

Instruction

There is a sense in which everyone is a teacher. The root meaning of the word *teach* is “to show, to tell, to point out.” Everyone teaches others, and so everyone is a teacher, at least in the amateur sense. This doesn’t mean that everyone can be an *effective* teacher, however. If we look at the word *teach* in its professional sense, in relation to the word *instruction*, a more complex picture emerges. The meaning of the word *instruct* derives from the root “to build” or “to structure.” Professional teachers not only *teach* in the usual sense of the word, they also *instruct*. They *structure* classroom environments and *build* experiences for a diverse group of students. Whereas parents, doctors, and others usually teach spontaneously by telling, pointing out, or showing, professional educators must carefully design and plan for their teaching. In fact, in our opinion, you are not teaching unless your instruction is helping students learn. There is a natural analogy between instruction and building based on the process of structuring environments. The teacher, as an instructor, is comparable to the builder in three ways:

1. *Planning for a specific audience.* Both builders and teachers must first figure out the needs of their clients or students. The house required for a single person with a large collection of automobiles should be different from that of a family of six with four dogs, three cats, two hamsters, and a rabbit. Similarly, the instructional design for a freshman conceptual physics class will be different from the design of the AP physics class. The background knowledge of the students and the challenge of the content require different approaches. Both the builder and the teacher must consider their clients, and they need to know how to formulate a plan that will be sound, original, and functional.

A good design for teaching grows out of a clear understanding of the needs of learners and the goals of education. Each design that a professional teacher creates is unique because different groups of learners have individual needs, and different types of learning require specific instructional approaches.

2. *Formulating objectives and evaluation procedures.* Both the builder and the teacher specify the intended outcome of their work as clearly as possible. No builder would think of starting a construction project without having a clear picture of how the final product should look. To get halfway through the project only to realize that what was emerging was not what the client wanted or needed would be professionally embarrassing and costly. The teacher who works without a careful design also leaves too much to chance, not providing appropriate supports that help students learn. As a professional, the teacher must plan how to achieve specific, intended learning outcomes. Otherwise, valuable instructional time can go to waste, and students will not have the appropriate experiences for success on the assessments for which they are accountable.

An essential part of setting objectives is determining effective assessment procedures to make certain that what was intended is taking place. Like the builder who must constantly check on the construction, the teacher must determine whether students are reaching the intended results. It would be foolish to wait until a building has been completed to check on the quality of the work and to determine whether all is proceeding as planned. Likewise, a teacher must use effective formative and summative assessment procedures throughout the teaching process.

Evaluation is continual, forming the basis of all decisions at every step: determining needs, formulating objectives, designing aligned assessments and instructional methods, and selecting materials. Evaluation is the process of continually asking questions: Where are we going? How do we get there? How far along are we? The teacher must continually collect information from students to determine whether the instruction is appropriate and effective. Thus, evaluation showing the intermediate and ultimate effects of instruction (formative and summative assessment) must be used to reform the process of teaching. Continual evaluation makes this possible.

3. *Selecting materials and procedures.* The builder has available a variety of materials and techniques from which to choose and must decide which combination will produce the structure most nearly like the one intended. Each project must be analyzed to determine the appropriate combinations; for instance, not every house is built only of wood or brick. Likewise, each student is an individual with his or her own needs, strengths, and interests. Moreover, each class is unique in terms of the dynamics of a particular group. Therefore, the teacher needs to have at hand a variety of approaches and techniques to accomplish specific instructional objectives and to manage problems as they arise.

★ Unfortunately, there are classrooms in which there is no instructional variety, leading to monotony and boredom. The teacher who uses the same instructional technique is like the builder who will build only one type of house. The builder may become expert at building that house, but the house will not meet the needs

of a wide variety of clients. A repertoire of instructional and management strategies is necessary to meet the varied needs of learners.