORKSHOP OBJECTIVES:**
 - Understand the fundamentals of Intellectual Merit and Broader Impacts
 - Identify gaps in evaluation data that need to be addressed in order to make a strong case for future funding
 - Fill evidence gaps with low-cost, high-impact evidence
 - Create a persuasive Results from Prior NSF Support section for proposals
- 4. What aspect of this session needs the most improvement?**
- 5. What aspect of this session was especially good?**

what • how • why

Basic demographic questions to help us interpret results

Questions about participants' satisfaction, engagement, relevance, and intent to use content

Retrospective pretest questions aligned to workshop objectives

+ follow-up quantitative and qualitative data collection to learn more about actual use of content on the job

Open-ended questions about what needs improvement and what was especially good

Feedback Form
Evaluate
**MID-LIFE PROJECT EVALUATION:
SETTING THE STAGE FOR CONTINUED FUNDING**
Last Workshop and Risk Review | ATE in Conference | October 2015

Thank you for participating in today's workshop. Please answer the questions below. Your responses will be anonymous.

1. What is your role in the ATE program?

Principal investigator for an ATE project/center
 Other ATE project/center staff (please role) _____
 External evaluator for an ATE project/center
 Internal evaluator for an ATE project/center
 Other (please role) _____

2. Select the response that best represents your opinion in relation to each statement below:

	Strongly Disagree	Disagree	Agree	Strongly Agree
a. The workshop met my interest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The workshop's content is relevant to my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I will use what I learned from this workshop in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I will share what I learned from this workshop with my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I would recommend this workshop to my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. For each workshop objective, rate your knowledge/skill level NOW and BEFORE the workshop using the following rating scale:

Entry/Novice	Proficient/Skilled	Mastery/Expert
The task is characterized by: - Developing awareness of task - Limited capabilities - Limited to awareness of potential problems - Little to no experience with the task	The task is characterized by: - Basic capabilities - Being problem on the way - Ability to solve problems to work - Ability to solve on the way to solve problems in general context	The task is characterized by: - Advanced capabilities - Ability to solve problems with confidence - Ability to solve problems before they arise - Ability to solve on the way to solve problems in general context

Knowledge/skill level NOW	WORKSHOP OBJECTIVES	Knowledge/skill level BEFORE the workshop
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Understand the Fundamentals of Intellectual Merit and Broader Impacts	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Identify gaps in evaluation data that need to be addressed in order to make a strong case for new funding	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Fill evidence gaps with low-cost, high-impact evidence	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Create a persuasive Results from Prior NSF Support section for proposals	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

4. What aspect of this session needs the most improvement?

5. What aspect of this session was especially good?

what • how • why
use it?

what • how • why

- ✓ Reduces response-shift bias

“
*I didn't know what
I didn't know.*
”

what • how • why

Traditional pre-post

Rate your skill level in using spreadsheets:

- Not at all skilled
- Somewhat skilled
- Moderately skilled
- Highly skilled

➔

Rate your skill level in using spreadsheets:

- Not at all skilled
- Somewhat skilled
- Moderately skilled
- Highly skilled

Before workshop **After workshop**

what • how • why

Retrospective pretest

Rate your skill level in using spreadsheets:

<p>NOW</p> <ul style="list-style-type: none"><input type="radio"/> Not at all skilled<input type="radio"/> Somewhat skilled<input checked="" type="radio"/> Moderately skilled<input type="radio"/> Highly skilled	<p>BEFORE the workshop</p> <ul style="list-style-type: none"><input type="radio"/> Not at all skilled<input checked="" type="radio"/> Somewhat skilled<input type="radio"/> Moderately skilled<input type="radio"/> Highly skilled
--	--

After workshop

what • how • why

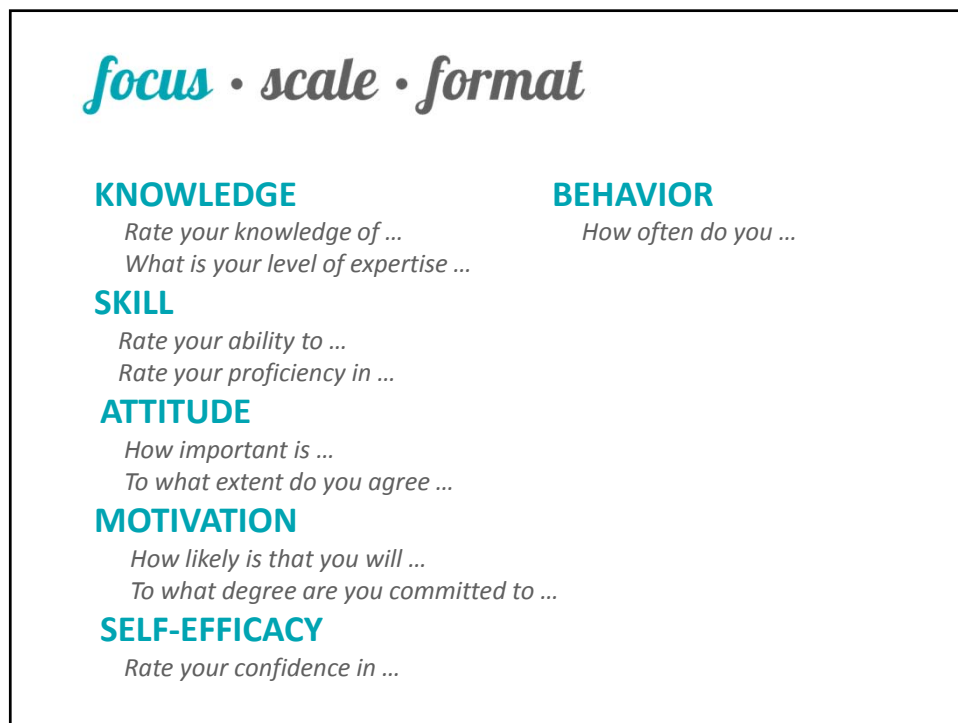
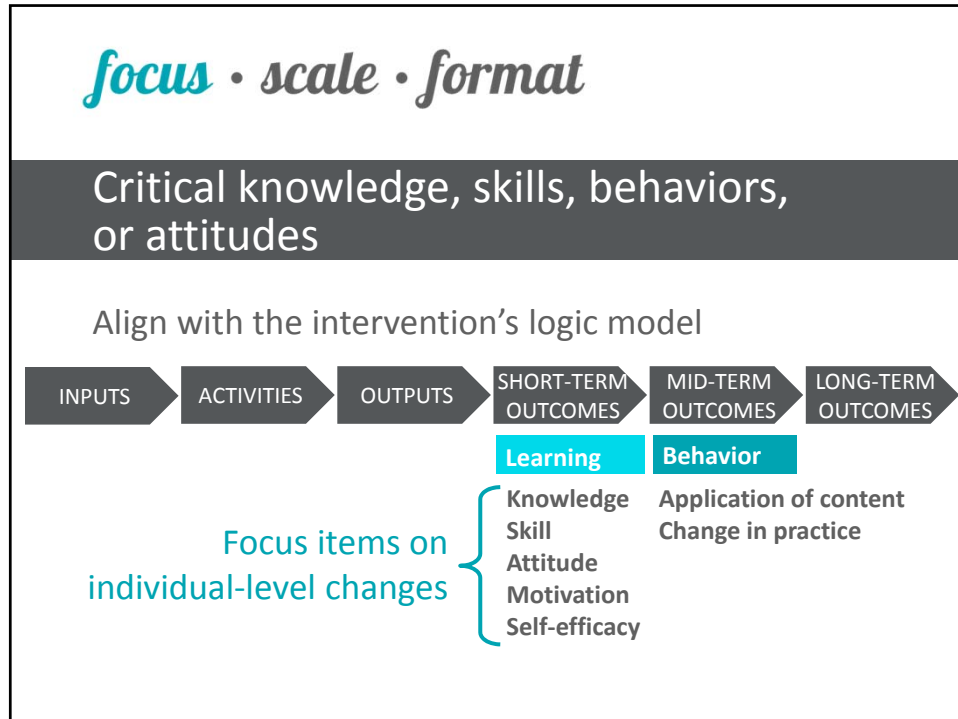
- ✓ Reduces response-shift bias
- ✓ Convenient
- ✓ More accurate than traditional pre-post self-assessments
- ✓ Versatile
- ✓ More acceptable to adult learners

*Adapted from University of Wisconsin-Extension (2005). *Quick Tips* 28.

“
*an imperfect, but
useful tool*
”

— Theodore Lamb
Center for Research and Evaluation,
Biological Science Curriculum Study





rating scale

focus • scale • format

Likert scales

AGREEMENT

strongly disagree – disagree – agree – strongly agree

FREQUENCY

never – rarely – sometimes – often – always

IMPORTANCE

Not all important – slightly important – moderately important –
very important – extremely important

focus • *scale* • *format*

Likert scales—Fully anchored

FREQUENCY
never – rarely – sometimes – often – always

1 2 3 4 5
Never Rarely Sometimes Often Always

focus • *scale* • *format*

Partially anchored scales

1 2 3 4 5
Not at all skilled Moderately skilled Highly skilled

1 2 3 4 5 6
Extremely unlikely Extremely likely

Your turn

Poll

Read and respond to the question in the upper right corner of your screen

Rate your extent of agreement or disagreement with the following statements?	NOW				BEFORE the webinar			
	Strongly disagree	Disagree	Agree	Strongly agree	Strongly disagree	Disagree	Agree	Strongly agree
A I usually plan for analysis when I am drafting survey questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B I know how to design a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your turn

Poll

Read and respond to the question in the upper right corner of your screen

Rate your ability in each of the following areas:	NOW				BEFORE the webinar			
	Poor	Fair	Good	Excellent	Poor	Fair	Good	Excellent
C Designing retrospective pretest questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D Confidence in using the retrospective pretest method	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

focus & scale

Make sure they make sense together!

question format

focus • scale • format

Format 1*

AFTER the webinar					BEFORE the webinar			
1 Poor	2 Fair	3 Good	4 Excellent	RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Adapted from University of Wisconsin-Extension (2005). *Quick Tips 28*.

focus • scale • format

Format 2*

	NOW				BEFORE the webinar			
RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Adapted from University of Wisconsin-Extension (2005).

focus • scale • format

Format 3*

1. Rate your knowledge of how to format a retrospective pretest question:	1 Poor	2 Fair	3 Good	4 Excellent
a. <i>After</i> the program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. <i>Before</i> the program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Adapted from University of Wisconsin-Extension (2005).

focus • scale • format

INSTRUCTIONS: For each item below, rate your knowledge NOW and what it was BEFORE this webinar.

NOW				RATE YOUR KNOWLEDGE OF:	BEFORE this webinar			
1 Poor	2 Fair	3 Good	4 Excellent		1 Poor	2 Fair	3 Good	4 Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

focus • scale • format

INSTRUCTIONS: For each item below, rate your knowledge NOW and what it was BEFORE this webinar.

NOW				RATE YOUR KNOWLEDGE OF:	BEFORE this webinar			
1 Poor	2 Fair	3 Good	4 Excellent		1 Poor	2 Fair	3 Good	4 Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Use between 4 and 7 response categories

Format guidance adapted from University of Wisconsin-Extension (2005). Tip Sheet 28

focus • scale • format

INSTRUCTIONS: For each item below, rate your knowledge NOW and what it was BEFORE this webinar.

NOW				RATE YOUR KNOWLEDGE OF:	BEFORE this webinar			
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Use formatting to distinguish post and pre items

Format guidance adapted from University of Wisconsin-Extension (2005). Tip Sheet 28

focus • scale • format

INSTRUCTIONS: For each item below, rate your knowledge NOW and what it was BEFORE this webinar.

NOW ←				RATE YOUR KNOWLEDGE OF:	Place post-intervention item first			
Poor	Fair	Good	Excellent		Poor	Fair	Good	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


Format guidance adapted from University of Wisconsin-Extension (2005). Tip Sheet 28

focus • scale • format

INSTRUCTIONS: For each item below, rate your knowledge NOW and what it was BEFORE this webinar.


NOW				RATE YOUR KNOWLEDGE OF:	BEFORE this webinar			
Poor	Fair	Good	Excellent		Poor	Fair	Good	Excellent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Format guidance adapted from University of Wisconsin-Extension (2005). Tip Sheet 28



For each item listed below, rate your what knowledge is NOW and what is was BEFORE the webinar.

	NOW				BEFORE the webinar			
	1 Poor	2 Fair	3 Good	4 Excellent	1 Poor	2 Fair	3 Good	4 Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>




Rate your knowledge of how to format a retrospective pretest question.

	1 - Poor	2 - Fair	3 - Good	4 - Excellent
After the webinar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before the webinar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rate your knowledge of the life history of Anakin Skywalker.

	1 - Poor	2 - Fair	3 - Good	4 - Excellent
After the webinar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before the webinar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



For each item listed below, rate your what your knowledge is NOW.

	1 - Poor	2 - Fair	3 - Good	4 - Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

For each item listed below, rate what your knowledge was BEFORE the webinar.

	1 - Poor	2 - Fair	3 - Good	4 - Excellent
How to format a retrospective pretest question	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The life history of Anakin Skywalker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



data analysis

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Frequency Distribution of Ratings

Participants' ratings of their knowledge of how to format a retrospective pretest question*

Rating scale	Number of respondents at each rating level - PRE and POST			
	Number	Percentage	Number	Percentage
1 – Poor	12			
2 – Fair	34			
3 – Good	21	28%	37	49%
4 – Excellent	8	11%	24	32%
Total	75	100%	75	100%

*Fictional data

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Frequency Distribution of Ratings

Participants' ratings of the question*

Rating	BEFORE the webinar		AFTER the webinar	
	Number	Percentage	Number	Percentage
1 – Poor	12	16%	2	3%
2 – Fair	34	45%	12	16%
3 – Good	21	28%	37	49%
4 – Excellent	8	11%	24	32%
Total	75	100%	75	100%

Most participants rated their POST-WEBINAR knowledge as *good or excellent*

Most participants rated their PRE-WEBINAR knowledge as *fair or good*

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Frequency Distribution of Change Scores

Participants' ratings of their knowledge of how to format a retrospective pretest question*

	Change score			
	0	+1	+2	+3
Percentage of respondents	2%	17%	55%	26%

More than half of participants rated their POST-WEBINAR knowledge as two levels higher than their PRE-WEBINAR knowledge

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Means

Use mainly to identify relative strengths and weaknesses and overall patterns

NOW					BEFORE this webinar			
1 Poor	2 Fair	3 Good	4 Excellent	RATE YOUR KNOWLEDGE OF:	1 Poor	2 Fair	3 Good	4 Excellent
3.6				How to format a retrospective pretest question	2.5			
2.0				Life history of Anakin Skywalker	2.0			

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{Next examples are from a recent EvaluATE workshop}

- WORKSHOP OBJECTIVES**
- Understand the fundamentals of Intellectual Merit and Broader Impacts
 - Identify gaps in evaluation data
 - Fill evidence gaps with low-cost, high-impact evidence
 - Create a persuasive Results from Prior NSF Support section for proposals

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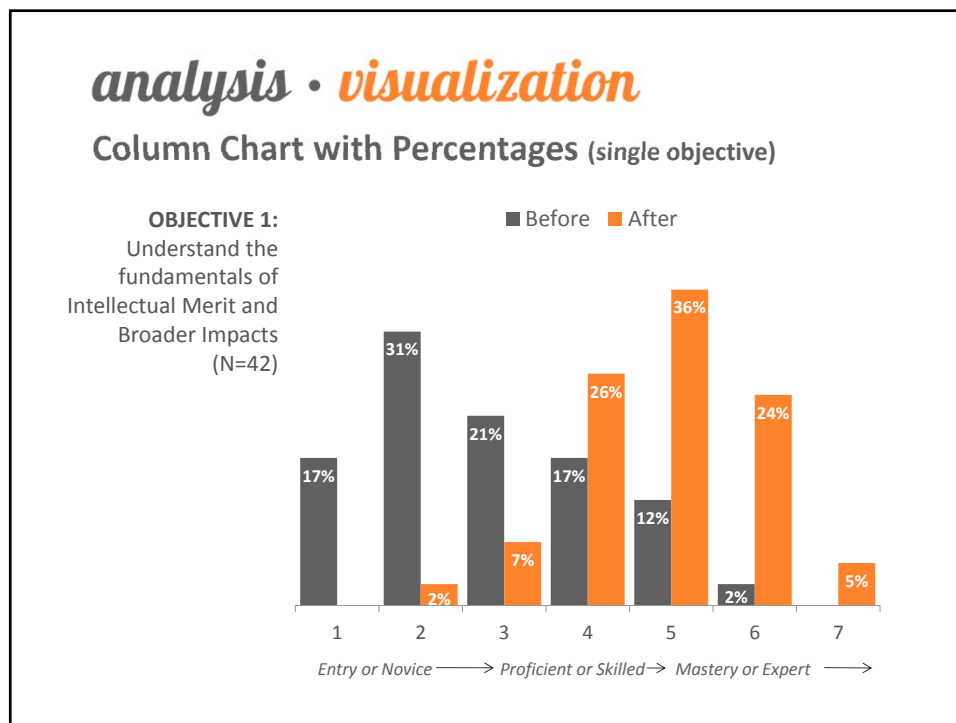
{Next examples are from a recent EvaluATE workshop}

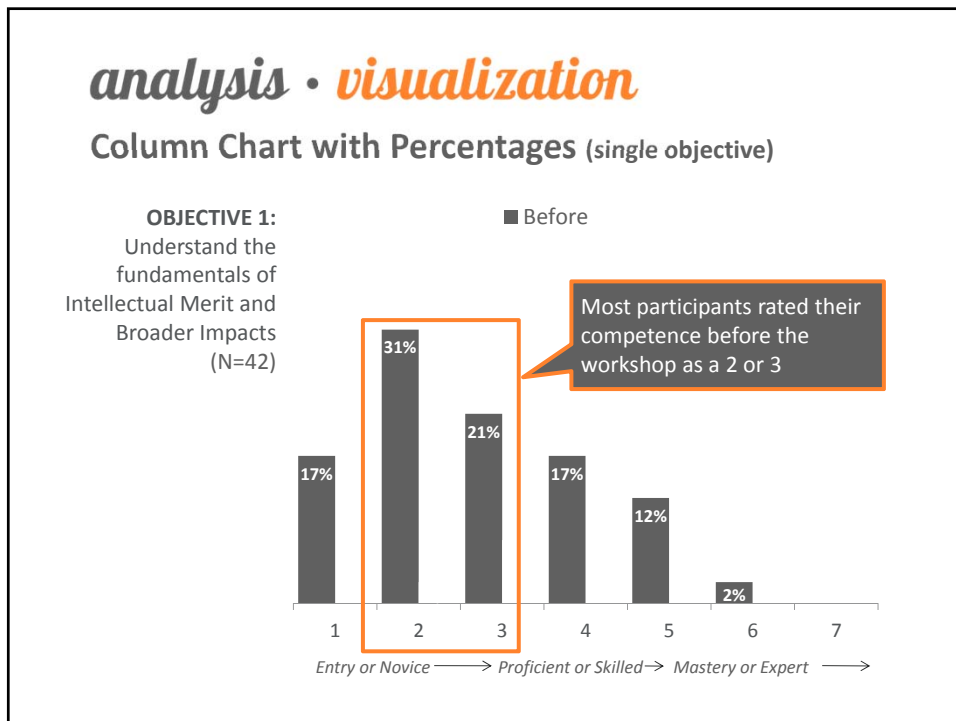
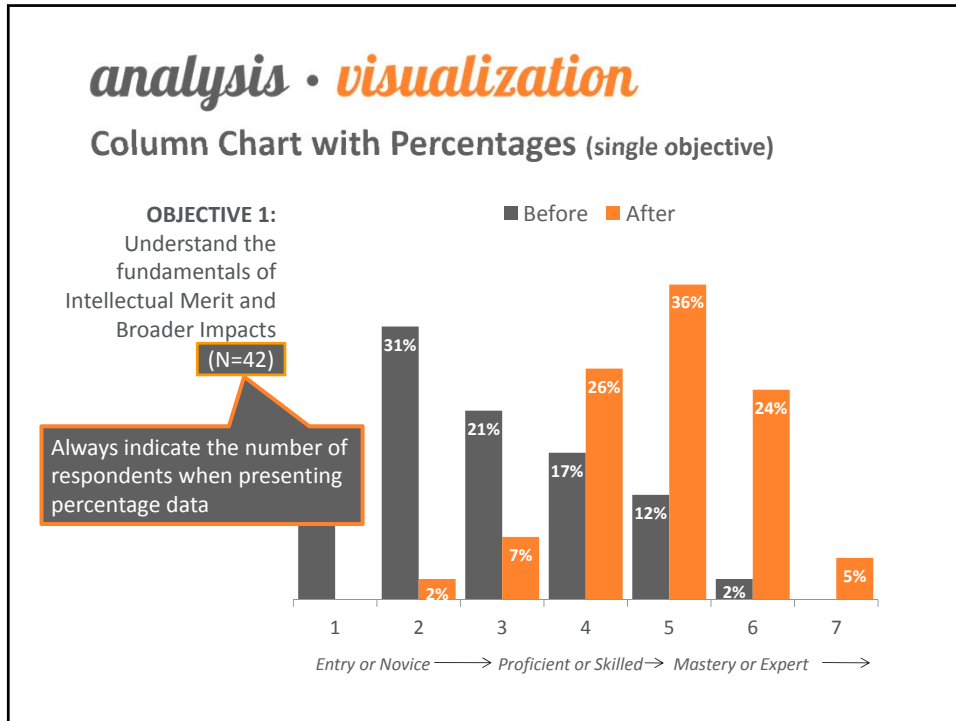
RATING SCALE*

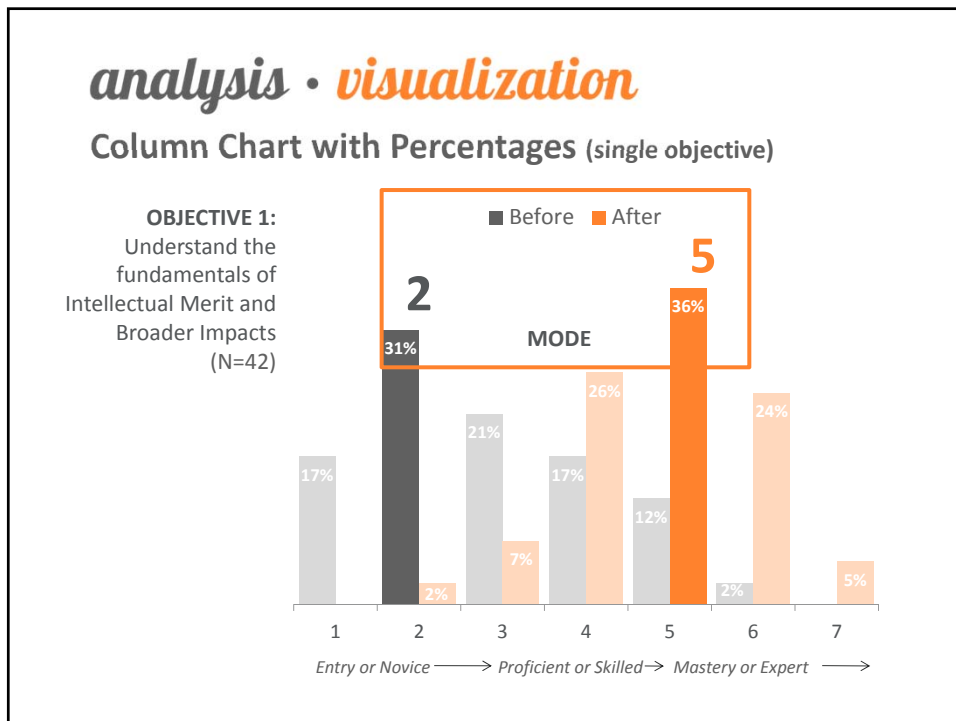
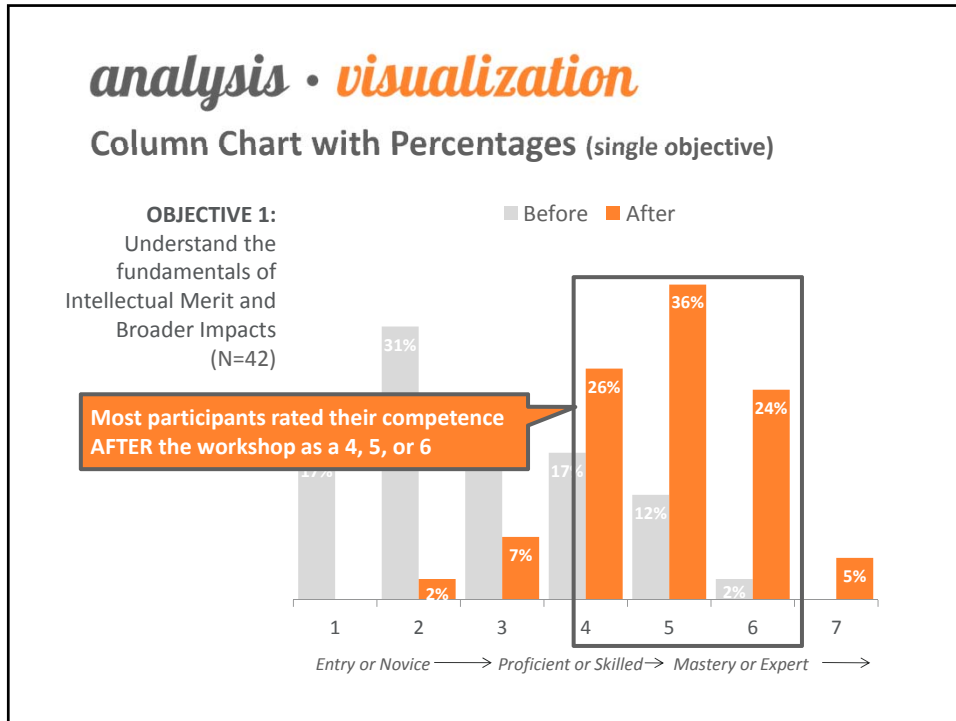
Rating	Category	Characteristics
1	Entry or Novice	Developing awareness of topic
2		Limited capability
3	Proficient or Skilled	Basic capability
4		Solving problems as they arise
5		Knowing what questions to ask
6	Mastery or Expert	Applying knowledge effectively, confidently
7		Advanced capability

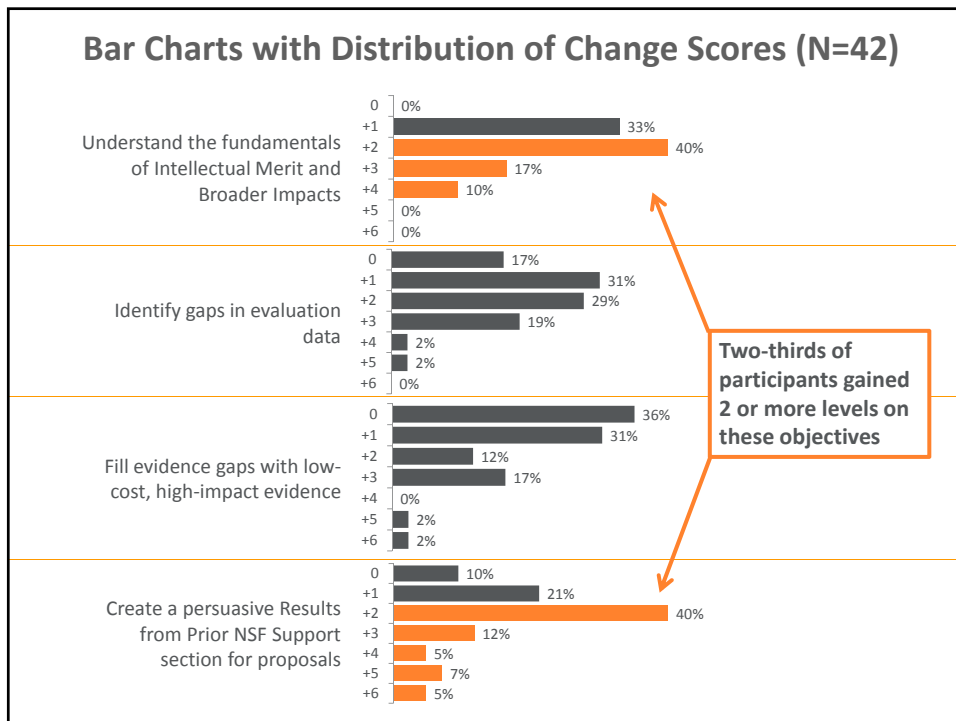
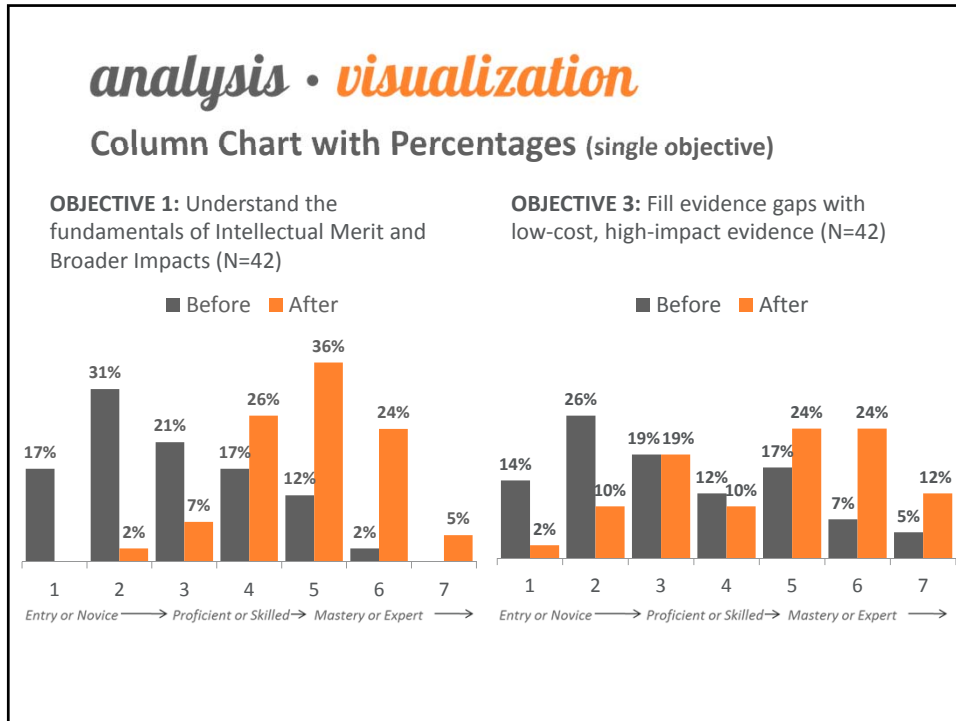
- Entry or Novice**
 - Little or no awareness of potential problems
 - Little or no awareness of questions to ask
- Proficient or Skilled**
 - Knowing where and how to access resources to answer questions
- Mastery or Expert**
 - Anticipating problems before they arise
 - Being sought out for guidance
 - Innovating or improving practices

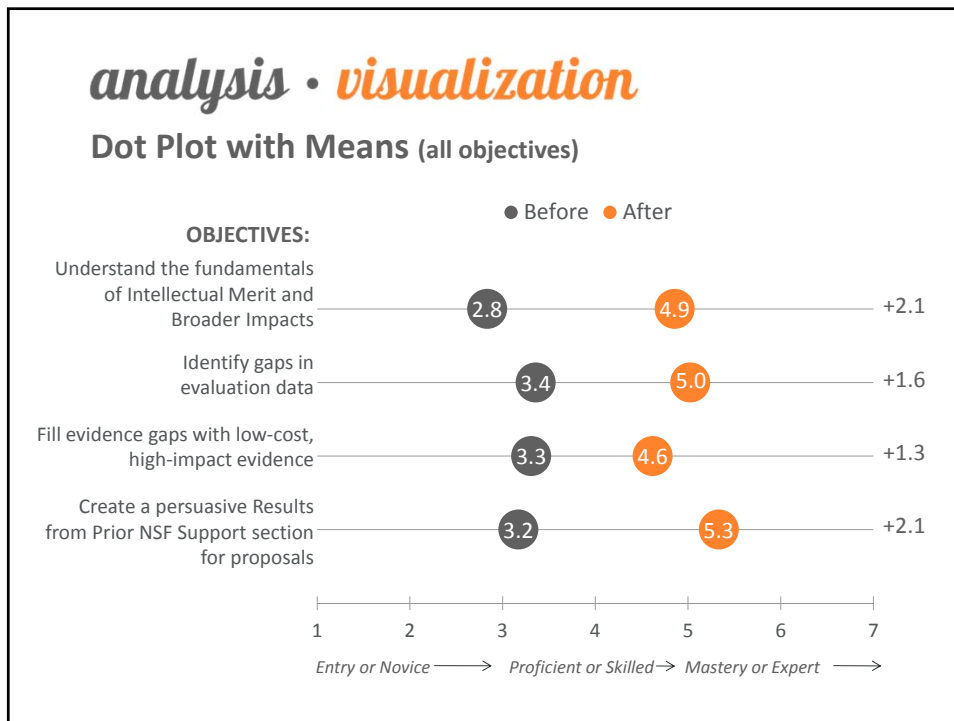
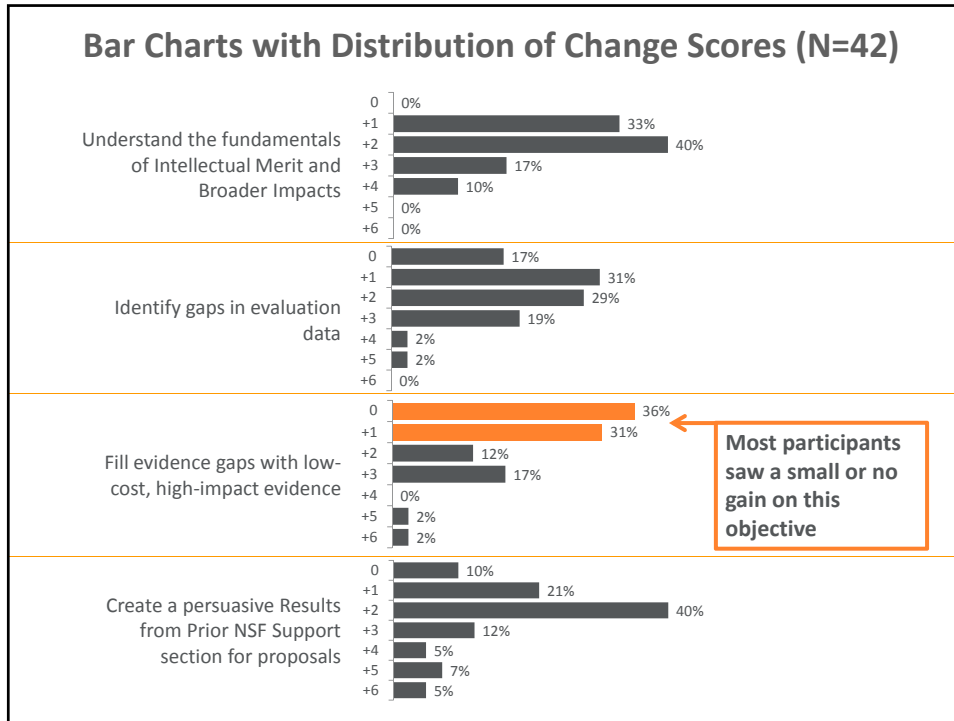
*Adapted from Stevahn, L., King, J., Ghere, G., & Minnema, J. (2004). *Essential competencies for program evaluators: Self-assessment tool*. Available from bit.ly/ecpe-scale

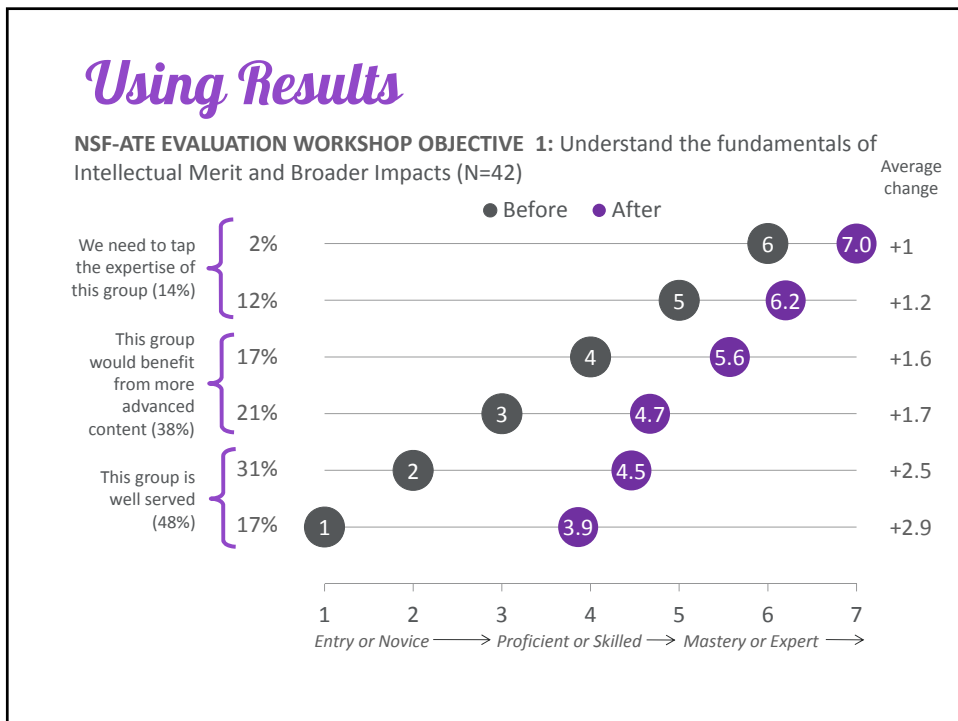


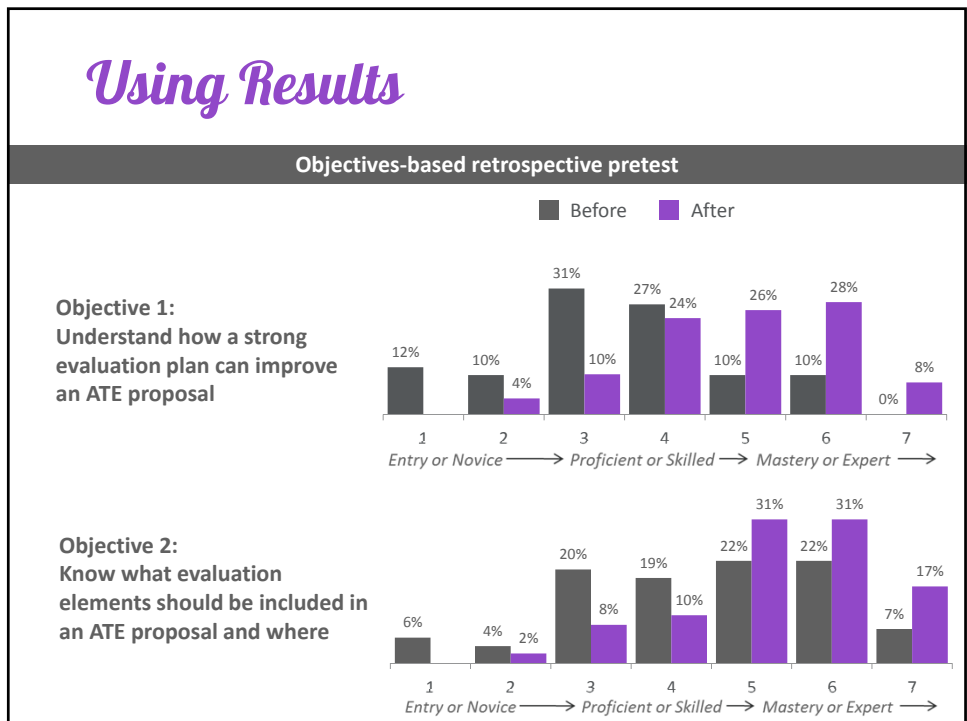
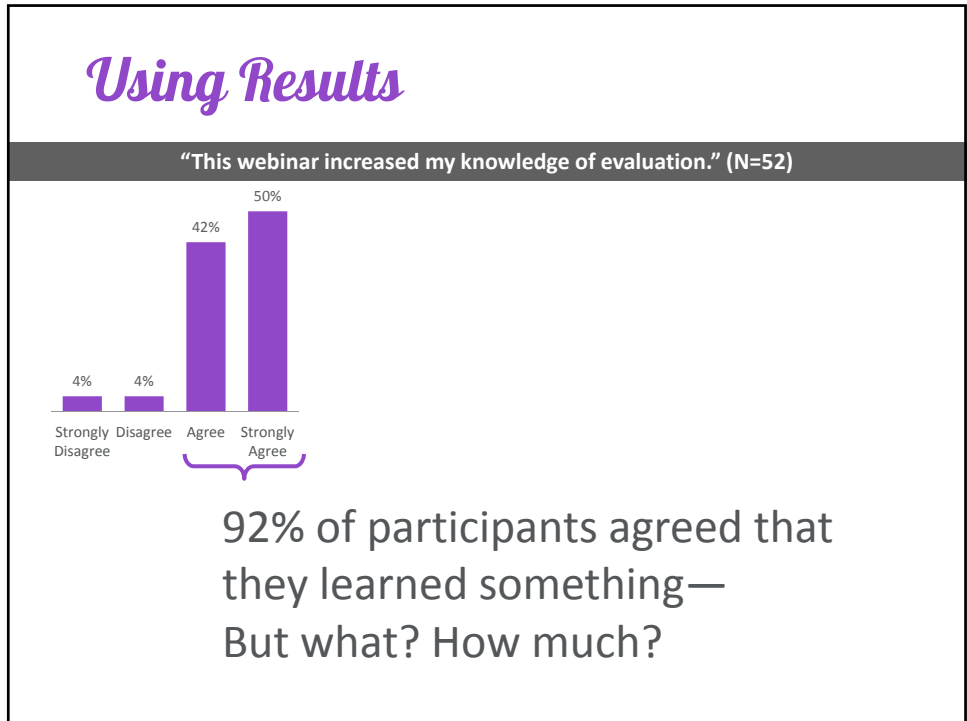


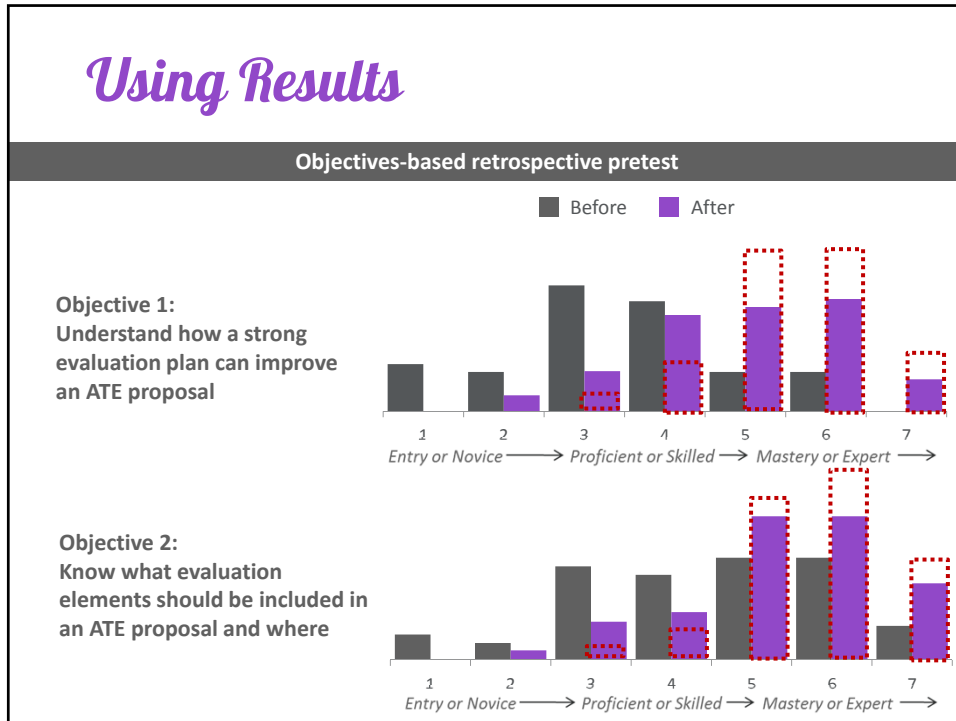












- ## Using Results
- 1 Why are retrospective pre-test items so informative to evaluate training activities (especially for the instructor)?
 - 2 Have these data provided practical insights regarding the intervention (i.e., training)?
 - 3 How have I used this information as a platform for action (e.g., adjustments to content, delivery of content)?

Using Results

An Example of Common Items Used to Evaluate Training

Summer Evaluation Institute

Survey Item	Overall Institute Average	Indicators Workshop Average
The session improved my understanding of the topic.	4.20	4.87
The presenter seemed knowledgeable about the topic.	4.65	5.00
Clear learning objectives were stated for this session.	4.26	4.83
The session was taught at the advertised level (i.e. beginner, intermediate).	4.25	4.74
There was sufficient time devoted to interactive/case work/discussion in this session.	4.02	4.83
The knowledge and skills I learned will be useful to me in my job.	4.09	4.87
The session slides and handouts were useful.	4.13	4.87
The session size worked well for this presentation.	4.26	4.83
I would recommend this session to others.	4.10	4.96
Overall, this was a good session.	4.16	4.96
Overall Mean	4.21	4.87

1=Strongly Disagree 2=Disagree 3=Neither Agree nor Disagree 4=Agree 5=Strongly Agree

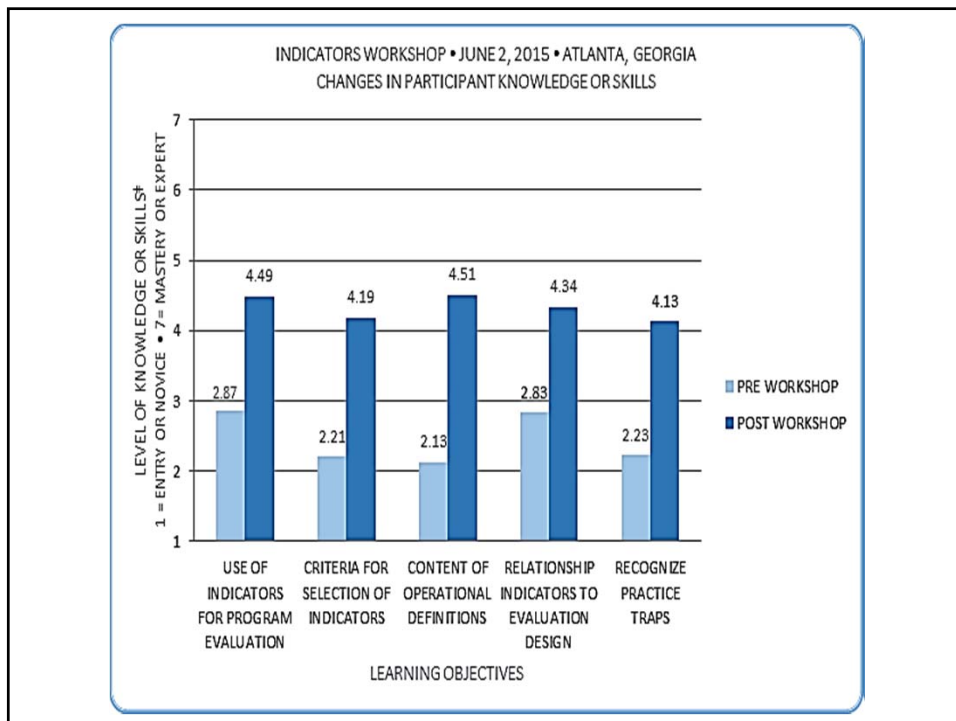
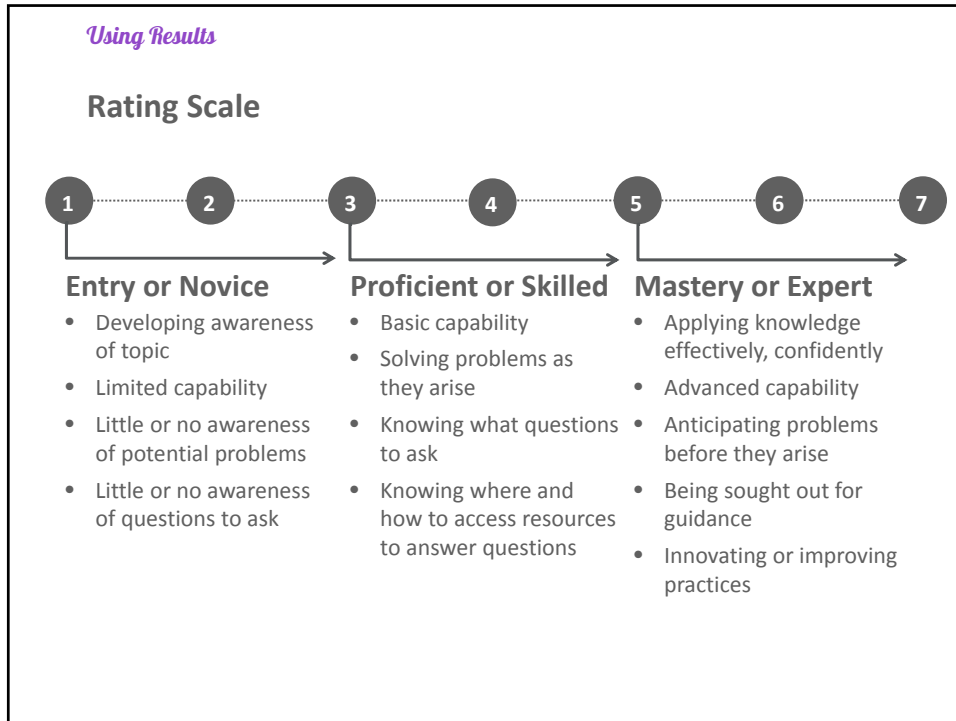
Using Results

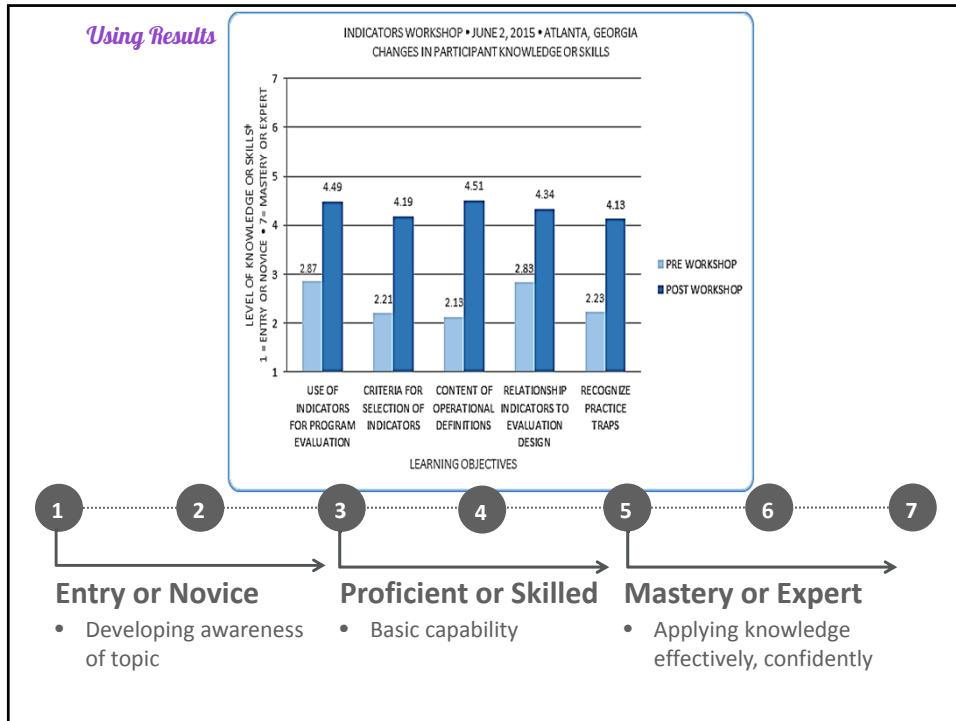
Retrospective Pre-test Items to Evaluate Changes in Knowledge or Skills

10. For each workshop objective listed below, rate your knowledge/skill level *before* and *after* the workshop using the following scale:


1	2	3	4	5	6	7
Entry/Novice <i>This level is characterized by:</i>		Proficient/Skilled <i>This level is characterized by:</i>		Mastery/Expert <i>This level is characterized by:</i>		
<ul style="list-style-type: none"> - Developing awareness of topic - Limited capabilities - Little or no experience - Little or no awareness of potential problems - Little or no awareness of questions to ask 		<ul style="list-style-type: none"> - Applying knowledge routinely - Basic capabilities - Moderate amount of experience - Solving problems as they arise - Awareness of questions to ask - Knowing where and how to access resources to answer questions 		<ul style="list-style-type: none"> - Applying knowledge effectively, confidently - Advanced capabilities - Extensive experience - Anticipating problems before they arise - Being sought out for guidance - Innovating or improving practices for the benefit of others 		

Knowledge/skill level before the course	WORKSHOP OBJECTIVES	Knowledge/skill level after the course
1 2 3 4 5 6 7	Develop and use indicators for program evaluation	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Describe and apply explicit criteria for selection of indicators	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Describe the importance and content of operational definitions for indicators	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Explain the relationship of indicators to other elements of evaluation design	1 2 3 4 5 6 7
1 2 3 4 5 6 7	Recognize and address common <i>practice traps</i> in development and use of indicators	1 2 3 4 5 6 7





Using Results

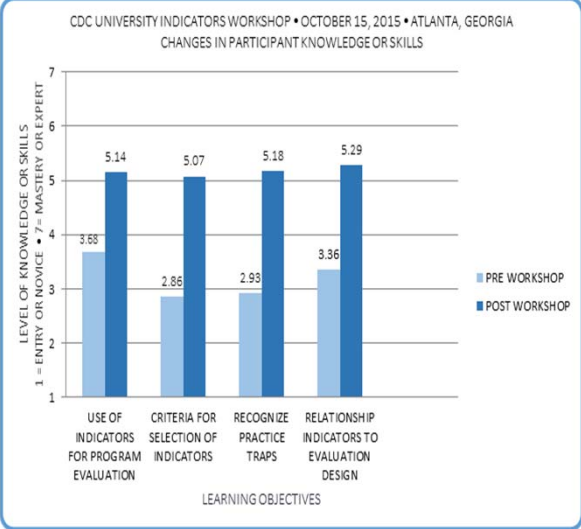


- Involve every learner in exercises and knowledge checks for sure
- Enhance collaboration among participants and with the instructor (beyond the small group exercises already used)
- Sustain engagement through complex technical content
- Create real-time feedback on delivery and receipt of key concepts

Using Results

Data-driven Decisions:

- Added use of clickers
- Scaled back content to look more deeply at core topics
- Used in-depth knowledge of my own organization to anticipate and meet participant needs



CDC UNIVERSITY INDICATORS WORKSHOP • OCTOBER 15, 2015 • ATLANTA, GEORGIA
CHANGES IN PARTICIPANT KNOWLEDGE OR SKILLS

Learning Objectives	Pre Workshop	Post Workshop
USE OF INDICATORS FOR PROGRAM EVALUATION	3.68	5.14
CRITERIA FOR SELECTION OF INDICATORS	2.86	5.07
RECOGNIZE PRACTICE TRAPS	2.93	5.18
RELATIONSHIP INDICATORS TO EVALUATION DESIGN	3.36	5.29

LEVEL OF KNOWLEDGE OR SKILLS
1 = ENTRY OR NOVICE • 7 = MASTERY OR EXPERT

■ PRE WORKSHOP ■ POST WORKSHOP

LEARNING OBJECTIVES

