

*Increased
productivity
through
skill building*

*Create Level 2
Quizzes and Tests
That Actually
Measure Something*

ATD Florida Suncoast Chapter

September 9, 2021



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Today's Presentation

According to a recent ATD research study, 80% of organizations evaluate some learning programs at Level 2 of the five-level evaluation model. Yet only 63% view the data they collect to be valuable – a major disconnect!

If constructed properly and worded correctly, Level 2 quizzes and tests prove whether learning was accomplished and provide important insight into which program topics participants mastered and which ones they did not.

In this session, you will analyze the common mistakes made by L&D professionals when creating multiple choice test questions that compromise the validity of the question. You also will discover 15 practical tips and techniques for overcoming these mistakes and creating quizzes and tests that actually measure something. Lastly you will examine the difference between test questions that measure job application vs. those that measure mere recall.



“Great speaker and subject matter. Ken’s expertise really made the event worthwhile.”

–Greater Madison Area ATD
Chapter Member

“This was very helpful. Obviously many people write tests for adults that can be flawed. This session provided good guidelines for writing valid tests.”

–Greater Madison Area ATD
Chapter Member

About Your Presenter — **KEN PHILLIPS, CPLP**



Ken Phillips delivers all programs and workshops in his signature style: professional, engaging, and approachable.

Ken is founder and CEO of Phillips Associates and the creator and chief architect of the Predictive Learning Analytics™ (PLA) learning evaluation methodology. He has more than 30 years experience designing learning instruments and assessments and has authored more than a dozen published learning instruments. He regularly speaks to Association for Talent Development (ATD) groups,

university classes and corporate L&D groups. Since 2008, he has spoken at the ATD International Conference on topics related to measurement and evaluation of learning.

Prior to pursuing a Ph.D. in the combined fields of organizational behavior and educational administration at Northwestern University, Ken held management positions with two colleges and two national corporations. In addition, he has written articles that have appeared in *td* magazine, *Training Today* and *HR.com*, and is a contributing author to five books in the L&D field.

He earned the Certified Professional in Learning and Performance (CPLP) credential from ATD in 2006 as a pilot pioneer and was recertified in 2009, 2012, 2015, and again in 2018.

Ken can be reached at (847) 231-6068 or ken@phillipsassociates.com.

Upcoming Events:

Ken is a frequent presenter at ATD chapter meetings and other industry events. Here's a preview of where he'll be speaking next.

October

3 & 6

ATD Central Florida Chapter

Workshop: From Training to Application: Bridge the Gap with PLA

7 ATD Central Florida Chapter

Topic: The Holy Grail: Capturing Elusive Level 3 Evaluation Data

25 – 28

Training TechLearn Conference & Expo

Topic: The Holy Grail: Capturing Elusive Level 3 Evaluation Data

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Sample Level 2 Multiple Choice Knowledge Test

1.	<p>Interpersonal communication is often rendered ineffective due to the presence of communication barriers. What are the three categories of communication barriers?</p> <p>A. Environmental, Interpersonal and Intrapersonal</p> <p>B. Environmental, Interpersonal and Cultural</p> <p>C. Structural, Interpersonal and Cultural</p> <p>D. Organizational, Intrapersonal and Structural</p>	<p>Correct Answer: A. Environmental, Interpersonal and Intrapersonal</p>
2.	<p>_____ are used to report specific, observable actions or details in an objective, non-evaluative manner.</p> <p>A. Behavior descriptions</p> <p>B. Open probes</p> <p>C. Evaluative statements</p> <p>D. Direct statements</p>	<p>Correct Answer: A. Behavior descriptions</p>
3.	<p>What are questions that begin with words such as is, are, could, would, have and shall known as?</p> <p>A. Clarifying questions</p> <p>B. Open-ended questions</p> <p>C. Close-ended questions</p> <p>D. Bridging questions</p>	<p>Correct Answer: C. Close-ended questions</p>
4.	<p>A Collaborative Communication Style is also known as a?</p> <p>A. Win/Win communication style</p> <p>B. Low concern for self and high concern for other communication style</p> <p>C. Engaging and outgoing communication style</p> <p>D. Intermediate concern for self and high concern for other communication style</p>	<p>Correct Answer: A. Win/Win communication style</p>



5.	<p>What are “You” messages?</p> <ul style="list-style-type: none"> A. Non-ownership statements that convey feelings, but do not actually describe the feelings. B. Statements that contain the pronoun “you” two or more times. C. Statements that point out what another person has done or was supposed to do. D. Statements that describe behavior and begin with the word “You.” 	<p>Correct Answer: A. Non-ownership statements that convey feelings, but do not actually describe the feelings.</p>
6.	<p>A benefit of being an effective listener is?</p> <ul style="list-style-type: none"> A. Facilitates getting to know another person better B. Increases the likelihood of having a mutual exchange C. Helps another person to get to know himself or herself better D. All the above 	<p>Correct Answer: D. All the above</p>
7.	<p>What are Hidden Agenda Questions?</p> <ul style="list-style-type: none"> A. An indirect or “pseudo” form of communication. B. A question used to clarify what someone has said. C. A question used to direct a conversation in a different direction. D. A technique for getting another person to talk. 	<p>Correct Answer: A. An indirect or “pseudo” form of communication.</p>
8.	<p>What are questions that begin with words such as what, where, when, how and why known as?</p> <ul style="list-style-type: none"> A. Bridging questions B. Clarifying questions C. Leading questions D. Open-ended questions 	<p>Correct Answer: D. Open-ended questions</p>



9.	<p>A perception check is a?</p> <ul style="list-style-type: none"> A. Technique for moving a conversation from the objective, where the focus is on facts, to the subjective, where the focus is on feelings. B. Technique for pulling together the important parts of one long conversation or a series of conversations. C. Technique for helping someone to express his or her real self. D. Technique for conveying interest in what another person has said. 	<p>Correct Answer: A. Technique for moving a conversation from the objective, where the focus is on facts, to the subjective, where the focus is on feelings.</p>
10.	<p>Effective listening is defined as?</p> <ul style="list-style-type: none"> A. Attempting to understand the person speaking from his or her perspective and not your own. B. Encouraging another person to talk. C. Consolidating the important parts of a discussion. D. Creating a win-win communication situation. 	<p>Correct Answer: A. Attempting to understand the person speaking from his or her perspective and not your own.</p>
11.	<p>A proven technique for improving interpersonal communication effectiveness is?</p> <ul style="list-style-type: none"> A. Replace generalizations and evaluative statements with behavior descriptions. B. Seek first to understand before attempting to be understood. C. Replace hidden agenda or pseudo questions with direct statements. D. All the above. 	<p>Correct Answer: D. All the above.</p>
12.	<p>Which is <u>not</u> one of the four communication styles?</p> <ul style="list-style-type: none"> A. Intuitive B. Avoiding C. Aggressive D. Collaborative 	<p>Correct Answer: A. Intuitive</p>



13.	<p>Which is <u>not</u> a use for paraphrasing?</p> <p>A. Pulling together the important parts of one long conversation or a series of conversations.</p> <p>B. Conveying interest in what another person has to say.</p> <p>C. Testing for understanding when accuracy and clarity of communication is important.</p> <p>D. Helping to achieve mutual understanding when strong feelings are present.</p>	<p>Correct Answer: A. Pulling together the important parts of one long conversation or a series of conversations.</p>
14.	<p>What communication technique is used to consolidate what has been previously discussed and to move a conversation from one topic to another?</p> <p>A. Arguing</p> <p>B. Interrupting</p> <p>C. Summarizing</p> <p>D. Initiating</p>	<p>Correct Answer: C. Summarizing</p>
15.	<p>_____ are non-verbal cues such as head nods and brief verbal comments such as “right”, “okay” and “umhum”.</p> <p>A. Minimal encouragements</p> <p>B. Communication fillers</p> <p>C. Confirmations</p> <p>D. Acknowledgements</p>	<p>Correct Answer: A. Minimal encouragements</p>
16.	<p>According to Robert Merabian, what percentage of interpersonal communication is transmitted non-verbally through tone of voice and body language?</p> <p>A. 90 percent.</p> <p>B. 60 percent</p> <p>C. 75 percent</p> <p>D. 50 percent</p>	<p>Correct Answer: A. 90 percent</p>



Level 2 Evaluation Job Aid

- **Level 2 evaluation facts ***
 - 80% of organizations evaluate some learning programs at Level 2
 - Organizations that use Level 2s on average evaluate 48% of all programs at Level 2:
 - 63% of organizations view data collected as having high or very high value
- **Knowledge test overall goals ****
 1. Fair to learner
 2. Fair to organization
- **Six test creation guidelines ****
 1. Use knowledge tests for both evaluation and reinforcement as well as knowledge checks throughout the program
 2. If concept not taught, don't test
 3. Provide clear instructions
 4. Allow test aids if used on job
 5. Randomize test items for administration, but group by topic for scoring
 6. Test items should discriminate
- **Bloom's Taxonomy of Thinking Skills in order of complexity**
 1. Knowledge
 2. Comprehension
 3. Application
 4. Analysis
 5. Synthesis
 6. Evaluation
- **Multiple choice test creation tips *****
 - Be sure there is *only* one correct answer
 - Test for application not just knowledge or recall
 - Keep response options equivalent in length and writing style
 - Question should not reveal correct answer
 - All response options must be plausible
 - Avoid use of "All the above" "None of the above"



- Write questions same way material taught – avoid “null” questions
- Include central idea and most of phrasing in stem
- Write stem as question – response can finish question, but don’t use fill-in-the-blank
- Spread correct answers across A – D
- If administering electronically, use diminishing response technique
- Eliminate excessive verbiage or irrelevant information from the stem
- When possible, present the response options in some logical order (e.g. chronological, most to least or alphabetical)
- Use at least four response options with each item
- Make response options mutually exclusive

➤ **Steps for creating job application focused test questions**

1. Select a training learning objective and think about what learners need to know and do to meet the objective.
2. Think of real life situations that reflect actual application of the program content covered by the objective. Make notes describing each of the situations.
3. Chose one of the situations and write the stem (the question or problem) in 1 to 3 sentences. Some possible item shells to use include:
 - “What is the most (least) effective method for...?”
 - “What is better (or worse)...?”
 - “What would happen if...?”
 - “What is the most (least) critical step in the process?”
 - “What is the most appropriate solution to this problem?”
 - “What is the next step to solve this problem?”
 - “What is the nature of this problem?”
 - “What is needed to solve this problem?”
4. Identify plausible distractors — think of things someone might say or do who thought they knew the content of the learning objective, but really didn’t understand.

* ATD research study, “Effective Evaluation: Measuring Learning Programs for Success,” 2019.

** Adapted from “The Art of Test Creation”, Nanette Miner, T+D, July 2007, pps. 27-29.

*** Adapted from ASTD Test Design and Delivery certificate program participant workbook, 2006.

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- **The PLA Series** – Ongoing articles, case studies, and ebook on the topic of Predictive Learning Analytics
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“Excellent advice. Fantastic info to bring back to work.”

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