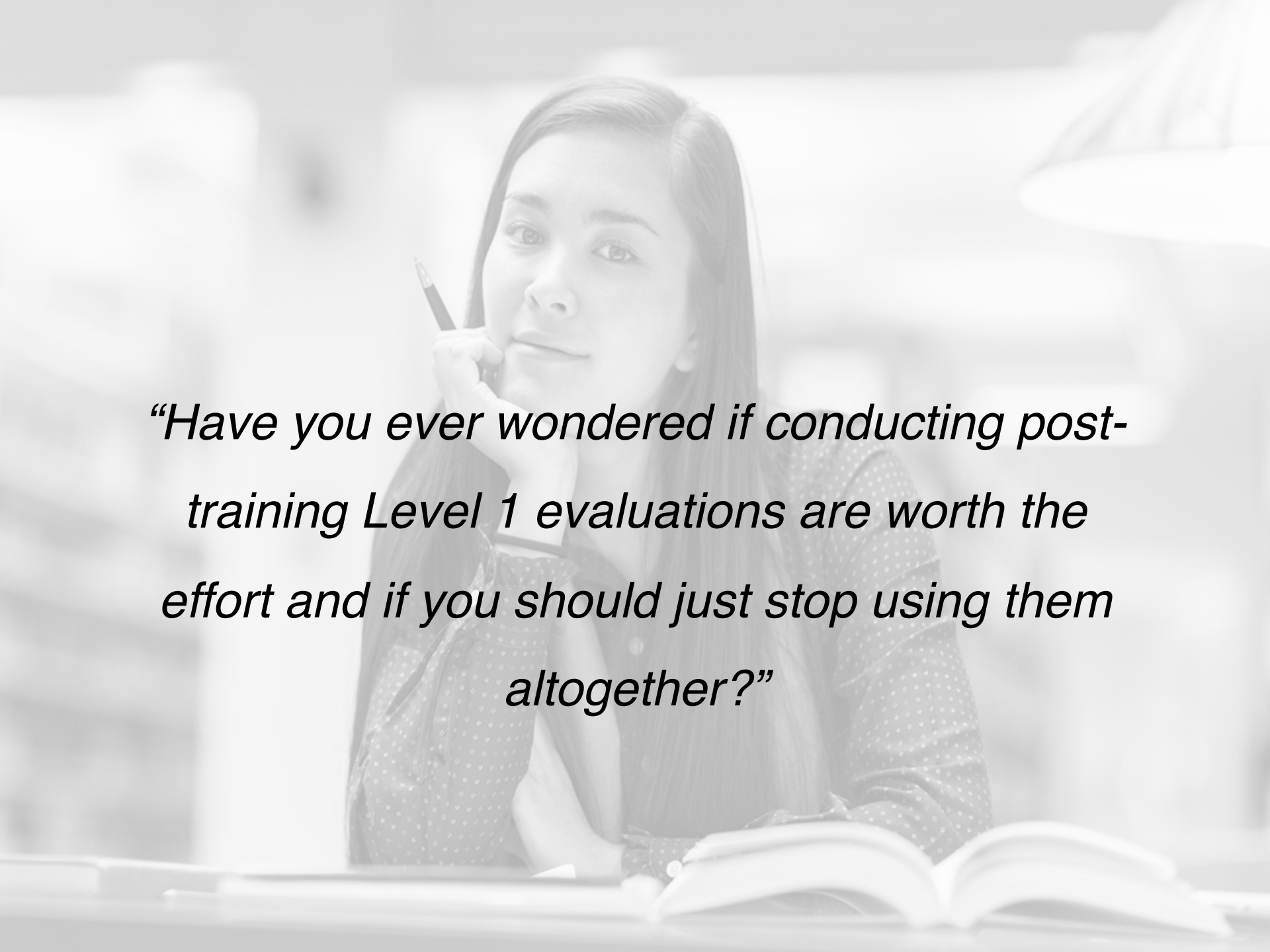


Add Muscle to Your Post-Training Evaluations with Predictive Questions

Presented by:
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Phillips Associates
February 23, 2023





“Have you ever wondered if conducting post-training Level 1 evaluations are worth the effort and if you should just stop using them altogether?”

Agenda

After attending this session, you will be able to:

- ✓ **Use** facts from from a recent ATD research study to benchmark your organizations use of Level 1 evaluations
- ✓ **Create** predictive questions to include in a Level 1 evaluation that will enable you to forecast Level 2 participant learning, Level 3 training transfer, & Level 4 improved business results
- ✓ **Calculate** three predictive metrics: a learning gain score, a training transfer likelihood score, & an improved business results likelihood score

5-Level Evaluation Model

Level 1: Reaction	Degree to which participants find the training favorable, engaging, and relevant to their jobs
Level 2: Learning	Degree to which participants acquire the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training
Level 3: Behavior	Degree to which participants apply what they learned during training when they are back on the job
Level 4: Results	Degree to which targeted outcomes occur as a result of the training and the support and accountability package
Level 5: ROI	Degree to which monetary program benefits exceed program costs

Katzell &
Kirkpatrick

Phillips

Level 1 Evaluation Facts

83%

Organizations
evaluate some
programs
at Level 1

Source: ATD Research Study, "Effective Evaluation: Measuring Learning Programs for Success," 2019



Level 1 Evaluation Facts

54%

of all **programs** being
evaluated at
Level 1

Source: ATD Research Study, "Effective Evaluation: Measuring Learning Programs for Success," 2019



Level 1 Evaluation Facts

35%

Organizations view
data collected
as having high
or very high value

Source: ATD Research Study, "Effective Evaluation: Measuring Learning Programs for Success," 2019



Why The Disconnect?



4

Reasons:

- ✓ Level 1 evaluation data is not viewed as valuable
- ✓ Level 1 evaluation data is not systematically analyzed for trends & patterns nor used to make program comparisons
- ✓ Few L&D leaders have a specific objective in mind for collecting Level 1 data
- ✓ Many L&D professionals lack the knowledge & skills needed to create valid survey items

**What's the
Solution?**

**Include
Predictive
Questions
On Your
Level 1
Evals!**



What are predictive questions?

- ✓ They forecast the results a learning program is likely to achieve
- ✓ The predictions aren't proof that specific program outcomes are inevitable but rather a forecast certain results are likely (like a weather forecast)
- ✓ The data collected begins to answer the question business executives & L&D professionals both want answered: "Is this program delivering value?"

3

Types of Predictive Metrics

- ✓ **Level 2 Learning Gain Score**
- ✓ **Level 3 Training Transfer Likelihood Score**
- ✓ **Level 4 Improved Business Results Likelihood Score**



Predictive Metric #1:

Calculating a Level 2

Learning Gain Score

(Ask 2 parallel learning-based survey questions)



The Two Questions

How much did you know about the material taught in this program **before** attending?

No
Knowledge

1

2

3

4

5

6

7

Thorough
Knowledge

How much do you know about the material taught in this program **after** attending?

No
Knowledge

1

2

3

4

5

6

7

Thorough
Knowledge

Calculating a Learning Gain Score:

- ✓ Compute an average **Before** score & an average **After** score
- ✓ Subtract the **Before** score from the **After** score
- ✓ The difference is a **Learning Gain Score**

Doing The Learning Gain Score Math

Q1

Q2

Participant number	How much did you know about the material taught in this program BEFORE attending?	How much do you know about the material taught in this program AFTER attending?
017	5	5
020	5	7
003	6	6
014	4	7
025	4	7
006	4	5
027	3	6
018	4	6
019	4	5
010	5	5

(44)

(59)

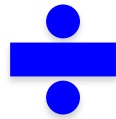
Continued

Doing The Learning Gain Score Math

Calculation 1:

Knowledge
Before
Attending
Program

(44)



Number of
Participants

(10)



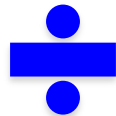
Average
Pre-program
Knowledge
Level

(4.4)

Calculation 2:

Knowledge
After
Attending
Program

(59)



Number of
Participants

(10)



Average Post-
program
Knowledge
Level

(5.9)

Continued

Doing The Learning Gain Score Math

Calculation 3:

$$\begin{array}{ccccc} \text{Average Post-} & & \text{Average} & & \text{Learning} \\ \text{program} & & \text{Pre-program} & & \text{Gain} \\ \text{Knowledge} & \text{—} & \text{Knowledge} & \text{=} & \text{Score} \\ \text{Level} & & \text{Level} & & \\ 5.9 & & 4.4 & & +1.5 \end{array}$$

Note: A learning gain score becomes more meaningful when it's compared with either a standard or a norm.





Learning Gain Score

Questions

Predictive Metric #2:

Calculating a Level 3 Training Transfer Likelihood Score

(Ask 5 training transfer survey questions)



**A word
about the
first four
questions**

Multiple research studies have found that all four survey questions are positively correlated with training transfer

Question 1 of 5: Relevance

How relevant was this program to you and the tasks and requirements of your work?

Not at all
Relevant

Extremely
Relevant

1

2

3

4

5

6

7



Question 2 of 5: Confidence

How confident are you in your ability to apply the new information you learned in this program back on the job?

Not at all
Confident

1

2

3

4

5

6

7

Extremely
Confident



Question 3 of 5: Opportunity To Apply

How likely are you to have an immediate opportunity to apply the new information you learned in this program back on the job?

Not at all
Likely

1

2

3

4

5

6

7

Extremely
Likely

Question 4 of 5: Manager Support

How likely is your manager to actively engage you in a discussion regarding your use of the new information you learned in this program?

Not at all
Likely

Extremely
Likely

1

2

3

4

5

6

7



Question 5 of 5: Obstacles

What obstacles, if any, might keep you from applying what you learned in this program back on the job? _____



Calculating a Training Transfer Likelihood Score:

- ✓ Compute a total score for each of the first 4 training transfer predictive questions
- ✓ Sum the 4 total scores together & divide the result by the number of program participants. Next, divide the resulting number by 4
- ✓ The result is a **Training Transfer Likelihood Score**

Doing the Training Transfer Likelihood Score Math

Q1**Q2****Q3****Q4**

Participant Number	Relevancy	Confidence	Opportunity to Apply	Manager Support
011	2	7	7	4
022	7	5	6	4
013	4	4	4	5
004	6	6	4	2
003	4	5	5	6
025	4	5	3	5
027	6	4	4	3
012	7	7	2	4
006	4	4	5	5
019	5	6	4	6
Total	49	53	44	44

Continued

Doing the Training Transfer Likelihood Score Math*

Calculation 1:

$$\begin{array}{ccccccc} \text{Relevancy} & + & \text{Confidence} & + & \text{Opportunity} & + & \text{Manager} \\ \text{Total} & & \text{Total} & & \text{to Apply Total} & & \text{Support Total} \\ & & & & & & = & \text{Training} \\ & & & & & & & \text{Transfer} \\ & & & & & & & \text{Predictive} \\ & & & & & & & \text{Questions} \\ & & & & & & & \text{Total} \\ (49) & & (53) & & (44) & & (44) & (190) \end{array}$$

Calculation 2:

$$\begin{array}{ccccccc} \text{Training} & & & & & & \text{Training} \\ \text{Transfer} & & & & & & \text{Transfer} \\ \text{Predictive} & \div & \text{Number of} & \div & \text{Number of} & = & \text{Likelihood} \\ \text{Questions} & & \text{Participants} & & \text{Survey Items} & & \text{Score} \\ \text{Total} & & & & & & \\ (190) & & (10) & & (4) & & (4.8) \end{array}$$

**Training
Transfer
Likelihood**

Score Ranges

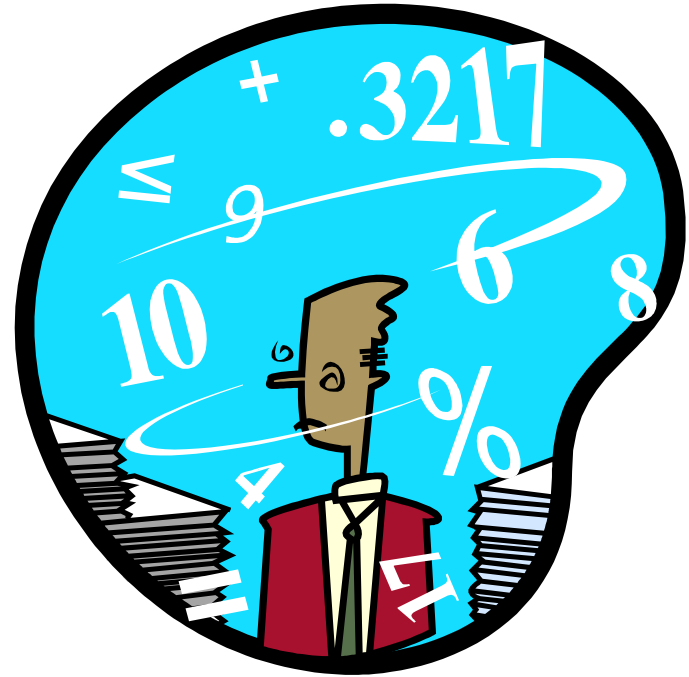
- ✓ A score of $6 >$ indicates that program training transfer is likely to be high
- ✓ A score between 3 & 6 indicates that program training transfer is at risk
- ✓ A score of $2 <$ indicates that training transfer is likely to be low

**What if your
training transfer
likelihood score is
below 6?**

**Analyze the
obstacles
identified in
question 5
to identify where
targeted
corrective actions
can be taken to
increase training
transfer**



“ *Identifying obstacles to training transfer is only half your job; making sense out of them is the other half!* **”**



Source: Ken Phillips



**How to make
training
transfer
obstacles
actionable**

- ✓ Analyze the obstacles for themes & patterns
- ✓ Consolidate all like-minded obstacles into clusters
- ✓ Count the number of obstacles in each cluster
- ✓ Place the clusters into numeric order from highest to lowest

Obstacles to Training Transfer

11* Management

Examples:

- "Daily shifting of priorities"
- "Management does nothing about suggestions"
- "Employee/leadership buy in not there"

6 Lack of time or resources

Examples:

- "Department is understaffed"
- "Everyone is too busy"
- "Not enough time and resources"

10 Policies and procedures

Examples:

- "Outdated policies and procedures"
- "Procedures being done differently from what policy states"
- "Lack of consistency within the department"

4 Technology

Examples:

- "Not enough automation"
- "Technology is very outdated to perform job duties"

9 Communication

Examples:

- "Inconsistent communication"
- "Inter-department communication lacking"
- "Receiving different messages"

4 Teamwork

Examples:

- "Not enough effort from other departments"
- "There is unnecessary competition within the department"

7 Personal

Examples:

- "Very new to job"
- "Trying to understand job culture"
- "Trying to learn functions of job"

3 Change

Examples:

- "Resistance to change"
- "Old mindsets"

* Frequency of comments



Training Transfer
Likelihood Score
Questions

Predictive Metric #3:

Calculating a Level 4

Improved Business

Results Likelihood Score

(Ask 2 parallel business results survey questions)



Level 4 Business Results Questions

How likely are any of your department's crucial business metrics to improve because of you applying the information you learned in this program?

Not at all
Likely

1

2

3

4

5

6

7

Extremely
Likely

How confident are you in your response to the previous question where 0% equals no confidence and 100% = high confidence? _____

**Calculating an
Improved
Business
Results
Likelihood
Score:**

- ✓ Multiply each participant's response to question 1 by their confidence percentage from question 2 & divide the total by 100
- ✓ Add the adjusted responses and divide the total by the number of participants
- ✓ The result is an **Improved Business Results Likelihood Score**

Doing the Improved Business Results Likelihood Score Math

Q1

Q2

Participant Number	Likely Improvement in Business Results	Confidence Level of Response	Adjusted Response
011	2	60	1.2
022	7	90	6.3
013	4	35	1.4
004	6	100	6
003	4	70	2.8
025	4	90	3.6
027	6	50	3
012	7	75	5.3
006	4	50	2
019	5	60	3

34.6

Continued

Doing the Improved Business Results Likelihood Score Math*

$$\begin{array}{ccccc} \text{Adjusted} & & & \text{Number of} & \text{Improved} \\ \text{Responses} & \div & & \text{Participants} & \text{Business} \\ \text{Total} & & & & \text{Results} \\ & & & & \text{Likelihood} \\ & & & & \text{Score} \\ \\ 34.6 & & & 10 & 3.5 \end{array}$$



**Improved
Business
Results
Likelihood**

Score Ranges

- ✓ A score of $6 >$ indicates that an improved business result is highly likely
- ✓ A score between 3 & 6 indicates that an improved business result is at risk
- ✓ A score of $2 <$ indicates that an Improved business result is unlikely



**Improved Business
Results Likelihood Score**
Questions

Poll

What's your reaction to the **Add Muscle to Your Level 1 Evaluations with Predictive Questions** methodology?

- A. Nifty**
- B. Very interesting**
- C. Thought provoking**
- D. Not sure yet**



“
*If we have data, let's look at the data.
If all we have are opinions,
let's go with mine.*”

Source: James Blankenship former CEO Netscape



Other M & E

Resources



Free M&E Articles

- ✓ “Eight Tips on Developing Valid Level 1 Evaluation Forms”
- ✓ ”Predictions and Probabilities in Training Evaluation.”
- ✓ “Level 1 Evaluations: Do They Have a Role in Organization Learning Evaluation Strategy?”
- ✓ “Developing Valid Level 2 Evaluations”
- ✓ “Writing Test Questions That Actually Measure Something”
- ✓ Level 3 Evaluations Made Simple, Credible, and Actionable
- ✓ “Capturing Elusive Level 3 Data: The Secrets of Survey Design”
- ✓ “Business Results Made Visible: Designing Proof Positive Level 4 Evaluations”

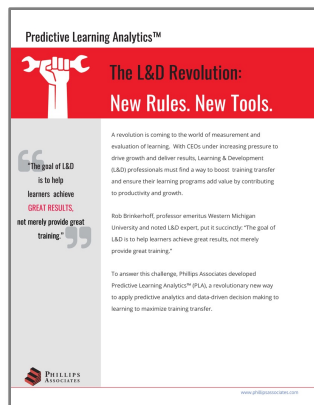
Available at www.phillipsassociates.com

2 Free M&E ebooks



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