

“Objectively Speaking”: An Instructional Module to Assist Pre-Service Teachers to Be Able to Create Clear, Complete, Well-written Objectives

“All the world’s a stage, and all the men and women merely players: they have their exits and their entrances; and one man in his time plays many parts,...” *As You Like It*, Act 2, Scene 7
William Shakespeare

Introduction and General Instructions

This instructional module is intended to be carried out in groups of three students, for the purpose of helping each student to achieve the following goal: Create a clear, complete, original objective. There are three acts (components) in this self-instructional module, which should take about one hour to complete. For maximum effectiveness, please complete the components in sequential order. All materials needed are included in this instructional module; students are asked to contribute motivation to learn, imagination, enthusiasm, perseverance, and a sense of humor.

ACT I

Each person should choose the part he or she wants to play and assume that character throughout Act I, reading the appropriate lines out loud and following the directions in parentheses. Please note that the words in brackets are for clarification for the reader and are not to be spoken out loud. Also, please note that while the plot and characters are fictitious, the information presented regarding objectives is real.

Characters: Sam, a college student majoring in education; Julie, a college student majoring in education; Uncle Cabac, master teacher and Julie’s uncle. [Look in the plastic materials bag and take out the props **[link to props in application section]** that Uncle Cabac will use during the play (i.e., eyeglasses, two copies of the word *objective* on cardboard, a “book” about objectives, a box of tea, pens, and magic markers. The blue file folder contains Uncle Cabac’s mind map, a sample mind map, **[link to mind map in application section]** and two sheets of paper for each of the 3 people in the group, which will be used later in the play.]

Scene I: At the University

Setting: Sam is sitting in the student lounge, at a table with several books, staring into space. His friend, Julie, walks over to the table and begins to talk.

Julie: (hereafter designated by the letter, J) Hi, Sam!

Sam: (hereafter designated by the letter, S) Hey, Julie! What’s up?

J: Nothing much. What are you doing?

S: Oh, I'm trying to work on a lesson plan for that education class we're taking. I've written an objective, but I want to be sure it's worded right—it counts as 25% of the assignment grade. I don't understand why it's worth that much, but evidently the prof thinks the objective is pretty important.

J: What *is* the objective for your lesson?

S: To teach the students about the importance of water.

J: Mm. That's kind of general. Besides, a good objective is learner centered.

S: What do you mean, learner-centered?

J: Focused on what the learner, not the teacher, is expected to do.

S: Oh. That's what I mean—I thought writing an objective would be easy—now I'm not sure where to start.

J: 'Tell you what. Why don't I call my Uncle Cabac? He won an award for teaching. I'll see if we can stop by and talk with him.

S: Uncle Cabac?

J: Yeah. Crazy name, huh? He comes from a long line of teachers; his mom...well, I'll let him tell the story. I should warn you, Uncle Cabac is a little unusual—he likes to play with words, and use metaphors and mnemonic devices. You know, techniques to help people remember things.

S: Well, I could sure use that.

J: When we were kids, we used to love going to Uncle Cabac's house. Just don't be surprised by anything he does or says.

Scene 2: Uncle Cabac's house

Julie knocks on the door, which is opened by a middle-aged man wearing glasses.

Uncle Cabac: (hereafter designated by the letter C) Julie! How nice to see you! (Uncle Cabac and Julie exchange greetings.)

C: (looking at S) This must be your friend, Sam. (Uncle Cabac and Sam shake hands.)

C: And what is your objective, Sam?

S: (hesitating) Well, I'm not exactly sure...

C: Well, if you don't know your objective for being here, then there's no purpose for your visit, but it was nice meeting you, anyway. Have a good day! (Uncle Cabac starts to close the door)

J: (putting her hand out to stop the door from closing) Wait, Uncle Cabac! Sam knows the objective of this visit, he wants to know how to write a good objective—that's why we're here!

C: In that case, come right in. I'm sure I can help you out. Let's have some tea and discuss the subject. (Opens the door, ushering them into a large living room, with a vacuum cleaner in the path to the kitchen.)

C: Tell me, why is important to you to know how to write a good objective?

S: Well...

C: A deep subject, but go ahead.

S: I want to get a good grade on this assignment...and I'll need to know how to write objectives for my lessons when I become a teacher.

C: Good answer. Let's continue then.

J: (As they move toward the kitchen) Uncle Cabac, I'll put the vacuum cleaner in the closet so it won't be in the way.

C: (moving toward the vacuum) Actually, Julie, it's there to make a point. (He unzips the vacuum cleaner bag and pulls out 2 pieces of cardboard with the word "objective" written on each). Objectives don't belong in a vacuum.

S: (staring, with his mouth open) What?!

C: A good objective is not created in a vacuum, that is, in isolation, by itself. Good objectives come from an analysis of the need and the context, that is, the immediate environment of the situation. So far, though, we've been talking about the general meaning of the word, *objective*. Let's step into the kitchen—I consider it my personal classroom, where I've cooked up many a lesson for my students—and I'll give you a recipe for writing a good instructional objective, that is, an objective to guide your instruction. Instructional objectives are also called performance objectives or behavioral objectives.

(Uncle Cabac gestures toward the table. Julie and Sam sit down. On the table are a bowl, flour, baking powder, other ingredients, and a recipe for making bread)

C: What do you see?

J: The materials for making bread.

C: Good. Could we also say that what we are looking at is the situation as it currently exists?

S: Sure.

C: Okay, what would the desired situation be?

S: A fresh-baked loaf of bread! M, I can almost taste it.

J: But there's a gap between what exists and what the desired situation would be!

C: Exactly. What is the term for the essential component between the ingredients you see on the table and a loaf of bread?

S: (Thinking) Hmm.

J: Knead [Need]

S: Need?? Oh, I get it! The gap between the current and desired situation is the need !

C: Excellent! And the need is what tells us the objectives we should develop. In education, of course, we are specifically talking about the needs of the learners. Before we go any farther, let me read the definition of instructional objective, according to Robert Mager, an authority in the field. (He picks up a book, *Preparing Instructional Objectives, revised 2nd ed.*, 1984) from the counter, and reads from page 3: “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.”

(Uncle Cabac pauses.) In education we call this a behavioral or performance objective. Mager says a performance is something that's “directly observable or directly assessable” (p.43). Interestingly in the World Book Dictionary [1983, p. 1432] the first definition for the noun, *objective*, is “something aimed at”, and the second definition of objective is “real and observable”.

C: (returns the book to the counter and opens a cupboard door). The water is already hot. Let's see what type of tea would be most appropriate for the occasion. (reading the labels of various boxes of tea) Hmm. Hones Tea, always good; Tranquili Tea, nice, gentle flavor; perspicaci Tea (reading description on box) mm...” wisdom and understanding with people or facts, keen perception, discernment” [p. 1556],... also good, but...(pauses) C: ah, perfect! A blend of Clari Tea [clarity] and Perspicui Tea [perspicuity], which provides “clearness in expression; ease in being understood” [World Book Dictionary, 1983, p.1556]. Just what we need for writing good objectives! (Sets the box on the table and puts a tea bag in each cup, adds water, and places the cups on the table in front of Julie and Sam, then sits down.

S: (looking into the cup) Is this teabag working? The liquid in this cup is perfectly clear!

J: (laughing) Of course. That's the nature of ClariTea.

S: Clari—oh, I get it! Clarity! (Quietly, to Julie) I see what you mean about your uncle. (Then, louder) I suppose clarity is important in writing a good objective.

C: Right you are. Clarity in thinking through the needs, the instructional context, and the desired behavioral or performance outcome of the instruction; and clarity in the writing of the objective itself. The objective must be clear in order to communicate something to someone.

J: Uncle Cabac, tell S. how you got your name.

C: Julie has probably told you that both my parents were teachers. They also had a number of friends who were involved in the field of education. One of their friends was acquainted with Robert Mager and his approach to creating instructional objectives. That was before his books were published, of course, but the three elements of a good objective were so helpful in creating clear objectives, that this group of teachers incorporated them into their practice.

S: What are the three elements?

C: Glad you asked. The first element is the statement of desired behavior or performance that is essential, of course, in order to identify where we want the students to be as a result of the instruction. The behavior or performance must be observable, that is, you must be able to see it. So you wouldn't want to use verbs like "understand" or "appreciate" because you can't actually observe those things. You must be able to see the student accomplishing the objective. Along with knowing what the expected behavior/performance is, it's important to classify which domain of learning that particular behavior/performance belongs to, since that classification will affect the way you design your instruction and assessment. Also, it's important that you consider what your students already know—do they possess the previous knowledge and skills required to achieve the objective?

J: Wow! Designing instruction! I never thought of teaching in those terms.

S: Learning domains. Are you talking about Gagne's five domains of learning? We talked about those in class. Intellectual skills, psychomotor skills...um...

J: Verbal information, cognitive strategies,...what's the fifth one?

C: Attitudes.

J: How do you know when an attitude has been performed?

C: You can infer it by observing a behavior that provides evidence that the student has acquired the attitude and is acting on it. We call that an indicator behavior. Always include one if your objective deals with attitudes.

S: So, like, if a student stops insulting peers of a different ethnic group and starts working cooperatively with them, we would use that as evidence that his or her attitude had changed? That he or she had become less biased toward that group?

C: Yes.

J: What are the other two major elements in a good objective?

C: Before we move on, I want to be sure you understand what the other learning domains mean. Well, psychomotor skills are, like, physical action skills such as hitting a tennis ball or writing.

J: Don't psychomotor skills combine motor activity with cognitive activity?

C: Right. What about intellectual skills?

J: I know that one. Intellectual skills involve applying concepts, rules, and principles, and manipulating symbolic information. For example, in math, being able to classify an object according to shape; or using a formula to get an answer would be considered intellectual skills.

C: Okay. Sometimes, problem-solving is included as an intellectual skill, also. What about verbal information?

S: Basically, that deals with learning facts, like "who was the third president of the United States?"

C: That leaves cognitive strategies.

S: Well, cognitive has to do with thinking.

C: Yes.

J: Cognitive strategies include figuring out how to do complex tasks, organizing and applying new information.

C: Yes. The mental meta-processes we use to oversee our own learning and manage our thinking.

S: How do the learning domains tie in with writing objectives?

C: Because knowing which learning domain your objective relates to—intellectual skills, psychomotor skills, verbal information, cognitive strategies, and attitudes will help you identify the performance or behavior that you want your students to exhibit to demonstrate that the learning objective has been achieved. You will also be able to use the appropriate words to

communicate the objective. For an objective related to verbal information, for example, you would use words like list, name, state.

J: Should we tell the students what the objectives of the lesson are?

C: Yes, that's important. If you share the objectives with your students, you'll be enabling them to practice various cognitive strategies and take more responsibility for their own learning.

Knowing where you're going helps the students as well as the teacher along the instructional journey and let's you know when you've reached your destination. J: So a well-written objective sets the stage for the assessment.

C: Absolutely. Good observation. And the assessment provides feedback regarding how well the students have achieved the objective. If the anticipated learning didn't occur, you can make changes in your instructional design.

S: Okay, so a statement of behavior or performance related to the learning domains is one element in a good objective. What are the others/

C: Conditions and criterion.

J: What do you mean by conditions?

C: The specific resources and set of circumstances available to your students when they perform the objective. Stating the conditions also establishes boundaries that control the complexity of the task so it is developmentally appropriate for the learners.

S: Can you give us an example?

C: Given a recipe, a conventional oven, a tablespoon, teaspoon, measuring cup, stainless steel cookie sheet, and the necessary ingredients (i.e., brown sugar, granulated sugar, unbleached, sifted flour, vanilla, eggs, baking powder, butter, and chocolate chips)...

J & S: Make a batch of chocolate chip cookies!

C: The conditions provide the stimulus or cue for the performance. A different set of conditions for a similar outcome would be, given a roll of frozen Pillsbury chocolate chip cookie dough, a moderately sharp knife, a cookie sheet and a conventional oven...

S: Gee, I didn't know there was so much to think about when writing an objective.

C: Ah, but we're not done yet. There's still the criterion to be considered.

S: What's criterion?

C: Criterion is singular; the plural form of criterion is criteria. Tell me, if you were going to buy a car, what criteria would you use to decide which one to buy?

S: Well, good gas mileage, for one thing, the way the car looks, price...

C: So a criterion is...

J: Some standard for making a decision or judgment.

C: And in the case of an instructional objective?

S: The criterion would be the standard for determining if and how well the objective has been met.

C: Yes, we use the criterion to assess the performance, which of course must be measurable so that we know if it has been achieved to the degree of accuracy or correctness that we desire or require. Criteria may be expressed in terms of quantity or quality or both. So continuing with our chocolate chip cookie objective, what type of criteria might you include?

S: medium brown color, none burned

J: moist, not dried out.

S: Edible! (Everyone laughs.)

C: These are all criteria related to the quality of the product, which we could evaluate using a rubric. With some performances or behaviors, we would want to look at quantity, for example, how many times a behavior is performed or some other numerical measurement such as how high someone could jump in a high-jump event.

J: Does every good objective always have a criterion or criteria?

C: Yes, but sometimes the criterion is understood rather than explicitly stated. For example, if there's a specific response expected, such as spelling a word, the criterion, *correctly*, is understood. Also, a criterion may already be established through some specification that describes the acceptable behavior or range of behaviors. For example, if we were using a commercial criterion, we might say the chocolate chip cookies must meet the size specifications in the Betty Crocker Commercial Baking Manual.

There are many different ways to judge a behavior or performance—you must be careful to choose criteria that are appropriate for what you're trying to measure. Time limits may be included in an objective related to running a mile, for example.

S: Behavior, conditions, criteria—that's a lot to fit in one sentence.

C: Oh, you don't need to limit your objective to one sentence. The important thing is to communicate clearly in logical, grammatically correct sentences that collectively include the three major elements of a good objective.

S and J: Oh.

C: Let's try a couple of examples to see if you can apply what we've been discussing. What do you think of the following objective: to teach baking, using chocolate chip cookies as an example.

S: Way too general!

J: Teacher-centered, not learner-centered.

S: Where are the three elements?

C: Okay, good. How about this one? Students will name the 50 states in the United States.

J: There's a clear performance...

S: And the criterion, "all" is understood...

J: But no conditions have been specified.

C: Good. Here's another one. On a cinder, quarter mile, indoor track, wearing athletic shoes, students will complete four laps.

J: Are they supposed to run or walk, or is either option okay?

S: How quickly should they finish?

C: It seems you are able to identify the elements (or their absence) of a good objective.

Congratulations! Before you go, why don't you state the major concepts and principles that you learned here today. Say at least 5 of them.

[STOP HERE! Before continuing, each person take a few minutes, and using a sheet of paper from the file folder, and pen from the bag of materials, write down 5 important ideas related to good objectives that were discussed at Uncle Cabac's house. When everyone in the group has completed this task, continue the skit to see how your answers compare with Julie's and Sam's.]

C: As you're stating these concepts, why don't we each do a mind map, to record the information and show how the ideas relate to each other. (Uncle Cabac hands Julie and Sam a piece of paper and markers from the materials bag and takes one for himself.)

C: Put the words *Good Objectives* in a box or circle in the middle of the paper. As someone states a concept, write the essence of each idea in word or picture form, inside a geometric form,

with lines radiating from the central topic to the various ideas. If there are subtopics, include those on the paper and connect the related concepts with lines, also. Here's a sample of what a mind map might look like, in case you've never done one. Everyone's will be different of course, just be sure you capture the main concepts and their relationships.

S: Objectives should not be created in a vacuum.

(Pause after each person states what he or she has learned, to give everyone time to add the idea to their mind map).

J: Good objectives are developed based on the needs of the learners and the context of the learning environment.

S: The need is the gap between what is and what the desired situation would be.

J: In education, an objective is a detailed description of the behavior or performance you want the learner to exhibit. These objectives are called instructional, behavioral, or performance objectives.

S: The behavior should be observable, that is, you can see it happening. The behavior should also be learner-centered, that is, stated in terms of what the learner, not the teacher, will be doing.

J: A good objective clearly communicates the desired outcome.

S: The objective is shaped by the learning domain (intellectual skills, psychomotor skills, verbal information, cognitive strategies, and attitudes) that the expected outcome belongs to.

J: Objectives are important because they guide the lesson and provide a way to assess whether or not the desired learning occurred.

S: A well-written objective includes three elements—conditions, behavior...

J: And criterion.

[If there are additional things you learned, as your character, speak them now.]

(Everyone looks at each other's mind map and Uncle Cabac shares the one from the blue file folder).

C: Good job! (getting up from the table). Well, I've certainly enjoyed your visit.

S: And we've enjoyed being here. But you never finished the story of how you got your name.

C: (as the three walk out of the kitchen toward the front door) Ah, yes. When I was a small boy, not quite ready to talk, my mother and father would use the palindrome, CABAC (condition and behavior and criterion), to check whether the objectives in the lesson plans they wrote were satisfactory. One would read the objective out loud, and the other would say, "CABAC?" if the

objective was lacking, or “CABAC!” if the objective was satisfactory. I heard the expression so often that the first “word” (indicates quotation marks in the air with his fingers) I spoke, as you may imagine, was...

J & S: Cabac!

C: In fact, once, when a new acquaintance asked my name, I replied, “Cabac.” Everyone laughed, and the nickname stuck. I guess that’s how I earned a reputation for writing good objectives when I became a teacher—by living up to my name.

C: (standing by the door) I hope this visit was helpful.

S: Yes, very. Thank you.

J: Thanks, Uncle Cabac. ‘See you soon.

ACT TWO

J: Are you ready to write your objective now?

S: Well, I feel a lot more prepared. But I’d like to have a little more practice first.

J: Okay, let’s do that.

[Julie and Sam have been joined by Jasmyn (formerly Uncle Cabac). Each person in the group complete the Objectives Exercise, [\[link to exercise in applications section\]](#) which is in the yellow file folder. Then discuss your work with each other, and check the answers on the Objective Exercise Answer Sheet, also in the yellow file folder.]

ACT THREE

S: Now I’d like to actually write a clear, complete, original objective that can be used to develop a lesson plan for class, but also that I could use in my own classroom when I become a teacher.

J: For the class assignment, we’re supposed to pick a grade level, subject, and topic and briefly describe the learners, as we choose. I’ll write an objective now, too, and we can give each other feedback, okay?

Sam & Jasmyn: ‘Sounds good.

[Each person in the group should individually choose a learning scenario (grade level, subject, topic; describe the learners and the context of the learning environment in 2 or 3 sentences; and write an instructional objective appropriate for the chosen scenario, then share it with the other members of your group. You may use the same paper that you used in Act I.] [[link to rubric in applications section](#)]. Discuss and evaluate each other's objectives using the rubric in the yellow file folder. Revise the objectives until they meet the level of quality in the column designated with a * (farthest column to the right).

Congratulations! You have completed “Objectively Speaking”, a one-hour, instructional module on writing performance objectives. Write your name on the certificate of completion (located in the yellow file folder) and add the certificate to your portfolio of educational achievements. *All's Well That Ends Well.*

**Appendix
Props**

Objectives

Objectives

Note: It is recommended that you cut out and laminate the words “Objectives”.

Clari Tea

blended with Perspicui Tea

Clari Tea

Note: You will need to cut out and attach the Clari Tea labels to a box of tea. To make the “book” by Robert Mager, staple blank pages to the “book cover” below. For glasses, sunglasses made be purchased inexpensively from the local dollar store or print and cut out the glasses below.



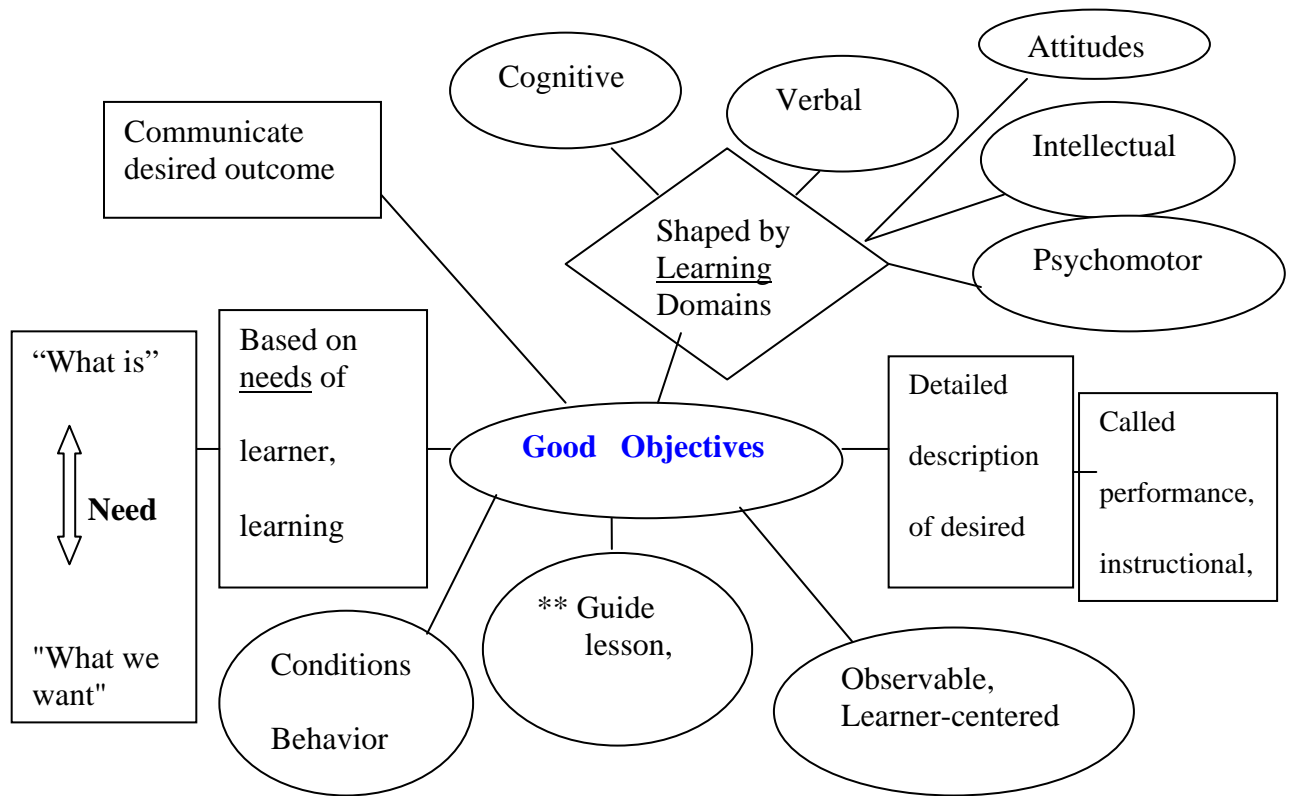
Preparing

Instructional

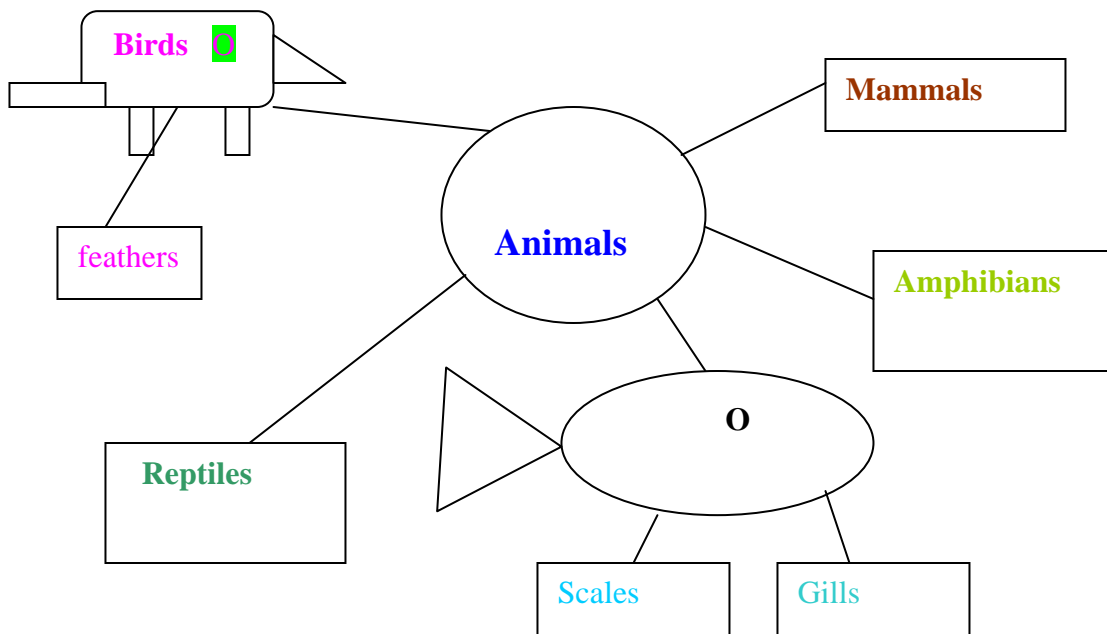
Objectives

Revised Second Edition

Robert F. Mager



Uncle Cabac's Mind Map



Sample Mind Map

Objective Exercise

Instructions: For the following objectives, please circle either objective is okay, or else the element that is missing or incomplete. Construct or revise that element to make the objective satisfactory.

- I. Given a pen and lined paper, the teacher will demonstrate how to write a cursive “L” (upper case and lower case).

Objective is okay Condition Behavior/performance Criterion

- II. Given a map of the United States and an alphabetical list of the 50 states, write the names of the states in the correct places on the map.

Objective is okay Condition Behavior/performance Criterion

- III. Given a digital oral thermometer, be able to take a patient’s temperature

Objective is okay Condition Behavior/performance Criterion

- IV. Student will be able to build a birdhouse satisfactorily, as measured by the “birdhouse rubric”.

Objective is okay Condition Behavior/performance Criterion

- V. On a regulation basketball court, shoot 10 baskets from the foul line in 30 seconds, completing at least 6 baskets.

Objective is okay Condition Behavior/performance Criterion

Objective Exercise Answer Key

- I. Behavior/performance This objective is teacher-centered. Change “the teacher will demonstrate” to “the student will”...
- II. Objective is okay.
- III. Criterion Specify the accuracy required, for example, “within .1 degree Fahrenheit”
- IV. Condition State the materials and equipment that will be used.
- V. Objective is okay.

Objective Evaluation Exercise Rubric



Criterion Question	Unacceptable	Fair	
Does the objective clearly state desired end product or behavior?	No end product or behavior stated	End product or behavior is stated, but is not clear.	Desired end product or behavior is stated clearly.
Is the verb in the objective observable (can you see it) and learner-centered (focused on what the learner will do)?	Not observable Not learner-centered	Observable, but not learner-centered OR Learner-centered, but not observable	Verb is learner-centered and observable.
Is the criterion logical, realistic, appropriate, and clearly stated?	Criterion is not stated or implied	One or more of the following qualities is missing: a) logical b) realistic c) appropriate d) clearly stated.	Criterion is logical, realistic, appropriate and clearly stated.
Are conditions clearly stated and consistent with desired outcome?	No condition stated	Statement of conditions is either unclear or inconsistent with desired outcome.	Conditions are clearly stated and consistent with desired outcome.
* Is objective congruent (in harmony) with learner and context analysis?	Not congruent with either learner or context analysis	Congruent with either learner or context analysis, but not both	Congruent with learner and context analysis

As a final step, read over the objective to be sure that the overall objective is clear, grammatically correct, and written in a logical order.

* Note: For the purposes of this exercise, you have made up the learner and context scenario. In a real classroom, objectives should be based on knowledge of the learners as well as the environment in which they will be learning and performing the behaviors.