To develop a systematic evaluation system, a planning team should initially identify the needs of target groups. Needs which can be met are defined as behavioral objectives. Once the behavioral objectives and those specific elements essential to achieving them (enabling objectives) are defined and classified, performance measures can be constructed. These measures provide feedback into the system for evaluation of progress toward specific behavioral outcomes. Results of this feedback will determine whether modification and recycling of the system are necessary to achieve the desired behavioral outcomes. A flow chart representing the major stages of evaluation systems development is included. A related document is EA 002 477. [Not available in hard copy due to marginal legibility of original document]. (JH)
TARGET GROUP ANALYSIS:
AIDS FOR EVALUATION

Michael C. Giammatteo
Research and Development Specialist

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Northwest Regional Educational Laboratory
400 Lindsay Building/710 S. W. Second Avenue
Portland, Oregon 97204
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The first function of a planning team is to identify the target groups to whom the team is responsible. During Step 1a the team lists ten questions target group members might ask. Similar questions among target groups are baseline data for the project. Step 1b determines if the needs implied in the questions can be met. Factors which relate to realistic achievement of these needs, such as time and available personnel, are assessed. Needs that can be met are defined in behavioral objectives (Step 2). Assessment of the major involved domains occurs during Step 2a.

Step 3 is determination of additional behaviors which are called enabling objectives. Analysis of any complex behavior reveals that it is composed of less complex behavioral elements. These elements are essential to the effective and consistent performance of the more complex behavior. For example: driving a car, as an ultimate objective, involves knowledge of how to start, stop and steer it and basic rules of the road. Each of these subtasks, or elements, could be a training objective by itself. However, it is an objective only in the sense of enabling the major behavior to be performed.

Two activities are generated from the determination of enabling objectives. First, it permits construction of performance measures. This process is discussed later in the paper. Secondly, the enabling objectives can be classified into areas of learning. One area might involve simple association, e.g., identifying an object with a name. Decision making or problem solving are areas where complex classification, evaluation or manipulation of objects might take place. This classification procedure receives useful information from the domain assessment (2a).
After an enabling objective is classified into a specific area, events can be identified that provide the optimum conditions for learning behavior in that area. It is then possible to further identify the form of desired instructional events. The form can be specific and detailed enough to permit actual construction of a measurable protocol which can serve as a model for other constructions.

The building industry follows a similar construction process. First comes the basic decision to build a house, a garage or an office building. Once the function of the building has been determined, a more specific analysis of desired design is possible. The general task of determining the space design and approximate sizes or proportions is similar to determination of enabling objectives. They both identify major elements which will comprise the total structure. The building analogy applied to steps 5, 6 and 7 shows that the bedrooms, for example, will have different requirements for the various age levels they are to house. When these requirements have been clarified, the room size and location can be specified with considerable detail. After such decisions have been made, a blueprint could be constructed. It would specify in a detailed manner the form that each room must take in the finished product.

The instructional specifications from steps 3, 5, 6 and 7 provide information for evaluation and feedback into a system designed to produce specific behavioral outcomes. Step 8 is production of an instructional product or prototype for each enabling objective, based on the detailed specifications. The product is tested with students to determine whether, in fact, it elicits the desired behavior. There are complex implications between the originally identified behavioral objectives and the learner's ability to perform identified additional behaviors. Analysis of test
results might reveal that (a) the instructional specifications are in error, (b) the instructional product is deficient, (c) both specifications and product are proper or (d) they are both deficient. Results of the analysis will determine modification and recycling of the product. The production and testing of additional materials, procedures or systems will continue until a product is designed that does enable learners to perform the desired behavior in an effective and consistent manner.

Early construction of performance measures (Step 4) in the target analysis process is based on the realities of the actual situations (Step 4a). Students are asked to identify ideas and behaviors that are required when they find themselves in such situations. Early construction will increase the likelihood that students will learn generalizations which would result in performing the appropriate behavior in any number of situations. Early construction of performance measures also will help alleviate the problem of students' rote learning of specific answers or behaviors which are applicable to only one set of circumstances. Steps 4 and 4a are crucial if the needs of target groups are considered seriously.

Figure II is an assessment planning chart which indicates how to communicate easily with several key target groups. It also could be a management sheet in a booklet comprised of several other such sheets. The sample entries illustrate how one chart might look in a project director's workbook. The directions include a brief description of how the assessment planning chart might be used. When possible, objectives (Column A) should include standards and conditions. The expansion of objectives (Column B) provides for elaboration of the additional behaviors which further clarifies for the reader and evaluators the specific behaviors that are subject to change. The description of pupil behaviors (Column C) aids in specifying
to what degree the changes are considered useful. It is advisable to quantify or qualify all notations, e.g., 80 percent of all children, 50 percent of all children. Methods of evaluation (Column D) should include notes about training, personnel, money and time concerns that may enhance or hinder evaluative efforts.
Figure I. Major Stages for Developing A System for Evaluation

1. Identify Target Groups
2. Identify Behavioral Objectives
3. Determine Enabling Objectives
4. Construct Performance Measures
4a. Ask People In The Field About Performance Needs
5. Classify Types of Learning
6. Identify Events that Provide Conditions of Learning
7. Identify Form of Instructional Events
8. Produce Instructional Product
9. Test Instructional Product
9a. Administer Tests
10. Analyze Test Results
10a. Analyze Tests
11. Modify Product
12. Recycle

1a. 10 Questions Representing Group's Needs
1b. Determine Which Needs Can Be Met
2a. Domain Assessment
   - cognitive
   - affective
   - psychomotor

Domain Assessment
   - cognitive
   - affective
   - psychomotor
### Assessments Planning Chart (To Be Completed Before the Pupils Arrive)

<table>
<thead>
<tr>
<th>DIRECTIONS</th>
<th>OBJECTIVE (Column A)</th>
<th>EXPANSION OF OBJECTIVE (Column B)</th>
<th>DESCRIPTION OF PUPIL BEHAVIORS (Column C)</th>
<th>METHODS OF EVALUATION (Column D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. OBJECTIVE</td>
<td>List all the objectives of the project. Using a separate planning chart for each objective, write the objective in the box in Column A.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. EXPANSION OF OBJECTIVE</td>
<td>Identify separate behaviors that are subelements of the major behaviors in Column A. List the enabling objectives in Column B.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. DESCRIPTION OF PUPIL BEHAVIORS</td>
<td>Translate each expanded objective listed in Column B into brief descriptions of actual pupil behaviors in Column C. List each behavior separately and describe specifically what the pupil should do at the conclusion of the project.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. METHODS OF EVALUATION</td>
<td>Expand each objective listed to include any outcome expected or hoped for, regardless of how difficult its measurement may seem. For each objective listed, some evaluation should be presented at the end of the project.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Adapted by Michael Giammatteo from original assessment chart prepared by New England Educational Assessment Project (Title III)