

# LEARNING OBJECTIVE HOW TO

## How do I write learning objectives?

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### What is a learning objective (LO)?

A learning objective (LO) is a statement of what the student will be able to do after completing the course or part of the course. LOs are developed from the Course Training Task List (CTTL).

There are two types of LOs: Terminal objectives (TOs) and enabling objectives (EOs).

**Terminal objectives (TOs)** are developed from duties listed on the CTTL. They specify what the student is to accomplish by the end of the course. Achievement of a TO indicates the ability to perform the tasks selected for training.

The Course Mission Statement might be confused with a terminal objective. The primary difference is that a TO relates to student behavior, while the Course Mission Statement is descriptive of the course – not the student.

**Enabling objectives (EOs)** are developed from tasks listed on the CTTL. They specify what the student is to accomplish at any point in the course after receiving appropriate training. EOs support the achievement of TOs, and they may support other EOs.

Course indoctrination lessons and course introduction lessons are not supported by duties and tasks listed on the CTTL. Do **not** develop LOs for these topics.

(Source: NAVEDTRA 130A, Volume 1, 4-2-1 to 4-6-1)

### What are the parts of a learning objective?

A learning objective is made up of three elements: (1) a behavior, (2) a condition, and (3) a standard. Each of these elements is described below. Click on the link to read more about the elements.

- [Behavior](#)
- [Condition](#)
- [Standard](#)

The **behavior** element of a learning objective (LO) describes what the student is expected to do after training. The behavior element is made up of three parts: (1) a subject, (2) a verb, and (3) an object.

The student is always the **subject** of the behavior. If not directly stated, the student is understood to be the subject. An **action verb** is used to state what the student is expected to do. The action must be observable and measurable. The **object** is what the action verb acts upon.

Example:

- TRACE signal flow through the receiver, using the schematic diagram provided.

In this example, the unstated **subject** is the student, the performance **action verb** is TRACE, and the **object** of the action verb is signal flow through the receiver.

It is important to remember that the learning objectives you write will be categorized as a skill or as one of the knowledge levels. Both skill and knowledge objectives include the same component parts (subject, action verb, and object). However, they are written to different levels of understanding or achievement. For example, the following behavioral statements (and action verbs) relate to the same subject, but are written for different learning outcomes:

Example:

The student will:

- STATE Ohm's law for determining voltage in a series circuit. (K2: Recall)
- MEASURE current in a series circuit. (Skill)

The **condition** refers to the circumstances under which the behavior will be performed in the schoolhouse. A condition may specify (1) any equipment or resources that will be available; and (2) any limits or restrictions that will exist when the student performs the objective.

Examples:

- TRACE signal flow through the receiver, **using the schematic diagram provided.**
- **Use the proper tools** to BUILD a frame house, **given boards cut to size.**

The condition elements in the above examples are marked with bold letters. As the second example indicates, a learning objective may require more than one condition to describe the circumstances in which the student will perform the desired behavior in the schoolhouse. In such cases, additional circumstances can be included in the objective.

The **standard** element of a learning objective indicates how well the student is expected to perform the behavior. It specifies the quantity and/or quality of the performance. Usually, safety objectives require a 100% correct response or performance. Processes need to be "in correct order" and products are +/- a tolerance.

Example:

- Multiply two three-digit numbers, given a calculator, and write the answer **to the nearest tenth.**

"Nearest tenth" clearly states the degree of accuracy required for satisfactory achievement of the objective.

(Source: NAVEDTRA 130A, Volume 1, 4-3-1 to 4-4-1)

## How do I write learning objectives?

The Course Training Task List (CTTL) lists all duties and tasks a student must complete during a specific course. These duties and tasks become LOs for a course only when appropriate

conditions and standards have been added to each statement. Click on the steps below to guide your writing of learning objectives.

1. [Review the Quality √ criteria for learning objectives before you begin writing learning objectives.](#)
2. [Determine whether a terminal objective or an enabling objective should be written.](#)
3. [Write terminal objectives for duty statements and enabling objectives for task statements.](#)
4. [Review your learning objectives against the criteria listed in the Quality √, and revise, if necessary.](#)

**1. Review the Quality √ criteria for learning objectives before you begin writing learning objectives.**

The Quality √ for learning objectives lists Navy standards for learning objectives, including grammatical rules. Reviewing the quality criteria for learning objectives before you begin writing them will help you develop the LOs for the course.

**2. Determine if a terminal objective (TO) or an enabling objective (EO) should be written.**

If you are writing a learning objective for a duty statement on the CTTL, you will write a terminal objective. If you are writing a learning objective for a task statement on the CTTL, you will write an enabling objective.

**3. Write a TO for each duty statement listed on the CTTL and an EO for each task statement.**

All learning objectives (terminal objectives and enabling objectives) consist of a description of the **behavior**, the **conditions** for demonstrating that behavior, and the **standard** for determining if the behavior has been mastered.

Step 1. [Write the behavior.](#)

Step 2. [Write the condition.](#)

Step 3. [Write the standard.](#)

**Step 1. Write the behavior.**

Write a statement that describes an observable and measurable behavior based on the requirements related to the duty or task.

The student will be the **subject** of the behavior. If it is not stated, the student is understood to be the subject.

The **action verb** should state what the student is expected to do. The action must be observable and measurable. In other words, the action verb must be a performance-oriented verb. Note the difference between performance-oriented action verbs such as “describe”, “construct”, and “remove” that can be observed and measured, and verbs like “understand” and “know,” which are not performance-oriented and cannot be observed.

Include an **object** that describes or identifies what the action verb acts upon.

Select a verb that is appropriate for the Skill or K-level identified in the duty or task statement. Click on the appropriate link below for guidance in selecting an action verb for your learning objective.

[Skill](#)

[K5: Analyze](#)

[K5: Synthesize](#)

[K5: Evaluate](#)

[K4: Apply](#)

[K3: Comprehend](#)  
[K2: Recall](#)  
[K1: Recognize](#)

	<b>Appropriate Action Verbs</b>		
<b>Skill</b>	<ul style="list-style-type: none"> <li>• Adjust</li> <li>• Align</li> <li>• Calibrate</li> <li>• Change</li> <li>• Clean</li> <li>• Construct</li> <li>• Demonstrate</li> <li>• Enter</li> <li>• Exchange</li> </ul>	<ul style="list-style-type: none"> <li>• Inspect</li> <li>• Install</li> <li>• Isolate</li> <li>• Locate</li> <li>• Load</li> <li>• Manipulate</li> <li>• Measure</li> <li>• Move</li> <li>• Operate</li> </ul>	<ul style="list-style-type: none"> <li>• Perform</li> <li>• Plot</li> <li>• Position</li> <li>• Remove</li> <li>• Repair</li> <li>• Replace</li> <li>• Start</li> <li>• Test</li> <li>• Trace</li> </ul>
<b>K5: Analyze</b>	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Categorize</li> <li>• Compare</li> </ul>	<ul style="list-style-type: none"> <li>• Contrast</li> <li>• Diagram</li> <li>• Differentiate</li> </ul>	<ul style="list-style-type: none"> <li>• Sequence</li> <li>• Simplify</li> <li>• Summarize</li> </ul>
<b>K5: Synthesize</b>	<ul style="list-style-type: none"> <li>• Adapt</li> <li>• Compose</li> <li>• Create</li> <li>• Design</li> <li>• Develop</li> </ul>	<ul style="list-style-type: none"> <li>• Elaborate</li> <li>• Formulate</li> <li>• Generalize</li> <li>• Invent</li> <li>• Originate</li> </ul>	<ul style="list-style-type: none"> <li>• Plan</li> <li>• Propose</li> <li>• Re-arrange</li> <li>• Solve</li> </ul>
<b>K5: Evaluate</b>	<ul style="list-style-type: none"> <li>• Conclude</li> <li>• Decide</li> <li>• Evaluate</li> <li>• Justify</li> </ul>	<ul style="list-style-type: none"> <li>• Judge</li> <li>• Prioritize</li> <li>• Prove</li> <li>• Rank</li> </ul>	<ul style="list-style-type: none"> <li>• Rate</li> <li>• Recommend</li> <li>• Support</li> </ul>
<b>K4: Apply</b>	<ul style="list-style-type: none"> <li>• Apply</li> <li>• Calculate</li> <li>• Construct</li> </ul>	<ul style="list-style-type: none"> <li>• Dramatize</li> <li>• Model</li> <li>• Restructure</li> </ul>	<ul style="list-style-type: none"> <li>• Simulate</li> <li>• Translate</li> <li>• Use</li> </ul>
<b>K3: Comprehend</b>	<ul style="list-style-type: none"> <li>• Classify</li> <li>• Describe</li> <li>• Discuss</li> <li>• Explain</li> </ul>	<ul style="list-style-type: none"> <li>• Identify</li> <li>• Organize</li> <li>• Outline</li> <li>• Predict</li> </ul>	<ul style="list-style-type: none"> <li>• Rephrase</li> <li>• Show</li> <li>• Summarize</li> </ul>
<b>K2: Recall</b>	<ul style="list-style-type: none"> <li>• Define</li> <li>• Identify</li> <li>• Label</li> </ul>	<ul style="list-style-type: none"> <li>• List</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• State</li> <li>• Tell</li> </ul>
<b>K1: Recognize</b>	<ul style="list-style-type: none"> <li>• Match</li> </ul>	<ul style="list-style-type: none"> <li>• Identify</li> </ul>	

(Sources: NAVEDTRA 130A, Volume I, 4-3-1 to 4-4-1 and 8-3-1 to 8-3-4; NAVEDTRA 134, Chapter 7, 70; BIT School Instructor Materials, Chapter/Topic 7, 4.3.1.4.)

**Step 2: Write the condition.**

Determine the condition, or conditions, under which the behavior will be performed in the schoolhouse.

Begin by examining the source that has been identified for the duty or task statement. It may provide you with part of the condition. **Note:** The source as well as the duty or task statement appears on the “Charting a Course” screen where you are entering your learning objective.

If the LO only requires the use of paper and pencil, you do not need to write a condition.

If the LO requires more than paper and pencil, you will have to write a condition phrase.

There are several types of conditions. Condition types and examples are provided in the table below. Select a condition type that is appropriate for the learning objective. In some instances, an LO may require more than one condition.

Write a phrase that describes the condition. As the following examples indicate, the condition often includes the words “given” and “using.”

Condition Types	Examples
Condition elements that list the <b>equipment or resources</b> given the student in performing the behavior	<ul style="list-style-type: none"> <li>• TRACE signal flow through the receiver, <b>using the schematic diagram provided.</b></li> <li>• ALIGN the IF strip of the radio receiver. <b>Use of the technical manual is permitted.</b></li> <li>• MULTIPLY two three-digit numbers, <b>using a calculator.</b></li> </ul>
Condition elements that <b>set limits or restrictions</b> on the student in performing the behavior	<ul style="list-style-type: none"> <li>• FIELDSTRIP the .45 caliber pistol <b>while blindfolded.</b></li> <li>• COMPUTE the surface area of a sphere <b>without the aid of a calculator.</b></li> </ul>
More than one condition is required to describe the circumstances in which the student will perform the desired behavior	<ul style="list-style-type: none"> <li>• <b>Use the proper tools</b> to BUILD a frame house, <b>given boards cut to size.</b></li> </ul>

(Source: NAVEDTRA 130A, Volume I, 4-2-1 to 4-6-1)

### Step 3: Write a standard.

Describing the standard for correctly performing the behavior is the final step in writing an LO. The standard indicates how well the student is expected to perform the behavior. It can focus on the quantity and/or quality of student performance.

Begin by determining whether the LO is related to a skill or to a knowledge level. This information is provided for you on the “Charting a Course” screen where you are entering your learning objective.

If the LO is related to knowledge, determine whether a 100% correct response is required. If a 100% correct response is required, you do not need to write a standard. (Whenever you see an LO that does not have a standard, you can assume that 100% correct is the standards.)

If the knowledge LO does not require 100% accuracy, or if you are writing an LO that involves the performance of a skill, decide how you will determine (measure) whether the student has achieved the expected level of performance.

Standards can address a process or a product of student performance. If the LO addresses a process, it should be “in correct order.” Products have a +/- a tolerance. Standard types and examples are provided in the table below to give you some ideas. Write a standard that is appropriate for the learning objective.

Standard Type	Example	Explanation
Standard operating procedure	Perform the procedure the pilot follows to complete an instrument landing, given the situation requirements for an instrument approach and the local airfield regulations. The performed steps will be in correct order and will <b>comply with Navy instructions and local regulations.</b>	“Navy instructions and local regulations” are the standard operating procedure (SOP). Frequently, this type of standard specifies the actual publication where the SOP can be found.
Standard that implies NO ERROR	Compute the surface area of the sphere to <b>two decimal points</b> , given the diameter of a sphere and a calculator.	Adding “without error” would not increase the requirements for accuracy.
Minimum acceptable level of performance	Multiply two three-digit numbers, given a calculator, and <b>write the answer to the nearest tenth.</b>	“Nearest tenth” clearly states the degree of accuracy required for satisfactory achievement of the objective.
Specific timing requirements	Type a letter, from a 200-word draft, <b>without error at a minimum rate of 40 words per minute.</b>	Time is an important factor, so it is included in the standard.
Rate of production	Type final report from a draft copy, <b>without error at a minimum of 20 pages per day.</b>	The amount produced daily is an important factor, so it is included in the standard.
Qualitative requirements	Adjust a misadjusted carburetor to idle <b>smoothly at 500 rpm</b> , given the necessary tools.	Smoothness is a qualitative standard.

(Source: NAVEDTRA 130A, Volume I, 4-3-2 to 4-3-4 and 4-8-1 to 4-8-8)

**4. Review your learning objectives against the criteria listed in the Quality  $\sqrt{}$ , and revise, if necessary.**

Use the Quality  $\sqrt{}$  for this tab to review the LOs you have written. Revised all LOs that do not meet the criteria listed for learning objectives.

**What does a Learning Objectives report look like?**

Following is a sample Learning Objectives report from the “Charting a Course” system.

## **Where can I go to learn more about learning objectives?**

Rothwell, J. W., & Kazanas, H. C. (1997). **Mastering the instructional design process: A systematic approach** (2<sup>nd</sup> ed.). New York, NY: Jossey-Bass/Pfeiffer.

Kemp, J. (1985). **The instructional design process**. New York, NY: Harper & Row, Publishers.