Revising Instructional Materials

Types of Revision
Revision of the instruction occurs after the formative evaluation. There are two types of revisions. The first concerns changes made to the content or substance of the materials to make them more accurate or effective. The second concerns the procedures employed in using the materials.

Analysis of Data from One-to-One and Group Trials
Both one-to-one and small-group trials provide data for the revision of the materials. However, data collected from one-to-one trials are usually less indicative of the target population’s reaction to the materials. Therefore, data from one-to-one trials is usually used for revision of the more obvious problems.

The small-group and field trials provide the instructional designer with more concrete data for revision. The individual assessment items can be analyzed to see if they are effectively measuring the performance of the corresponding objective as well as to see if there are problems with specific areas in the instructional materials. This data is usually compiled for some sort of analysis.

Data Analysis
There are several different data summaries and analyses for small-groups:

- **Group’s Item-by-Objective Performance.** The purpose of this table is to create two summaries for analysis: item quality and learner performance. Item analysis determines the difficulty of each item for the group, determines the difficulty of each objective for the group, and determines the consistency of the objectives’ test items.

- **Learner’s Item-by-objective Performance.** This analysis is similar to the group analysis and should be conducted in the same manner after faulty items detected by the group’s analysis are removed.

- **Learner’s Performance Across Tests.** Subsequent to the above analysis, the performance across test analysis is accomplished by examining pre- and post- test questions for each objective for each student. This analysis enables the designer to determine whether or not learning occurred for each objective.

- **Graphing Learner’s Performances.** This alternate method of data display of performance percentages and objectives allows comparison of pre- and post-test results.

- **Other Types of Data.** Other types of data to be analyzed include information gathered from attitude questionnaires, open-ended responses, and student comments on the instruction. Use of this type of data is usually informal and often written on a copy of the instructional materials.

Data Examination Sequence
Once data has been collected, it should be used in the following order:

1. Entry behaviors required.
2. Pretests and posttests used.
3. Instructional strategy employed.
4. Learning time required.
5. Instructional procedures used.
6. Revision process.