

# EFCOG Training Working Group Monthly Learning Opportunity

**October Meeting | 30 October 2023**

Amy Loevy (BNL), TWG Chair

Ethan Guymon (INL), Training Collaboration  
Subgroup Chair

Fallon Holloway (WRPS), Training Collaboration  
Subgroup Vice Chair





# Agenda

- TWG Business and Announcements
  - Annual Meeting Reminder
    - Location
    - Date
    - Call for volunteers
- Evidence-Based Course Evaluations That Provide Actionable Results
  - Presented by Shawn McGregor and Mia Logan



# Annual Meeting – Reminder



- Cohosted by HAMMER and PNNL
- To be held: March 18<sup>th</sup> – 23<sup>rd</sup>
- Save the date has been sent out
- First planning meeting to be held in November.
  - Volunteers are needed to assist in planning! Please contact Ethan Guymon if you would like to help

# Annual Meeting Planning Teams

- **On-Site Team**

- All logistics (materials, supplies, food, room reservation, badging)
- Planning of on-site meetings and tours

- **Speaker Team**

- Identify presenters and panelists
- Invite presenters
- Partner with On-site Team on mapping out Annual Meeting
- Support speakers (get pictures, descriptions, bios, slides, handouts)

- **Participant Team**

- Focus on enhancing the participant experience.
- Manage registration process
- Create and send marketing materials
- Create and send participant materials, including invitations (both hybrid and in-person)

- **Hybrid Team**

- Partner with On-Site Team on planning what can be delivered virtual for Hybrid experience.
- Partner with Speaker team to confirm speakers and prepare for hybrid experience.
- Partner with Participant Team to provide URLs for hybrid experience.
- Plan and deliver hybrid experience during annual meeting

# Annual Meeting Survey

If you haven't done so already, please participate in planning by answering our survey by clicking the link in chat or using your phone's camera app with the below QR Code.





# EVIDENCE BASED COURSE EVALUATIONS THAT PROVIDE ACTIONABLE RESULTS

PRESENTED BY:

MIA LOGAN, PHD & SHAWN MCGREGOR, PMP

MONDAY, OCTOBER 30, 2023 | 11:00 AM MT



October 30, 2023

# Evidence-Based Course Evaluations That Provide Actionable Results

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# Agenda

- 1 Team Purpose
- 2 Intro to TDRp
- 3 Current State of Level 1 Evaluation
- 4 Level 1 Survey Pilot – Future Approach to Evaluation
- 5 Job Aid: Actionable Responses
- 6 Future Level 3 Evaluation Survey
- 7 Questions

# INL Learning Performance Evaluation

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# Learning Performance Evaluation

- What evaluations are currently being used for Levels 1, 2 and 3?
- What is currently being reported and to whom?
- What is working?
- What needs to be improved?
- What might be missing in the current evaluation process?
- How can we use evaluation metrics to drive business results?

# Learning Performance Evaluation

- Is Evaluation conducted through the ADDIE process?

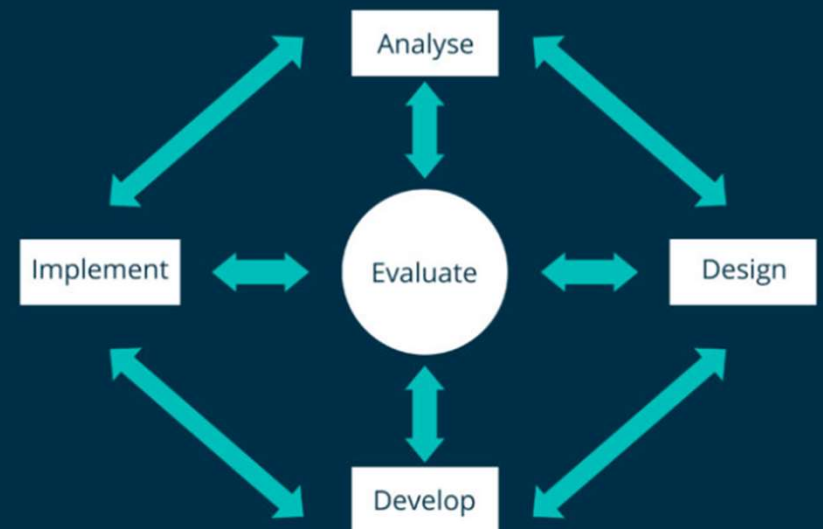
## The Original ADDIE Model

(linear structure, starting with analysis and ending in evaluation)

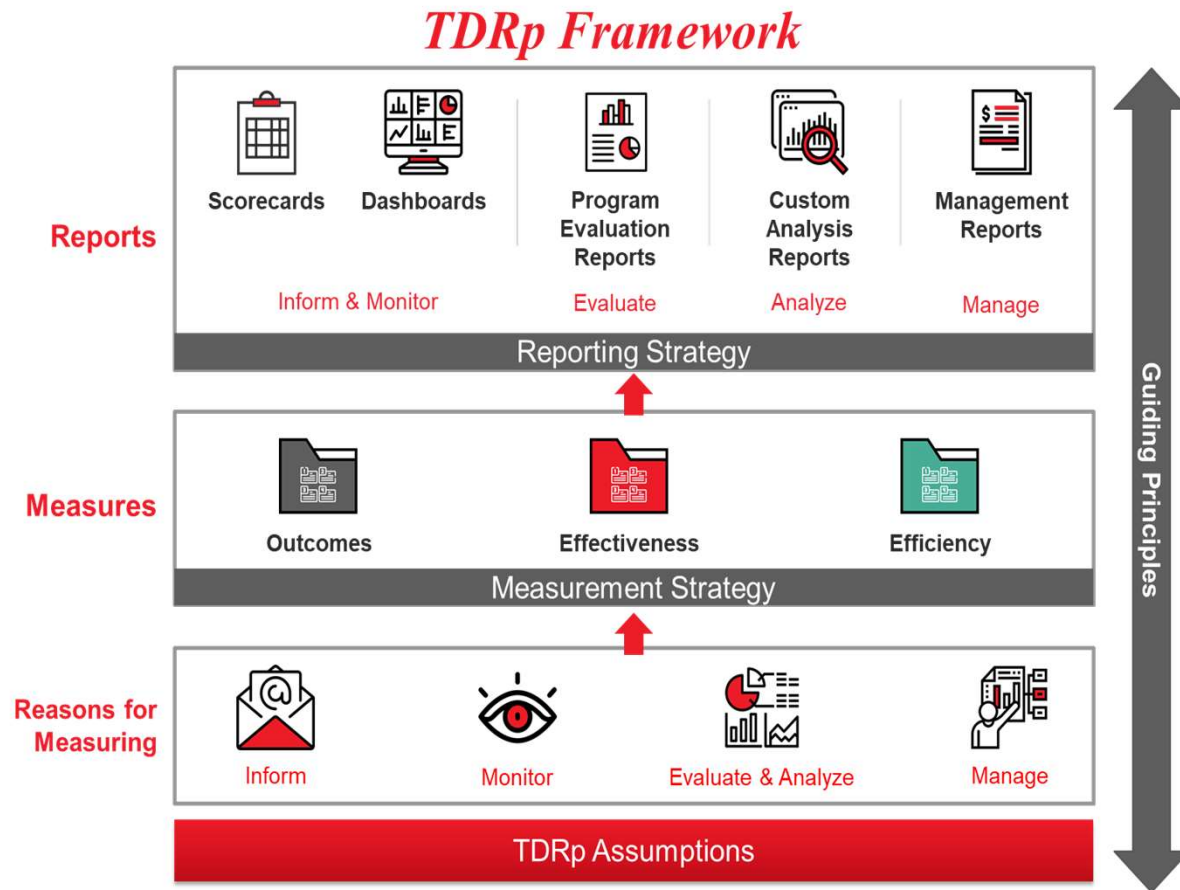


## Revised ADDIE Models

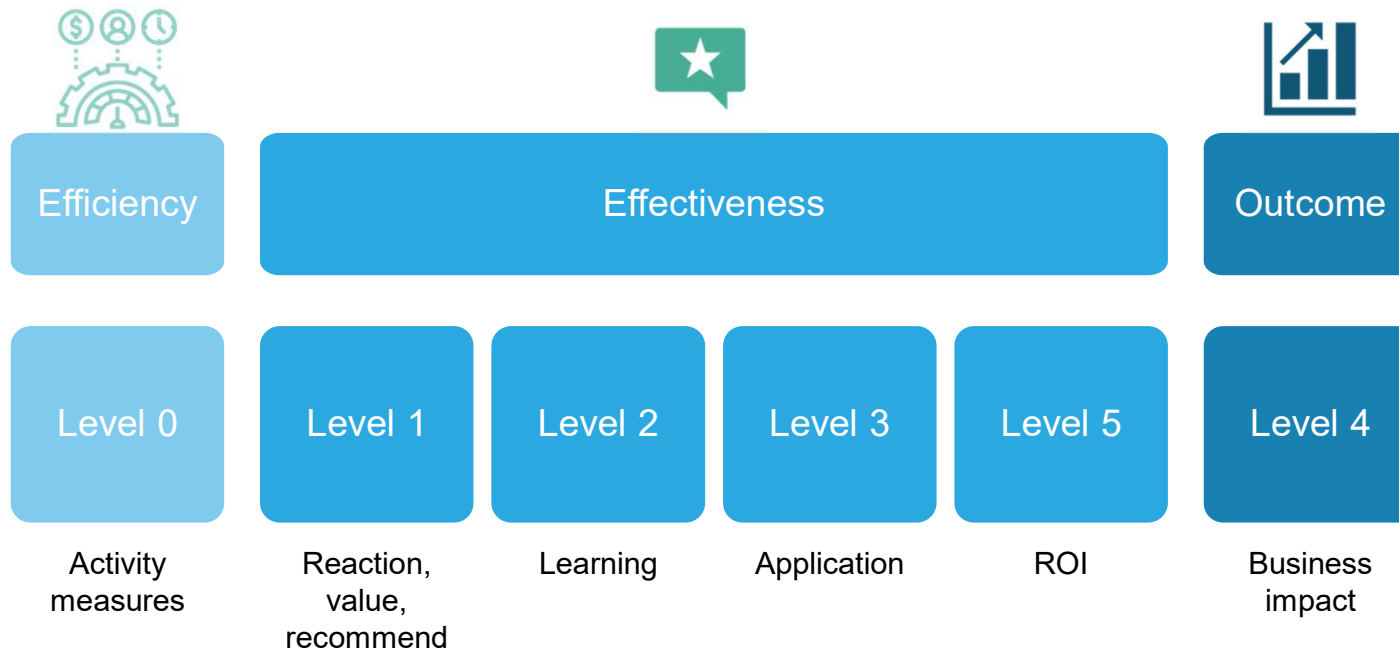
(evaluation is a central phase implemented at each stage of the process)



# Talent Development Reporting Principles



# TDRp Evaluation



# Current State of Level 1 Evaluation

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## **Current State: Effectiveness Measures**

### **Level 1: Reaction Surveys**

#### **What we have:**

- Generic Student Feedback form – “end of class” evaluation.
  - Web-based courses, Online form.
  - Instructor-Led courses, Paper and Pencil form.
- Primarily focused on the Learners’ experience.
- Most fill in the Likert scale and 25% provide comments.

## Current State: Effectiveness Measures

### Level 1: Reaction Surveys

#### What we need (gaps):

- Surveys that generate usable data for SMEs, Designers, Facilitators.
  - Current surveys are recorded, rarely reviewed. We generally only respond to major issues identified in qualitative questions.
  - Need more robust Level 1 surveys providing relevant data.
- Better data tracking from the Level 1 surveys.
- Response rates. Are we asking the right questions?

## Current State: Effectiveness Measures Slide continued

### Level 1: Reaction Surveys

#### Issues with current methodology:

- Likert scale utilization – Subjective.
  - Scale is subjective. Tends to polarize or provide neutral response.
  - Increases cognitive load.
  - Responses are subjective.
  - No clear answer choices increases bias and cognitive fatigue.
  - Creates polarized or neutral responses.
  - Do not indicate cause.
  - Responses are not actionable.
  - Same constraints of a Net Promoter Score.

# Current INL Student Feedback Form

	Strongly Disagree	Disagree	Agree	Strongly Agree
<b>I. About this session</b>				
1. This training was a good use of my time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This training length was:	<input type="checkbox"/> Too Short	<input type="checkbox"/> Too Long	<input type="checkbox"/> About Right	
3. I feel that I have learned something from this training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I found this training to be relevant to my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Overall, the objectives were met and the training was effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>II. About the Instructor(s)</b>				
1. Instructor(s) knew the subject(s) well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Instructor(s) handled question(s) well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Instructor(s) presented material in a way that held my interest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Instructor(s) was/were enthusiastic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Overall, the instructor(s) was/were effective.	<input type="checkbox"/> No		<input type="checkbox"/> Yes	
<b>III. Comments</b>				
The best part of the training was:				
This training could be better if:				
In what ways do you think you can apply the course content to your job?				
Additional comments:				



# Level 1 Evaluation Pilot

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## Contemporary Theory and Academic Sources

- Cristina Hall
- Dr. James Kirkpatrick
- John Mattox II
- Peggy Parskey
- Dr. Jack Phillips
- Dr. Will Thalheimer
- Dr. David Vance

## Level 1 Evaluation Pilot Intent

- What should an effective course survey do?
  - Support Learning Design Effectiveness
  - Support Learners by Reinforcing Learning and Application
  - Nudging the Learner Through Stealth Messaging
  - Evaluate and Encourage Organizational Support
  - Support Relationships with Learners and Stakeholders

# Level 1 Evaluation Pilot Intent

- Develop an actionable level 1 course survey which is a better predictor of:
  - Job Relevancy
  - Facilitation Effectiveness
  - Instructional Design Effectiveness
  - Retention of Concepts
  - Learner Understanding (level 2 indicator)
  - Motivation to Apply
  - Intent to Apply (level 3 leading indicator)
  - Organizational support

**Not Customer Satisfaction Based**

# Pilot Student Feedback Form

**Understanding:** How well do you now understand the concepts taught in this course?

- A. I am still at least **somewhat confused** about the concepts.
- B. I am now **somewhat familiar** with the concepts.
- C. I have a **solid understanding** of the concepts.
- D. I am **fully ready to use** the concepts in my work.

**Relevancy:** How relevant was the course to your current job?

- A. Very relevant, I will **use this information frequently**.
- B. Somewhat relevant, I will **only use this information every few months**.
- C. I'm new and **don't know** if it is relevant yet.
- D. Not relevant, I **will not use** this information.

**Facilitation:** Which of following are true about your course instructor? Select up to three (3) items that are most important in describing the performance of your instructor.

- A. Generally **did a good job** in facilitating learning.
- B. Often **hurried** through the content in a **superficial** manner.
- C. Demonstrated **deep subject matter knowledge**.
- D. Was often **unclear** or **disorganized**.
- E. Showed **high levels of real-world experience** relevant to the topic.
- F. Gave us **little or no time to practice skills** we could use in our work.
- G. Was **socially awkward** or **inappropriate** to an extent that it harmed learning.
- H. They **asked me frequent review questions** to help me process what I was learning.

**Remembering / Practice:** What activities did you spend the most time during the course? Select up to three (3) activities.

- A. **Viewing information** presented on a screen (for example, PowerPoint slides).
- B. **Reflecting on how I might use** the concepts presented.
- C. Engaging in **discussions on how to use** the concepts presented.
- D. Answering **review questions** on the concepts presented.
- E. **Making decisions** like those I will face on the job.
- F. Doing **tasks or activities** like those I will face on the job.
- G. Engaging in **activities NOT relevant** to my job.

# Pilot Student Feedback Form

**Motivation to Apply:** Regarding the topics taught, how motivated are you to use these concepts/skills in your work?

- A. I will **not make this a priority** when I get back to my day-to-day job.
- B. I will make this **a priority - but a low priority** when I get back to my day-to-day job.
- C. I will make this **a moderate priority** when I get back to my day-to-day job.
- D. I will make this **a high priority** when I get back to my day-to-day job.
- E. I will make this **one my highest priorities** when I get back to my day-to-day job.

**Intent to Apply:** What percentage of the concepts learned do you intend to apply at work?

- A. **0-20** percent of the concepts learned.
- B. **20-40** percent of the concepts learned.
- C. **40-60** percent of the concepts learned.
- D. **60-80** percent of the concepts learned.
- E. **80-100** percent of the concepts learned.

**Support:** After the course, when you begin to apply your new knowledge at your workplace, which of the following supports are likely to be in place for you? Select as many items as are likely to be true.

- A. **My manager will actively support me** with key supports like time, resources, advice, and/or encouragement.
- B. I will use a **coach or mentor** to guide me in my applying the learning to my work.
- C. I will be **encouraged by my coworkers** to apply the learning to real job tasks.
- D. I will be given **job aids** like checklists, search tools or reference materials to guide me in applying the learning to my work.
- E. I will **not get** much **direct support** but will rely on my own initiative.

**Overall Training Effectiveness:** How able are you to put what you have learned into practice at work? Choose the one (1) option that best describes your current readiness.

- A. My **current role does not enable me** to use what I learned.
- B. I am still **unclear about what to do**, and/or why to do it.
- C. I **need more guidance** before I know how to use what I've learned.
- D. I **need more experience** to be good at using what I learned.
- E. I can be **successful now** in using what I have learned.

# Pilot Student Feedback Form

**Training Effectiveness:** What aspects of the training made it **most effective** for you? What should we definitely keep as part of the training?

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**Constructive Feedback:** What aspects of the training **could be improved**? Your feedback is essential in providing us with constructive ideas for improvement.

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**Additional Information:** Is there **anything else** we should have asked about? Is there **anything else** you want to tell us?

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## Pilot Delivery and Methodology

- A paper survey was delivered via facilitators at the conclusion of the Rad Worker 1 and Rad Worker 2 courses. 3<sup>rd</sup> Quarter CY23.
- We intend to pilot a digital ILT version using QR codes. Increase anonymity and response rate.
- Data are manually inputted into MS Forms/Qualtrics and aggregated.
- Dashboards were created in Power BI and visible to stakeholders.
- Survey is piloted over several quarters with additional programs and phased implementation.
- We will pilot the survey via Web-based delivery, 4th quarter.

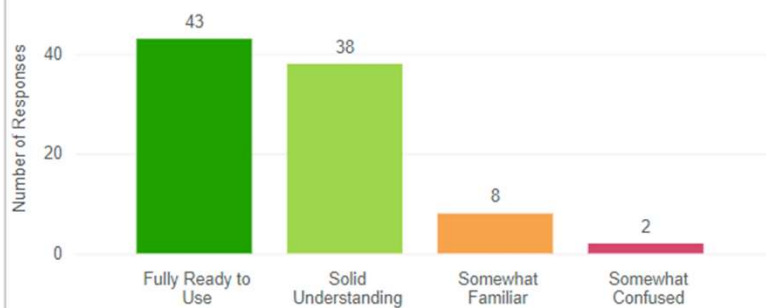
## End of Course Survey: Rad Pilot

Course

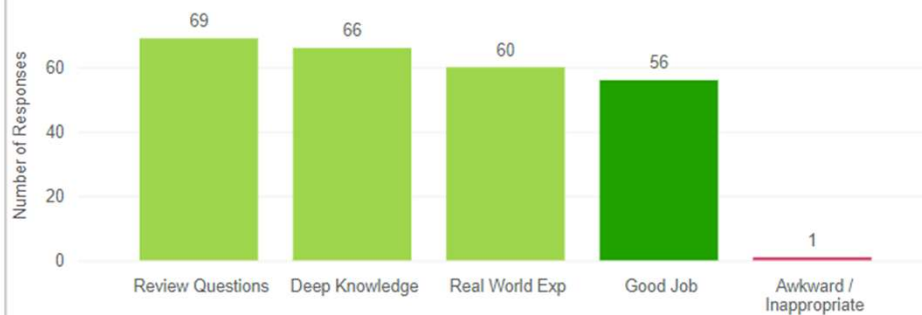
All

● Superior
 ● Acceptable
 ● Unacceptable
 ● Alarming

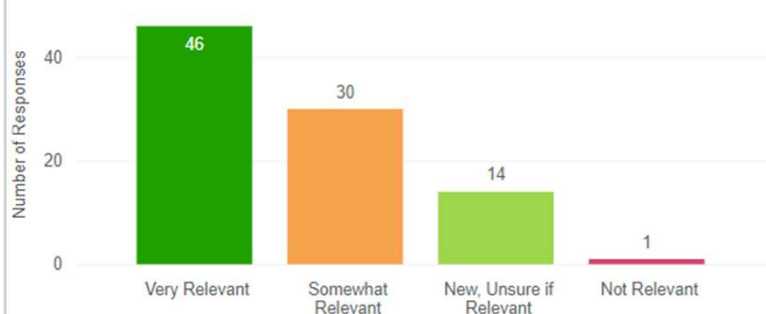
How well do you now understand the concepts?



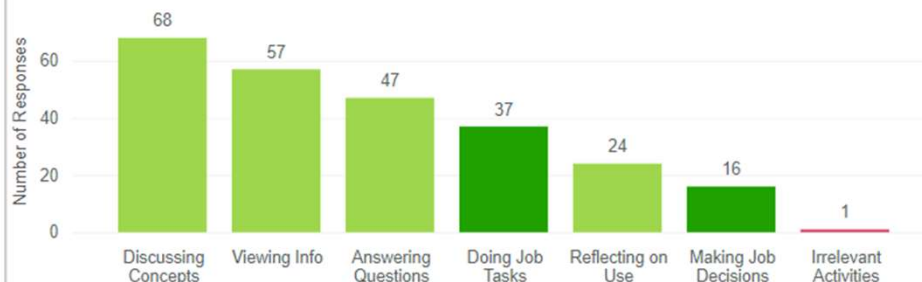
Which of following are true about your course instructor?



How relevant was the course to your current job?



What activities did you spend the most time during the course?



## End of Course Survey: Rad Pilot

Course

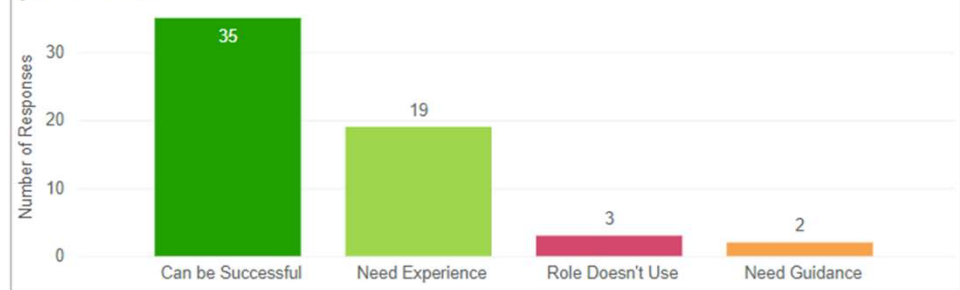
Rad 2

● Superior
 ● Acceptable
 ● Unacceptable
 ● Alarming

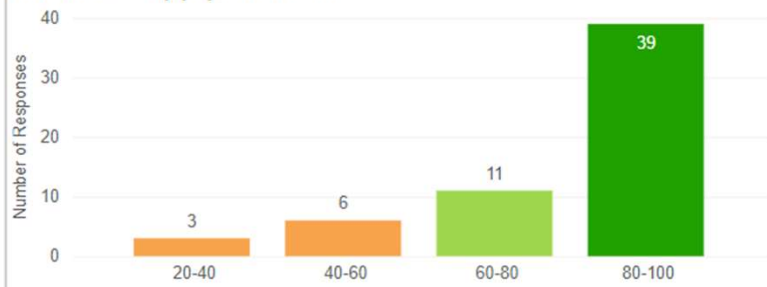
How motivated will you be to use these concepts/skills in your work?



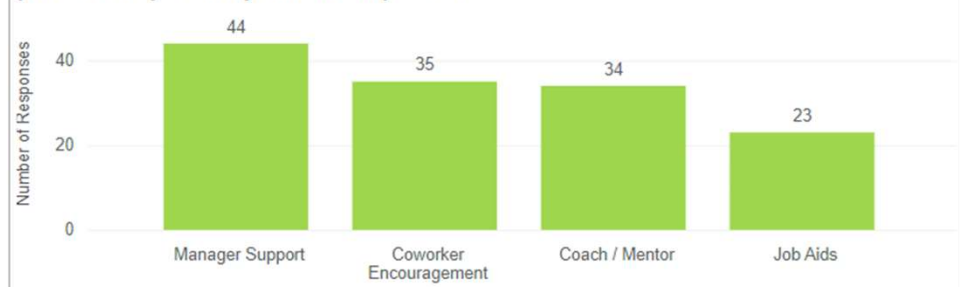
How able are you to put what you have learned into practice in your work?



What percentage of the concepts learned do you intend to apply at work?



After the course, which of the following supports are likely to be in place for you in your workplace?



## End of Course Survey: Rad Pilot

Course

All



What aspects of the training made it most effective for you? What should we definitely keep as part of the training?

Course	Response
Rad 1	
Rad 1	brad used a lot of visual aids that helped me understand concepts as well as good demonstrations on how to use tools and equipment. He also did a good job of presenting and keeping attention while not allowing the content to become boring.
Rad 1	Continuous questions reviewing all the material covered helped drive home the concepts. The practical hands-on portion was also very helpful
Rad 1	Examples of what and what not to do
Rad 1	Hands on activities
Rad 1	Hands on experience, quizzes, discussions.
Rad 1	I always appreciate real world experience and lessons learned
Rad 1	Jerri consistently asked the class questions to aid us in remembering what had been taught. In addition, she wrote important concepts on paper and posted in throughout the class which further aided in retention.
Rad 1	On Hands
Rad 1	Physical practice helped me learn in detail
Rad 1	physically practicing a task
Rad 1	props are a great tool for me. some hands on training helps me understand more.
Rad 1	The activities made it a lot easier to learn
Rad 1	The constant discussion and questions were really helpful in remembering the concepts, acronyms, etc...
Rad 1	the hands on activities and demonstrations
Rad 1	The review questions and quiz
Rad 1	the reviews and also the class activities made the course most effective for me. both of these things should be kept in place for the future



# Job Aid and Actionable Results

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### Question 1

**Understanding:** How well do you now understand the concepts taught in this course?

- A. I am still at least somewhat confused about the concepts. (Alarming)
- B. I am now **somewhat familiar** with the concepts. (Acceptable)
- C. I have a **solid understanding** of the concepts. (Acceptable)
- D. I am **fully ready to use** the concepts in my work. (Superior)

### **Measurement: Learner Understanding**

**Question Rationale:** Learner understanding of course concepts is one of the pillars of course effectiveness. Summative and formative assessments are the primary evaluation of learner understanding; however, survey questions serve as a proxy or supplemental evaluation method. The primary value of this question to performance evaluators is to gauge instructional design quality and to provide feedback to the Learning Design team.

## Responses

**A. I am still at least somewhat confused about the concepts. (Alarming)**

A high response rate responding with A. (roughly 30 percent or higher) is an indicator to review the course instructional design practices for potential instructional design flaws. Contact the INL Learning Services Learning Design team.

**B. I am now somewhat familiar with the concepts. (Acceptable)**

Certain learning instruction is only presented to provide familiarization of a concept. This response may not be an indicator of poor instructional design. A high response rate of over 50 percent for B. May require review of the learning goals with the Learning Design team and/or the course owner/SME. 10% is the current response to the question. This is a reasonable rate. It would require follow-up, if it were excessive.

**C. I have a solid understanding of the concepts. (Acceptable)**

C. is a suitable response that does not require any responding action.

**D. I am fully ready to use the concepts in my work. (Superior)**

D. is an ideal response that does not require any responding action. This may be a less frequent response than C., as some learning concepts may require organizational support or additional practice before the learner is “fully ready.”



## Question 2

**Relevancy:** How relevant was the course to your current job?

- A. Very relevant, I will **use this information frequently**. (Superior)
- B. Somewhat relevant, I will **only use this information every few months**. (Acceptable)
- C. I'm new and **don't know** if it is relevant yet. (Acceptable)
- D. Not relevant, I **will not use** this information. (Alarming)

### **Measurement: Job Relevance**

**Question Rationale:** Instruction provided to the learner should be relevant to work performed or potentially performed by the learner in the work environment. Any learning concepts that are not relevant to the learner are scrap learning and reduce effectiveness of training. Additionally, frequency of the work performed can help determine the most appropriate learning solution. Tasks infrequently performed may be less suitable for formal course learning. The primary value of this question to performance evaluators is to ensure that the training provided is relevant and effective. The performance evaluator should contact the Learning Design team, SME, and goal owner if performance evaluation reveals an excess of scrap learning or infrequent use.



## Responses

A. Very relevant, I will **use this information frequently**. (Superior)

This is an ideal response which requires no additional action.

B. Somewhat relevant, I will **only use this information every few months**. (Acceptable)

Certain learning instruction may be designed to be used only to prevent an emergency, used for safety mitigation or in other circumstances in which the learner must be prepared to immediately react. In this context, a high response rate with this answer is not necessarily indicative of poor instructional design. Other infrequent job tasks may be better suited to the use of a job aide as opposed to formal course instruction. A high response rate of over 50 percent for B. may require a review of the learning goals with the Learning Design team and/or the course owner/SME to determine if a job aide or other learning solutions would be more suitable.

C. I'm new and **don't know** if it is relevant yet. (Acceptable)

C. is a suitable response that does not require any responding action. The performance evaluator may refer to the application responses in the follow-on evaluation survey to determine relevance.

D. Not relevant, I **will not use** this information. (Alarming)

A response rate of 30 percent or higher selecting answer D. is an indicator of scrap learning. The performance evaluator should contact the Learning Design team, SME, and goal owner to review the course for possible revision.

# Level 3 Post Course Evaluation

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1. **Application:** Have you used what you learned in the training course at work?

- A. **No, and I doubt that I will use** what I have learned. (Alarming)
- B. **No, I have been unable to, due to organizational, work environment, or resource** factors. (Alarming)
- C. **No, but it is possible I will use** what I have learned. (Unacceptable)
- D. **No, but I plan to use** what I learned. (Unacceptable)
- E. **Yes, I have already used** what I learned **once to a small number of times.** (Acceptable)
- F. **Yes, I have repeatedly used** what I learned. (Superior)

*NOTE: IF you answered E or F in Question 1, THEN proceed to Questions 2 through 9.*

*NOTE: IF you answered A, B, C or D in Question 1, THEN proceed to Questions 10 through 14.*

2. **Have Applied:** What factor(s) enabled you to put the training's concepts into practice while on-the-job?  
Select up to four (4) that most apply.

- A. My **management** has made this a **high priority**. (Superior)
- B. I **believe strongly in** the course **learning objectives**. (Superior)
- C. I will be **looked down upon** or **punished** if I **do not apply** the course learning objectives. (Acceptable)
- D. My **management** is **fully supportive** of my efforts. (Superior)
- E. I have the authority to **make** the necessary **changes that allow me to apply** the content. (Acceptable)
- F. My **Coworkers are fully supportive** of my efforts. (Superior)
- G. I will be **acknowledged or rewarded** if I do this. (Acceptable)
- H. I **remember or can look up** the course learning objectives. (Superior)
- I. My **team is working together** on this. (Acceptable)
- J. I have the **time to put this into practice**. (Acceptable)
- K. I have the **resources to put this into practice**. (Acceptable)
- L. Other: \_\_\_\_\_

3. **Performance:** When you applied the concepts, how did it improve your work performance?

- A. My work performance has **significantly improved**. (Superior)
- B. My work performance has **moderately improved**. (Acceptable)
- C. My work performance has **slightly improved**. (Acceptable)
- D. Applying the learning concepts has **not improved** my **performance**. (Alarming)

10. **Have Not Applied:** What is holding you back from using what you have learned to make changes in your work? Select up to four (4) that most apply.

- A. The learning content is **not relevant in my current job**. (Alarming)
- B. I do **not think** the learning **content is valid**. (Alarming)
- C. I **don't see how** applying the content **will benefit me**. (Alarming)
- D. I do **not know how** to apply the content. (Alarming)
- E. I do **not have the authority to make changes** that **allow me to apply** the content. (Unacceptable)
- F. I **cannot remember** the learning content well enough. (Alarming)
- G. I am **not comfortable applying** the learning content on my own. (Unacceptable)
- H. I have **not had the time**. (Unacceptable)
- I. I had **other priorities**. (Unacceptable)
- J. I do **not have the resources**. (Unacceptable)
- K. I am still **working to persuade management**. (Unacceptable)
- L. I am still **working to persuade my teammates**. (Unacceptable)
- M. I have **not had** the **need** or **opportunity**. (Acceptable)
- N. Other: \_\_\_\_\_

11. **Unused:** What important concepts did you learn that you have been unable to apply?

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12. **Obstacles:** What specific barriers prevent you from applying this training?

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# Questions?

## References:

- Thalheimer, W. (2022). *Performance-focused learner surveys using distinctive questioning to get actionable data and guide learning effectiveness*. Work-Learning Press.
- Mattox, J II., Parskey, P., & Hall, C., (2020). *Learning Analytics: Using talent data to improve business outcomes*. Kogan Page.
- Vance, D., & Parskey, P., (2021). *Measurement demystified: Creating your L&D measurement, analytics and reporting strategy*. ATD Press.
- Phillips, J., & Stone, R., (2002) *How to measure training results: A practical guide to tracking the six key indicators*. McGraw-Hill
- Kirkpatrick, J., & Kirkpatrick W., (2016) *Kirkpatrick's four levels of training evaluation*. ATD Press



# Got Feedback?

- Please complete the Monthly Learning Opportunity Evaluation (see link in the chat).
- It only contains four questions and should take about a minute!

**EFCOG**  
Training Working Group

EFCOG TWG | Monthly Learning Opportunity | "Evidence Based Course Evaluations That Provide Actionable Results" Evaluation

Q1. It was easy for me to become actively involved/engaged in the monthly learning opportunity.

Strongly disagree   Somewhat disagree   Neither agree nor disagree   Somewhat agree   Strongly agree

Q2. I will be able to apply what I learned on the job.

Strongly disagree   Somewhat disagree   Neither agree nor disagree   Somewhat agree   Strongly agree

Q3. How likely are you to recommend this Monthly Learning Opportunity to others?

Not at all likely   0   1   2   3   4   5   6   7   8   9   10   Extremely likely





## Look for some follow ups...

- Follow up email with recording from our October Learning Opportunity.
- Contact [Ethan Guymon](#) if you are interested to participate in planning the 2024 TWG Annual Meeting.
- Our next Monthly Learning Opportunity will take place in November.