

# WRITING OBJECTIVES FOR GENERALIZATION

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Since the enactment of PL 94-142 in 1975, the development of instructional objectives has become a familiar part of the professional life of most special educators. Although variations may exist in practice, the structural components of a “good objective” seem generally agreed upon. Those components include identification of (a) the learner and the behavior to be taught, (b) the conditions under which the behavior will be assessed, (c) performance criteria including a date for completion, and (d) the person(s) responsible for assessing the behavior. Thorough discussions of those components can be found in many sources (e.g., Mager, 1975; Snell and Grigg, 1986). However, the following guidelines are provided for quick reference.

### Overview of Basic Components of Objectives

#### The Learner and the Behavior

Objectives are written for a specific student. Although a number of students may be working on the same general goal, objectives should be tailored to meet individual needs. The particular student for whom the objective was developed, therefore, should be identified. It is especially important to note that instructional objectives are written for learners, not for teachers, and that the objective should indicate behaviors that will be acquired as a result of instruction, not experiences or instructional activities that the teacher provides. The behavior must be observable, must possess a definite beginning and end, and must be defined in specific terms. In the absence of observable behaviors, assessments of pupil performance must, at best, be based on inferences and/or vague impressions.

- Example 1. “Jerome will transfer garments from the clothes hamper to the washing machine...” specifies the learner and a specific observable behavior.
- Example 2. “Jerome will be given the opportunity to participate in ...” does not specify behaviors that will be acquired; rather, it indicates only the activities that will be provided.
- Example 3. “Jerome will transfer objects...” is not specific.
- Example 4. “Jerome will develop his knowledge of clothes washing procedures...” is not observable.

#### The Conditions

The objective should state those conditions under which the target behavior will be demonstrated and measured. As Snell and Grigg (1986) have noted, “This will include factors such as the physical setting, people present, the instructional materials and cues to be provided, and any other relevant variables that are expected to influence the student's performance” (p. 82).

- Example 5. “When wearing pants pulled up to the knees after toileting in the bathroom at school, Jerome will independently...” states the conditions.
- Example 6. “Given physical assistance at the forearm during lunch periods in the cafeteria, Jerome will scoop...” also states the conditions.
- Example 7. “Jerome will pull up his pants...” does not state the conditions.
- Example 8. “Jerome will scoop...” does not state the conditions.

## The Criteria and Aim Date

Objectives must contain criteria for success which state exactly what level of performance is expected of the learner. Criteria should indicate, for example, how accurately the behavior must be performed, how rapidly the behavior must be performed, how quickly it must be initiated, and/or how long it must continue in order for mastery to be presumed. In addition, an aim date should be established which specifies when criterion levels of performance should be achieved.

Example 9. “Given a verbal direction by the teacher, Jerome will independently complete 8 of 10 steps in his hand washing program before lunch by June 10, 19\_\_ Total time to complete the sequence should not exceed 3 minutes.” This objective contains the criteria and aim date.

Example 10. “Jerome will walk independently using his walker at a rate of 150 feet per minute... by March 23, 19\_\_ contains the criteria and aim date.

Example 11. “Jerome will independently wash his hands before lunch by June 10, 19\_\_ ... “does not adequately specify criteria.

Example 12. “Jerome will walk using his walker...” contains neither criteria nor the aim date.

## Person(s) Responsible for Determining Success

Individuals responsible for determining successful completion of the objective should be specified. Traditionally, the classroom teacher has taken this responsibility. As the educational mode of service delivery has gained widespread acceptance, however, and as it has become increasingly apparent that instructional success must be based largely on performance in nontraining situations, input from a variety of sources has become appropriate.

Example 13. “Jerome will have eaten his lunch at school consuming all items within 20 minutes on at least 5 consecutive occasions by December 4, 19\_\_ as determined by the teacher. By that same date, Jerome will consume meals at home within a time period satisfactory to his parents as determined by weekly parental reports...” indicates the responsible individual(s).

Example 14. “Jerome will eat meals at school and at home within a satisfactory amount of time ... “ does not indicate the responsible individual(s).

## Functional Behavior and Generalized Outcome

Although many educators may have become quite proficient in developing objectives which are “technologically adequate” (i.e., which contain components specified above), the value of those objectives may be diminished if target behaviors do not serve a useful function or fail to be performed under nontraining conditions. In other words, objectives should usually specify both functional skills and generalized outcomes.

### Functionality

Behaviors are functional if they are demanded by or used in community, domestic, vocational, or recreational settings which are or will be accessed by the student and will permit at least partial participation in naturally occurring activities (Billingsley, 1984). Behaviors that are functional benefit the individual, and allow him or her to contribute meaningfully to the community, by at least:

- gaining access for the individual to a wider range of environments and/or natural reinforcers within an environment; and/or
- increasing the reinforcing value to others for interacting with the individual; and/or
- reducing the need for others to engage in activities on behalf of the individual which might be considered burdensome or effortful; and/or
- permitting the individual to engage in culturally normative, age-appropriate recreational activities

To be considered functional, then, a behavior must serve some current or future extra-instructional purpose of value to the individual and/or community. However, functionality does not always imply completely independent

performance (see Example 19). For a more thorough discussion of the principle of partial participation, see Brown et al. (1979).

Example 15. “Jerome will floss his teeth...” could be functional.

Example 16. “Jerome will turn on the television ... “could be functional.

Example 17. “Jerome will take out the garbage...” could be functional.

Example 18. “Jerome will shop for 15 specific brand grocery items...” could be functional.

Example 19. “Given support at the elbow, Jerome will wave the school colors at appropriate times during pep rallies...” could be functional for a student who experienced severe motor impairment

Example 20. “Jerome will verbally label words on flash cards ... “ is not functional because it specifies a skill that is not required in natural environments. On the other hand, objectives related to the ability to respond appropriately to exit or restroom signs and to vending machine cues could be very functional (Brown, Branston et al., 1979).

Example 21. “Jerome will touch his wrist, nose, knee, leg, foot, hair, and ear upon request...” is not functional because touching one's own body parts upon request is not required within nontraining environments. The activity is not useful to either the individual or the community.

### Generalized Outcomes

It appears obvious that if a skill is to be truly functional it must be performed in those situations in which it would normally be demanded, not simply in a classroom simulation setting in the presence of a particular teacher. In other words, it is critical that performance of target skills generalize to nontraining environments. Because a major function of objectives is to act as guides to the selection of appropriate instructional methods and evaluation procedures, generalized outcomes should be specified in order to ensure that performance generalization

receives consideration in both the planning of instructional programs and the assessment of student performance. Unfortunately, it has been found that a great many objectives written for students in special education programs specify performance of target behaviors in only a single training situation (Billingsley, 1984; Kayser, Rallo et al., 1986).

An objective specifies a generalized outcome if it requires the student to perform the behavior in a situation or situations other than the one in which the student was trained. The new situation(s) could involve new locations, new people, different times, different materials, different examples of a concept, and so on.

Behaviors are generalized when they occur:

(1) Across settings and/or time

Example 22. “Jerome will put on his pants after swimming (in gym) and after toileting... “ is generalization if acquisition training occurred in the classroom.

Example 23. “Jerome will put on his pants... “ does not specify generalization, although it could occur.

(2) Across people

Example 24. “Jerome will say 'hi' to peers when visiting other classrooms or on the playground...” is generalization, if the peers were not involved in training.

Example 25. “Jerome will say 'hi' to his teacher when entering the classroom... is not generalization across people if the teacher provided the training.

(3) Across relevant objects

Example 26. “Jerome will turn pages on a variety of books and magazines... is generalization, assuming some of the “variety” includes untrained materials.

Example 27. “Jerome will turn pages...” does not specify generalization.

(4) As needed, as appropriate, spontaneously

Example 28. This is generalization: “Jerome will spontaneously request food using his communication board.”

Example 29. This is also generalization: “Jerome will wash his hands as appropriate (e.g., before eating, when dirty, after toileting)... “ assuming that all such situations were not directly trained.

Example 30. “Jerome will use his communication board when asked by the teacher at language time...” is not generalization.

Example 31. “Jerome will wash his hands at the classroom sink when directed to do so...” is not generalization, assuming that other appropriate situations exist for the skill.

There are, of course, an infinite number of generalization possibilities. The relevant type of generalization should be determined by the nature of the skill and the environment(s) available to the student. Nontraining situations that are indicated in the objective should be representative of the range of situations in which the student will actually have the opportunity to perform the behavior outside of training. In other words, if shopping skills are being taught under simulation conditions, generalization situations specified in the objective should require assessment of the student's behavior in one or more of the types of stores which are likely to be accessible to the student in the community.

Here are some objectives that specify a generalized outcome:

Example 32. “By the end of the school year, Jerome will demonstrate the ability to shop independently at three different supermarkets on two occasions each: Joe's Market (6754 15th Avenue), Mice's Grocery (3508 Remington), and Fred's Quick Market (4449 15th Avenue) for 15 specific brand grocery items. Picture cards will be used as the grocery list. Performance includes travel to the store, selecting items, paying for the purchases, and transporting purchases back to school. Shopping must be completed without error within 1 hour and 15 minutes, and success will be determined by the teacher.” (This example was drawn from Wilcox and Bellamy, 1982).

Example 33. “Following lunch, Jerome will independently clean the table of all crumbs and liquids with a sponge within 2 minutes on three consecutive occasions by May 9 as assessed by the teacher. By that same date, Jerome will have cleaned the dining room table at home to the satisfaction of his parents (in terms of duration and quality) at least once. Determination of success will be based on biweekly parental reports of acceptable skill performance.”

Example 34. “Provided verbal praise upon task completion, and using his right hand for assistance along the railing, Sam will ascend stairs (at home and at school) containing at least 12 steps at a rate of 40 steps per minute on one occasion in each setting by December 15. Success will be judged by the teacher.”

## Criteria for Generalized Performance

In example 32 above, it may be noted that differences in criteria for successful performance may exist within training and generalization situations. Such differential criteria may exist, and be entirely appropriate, for various reasons.

First, criteria selected for training may be dictated by constraints which exist only in the instructional environment. An objective might specify that, in training, a pupil will finish his snack within 15 minutes. Fifteen minutes may, of course, be a reasonable period of time for eating a snack, but — in this case — that particular duration was used for training purposes because the maximum length of time allotted for the classroom snack period was 15 minutes. Depending on conditions within the home, the generalization criterion could be less specific and indicate that the pupil could complete his after-school snack within a duration that was satisfactory to his mother or father.

Second, it may be beneficial to build “superfluent” performance within training settings to increase the ease with which the pupil can perform a new skill and thereby contribute to use of the skill in new situations (White, 1985; White, 1985). In other words, criteria for skill mastery may need to surpass normal demands in nontraining situations to ensure that the new skill will actually be used; particularly where competing behaviors exist (see Chapter 8 for discussion of competing behaviors). Generalization criteria in these cases might either be less precise than training criteria (e.g., stated in terms of satisfaction with performance by parents, co-workers, waitresses, or other significant individuals) or, where specific, absolute level of performance is desirable, they might be precise, but less stringent. For example, generalization criteria specifying precise minimum levels of performance might be

included for a street crossing program or where significant individual (e.g., parent, employer) indicated a required performance level.

Third, it may be that it is extremely difficult or awkward for the teacher to obtain first hand information concerning the generalized performance of a skill within the natural setting in which the skill should be performed (e.g., taking off clothes in the bathroom before taking a shower in the evening). In such cases, generalization data may have to be collected by other individuals such as the parents (see Chapter 7, "Probing Skill Use," for a discussion of the assessment of generalized performance). Once again, depending on the specific situation and individuals involved, generalization criteria might best be stated in terms of satisfaction of other with the learner's performance.

## Must Every Objective Include Generalization?

It should be noted that it is not necessarily desirable that all objectives specify a generalized outcome. It could be, for example, that independent eating skills are being trained using a backward chaining format in which a number of steps are taught one at a time and where considerable physical assistance is first provided and then systematically faded as training progresses. In such a case, the initial objectives in the instructional sequence might permit such a relatively small amount of independent behavior on the part of the student, and include such large amounts of manager assistance, that performance of the skills specified in the objectives would be of little value in natural settings. Generalization, then, might reasonably be excluded from such objectives until such time as enough of the steps in the chain have been learned to a level of mastery that makes the skills' proficiency useful outside of training situations.

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