

CREATING LEARNING OBJECTIVES

The Ultimate Guide to Writing Learning Objectives For Training Materials

Learning objectives are at the heart of effective training materials.

Written well, they give you a great guidepost when you begin developing your materials. They'll help you keep your content focused and will remind you what to write your assessments about. They'll help the learners, too: alerting them to what they have to learn and giving them an opportunity to self-evaluate their learning as they proceed. As a result, you'll wind up creating training that effectively teaches learners the things they need to know, do, or feel.

But if you write learning objectives poorly, or if you don't write them at all, your training materials will surely suffer. You may leave out key information and include stuff that's not necessary. Your assessments may or may not effectively test the right content. And your learners may finish the training still unable to perform what they need to.

As you probably recognize by now, it's worth your time to write proper learning objectives. We've prepared some guidelines for you below.



SECTION 1

What Is a Learning Objective?	p.2
-------------------------------	-----



SECTION 2

Why Create Learning Objectives	p.3
--------------------------------	-----



SECTION 3

How To Write SMART Learning Objectives	p.5
--	-----



SECTION 4

ABCD: The Four Parts of a Learning Objective	p.7
--	-----



SECTION 5

3 Domains of learning & Learning Objectives	p.10
---	------



SECTION 6

Conclusion and Additional Resources	p.17
-------------------------------------	------

#1

WHAT IS A LEARNING OBJECTIVE?



To put it simply, a learning objective describes what your learners should be able to do after they complete your training materials. In many cases, you'll probably have a series of learning objectives instead of just one.

You should create your learning objectives before creating your training content. Once you have them, you can use your learning objectives as guides while you:

CREATE YOUR TRAINING CONTENT

Create content that teaches your learners to perform each of the learning objectives. Likewise, don't add additional content that doesn't help your learner perform the objectives. Resist the temptation to add more information because it's "interesting." Remember that in learning, less is more.

CREATE YOUR ASSESSMENTS

Create assessments that accurately assess your learner's ability to perform the learning objectives. Remember to assess the learner's ability to perform all objectives. And don't add assessment items for anything other than the objectives.

NOTE: Some instructional designers create their learning objectives first, their assessment items second, and then create their training materials. They do this because they think it helps keep them focused on their learning objectives. If this would work for you, go for it.

Learning objectives help you stay focused on the ultimate goal, which is leading your learners to new behaviors that contribute to your company's overall goals and success.

#2

WHY CREATE
LEARNING OBJECTIVES?

Now that we know what a learning objective is, here are some reasons why you should use them when you create training materials:

OUTLINES & SPECIFIES LEARNER'S NEEDS

If there's a cardinal rule in developing training content, it's to keep the learner's needs front and center. Creating learning objectives, and using them throughout the training content development process, will help you do this.

PROVIDES CLEAR EXPECTATIONS

The learning objectives at the beginning of your training material will tell the learner what content will be covered and what he or she will need to be able to do at the end of the training.

SELF ASSESSMENT THROUGHOUT TRAINING

Given a set of learning objectives, the learner can assess his or her own mastery of them during training. Not only does this help the learner know where he or she stands, but "metacognitive" tasks like evaluating what you know are an aid to learning.

IDENTIFIES NECESSARY CONTENT

Having learning objectives gives you an easy way to make sure all the important stuff is covered. Just check each objective to see if the training content covers it adequately.

IDENTIFIES UNNECESSARY CONTENT

Having learning objectives also makes it easy to find "bonus" material that shouldn't be included. If it isn't necessary to teach the objective, give it the axe.

HELPS CREATE ASSESSMENT ITEMS

When you're creating your assessments, all you have to do is create assessments that cover each learning objective. Easy, huh?

ORGANIZES TRAINING MATERIALS

During the training needs assessment and analysis phases, you will find the different tasks and sub-tasks that you must teach. You will then use these to create your learning objectives, and that will help you find the logical groups or "chunks" to organize your content into.

PROVIDES IDEAL EVALUATION OF PERFORMANCE.

You should begin the process of creating training material by knowing what you want the learner to do when training is over. Creating learning objectives (and matching assessment items) is the best way to determine if the learner has met that goal.

PROVIDES IDEAL EVALUATION OF MATERIAL EFFECTIVENESS

You'll also want to evaluate the effectiveness of your own training materials. If learners are completing your training materials but still can't do what you want them to do, you'll need to revise the materials.

HELPS DETERMINE TRAINING MATERIAL ASSIGNMENTS

Having training materials with clear learning objectives makes it easy to know which materials to assign to which learners (based on the skills you want them to acquire).

#3

CREATING SMART
LEARNING OBJECTIVES

In learning and development circles, SMART is an acronym (fancy word!) that represents five different criteria to determine if you've got a good learning objective. According to the SMART method, your learning objectives should be:

**SPECIFIC**

Use clear, direct language to tell the learner exactly what he or she should learn and what he or she should be able to do after the training. Don't be vague, unclear, or misleading.

**MEASURABLE**

The point of setting a learning objective is to determine if the learner can meet, perform, or satisfy it. And you can only do that if the objective is something that you can measure. That means, first, that it must be an action that you can observe.

This is where the common mistake of using words like "know" or "understand," which are not actions that can be objectively observed, in learning objectives is corrected.

Secondly, the objective must be written so that any objective observer could watch the learner's performance and agree if the objective has been satisfied or not. Don't create a learning objective that can be satisfied only by your own subjective understanding.



ACHIEVABLE

Your learning objective must be something your learners have a chance of completing. They must have enough pre-existing knowledge, time, and similar resources. For example, you wouldn't create a learning objective that asks an elementary school child to construct a rocket in an hour—it's just not achievable. While checking your objectives at this level, make sure your learning objective isn't too easy, either.



RELEVANT

The objective should be something the learner sees the value in learning. Don't teach material that's not important or won't be used. Remember that your training should matter to your learners review this list of adult learning principles to see the importance of this.



TIMELY & TIME-BOUND

First, make sure your objective is something your learner will have to use in a timely fashion—like tomorrow or next week instead of next year. Second, explain if there are time-constraints on the learner's performance. For example, in many cases, they should be able to complete the objective "at the end of this training."

And finally, the learner may need to perform the action described by the objective within a given amount of time—for example, "to change the oil within 10 minutes."

Using the SMART method is a great way to help you check your own work when you're creating objectives. It keeps you focused on building a useful objective and works as a quick and "checklist" of sorts. If you haven't used SMART in the past, try it the next time you're writing objectives and see if it doesn't help.

#4

ABCD: THE 4 PARTS OF
A LEARNING OBJECTIVE

A simple way to make sure you're building a useful learning objective is to use the ABCD method. Each letter in ABCD stands for a different part of your learning objective. These different parts answer four questions about your objective: who, what, how, and how well.

**FOR ACTOR**

Every learning objective should state something that the learner should do. Sometimes, your objective may refer to the "actor" in general terms such as "the learner" or "you." Other times, you may identify the actor by his or her job role, such as "the customer service representative" or "the press operator." Regardless, remember that each learning objective states something that the actor must be able to do after the training. This is the "WHO?" of your objective.

NOTE: In courses with multiple learning objectives, it's fine to begin a list of objectives with something like "The learner must:" written only one time. In other cases, you can leave the actor implicit and not state this directly, but be certain to keep the actor in mind when writing the objective.

**FOR BEHAVIOR**

Every learning objective should state something that the learner must do—a behavior of some sort. This may be something as simple as stating a definition or it may be something more "physical," such as performing an action. But it must be some form of observable behavior, not something unobservable like "know," "understand," or "appreciate." This is the "WHAT?" of your objective.

NOTE: People sometimes refer to this as the "observable verb" step because behaviors must be stated as a verb that you can observe: define, state, build, construct, change, etc.



FOR CONDITIONS

Many times, your learner will have to perform the learning objective's behavior within a set of given conditions. For example, you might say "given a list of words, circle the ones that are part of a given machine," or "given a wrench, tighten this bolt," or "given a schematic diagram, correctly identify the machines in a work area." This is the "HOW?" of your objective.

NOTE: There may be times when a condition is not necessary, but always check to see if it's appropriate to add one.



FOR DEGREE

This part of the learning objective explains the criteria for performing the task well enough. Examples here include "in less than ten minutes," or "with 90% accuracy," or "90 times an hour." This is the "HOW WELL?" of your objective.

NOTE: There may be times when a degree is not necessary, but always check to see if it's appropriate to add one.

A, B, C, D—four easy steps for building a learning objective that includes all the information it should. How could you NOT like a simple tool like this? Try the ABCD method the next time you create some learning objectives and you'll notice how it keeps you focused on the things you really need to include in the objective (and helps you weed out the stuff you shouldn't include).

#5

3 DOMAINS OF LEARNING
& LEARNING OBJECTIVES

Benjamin Bloom's Theories

If you search the Internet for “learning objectives,” you’ll run into the name Benjamin Bloom quickly enough. That’s because he gave us a handy way to think of different kinds of learning and the learning objectives to write for each. It’s not the only way, and it’s been revised by his followers since he developed it originally, but it’s a help when you’re writing your objectives.

Before we begin explaining his theories to you, take a moment and think of learning. Is all learning alike, or do we sometimes learn different “kinds” of things? For example, consider learning how materials flow through a machine, learning how to weld a metal seam, and learning why it’s important to follow safety rules. Are these the same kinds of learning, or are they different?

If you agree that we learn different types of things, you’re halfway to understanding Bloom’s three “domains” of learning and learning objectives.

THREE DOMAINS (OR CATEGORIES) OF LEARNING AND LEARNING OBJECTIVES

1. KNOWLEDGE - The “Cognitive” domain includes ideas, concepts, and thought processes.

2. SKILLS - The “Psychomotor” domain, includes physical skills and abilities.

3. ATTITUDES - The “Affective” domain includes values, feelings, and motivations.

As we have mentioned, there are three different kinds of learning: learning about things you can “know,” learning about things you can “do,” and learning about things you “feel.” These are called the Cognitive domain, the Psychomotor domain, and the Affective domain. Because we try to avoid \$25 words, we will also refer to them as Knowledge, Skills, and Attitudes. But we didn’t make that up—it’s a somewhat common way to think of this, and trainers often call these “KSAs” for short.

KNOWLEDGE / THE COGNITIVE DOMAIN

KNOWLEDGE ACCORDING TO BLOOM

Bloom and his followers divided the “Knowledge” domain into different levels, ranging from the most simple—recognizing or recalling information—to the most complex—using previously known information to create entirely new meaning. In all there are six different levels of knowledge in what is known as “Bloom’s Taxonomy of the Cognitive Domain.”

SIX LEVELS OF KNOWLEDGE

Bloom’s six levels of knowledge, listed below in order from the most simple to the most complex, are:

1. REMEMBERING - Learner recognizes, recalls, or remembers information.

2. UNDERSTANDING - Learner explains or describes information.

3. APPLYING - Apply, choose, compute, construct, demonstrate, explain, predict, prepare, produce, show, solve, use.

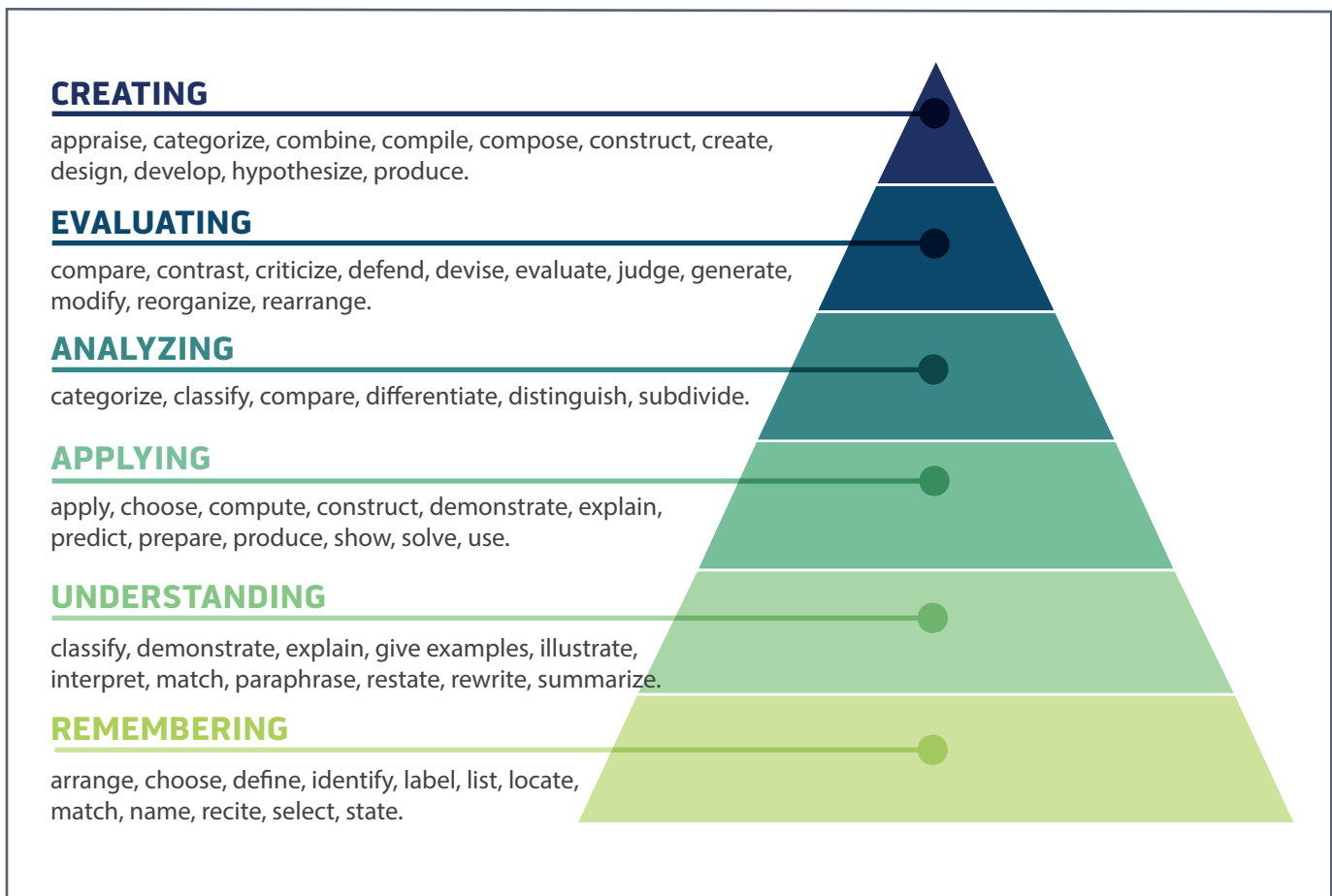
4. ANALYZING - Learner uses information in a new way.

5. EVALUATING - Compares something to a standard to determine which is worse, equal, better, or best.

6. CREATING - Uses learned knowledge to create entirely new idea or system.

STRONGER “KNOWLEDGE” LEARNING OBJECTIVES

Now, let’s apply what we just discussed above to the best way to write a learning objective. You probably remember that when you write a learning objective, one part of the objective describes a behavior the learner must perform, and this behavior is expressed as a verb within the objective. So, we can make it easier to write a learning objective by coming up with a collection of verbs that describe behaviors in each of the levels of Bloom’s cognitive taxonomy above. Check out the list below to get some ideas.



Keep these different levels of the "knowledge" in mind, and the verbs to use when writing learning objectives for each level, and you'll not only create better learning objectives, you'll create better training materials too.

SKILLS / THE PSYCHOMOTOR DOMAIN

Now let's look at the "Skills" domain. There are three different kinds of learning: learning about things you can "know," learning about things you can "do," and learning about things you "feel." We will refer to these as knowledge, skills, and attitudes, or "KSAs" for short.

The information below is based on the theories of R. H. Dave (1975), and draws from explanations of those theories that appear at Don Clark's well-known "Big Dog Little Dog" instructional design blog. I've written about Dave's hierarchy because it's the one that seems most useful to me, but there are others that are also popular, well-known, and well-regarded.

Dave includes five different levels of skill, from the most basic to the most advanced. We'll list and explain each below, and we'll give a list of behaviors that learners must perform to show they've mastered a skill at each level. This will help you pick the verb you'll use when writing learning objectives dealing with skills.

FIVE LEVELS OF SKILLS

Dave's five levels of "skill" represent not so much different kinds of skills but rather different degrees of competence in performing a skill. The five levels, in order from most basic to most advanced, are:

1. IMITATION - Watches actions of another person and imitates them.

2. MANIPULATION - Performs actions by memory or by following directions.

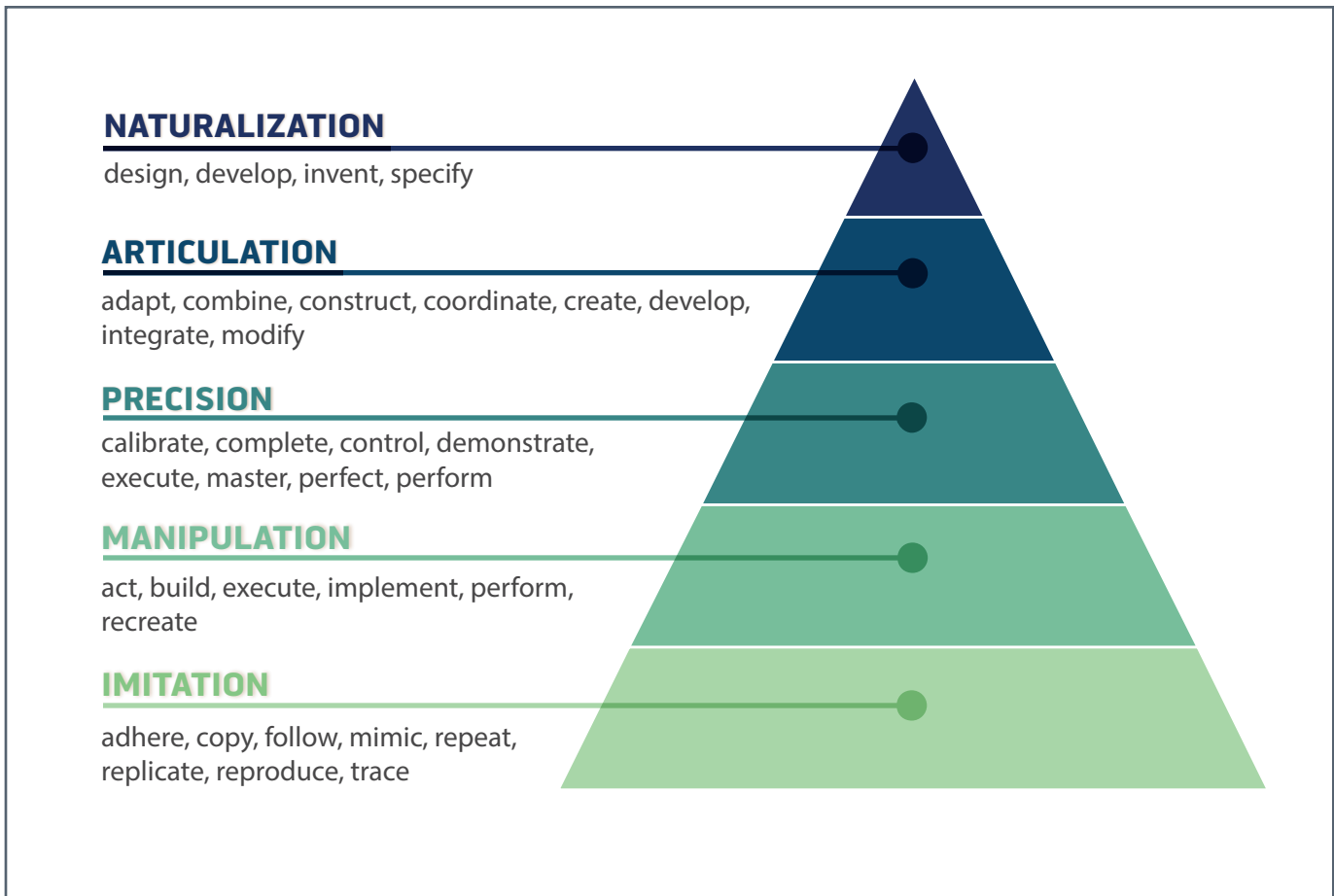
3. PRECISION - Performance becomes more exact.

4. ARTICULATION - Can perform several skills together in a harmonious manner.

5. NATURALIZATION - Achieves high level of performance, and actions become natural with little or no thought about them.

STRONGER “SKILLS” LEARNING OBJECTIVES

Below is a collection of verbs that describe behaviors in each level of the skills taxonomy. Check out the list to get some ideas.



Keep these different levels of the "skills" in mind, and the verbs to use when writing learning objectives for each level, and you'll not only create better learning objectives, you'll create better training materials too.

ATTITUDES / THE AFFECTIVE DOMAIN

In this section, we're going to consider the "attitudes" domain more closely. The information below is based on the theories of Krathwohl, Bloom, and Masia (1973), and it relies greatly on explanations of those theories that appear on Don Clark's well known "Big Dog Little Dog" instructional design blog. Check out Clark's material on learning domains to read more about this and to learn about alternate versions of this hierarchy and other learning hierarchies.

FIVE LEVELS OF ATTITUDE

The attitudes are divided into five different levels, ranging from the most simple—basically the willingness to pay attention—to the most complex—when a person's behaviors are consistently controlled by their value system. They represent not so much different kinds of attitudes but rather different degrees. The five levels of attitudes, in order from simplest to most complex, are:

1. RECEIVING - Willing to pay attention and listen with respect.

2. RESPONDING - Actively responds and participates.

3. VALUING - Places value on a behavior, idea, person, institution, etc.

4. ORGANIZATION - Prioritizes values and resolves conflicts between them.

5. INTERNALIZING VALUES - Value system is internalized and controls one's behavior.

STRONGER "ATTITUDES" LEARNING OBJECTIVES

Now, let's apply what we just discussed to the best way to write a learning objective. Here's a collection of verbs that describe behaviors in each level of the attitudes taxonomy. Check out the list to get some ideas.

INTERNALIZING VALUES

displays, influences, listens, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies

ORGANIZATION

arranges, completes, formulates, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes

VALUING

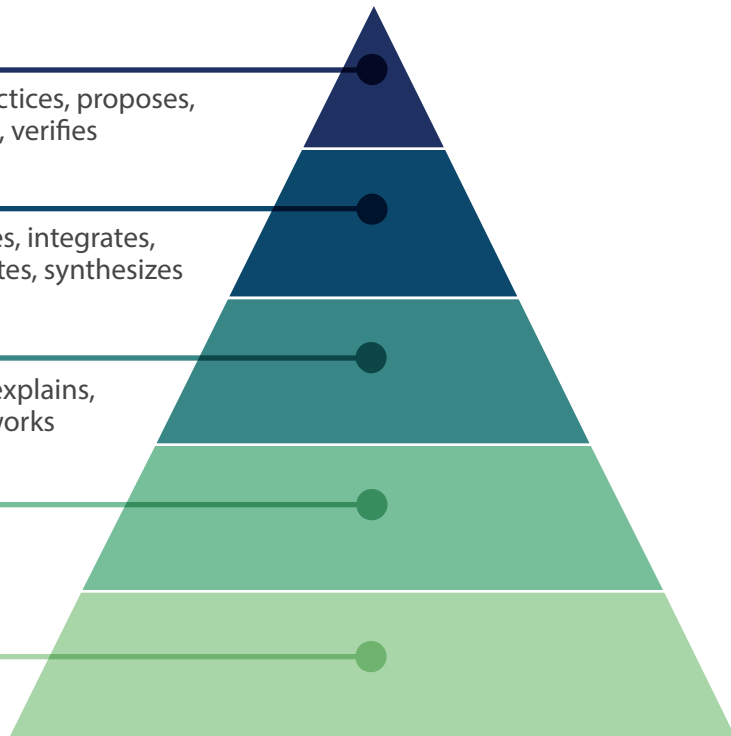
completes, demonstrates, differentiates, explains, initiates, invites, joins, proposes, studies, works

RESPONDING

answers, complies, discusses, performs, practices, presents, reads, recites, reports,

RECEIVING

describes, follows, gives, holds, identifies, locates, names, selects, sits, uses



Keep these different levels of the "attitudes" in mind, and the verbs to use when writing learning objectives for each level, and you'll not only create better learning objectives, you'll create better training materials too.

#6

CONCLUSION AND
ADDITIONAL RESOURCES

Remember that learning objectives are the key to all training materials. Following the guidelines covered in this document will help you creating training that's on-topic and effective, resulting in employees who can perform the behaviors necessary for their jobs, and helping your company attain key business goals.

If you'd like to continue your studies of learning objectives and related training topics, we've included a list of additional resources you may wish to consult immediately below.

ADDITIONAL RESOURCES

There are many books and resources about learning objectives. We've provided a short list of some that you might feel helpful below.

BOOKS AND OTHER PRINT PUBLICATIONS

1. Bloom, B. (1956). **Taxonomy of Educational Learning Objectives Book 1: Cognitive Domain**. Longman (1956).
<http://www.amazon.com/Taxonomy-Educational-Objectives-Book-Cognitive/dp/0582280109>
2. Krathwohl, D., Bloom, B., Masia, B. (1999). **Taxonomy of Educational Learning Objectives Book 2: Affective Domain**. Longman (1956).
http://www.amazon.com/Taxonomy-Educational-Objectives-Affective-Domain/dp/058228239X/ref=pd_sim_b_1
3. Anderson, L., Krathwohl, D., Airasian, P., et al. (2000). **A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives**. Longman (2000).
http://www.amazon.com/Taxonomy-Learning-Teaching-Assessing-Educational/dp/0321084055/ref=pd_cp_b_3
4. Harrow, J. (1972). **A Taxonomy of the Psychomotor Domain: A Guide for Developing Behavioral Objectives**. American Educational Research Journal (1973).
<http://www.amazon.com/Taxonomy-Psychomotor-Domain-Developing-Behavioral/dp/B00123147W>
5. Mager, R. (1997). **Preparing Instructional Objectives: A Critical Tool in the Development of Effective Instruction**. The Center for Effective Performance, Inc. (1997).
http://www.amazon.com/Preparing-Instructional-Objectives-Development-Instruction/dp/1879618036/ref=sr_1_1?s=books&ie=UTF8&qid=1392395493&sr=1-1&keywords=mager+preparing+instructional+objectives

HELPFUL OVERVIEWS OF LEARNING OBJECTIVES ON THE WEB

6. Don Clark's Big Dog & Little Dog Performance Juxtaposition Site

<http://www.nwlink.com/~donclark/hrd/bloom.html>

7. University of New Mexico School of Medicine Teacher & Educational Development

<http://ccoe.rbhs.rutgers.edu/forms/EffectiveUseofLearningObjectives.pdf>

8. Brett Bixler, Learning Objectives

<http://www.personal.psu.edu/staff/b/x/bxb11/Objectives/ActionVerbsforObjectives.pdf>

9. Steve Draper, Taxonomies of Learning Aims and Objectives: Bloom, NeoBloom, and Criticisms

<http://www.psy.gla.ac.uk/~steve/best/bloom.html>

10. Rocky Mountain Alchemy/Ken Thomas, Learning Taxonomies in the Cognitive, Affective, and Psychomotor Domain

<http://www.rockymountainalchemy.com/whitePapers/rma-wp-learning-taxonomies.pdf>

ADDITIONAL HELPFUL RESOURCES ABOUT LEARNING OBJECTIVES

11. Hoover, What is the Importance of Studying Bloom's Taxonomy of the Cognitive Domain?

<http://hubpages.com/hub/Blooms-Taxonomy-of-the-Cognitive-Domains>

12. USDA.gov, Performance Objective Verbs in the Psychomotor Domain

<ftp://ftp-fc.sc.egov.usda.gov/NEDC/isd/psychomotor.pdf>

13. Fullerton College Curriculum: Instructional Objective Verbs, Affective Domain

<http://curriculum.fullcoll.edu/FC Documents/Measurable Verbs/Instructional Objective Verbs -- Affective Domain.pdf>

RELATED HELPFUL INFORMATION

14. Training Needs Analysis

<http://blog.convergencetraining.com/2013/07/ojt-and-training-needs-analysis.html>

15. Analysis Phase of ADDIE Instructional Design Process

http://theelearningcoach.com/elearning_design/analysis-for-elearning-projects/

16. Adult Learning Principles

<http://blog.convergencetraining.com/2012/09/putting-adult-learning-principles-to.html>