

Worksheet 3-1: I Learn Best When . . .

Column A	Column B	I Don't Give My Learners Enough of This	Actions I Can Take to Change
<input type="checkbox"/> Someone who knows something I don't know explains and describes it to me.	<input type="checkbox"/> I discuss a topic with someone who knows something I don't know.	<input type="checkbox"/>	
<input type="checkbox"/> I observe a demonstration.	<input type="checkbox"/> I get involved and try things out during a demonstration.	<input type="checkbox"/>	
<input type="checkbox"/> I attend lectures at which an instructor presents information to me.	<input type="checkbox"/> I attend sessions at which an instructor engages me in a two-way interaction.	<input type="checkbox"/>	
<input type="checkbox"/> I see what's in it for the organization.	<input type="checkbox"/> I see what's in it for me.	<input type="checkbox"/>	
<input type="checkbox"/> There is a lot of detailed content.	<input type="checkbox"/> There is minimal, but meaningful, content.	<input type="checkbox"/>	
<input type="checkbox"/> What is presented to me is organized according to the logic of the content.	<input type="checkbox"/> What is presented to me is organized according to the logic of how I learn.	<input type="checkbox"/>	
<input type="checkbox"/> I am shown how things are done.	<input type="checkbox"/> I get to try things for myself.	<input type="checkbox"/>	
<input type="checkbox"/> I attend long learning sessions.	<input type="checkbox"/> I attend short learning sessions.	<input type="checkbox"/>	
<input type="checkbox"/> I am in a formal instructional setting.	<input type="checkbox"/> I am in an informal work and learning session.	<input type="checkbox"/>	
<input type="checkbox"/> I am told how things work.	<input type="checkbox"/> I experience how things work.	<input type="checkbox"/>	
<input type="checkbox"/> I listen and memorize.	<input type="checkbox"/> I practice.	<input type="checkbox"/>	

Worksheet 4-1: Preparation Checklist

- Gather information on your prospective learners' jobs, focusing on what they are expected to learn.
 - Gather information on the learners' backgrounds and experiences, relative to what they are expected to learn.
 - Investigate to identify problems your targeted learners encounter when they either try to do what is in their training during a session or when they return from training and try to apply what they have learned.
 - Gather a list of organizational expectations with respect to how your learners are supposed to perform when they have been trained.
 - Create realistic scenarios and tools to help learners acquire the capability to perform during training and back on the job.
 - Create a list of benefits to learners and to the organization that result from the training.
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Worksheet 4-2: Task-Analysis Checklist

	Yes	No
1. The overall task and all subtasks contain a verifiable verb. (You can measure and/or observe performance.)	<input type="checkbox"/>	<input type="checkbox"/>
2. At each level, all subtasks are necessary to perform the task or subtask immediately above.	<input type="checkbox"/>	<input type="checkbox"/>
3. At each level, all the subtasks added together are sufficient to completely perform the subtask immediately above.	<input type="checkbox"/>	<input type="checkbox"/>
4. If a subtask is broken down into lower-level subtasks, there are always at least two subtasks that break out of it. (If there is only one, you may not break down the subtask.)	<input type="checkbox"/>	<input type="checkbox"/>
5. All subtasks are correctly numbered in hierarchical format (1.0; 1.1; 1.1.1; 1.1.1.1; and so forth).	<input type="checkbox"/>	<input type="checkbox"/>
6. For any subtask, the task analysis stops at the entry level of the majority of the learners.	<input type="checkbox"/>	<input type="checkbox"/>

Worksheet 5-1: Template for Learner-Analysis Report

Total learner-analysis sample size: _____

1. Target Population Information

- Primary learner group
- Secondary learner group

2. Background and Aptitude Information

- Current knowledge and skills in the task or subject-matter area
- Relevant background (for example, education, certifications) and experience
- Major misconceptions about the task or subject matter

3. Attitudes Information

- General attitudes toward the task or subject-matter content
- Subtasks or subtopics within the task or subject-matter content toward which there are very positive feelings
- Subtasks or subtopics within the tasks or subject-matter content toward which there are negative feelings
- General comment: _____

4. Learning Method and Language Preferences Information

- Instructional methods and strategies that are seen to facilitate learning (preferences)
- Instructional methods and strategies that are seen to hinder learning (dislikes)
- Instructional media/delivery systems preferences
- Instructional media/delivery systems dislikes
- Language level and specialized terminology knowledge
- Style of language preferences (technical, conversational, combined)

5. Tool and Prerequisite Skills Information

- Relevant tool and prerequisite skill capabilities
- Relevant tool and prerequisite skill deficiencies
- Other deficiencies that require special attention

6. Other Relevant Information About the Learners

- As a whole
- Specific populations or subgroups
- General conclusion: _____

Worksheet 5-2: Learner-Analysis Protocol

1. Obtain client or manager permission to conduct the learner-analysis sessions. If unions are involved, obtain their buy-in and, if possible, their active support.
2. With the client, manager, or a delegated person, obtain specific learner names and contact information. Request 25 percent more names than you wish to contact because you will generally lose some potential learners as a result of other engagements or absences. Ensure that these people are all real and representative learners.
3. Contact (or have the appropriate person contact) each sample learner to set up your session. Here is an email example for an initial contact:

Dear _____,

We are developing a new training program/course on _____ that will be offered to people doing the same or similar work as you. I would very much like to meet with you face-to-face/ by telephone to gather your input. By working with you and others like you, we are more confident of creating the type of training that is most relevant to you and is designed according to the way you learn best. I can meet with you on the following dates: _____, _____, or _____.

Please let me know immediately what is most convenient for you. The meeting will last no more than _____ minutes. Anything you share with me will be held in strict confidence. I look forward to learning from you.

You can easily modify this message for a telephone call.

4. Set the meeting date and time. Confirm it in writing. If the date is more than a few days out, send a reminder notice or call.
5. At the actual interview session, use the agenda below or make suitable modifications. Go over each item with the learner before you start. Do this briskly, but in a warm, relaxed way.

Agenda

1. Introductions: interviewer/interviewing team and interviewee
2. Explanation of the purpose of the interview:
 - Desired outcome
 - Your input helps create a learning program/course that is designed to fit your characteristics, is interesting and relevant to you, and facilitates your learning.
3. Explanation of interview procedure:
 - Interviewer asks questions.
 - You respond freely—no constraints (except time).
 - Interviewer probes where necessary to obtain clarification.
 - Interviewer takes notes.
4. Basic rules:
 - All reports are anonymous. Confidentiality is guaranteed.
 - You may ask questions, too.
 - You can come back to a previous question and have the answer changed or deleted, even after the session is over. Here is the interviewer's email address/phone number: _____.
 - This meeting will last no more than _____ minutes.

Worksheet 5-3: Learner-Analysis Interview Sample Questions

Basic Information

- How long have you been with the company?
- What is your current job title?
- How long have you been doing this job in the company? In your work career?

Understanding of Need

- We have been asked to develop a training program to help you do _____. In your opinion, why should you go through training to do this?
- What do you imagine that the company expects you to do differently as a result of this training?
- Is this expectation feasible and/or reasonable in your view? Why or why not?

Background and Aptitudes

- Have you ever done _____ or something similar to it?
- With what results?
- With what problems?
- How did you learn how to do it?
- Was there any training? If so, what part of the training helped most? What part helped least?
- Was there anything that interfered with your learning? What? How?
- Do you feel you now can perform this task for which we are developing training? How can you demonstrate this?
- What would help you to get ready?

Attitudes

- What do you know about _____? Give me some specifics.
- If you learn how to do _____, how will it affect your job for the better? For the worse?
- Is there any part of this toward which you feel very positive? Very negative?

Learning Method and Language Preferences

- If you were designing a training program to help you learn _____, what would that program be like?
- Let's forget about _____. Think of a great course you have taken on any subject (for example, a company course; a night school class; a self-study course). What made it great?
- Now think of a terrible class or course you have taken. What made it so bad?
- Have you ever used any self-study materials to acquire new knowledge or skills? One for which you had no instructor? Was it an online course? On a CD-ROM? A paper-and-pencil text?
- How was your learning experience with that course? Good? Why? Bad? Why?

Tool and Prerequisite Skills

- There are some things you should know well or be able to do in order to _____. I'm going to list them. In each case, tell me if your knowledge or skill is strong, moderate, novice-level, or nonexistent. (Repeat for each knowledge or skill requirement.)

Other Relevant Information

- Let's leave the actual learning program aside. What do you think might help you prepare for mastering _____ before any training starts?
- What about materials that are clear, simple, and sent to you in advance to help you get ready to take the actual training? What is the probability that you would seriously review them? What would be the right amount of time that you would agree to spend on this "pre-work"?
- When you have completed the training, what will help you apply on the job what you have learned in the training?
- Is there any other relevant information you would like to share?
- Are there any questions you would like to ask?

Thank you for your help. If we are to design a learning program that will be useful to you, we need to know what helps you learn and what interferes with your learning. You've been terrific! Thanks again.

Worksheet 6-1: Differentiating Declarative Objectives from Procedural Objectives

1. Define what your learner is supposed to be able to do as a result of your training. This derives from the performance-based task analysis. You define what has to be done as objectives.
2. Examine each objective. Apply the decision table below to determine whether attainment of it will result in declarative or procedural knowledge. There are a few cases where both types of knowledge are required. Identify these as well.

If the objective requires that learners . . .	Then the type of knowledge to be acquired is . . .
name, list, identify, define, differentiate between, match, point to, recall, select, state, explain, or in any way simply talk about something	declarative knowledge
do something, such as perform an operation, manipulate objects or symbols, build, create, perform a procedure, solve a problem, or apply knowledge to achieve a result	procedural knowledge

Worksheet 7-1: Applying the Principles of Adult Learning to Course Objectives

Course/Module Title: _____

Objective	Readiness <i>(open their minds; show benefits)</i>	Experience <i>(integrate new learning with prior knowledge and history)</i>	Autonomy <i>(have learners participate and contribute to learning)</i>	Action <i>(show and encourage immediate application of learning)</i>

Worksheet 8-1: Training Session Planning Sheet

Training Session Planning Sheet

Session title: _____

Target audience: _____

Time allotted: _____

Rationale:

Objectives:

Activities:

Evaluation:

Feedback:

Worksheet 8-2: Training Session Planning Sheet Assessment

Criterion	Yes	No
The rationale is presented in terms of the learners.	<input type="checkbox"/>	<input type="checkbox"/>
The learners participate and contribute in building the rationale.	<input type="checkbox"/>	<input type="checkbox"/>
The performance objectives are stated in terms of the learners.	<input type="checkbox"/>	<input type="checkbox"/>
The performance objectives are verifiable.	<input type="checkbox"/>	<input type="checkbox"/>
The performance objectives are appropriate to the learners and the content.	<input type="checkbox"/>	<input type="checkbox"/>
The activities are appropriate to the performance objectives (they lead the learners to attain the objectives).	<input type="checkbox"/>	<input type="checkbox"/>
The activities require learner participation at least 50 percent of the time.	<input type="checkbox"/>	<input type="checkbox"/>
Learners can participate and contribute during the activities.	<input type="checkbox"/>	<input type="checkbox"/>
Evaluation is appropriate to the performance objectives.	<input type="checkbox"/>	<input type="checkbox"/>
Feedback is appropriate.	<input type="checkbox"/>	<input type="checkbox"/>
The session can be conducted within the allotted time.	<input type="checkbox"/>	<input type="checkbox"/>

Worksheet 8-3: Training Session Scripting Sheet

Session title: _____

Target audience: _____

Time allotted: _____

Objectives:

Do	Say	Resources	Time

Note: Continue on as many sheets as necessary. Simply create your own sheets with the *Do*, *Say*, *Resources*, and *Time* columns.

Worksheet 9-1: Metacognitive Deficits—Symptoms and Ways to Help Learners Overcome Them

If you've provided clear instruction, but the learner . . .	Then this is probably a . . .	And you should . . .
<ul style="list-style-type: none"> • Doesn't appear to know what to do or how to start • Randomly tries various approaches without prior organization or a plan • Uses whatever comes to mind, and tries to muddle through 	<p>Planning deficit</p>	<ul style="list-style-type: none"> • Inform the learner of what it will take to succeed. • Provide checklists of required materials and resources. • Provide guidelines for preparing to learn by creating the right physical and mental environment and budgeting adequate learning time, including a suggested learning/study timetable. • Review with the learner how to plan for learning success. Answer questions. Monitor performance.
<ul style="list-style-type: none"> • Applies what has been used before, whether or not it worked then, or now fits the new learning challenge • Doesn't know where to focus • Sees everything as important • Appears to believe that everything has to be learned • Is soon overwhelmed by the flood of new information, and is drowned in the details • Makes inappropriate or trivial selections on which to focus attention 	<p>Selection deficit</p>	<ul style="list-style-type: none"> • Indicate clearly what is important in your instruction and all related materials. • Tell the learner where to focus attention and energy. • Review important points with the learner. • Provide cues to help select focal points. These cues may include bold headings and subheadings, underlined words and terms, page inserts with boxed critical information, and reviews of important items. • Prepare the learner to listen/read and select key points. Provide information as the learner takes notes. Review and verify what he or she selects. Provide both confirming and corrective feedback. • Provide note-taking guides or blank figures and diagrams that cue and guide selection of priority information. • Create frequent exercises and tests that emphasize essential learning elements.
<ul style="list-style-type: none"> • Views the new content as a mess to be digested whole, and attempts to memorize it without links to known skills and knowledge • Isolates the new learning from previous experience, and does not make use of what has been mastered previously • Creates erroneous or false analogies or inappropriate comparisons 	<p>Connecting deficit</p>	<ul style="list-style-type: none"> • Have the learner recall relevant prior knowledge and link new learning directly to it. • Use familiar or easy-to-relate-to examples that make novel or abstract concepts, processes, principles, and procedures concrete. • Include analogies, metaphors, and other types of comparisons that build bridges between known and unknown knowledge and skills. • Draw on the learner's background or observations to create connections between what he or she has seen or felt and what he or she is learning now.

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Worksheet 9-1: Metacognitive Deficits—Symptoms and Ways to Help Learners Overcome Them (continued)

If you've provided clear instruction, but the learner . . .	Then this is probably a . . .	And you should . . .
<ul style="list-style-type: none"> • Has a fuzzy understanding of the new learning, but cannot bring it into focus • Continues to add more information rather than test, adjust, or eliminate what does not fit • Cannot create a clear picture of the new knowledge and skills, thus making errors • Applies the new learning in an overgeneralized or undergeneralized way 	<p>Tuning deficit</p>	<ul style="list-style-type: none"> • Provide practice, examples, and cases that require the learner to apply learning immediately. • Create practice that focuses on large, obvious differences from the familiar. Gradually include exercises and application activities that require increasing amounts of subtle discrimination and fine-tuning. • Vary practice activities that elicit different learning and problem-solving approaches. • Evaluate and provide confirming and corrective feedback frequently, through self-tests, checklists, or observation and live intervention.
<ul style="list-style-type: none"> • During learning, uses known strategies, whether they work or not • Does not seem to have a clear or defined sense of progress in learning • Applies more effort instead of taking a different learning tack • In practice, applies new learning in rigid fashion (by rote), forcing what has been learned to fit all cases • Practices with few or erroneous adaptations • Does not monitor impact or make necessary changes conceptually or operationally 	<p>Monitoring deficit</p>	<ul style="list-style-type: none"> • Provide simulation experiences that demand application of new learning in realistic contexts. Vary the nature of the experiences. Increase levels of difficulty. • Have peers monitor and observe each other during learning application. Use observation instruments and checklists to record application. Have peer learners debrief each other. • Observe live or videotaped application on the job. Question and debrief the learner. • Place the learner in on-the-job learning/practice situations. Have the learner self-assess, using structured assessment tools. Have experienced workers observe application of learning and give structured feedback. • Question the learner about his or her learning. Ask where there are difficulties and jointly select different learning techniques.

Note: Not all items listed must be present or applied for a given deficit. Any or all of the symptoms are indicative of a specific type of deficit and any or all of the listed remedial actions may be appropriate.

Worksheet 10-1: When to Use Each Approach and What to Watch For

Purpose of the Course	Major Learner Characteristics	Appropriate Approach	Cautions
<ul style="list-style-type: none"> • Build awareness • Inform • Motivate 	<ul style="list-style-type: none"> • Learner is self-motivated. • Learner has sufficient prior knowledge. • Telling is enough for transmitted information to stick. 	Receptive training	<ul style="list-style-type: none"> • With no control, learners may feel like targets. • If the learner is not sufficiently self-motivated or doesn't perceive content to be important or relevant, he or she may tune out. • Very little sticks to the learner's brain. • There may be a mistaken belief that telling = training and that transmission = learning.
<ul style="list-style-type: none"> • Quickly build basic skills and knowledge • Create initial competence and confidence • Predict precise learning outcomes 	<ul style="list-style-type: none"> • Learner is not necessarily self-motivated. • Learner possesses little prior knowledge. • Learner has weaknesses in metacognitive skills. • Learner lacks initiative or confidence to assume control. • Learner knows he or she will apply learned skills and knowledge in ways that are very similar to training. 	Directive training	<ul style="list-style-type: none"> • May turn off more independent learners. • May imply one right way (or a narrow range) of doing things. • Does not encourage exploration or creativity. • Limits more advanced learners.
<ul style="list-style-type: none"> • Encourage learner initiative in a safe learning environment • Involve learners in case-based analysis and problem solving of increasingly realistic issues • Build wider transfer of learned skills and knowledge beyond what is taught • Build independence in learning while providing a safety net • Act as a next step in following directive training 	<ul style="list-style-type: none"> • Learner has confidence to engage in discovery. • Learner possesses some prior knowledge about the content. • Learner has good metacognitive skills. • Learner is self-motivated to learn, but appreciates guidance and feedback. 	Guided discovery	<ul style="list-style-type: none"> • For the less confident learner, there is possible stress or confusion. • For the independent learner, there is still too much outside control; the approach is too limiting. • Learner may require more time to learn than from receptive or directive training. • Outcomes are less predictable than with directive training.
<ul style="list-style-type: none"> • Create an environment for self-initiated learning • Provide maximum freedom for learner to take control of learning • Respond to a variety of learning needs that are highly individualized 	<ul style="list-style-type: none"> • Learner is self-motivated to learn. • Learner possesses prior knowledge in content and/or self-initiated learning. • Learner has well-developed metacognitive skills. • Learner knows what is needed and knows how to find it. 	Exploratory learning	<ul style="list-style-type: none"> • Learner can get lost. • Learner may waste time. • Not suited to a learner lacking the appropriate characteristics. • Learner may not learn what is necessary or may draw inappropriate conclusions. • There is little control and predictability of results.

Worksheet 10-2: Frame-Game Activity Template

Game/Activity Title:

Players/Participants:

Objective(s):

Materials/Equipment:

Number of Players/Participants:

Approximate Time Requirement:

Play of the Game/Activity *(include scoring system and/or win rule, if relevant):*

Worksheet 10-3: D-FITGA Game Debriefing

Title of the Game: _____

1. **Decompression** (actions to create emotional distance from the game/activity)

2. **Facts** (questions focused on what occurred during the activity; only facts are allowed)

3. **Inferences** (questions focused on what participants thought, imagined, or supposed was happening—causes, reasons)

4. **Transfer** (questions aimed at drawing parallels between activity events and real life)

5. **Generalizations** (rules, principles to help us understand the real world and take actions)

6. **Applications** (questions focused on next steps)

Worksheet 10-4: Criteria for a Good Case

- Clear, single topic or issue
 - All necessary content and/or data included
 - Characters, if any, clearly identified
 - Concise, coherent; writing is tight
 - Dialogue, if any, is appropriate
 - Clear instructions for user—what to do
 - Title is specific but does not give away conclusion
 - Relevant to job
 - Authentic: realistic, credible, valid
 - Requires immediate resolution
 - Complete: total, self-contained situation
-

Worksheet 11-1: Test Item Decision Table

If the objective aims at developing . . .	And the learner has to...	Then select this type of test item . . .	But, beware because . . .
Declarative knowledge	Recognize the correct answer	Binary test: Offers the learner two choices to select from, only one of which is correct (for example yes/no, true/false)	<ul style="list-style-type: none"> • Limits answer options to two choices • There is a 50 percent chance of getting the right answer by guessing
		Matching test: Requires the learner to match an item in one column with an item in a second column. Items in the second column are usually in random order. Often, to increase challenge, there are more items in the second column than in the first.	<ul style="list-style-type: none"> • Restricted only to content in which pairing is feasible • Only tests low-level learning • Correct guesswork increases through a reduced range of alternatives as items are selected from the second column
		Multiple-choice test: Requires the learner to select the correct answer to a question from an array of three or four alternatives.	<ul style="list-style-type: none"> • Generally limited to fact-based questions • Does not allow for elaboration and/or explanation of answer • Takes skill to design well • Can become a reading/logic exercise
	Recall (retrieve from memory) the correct answer	Completion test: Requires from the learner one- or several-word answers that complete a statement. The range of acceptable completion responses is limited.	<ul style="list-style-type: none"> • Cannot readily be used for “how” or “why” questions • The question itself may provide clues to the correct response • Unless worded in “acceptable” fashion, it is difficult to correct mechanically; even more difficult if responses are handwritten
		Short-answer, closed-question test: Requires the learner to write or enter a briefly worded, limited response.	<ul style="list-style-type: none"> • Short answers limit richness of learner response • Takes longer to correct than binary, matching, multiple-choice, or completion items • Variability of responses increases in this type of test
		Open-ended essay test: Requires an extended response that can also include learner’s opinion, interpretation, and vision.	<ul style="list-style-type: none"> • Requires strong subject-matter knowledge to verify and give feedback • Correction is labor intensive • Allows highly diverse responses, thereby subjecting correction to threat of bias or lack of comprehension • Excellent writing skills may mask lack of knowledge

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Worksheet 11-1: Test Item Decision Table (continued)

If the objective aims at developing . . .	And the learner has to . . .	Then select this type of test item . . .	But, beware because . . .
Procedural knowledge	Perform a covert task (something you cannot see being done, something that takes place in the learner's head)	A written or oral test that asks the learner to describe or explain what she or he did mentally. Use a checklist to rate whether the learner performed the mental task correctly.	<ul style="list-style-type: none"> You may need to probe, especially if the learner performed parts of the tasks automatically (without conscious processing).
	Perform an overt task (something you can see being done, something externally verifiable)	A performance test with one of the following verification instruments:	
		Behavior checklist: Provides an observer with a list of behaviors the learner must demonstrate during the test.	<ul style="list-style-type: none"> Limits qualitative evaluation, especially for higher levels of complex performance Does not work well where there is a wide range of acceptable behaviors If poorly designed, results in a high degree of observer subjectivity
		Specific behavior measurement scale: Provides an observer with a set of specific behaviors to verify and a measurement scale for each.	<ul style="list-style-type: none"> Takes longer to create than a checklist Confined only to behaviors on the scale Can be subjective
		Behavior frequency observation checklist: Provides an observer with a checklist that helps monitor frequency of relevant and irrelevant behaviors.	<ul style="list-style-type: none"> Does not verify improvement in a behavior Requires considerable training and practice of observers to capture frequency
		Behavior observation scale: Enables an observer to judge the appropriateness of using a behavior. When a variety of behaviors have been learned, each suited to a specific situation, this permits verification of the match between situation and behavior.	<ul style="list-style-type: none"> Very dependent on the ability of the observer to judge the appropriateness of a behavior
		Effectiveness checklist: Enables an observer to determine the effectiveness of a learner's behavior. It focuses on results or outcomes. What is recorded is the effect of the behavior, not the behavior itself.	<ul style="list-style-type: none"> No attention to the actual learner behavior Does not indicate how the result was achieved Does not verify the cost of achieving the result
		Best responses: Allows for identification of the best choice of several acceptable responses or solutions.	<ul style="list-style-type: none"> Does not consider different ability levels Can be highly subjective

Worksheet 11-2: Written Test Checklist

	Yes	No
1. The test items match course objectives perfectly.	<input type="checkbox"/>	<input type="checkbox"/>
2. The test starts with a few "easy questions" to reduce test anxiety.	<input type="checkbox"/>	<input type="checkbox"/>
3. Test items are written at language and reading levels appropriate to the learners.	<input type="checkbox"/>	<input type="checkbox"/>
4. There are few negatives and no double negatives in question items.	<input type="checkbox"/>	<input type="checkbox"/>
5. Test items are concise, precise, and unambiguous.	<input type="checkbox"/>	<input type="checkbox"/>
6. Test items are not simply repetitions of statements in a learning manual that demand memorization rather than comprehension.	<input type="checkbox"/>	<input type="checkbox"/>
7. No test item includes clues about other test items.	<input type="checkbox"/>	<input type="checkbox"/>
8. There are no trick test items that encourage guessing over comprehension.	<input type="checkbox"/>	<input type="checkbox"/>
9. If different types of test items are used (for example, binary, multiple-choice, and completion), same-type questions are grouped together to reduce the number of instructions and facilitate the learners' tasks.	<input type="checkbox"/>	<input type="checkbox"/>
10. There are examples to illustrate how to respond to complex types of questions.	<input type="checkbox"/>	<input type="checkbox"/>
11. There are clear instructions to instructors and/or learners concerning length of test and rules for test taking and test administration.	<input type="checkbox"/>	<input type="checkbox"/>
12. Test items have been tried out and revised prior to implementation.	<input type="checkbox"/>	<input type="checkbox"/>
A "no" for any item should trigger a revision or require a valid reason for accepting the "no."		

Worksheet 12-1: Hit or Myth Applications

Myth Statement	Research Findings	Recommendations	Actions
<p>1—Experts who perform well generally know what they are doing and are the best people to explain their successes.</p>	<ul style="list-style-type: none"> • Experts often cannot articulate the knowledge they use when demonstrating expertise. • Experts can explain what they are doing in a specific case, but cannot recommend general principles to apply across all cases. • Experts possess great amounts of procedural knowledge, but not necessarily the declarative knowledge to explain what they know. 	<ul style="list-style-type: none"> • Use experts as an information source, but do not expect them to teach what they know in ways learners will understand. • Observe the expert in action. Probe to discover thought processes and reasons for decisions/actions. • Use experts to review learning materials for accuracy, currency, completeness, and, if appropriate, job relevance. • Use experts to generate real-world scenarios, examples, and problems, and to review learner solutions. 	
<p>2—Because some learners are more visual and others more auditory, this is key for effective learning.</p>	<ul style="list-style-type: none"> • Although research has shown there to be differences in which senses individuals favor for attending to and learning from, this is less important than stimulus variation. • The importance of addressing a more favored sense is small compared with structure, response, feedback, and use of multisensory stimulation. 	<ul style="list-style-type: none"> • Do not be overly concerned about sensory differences. Address several senses in an integrated fashion. • Vary stimulation to maintain attention and learner interest. • Concentrate on what helps all learners learn—the universals of learning research. 	
<p>3—The more enjoyable the instructional methods, the greater the learning achievement.</p>	<ul style="list-style-type: none"> • Correlations vary between enjoyment and learning—some quite dramatically, from highly positive to equally negative. • Enjoyment and satisfaction are not the critical variables for learning. Persistence/time on task appears more powerful. • Also powerful are meaningfulness and mental engagement. 	<ul style="list-style-type: none"> • Although learning can be made enjoyable, focus more on challenge to the learners and on means for extending persistence at the learning task. • Make learning personally beneficial and meaningful to learners. • Develop activities that consistently engage your learners mentally. 	

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Worksheet 12-1: Hit or Myth Applications (continued)

Myth Statement	Research Findings	Recommendations	Actions
<p>4—All other things being equal, media make a major difference in learning effectiveness.</p>	<ul style="list-style-type: none"> • One of the most consistent research findings is that when content is held stable, media have not shown superiority among themselves or over conventional training modes with respect to learning effectiveness. • Key differences in learning are related to the instructional designs embedded in the media. • Media can increase access to learning; reduce cost with large, dispersed learner populations; and permit rapid revisions. These are learning efficiency issues. 	<ul style="list-style-type: none"> • Use media with caution. Focus on learning access and efficiencies, not effectiveness. • Apply the same research-based learning principles (for example, meaningfulness, mental engagement, active responding, feedback) to mediated learning as you do to live instruction. • Adapt the instructional designs to maximally exploit media characteristics. 	
<p>5—Working out problems on your own results in better problem-solving performance than does studying those problems that have already been worked out.</p>	<ul style="list-style-type: none"> • Learners studying worked-out problems and their solutions solve problems better in initial stages of learning. • Studying model solutions lightens cognitive load and increases problem-solving success. 	<ul style="list-style-type: none"> • Provide learners in initial stages of learning how to solve problems with worked-out solutions to study before they embark on actual problem solving. • As more complex problems are introduced, provide model solutions initially. 	
<p>6—The more content you give to learners, the more they take away.</p>	<ul style="list-style-type: none"> • Human ability to process information is limited. Too much content overloads working memory and decreases learning. • Disconnected learning material, not associated with prior knowledge, is poorly retained. • Chunked and meaningful packets of learning content increase the efficiency of learning, retention, and retrieval. 	<ul style="list-style-type: none"> • Less is more. Include less, but highly relevant learning content. • Provide less information and more practice. • Chunk information into meaningful learning packets (for example, mnemonics, visual clusters, or rhymes). • Use analogies, image-rich comparisons, and metaphors to build bridges between prior knowledge and new learning. 	

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Worksheet 12-1: Hit or Myth Applications (continued)

Myth Statement	Research Findings	Recommendations	Actions
7—A well-designed training program will overcome a poor implementation plan.	<ul style="list-style-type: none"> • Training has low impact if there is no time to take the training; if resources for learning are insufficient; if there is no pre- or post-training support, no incentive to learn or apply learning to the job; if there are no policies and/or procedures to integrate newly acquired learning. 	<ul style="list-style-type: none"> • Conduct a careful context analysis to determine what will support effective training implementation. • Build sound implementation infrastructures. • Encourage supervisors to support their learners before and after training. • Ensure that incentives are in place to encourage learning and post-training application. 	
8—Technology is the key to future workplace training success.	<ul style="list-style-type: none"> • Technology amplifies and speeds up. It does not transform poor design into effective learning. • Like media, technology affects access, cost, and currency but not learning effectiveness. 	<ul style="list-style-type: none"> • Use technology to facilitate training/learning implementation. • Use technology to build virtual environments for learning, but apply the same research-based principles to foster learning that you apply to live learning contexts. 	
9—Lack of workplace performance is mostly due to a lack of required skills or knowledge.	<ul style="list-style-type: none"> • Many other factors affect workplace performance: lack of clear expectations; limited access to required information, resources; poor incentives or consequences; inadequate feedback; poor selection of people to perform tasks; and many other environmental factors. • Environmental factors account for most of the issues of performance deficiency. 	<ul style="list-style-type: none"> • Analyze before developing training solutions. • Identify the issues of a performance gap to determine whether lack of skills or knowledge—the only reason to train—is among them. • Focus on the environment and its support of performance before turning to training as an intervention. 	
10—Successful performance during training usually results in improved performance on the job.	<ul style="list-style-type: none"> • Rarely is training sufficient to achieve sustained, improved post-training performance. • Support from supervisors and specialists helps a great deal. • Control of a number of environmental factors is necessary. The major factors are information, resources, incentives, consequences, selection, communication, process design, and task interferences. 	<ul style="list-style-type: none"> • Think systemically—think of integrated performance solutions to ensure post-training, on-job application. • Organize the environment to support learners' application of learning from training to the job. • Build in motivational components to trigger commitment to apply, engagement on the job, and persistence once engaged. 	

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Worksheet 12-1: Hit or Myth Applications (continued)

Myth Statement	Research Findings	Recommendations	Actions
<p>11—To promote transfer of training to the job, focus primarily on post-training variables.</p>	<ul style="list-style-type: none"> • What happens before training has a significant impact on post-training application of learning. • Selecting trainees who have no chance of applying their learning to the job wastes resources and results in little or no transfer. • If supervisors prepare learners for training, the learners' motivation to apply their learning increases. • When training design includes analysis of job requirements and then builds job-relevant tools and practice into the training, there is greater transfer. 	<ul style="list-style-type: none"> • Support supervisors with materials and scripts they can use to prepare learners prior to training. • Select for training only those workers who will be able to apply what they learn to the job. • Devote adequate time and resources to analyze job requirements prior to training, develop job-relevant tools, and create sufficient practice activities to build capability in using the tools. Create realistic situations for the practice sessions. 	
<p>12—Good, old-fashioned common sense is a natural friend of science. It is a sure guide for making sound training decisions.</p>	<ul style="list-style-type: none"> • Research textbooks all cite <i>common sense</i> as one of the greatest enemies of science. • Common sense is in the eye of the beholder who selects data to support preconceived notions. • Despite research findings, many training enthusiasts inflict practices on learners even when there is evidence of no or even negative impact. 	<ul style="list-style-type: none"> • Be vigilant in identifying training myths. Find data or respectable evidence to counter them. • Read well-documented articles and reports on learning and performance. • Do not engage in training practices that have been fueled by enthusiasm without evidence of effectiveness. Seek proof. • Be a researcher. Evaluate, measure, and select hard evidence for your endeavors. 	

Worksheet 13-1: Ideas for Building a Support System

Action	We Already Do It	We Can Easily Do It	This Will Take Effort	This Will Be Almost Impossible to Do, But We Can Try
1. Create a training resource library and encourage use of it.				
2. Hold in-house workshops and seminars on training issues, and have the entire group attend.				
3. Read articles, highlight key passages, copy these, and circulate them to team members and clients.				
4. Target individual, receptive clients with whom you can collaborate, build success, and then leverage results with other clients.				
5. Hold show-and-tell meetings at which you and your colleagues share training successes and difficulties with clients and management.				
6. As a team, attend professional training conferences and share what you learned with one another.				
7. Develop total-team projects that enhance professional growth (for example, calculate training's return-on-investment; develop instructor standards and then observe each other in action; create a best-practices task force).				
8. Take a senior manager to lunch to educate him or her about the training group's aspirations and potential impact on the company's bottom line. Seek support. Offer concrete suggestions.				
9. Enroll in external courses and programs related to training. Share learning and resources with others. Encourage others to enroll.				
10. Join local and national training, learning, and performance organizations (such as ASTD and ISPI). Attend meetings. Become active in local chapter events. Share what you learn.				
11. Create links to other, similar external groups in organizations both related to your industry and outside of it.				

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Worksheet 13-1: Ideas for Building a Support System (continued)

Action	We Already Do It	We Can Easily Do It	This Will Take Effort	This Will Be Almost Impossible to Do, But We Can Try
12. Establish relationships with internal and external mentors who can help you and your team develop professionally.				
13. Celebrate training and performance improvement successes that you and your team members achieve.				
14. Informally assist one another on training issues and projects. Create an informal support network.				
15. Document what works. Share the knowledge, practices, models, examples, templates, and designs with others. Develop a Website that everyone in your training group can access.				
16. Submit for professional awards if you or your group has had a successful training initiative. If you win, publicize it to build credibility and support for your endeavors.				

Worksheet 13-2: Support System Action Plan

Action	Start Date	End Date	Person Responsible	Other Contributors	Resources Required

Worksheet 13-3: Personal Factors Facilitating or Inhibiting Progress Toward My Desired State

Facilitating Factors	Inhibiting Factors

Worksheet 13-4: Personal Action Plan to Enhance Facilitating Factors and Decrease Inhibiting Factors

Facilitating Factors	Actions to Enhance
Inhibiting Factors	Actions to Decrease or Eliminate

Worksheet 13-5: Organizational Factors Facilitating or Inhibiting Progress Toward Our Desired State

Facilitating Factors	Inhibiting Factors

Worksheet 13-6: Organizational Action Plan to Enhance Facilitating Factors and Decrease Inhibiting Factors

Facilitating Factors	Actions to Enhance
Inhibiting Factors	Actions to Decrease or Eliminate

Worksheet 13-7: Trainer Observation and Feedback Form

Trainer's Name: _____	Course: _____
Observer's Name: _____	Date: _____ Time: _____ to _____

Item	Rating Excellent → Poor/Not at All	Evidence/Comments	Suggestions
<i>Before Training</i>			
1. Organizes room effectively	5 4 3 2 1		
2. Finds out about participants	5 4 3 2 1		
3. Positions and tests equipment	5 4 3 2 1		
4. Prepares and sequences participant materials for distribution	5 4 3 2 1		
5. Prepares self in terms of content and materials	5 4 3 2 1		
<i>During Instruction</i>			
<i>Actions</i>			
6. Provides clear, meaningful objectives	5 4 3 2 1		
7. Verifies participants' knowledge, skills, and attitudes	5 4 3 2 1		
8. Provides clear directions and explanations	5 4 3 2 1		
9. Provides clear and relevant examples where needed	5 4 3 2 1		
10. Verifies participant learning and performance	5 4 3 2 1		
11. Provides feedback in a positive manner	5 4 3 2 1		
12. Manages instructional time effectively	5 4 3 2 1		
13. Uses instructional aids effectively	5 4 3 2 1		
14. Summarizes and concludes effectively	5 4 3 2 1		
<i>Attributes</i>			
15. Creates and maintains a positive learning climate	5 4 3 2 1		
16. Speaks clearly and correctly	5 4 3 2 1		
17. Uses voice dynamics effectively	5 4 3 2 1		

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Worksheet 13-7: Trainer Observation and Feedback Form (continued)

Item	Rating					Evidence/Comments	Suggestions
	Excellent	→	Poor/Not at All				
18. Uses body language effectively	5	4	3	2	1		
19. Maintains proper eye contact with participants	5	4	3	2	1		
20. Maintains control of the group	5	4	3	2	1		
21. Demonstrates interest in the content	5	4	3	2	1		
22. Demonstrates interest in the participants	5	4	3	2	1		
23. Presents a neat, professional image and appearance	5	4	3	2	1		
24. Exhibits confidence	5	4	3	2	1		
Following Instruction							
25. Restores order to room for next learning session	5	4	3	2	1		
26. Removes equipment and materials no longer required	5	4	3	2	1		
27. Follows up instruction with individual participants, as needed	5	4	3	2	1		
28. Corrects participant assignments punctually and accurately	5	4	3	2	1		
29. Completes reports and paperwork punctually and correctly	5	4	3	2	1		

Total Ratings	Number of Retained Items	Average Rating	Number of Items Rated 3 or Less
<input style="width: 100%;" type="text"/>	divided by <input style="width: 100%;" type="text"/>	= <input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Overall areas of strength:			
Major suggestions for improvement:			

Worksheet 13-8: VPS Observation Checklist

Trainer's Name: _____ Date: _____

	Very Good	Good	Needs Improvement
1. Rationale			
2. Objective(s)			
3. Activities			
4. Evaluation			
5. Feedback			
6. Body language			
7. Voice			
8. Eye contact			
9. Preparation, organization, and time management			
10. Visual aids			

Compliments: _____

Suggestions: _____

