

ORGANIZING BEHAVIORAL OBJECTIVES FOR TEACHING

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Many local school administrators and some states are requiring teachers to write a set of objectives for each of their courses. For instance, in Virginia the principal and his staff are required to "establish methods of evaluating the progress of individual students and the effectiveness of the instructional program in each classroom and in the school as a whole" (General Assembly of Virginia, 1972). How would your student teachers respond to the question, "What type of objectives should you write?" Hopefully their response would not be the same as given by a supervisor in a recent faculty meeting, "What do you mean by type? Objectives are objectives!!"

Objectives are basic to organizing learning experiences. The problem is that too many times objectives are directed toward the learning process. Phrases such as, "to demonstrate to students..." or "to increase the students' abilities..." place the emphasis of the objective on the process of learning. An objective which is directed toward learning outcomes is much more desirable. This type of objective places the emphasis on the student and the goal he endeavors to attain.

An objective stated as a learning outcome may be reached through many learning experiences. Learning experiences based on objectives written as learning outcomes are means to ends rather than ends themselves. Objectives, when stated as learning outcomes, function as:

1. A guide for the instructor and a means for conveying his instructional intent to others;
2. A guide for selecting subject matter, the teaching methods, and the materials to be used during instruction;

3. A guide for constructing tests and other instruments for evaluating student achievement; and
4. A guide to the students for organizing their learning activities.

Much has been written in the past ten years about the use of behavioral objectives. The emphasis in these years has been on an approach which requires each objective to include a terminal behavior, to define the behavior by describing the important conditions under which the behavior will be expected to occur, and to specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable (Mager, 1962). For example, the following might begin a list of behavioral objectives for a unit to assist student teachers in developing a course in agricultural machinery service:

1. Given a list of agricultural machinery terms, the student will be able to define each term accurately;
2. The student will be able to identify the meaning of all agricultural machinery terms when used in context; and
3. The student will be able to group all agricultural machinery terms which have similar meanings.

These objectives tend to be at the knowledge or lowest level of the Taxonomy of Educational Objectives (Bloom, 1956). The implication is given that to define, to identify, and to group terms are the important skills. It would seem that the goal of the instructor, when using these three objectives, would be for the students to understand the meaning of the terms, is not made evident by the use of these three objectives. The method of writing objectives as described above is a valuable tool when the goal is to train students in basic knowledge and skills.

To move to the higher levels within the cognitive domain, a method of writing objectives must be used which places emphasis at these levels. One method begins with an over-all statement for the course or for a unit within a course (Gronlund, 1970). The goal statement is oriented toward the future ability of the student in the

present course, in a future course, or in the real world. General instructional objectives are then derived from the goal statement. The instructional objectives are at the higher levels of ability and are clarified by listing samples of specific behaviors for each objective. The samples of specific behaviors represent accepted evidences of the attainment of the general instructional objective.

The first step in applying this method to the previous example would be stating the goal for the unit:

Each student teacher will develop an agricultural machinery service program to serve the needs of the students and the community.

The next step is to derive general instructional objectives from this goal statement. One general instructional objective might be: Understand the meaning of agricultural machinery terminology. The original three objectives discussed now become examples of specific behaviors acceptable as evidence of the attainment of this general instructional objective.

This example in outline form with the addition of a second general instructional objective and specific objectives would appear as follows:

Goal Statement: Each student teacher will develop an agricultural machinery service program to serve the needs of the students and the community.

General Instructional Objectives: The student will be able to:

1. Understand the meaning of agricultural machinery terminology.
 - 1.1 Define accurately each term on a list of agricultural machinery terms.
 - 1.2 Identify the meaning of all agricultural machinery terms when used in context.
 - 1.3 Identify all agricultural machinery terms which have similar meanings.

2. Apply economic and census data.

2.1 Categorize the types of farming in a given community.

2.2 Describe the growth trends of agriculture in the community.

2.3 Identify present needs for new employees in present agricultural machinery dealerships in the community.

Instruction becomes more relevant and effective when the methodology, materials, and student evaluation procedures are based on desired learning outcomes represented by the general instructional objectives. The general instructional objectives are goals to work toward rather than specific types of behavior to be learned one by one. Thus, general instructional objectives provide direction for instruction without restricting the teacher or reducing the instruction to the training level. This method requires that teaching be directed toward the general instructional objectives rather than toward each specific behavior. Pre-occupation with teaching an extended list of specific behaviors often times results in the loss of the overall goal of the unit or course. Students must be able to see their destination in a course as well as how they are going to get there. The students and the teacher must keep the goal in mind and not just a conglomeration of specific objectives for proper learning to take place.

As stated previously, one of the functions of objectives is to serve as a guide for constructing tests and other instruments for evaluating student achievement. A test of the achievement of students is a test of the extent to which the students have attained the specific objectives.

Learning outcomes determined by the general instructional objectives will vary in level. Certain of the learning outcomes may be low-level outcomes while others may be outcomes at such a high level that the students may not be capable of reaching these outcomes in the course. The low-level outcomes are minimum essentials, achievable by students, and required for further learning in the area. The high-level outcomes require extended periods of development. These outcomes include such abilities as to understand, to apply, to interpret, and to think critically. Since there are usually two levels of outcomes, it is logical that testing should be at two levels.

Outcomes at the minimum-essential level are usually standards of performance. As such, they are specific, independent, and easily defined. An indication that the student can recall the facts related to the objective constitutes the test for minimum essential outcomes.

It is nearly impossible to test for all the specific behaviors that make up learning outcomes at the higher levels. This is the reason for stating only examples of specific behaviors for each general instructional objective. Students are expected to use what was learned in class to solve new but related problems on the exams and not just recall the solutions to problems discussed in class; thus, exhibiting mastery of learning outcomes such as understanding, application, and interpretation.

Summary

Objectives are essential for organizing learning experiences. General instructional objectives should be directed toward learning outcomes, thus placing the emphasis on the student and the goal he endeavors to attain. When stated as learning outcomes, general instructional objectives provide a guide for the instructor, a guide for selecting teaching methods and materials, a guide for constructing tests, and a guide for the learning activities of students. The ultimate aim of every teacher should be for all students to master the learning outcomes expressed by the instructional objectives and achieve the goals set forth in the course.

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