

Mager's Tips on Instructional Objectives

Note: The following is adapted and excerpted from:

Mager, R.F. (1984). *Preparing instructional objectives*. (2nd ed.). Belmont, CA: David S. Lake.

and is meant in no way to replace the original text.

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An **objective** is a description of a performance you want learners to be able to exhibit before you consider them competent.

An objective describes an intended *result* of instruction, rather than the *process* of instruction itself.

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REASONS FOR STATING OBJECTIVES

1. When clearly defined objectives are lacking, there is no sound basis for the selection or designing of instructional materials, content, or methods. If you don't know where you are going, it is difficult to select a suitable means for getting there.
2. A second important reason for stating objectives sharply has to do with finding out whether the objective has, in fact, been accomplished. Test or examinations are the mileposts along the road of learning and are supposed to tell instructors AND students whether they have been successful in achieving the course objectives. But unless objectives are stated clearly and are fixed in the minds of both parties, tests are at best misleading; at worst, they are irrelevant, unfair, or uninformative. Test items designed to measure whether important instructional outcomes have been accomplished can be selected or created intelligently only when those instructional outcomes have been made explicit.
3. A third advantage of clearly defined objectives is that they provide students with a means to organize their own efforts toward accomplishment of those objectives. Experience has shown that with clear objectives in view, students at all levels are better able to decide what activities on their part will help them get to where it is important for them to go.

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THE QUALITIES OF USEFUL OBJECTIVES:

Useful objectives contain and Audience, Behavior (performance), a Condition, and a Degree (criterion).

Audience The who. Your objectives had better say, "The student will be able to..."

Behavior An objective always says what a learner is expected to be able to *do*. The objective sometimes describes the product or result of the doing.

Ask yourself, what is the learner doing when demonstrating achievement of the objective?

Condition An objective always describes the important conditions (if any) under which the performance is to occur.

Degree Wherever possible, an objective describes the criterion of acceptable performance by describing how well the learner must perform in order to be considered acceptable.

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BEHAVIOR:

The verb used to describe a desirable behaviour in an instructional objective must be observable.

For sample observable verbs for Cognitive Domain objectives, click [here](#).

For sample observable verbs for Affective Domain objectives, click [here](#).

As psychomotor domain objectives require use of skeletal muscles, such objectives require an observable performance, and thus are easy to write.

OVERT *versus* COVERT BEHAVIORS

But wait a minute. Something may be a little fishy here. Can you tell whether people are adding? Suppose they were standing perfectly still and claimed to be adding in their heads. Would adding still qualify as a performance?

It would to me, as I consider a performance that which is directly observable or directly assessable. Since I could tell directly whether someone was adding by asking for a single written or oral response, I would consider adding a performance. ...

OVERT refers to any kind of performance that can be observed directly, whether that performance be visible or audible.

COVERT refers to performance that cannot be observed directly, performance that is mental, invisible, cognitive, or internal.

Overt performance can be observed by the eye or ear. Covert performance can be detected only when asking someone to say something or to do something.

A performance can be *covert* (mental, internal, invisible, cognitive) as long as there is a direct way determining whether it satisfies the objective. "*A direct way*" means a single behavior that will indicate the covert skill. There is an easy way to handle the matter in stating an objective, a way that helps us avoid arguments about just what ought or ought not to be called a covert performance. Simply follow this rule:

Whenever the performance stated in a n objective is covert, add and indicator behavior to the objective.

What that means is this: You want student to be able to add? And adding seems like a covert performance? Then just add an indicator behavior to show the *one single visible thing* students could do to demonstrate mastery of the objective. For example:

Be able to add numbers (write the solutions) written in binary notation.

Be able to identify (underline or circle) misspelled words on a page of news copy.

Identifying is a covert skill. You can't see anyone doing it. But you could see a person doing activities that were either associated with the identifying or that were the result of the identifying. So, all you do is add a word or two to your objective to let everyone know what directly visible behavior you would accept as an indicator or the existence of the performance.

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OVERT/COVERT PRACTICE

Below are a few expressions; some describe covert performance, and some describe overt performance.

Here is what to do:

1. On a piece of paper, number five lines 1 through 5 (one line for each expression below).
2. Place check marks (oa O.K.) beside the expressions that describe performances that you can see or hear.
3. Beside those that describe covert performances, write the simplest indicator behaviors that you can think of that would let you know the covert performances existed. (In other words, what visible thing could you ask someone too that would tell you whether he or she were performing as you desired?)
 1. Play a piccolo.
 2. Discriminate between normal and abnormal X-rays.
 3. Recall the procedure for making a loan.
 4. Identify transistors on a schematic diagram.
 5. Solve word problems.

[To compare your responses to Mager's, click here.](#)

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The flip side of covert: ALWAYS STATE THE MAIN INTENT.

Given a number of completed Form 81s, be able to circle the erroneous entries.

Answer these questions about the above statement:

1. What is the performance stated?
2. What is the *main point* of the objective?

Yes, the performance stated is to circle. The main thing the objective wants students to be able to do is to discriminate or to identify errors. That's the main intent of the objective. But it doesn't come right out and say so. In this case the main intent is implied but not stated.

Another example:

Given the brand names of several products currently available to the cosmetologist, be able to underline those that would be considered safe to use as shampoo.

1. What is the performance stated?

2. What is the *main point* of the objective?

The performance stated is underlining. That's what it says. But that isn't the main intent, is it? After all, there is no value in teaching cosmetologists to go around underlining brand names. The important outcome is for students to be able to select products that are safe to use as shampoo. The underlining is just an indicator behavior by which someone will know that the selecting has been done satisfactorily.

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BEHAVIOR SUMMARY:

1. An instructional objective describes an intended outcome of instruction rather than an instructional procedure.
2. An objective always states a performance, describing what the learner will be DOING when demonstrating mastery of the objective.
3. To prepare and objective describing an instructional intent:
 - a) Write a statement that describes the main intent or performance you expect of the student.

 - b) If the performance happens to be covert, add an indicator behavior to the objective by which the main performance can be known. Make the indicator the simplest and most direct one possible.

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CONDITION

To state an objective clearly, you will sometimes have to state the conditions you will impose when students are demonstrating their mastery of the objective. Here are some examples:

- *Given a problem of the following type...*
- *Given a list of...*
- *Given any reference of the learner's choice...*
- *Given a matrix of intercorrelations...*

- *When provided with a standard set of tools...*
- *Given a properly functioning...*
- *Without the aid of references...*
- *With the aid of references...*
- *Without the aid of a calculator...*
- *Without the aid of tools...*

How detailed should you be in your description? Detailed enough to be sure the desired performance would be recognized by another competent person, and detailed enough so that others understand your intent as YOU understand it.

Here are some questions you can ask yourself about your objectives as a guide to your identifying important aspects of the target, or terminal performances you wish to develop:

1. What will the learner be allowed to use?
2. What will the learner be denied?
3. Under what conditions will you expect the desired performance to occur?
4. Are there any skills that you are specifically NOT trying to develop? Does the objective exclude such skills?

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DEGREE

If you can specify the acceptable level of performance for each objective, you will have a standard against which to test your instruction. Therefore, you will have the means for determining whether your instruction is successful in achieving your instructional intent.

You would know, and the student would know, the quality of performance necessary to work for or exceed.

What you must try to do, then, is indicate in your objectives what the acceptable performance level will be by adding words that describe the criterion of success.

If the thought that now pops into your mind is something like, "*Many of the things I teach are intangible and cannot be evaluated,*" consider this. Maybe so. But if you are teaching things that cannot be evaluated, you are in the awkward position of being unable to demonstrate that you are teaching anything at all. The issue here is not whether all important things can be measured or evaluated. The issue is simply whether you can improve the usefulness of an objective by making clear how well the student must be able to perform to be considered acceptable. Sometimes such a criterion is critical. Sometimes it is of little or no importance at all. But adding a degree to an objective is a way of communicating an important aspect of what it is you want your students to be able to do.

Examples of degrees: time limits, accuracy, quality.

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CONDITION AND DEGREE SUMMARY:

1. A successful objective will specify the important conditions or constraints under which you want the student to perform.
2. A successful objective will include a statement that indicates how well that student must perform to satisfy the instructor.

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COMMON PITFALLS OF OBJECTIVE WRITING:

1. FALSE PERFORMANCE.

Have a thorough understanding of particle physics.

Demonstrate a comprehension of the short-story form.

Be able to relate to others in a demonstration of empathy.

Be able to understand individual differences in patients.

The above statements have the appearance of objectives, but contain no performances. They are not objectives.

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2. FALSE GIVENS

Given three days of instruction...

Given that the student has completed six laboratory experiments on...

Given that the student is in the category of gifted...

Given adequate practice in...

These are words or phrases that follow the word given in an objective but that describe something other than specific conditions the learner must have or be denied when demonstrating achievement of the objective. Most typically, the words describe something about the instruction itself. don't describe the instructional procedure in your objective. You'll have the chance to do that in your mini-lesson.

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3. TEACHING POINTS

Be able to choose an art print or photo that illustrates a theme of your choice and explain how it illustrates that theme.

Similar to a false given, this statement describes a teaching point, a practice exercise, or some other aspect of classroom activity. Don't describe a classroom activity and call it an objective.

The main function of an objective is to help course planners decide on instructional content and procedure. If the objective describes a teaching procedure, it will fail to perform its primary purpose because it will be describing instructional practice rather than important instructional outcomes.

Other examples:

Be able to discuss in class the case histories handed out by the instructor.

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4. GIBBERISH

Manifest an increasing comprehensive understanding...

Demonstrate a thorough comprehension...

Relate and foster with multiple approaches...

Have a deep awareness and thorough humanizing grasp...

The student must be able to demonstrate an ability to develop self- confidence and self-respect...

Leave out the "Ed-speak." It gets in the way of communication. It is noise.

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5. INSTRUCTOR PERFORMANCE

The teacher will provide an atmosphere that will promote the development of self-esteem, confidence, and security in students.

Demonstrate to students the proper procedures for completing FORM 321.

An instructional objective describes student performance. It avoids saying anything about instructor performance.

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6. FALSE CRITERIA

To the satisfaction of the instructor.

Must be able to make 80% on a multiple choice exam.

Must pass a final exam.

Students know who they have to perform for. With the second, you are only giving half of the picture. Eighty percent has no substance. It doesn't tell the student anything. Eighty percent of how many questions? What's in the questions? What exactly is it that they are performing here? The ability to get

80%?

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