Precise Teaching Is More Effective Teaching

Before our schools in Red Bank, New Jersey, began using outcome-based instruction, teaching lacked precision. Too often teachers could not specify exactly what they were teaching; they simply covered material. As a result, curriculum decisions were made by textbook editors rather than by people in the school system.

Our first step in making teaching more precise was to identify teaching objectives, grade by grade and subject by subject. In pupil behavior terms, we defined exactly what we wished the learner to be able to do or to know, and these objectives became the basis of our instructional program. Next we broke down each objective into two components: the prerequisite skills necessary and the skills to be taught.

Instructional materials were analyzed to determine whether they met the objective. Teachers were encouraged to dip into a wide range of materials reflecting various modalities in order to match learning styles with materials. Thus, as teachers drew on several sources for one unit, teacher-made materials became as important as texts. Teachers ordering new materials were required to specify exactly which objectives the materials were intended to address. Materials were also scrutinized to ensure they didn’t cover multiple objectives, thus obfuscating the purpose of the lesson.

Improved precision extends to the teaching act itself. Our teachers must use an eight-step model for developing an objective:

- Motivation
- Sharing the objective with pupils so they understand what is expected of them
- Explaining to pupils why they are working on the particular objective
- Teaching to the objective
- Modeling desired behavioral outcomes
- Providing guided practice
- Providing independent practice
- Evaluation.

Teachers have found that the clear specification of objectives keeps them on task. This applies to pupils as well.

Determination of how much time should be spent on each objective is left to the teacher. Most eight-step cycles do not take more than two weeks; some take as little as three or four days.

Evaluation is continuous. Children who demonstrate mastery of an objective are given enrichment activities. Those who do not are given a second or third opportunity to achieve the outcome and are re-taught using different strategies and materials. Grouping for enrichment or correction, based on formative testing, is precise and requires a clear understanding of entrance/exit level skills.

Teachers are expected to plan extensively before beginning instruction on an objective, rather than planning from week to week. They report this makes them better organized and more focused.

The cycle always begins with whole-group instruction. Interestingly, we found the change from group work to whole-class lessons to be a major stumbling block. Many of our teachers defined good teaching as dividing children into groups and working with those groups one at a time. While the teacher worked with one group, the others were given ditto sheets or paper-and-pencil assignments. Some assignments reinforced knowledge and skills, but many merely maintained order by keeping the children busy. Teachers relied on practice materials to do a significant part of the instruction for them.

Accustomed to working with small groups, many elementary teachers were scared to death to stand up in front of the class for instructional purposes. This was not a problem with our secondary people but they were less likely to use a variety of materials and to think in terms of learning modalities.

The precision of the plan capitalizes on the strengths of both groups: While elementary teachers are moving toward greater comfort in addressing the whole class, secondary teachers are adding to their repertory of materials and approaches. The clarity of the eight-step plan and the requirement for precision in teaching have made this both necessary and inevitable.

What was the payoff? The percentage of students who passed the statewide tests required by the New Jersey Department of Education rose significantly. For instance, in 1979, before mastery learning, only 75 percent of the third graders who took the reading test passed it; in 1981 86 percent passed. In 1979, 47 percent of the students who took the sixth-grade mathematics test passed; in 1980 68 percent passed, and in 1981 76 percent passed.

The graph shows the dramatic increase in grade level performance over the past six years in all subject areas for grades two through eight. For example, the mean score of eighth graders in mathematics has risen steadily from 7.1 in 1976 to 9.4 in 1981. Given the right program, students will learn!

1 The slight decline in third-grade reading scores in 1980 was caused by inclusion of special education students who should not have been tested.
FIGURE 1. READING SCORES IN RED BANK 1976 - 1981

Typical of test scores in all subjects, reading achievement has improved, especially in the upper levels.

GRADES 1 - 8 (Numeral represents grade levels)