The Events of Instruction

Associated with Posner's micro level organization of instruction is determining the order of the activities within a given lesson, known commonly as the events of instruction. These events are discrete activities that work best in a specific order. The most elemental series of instructional events consists of an introduction, a body (a variety of activities related to the content), a conclusion, and an assessment (Smith & Ragan, 2005). As an example, consider a typical K–12 teacher's lesson plan (see Figure 7.1). The activities and evaluation sections have been labeled by using the four elemental events of instruction.

Introduction	**Background.** A class of 24 students in the second grade. Student abilities range from below to above average with the vast majority in the middle range. **Goal.** To understand the concept, "air takes up space." **Objective.** By the end of the lesson, students will be able to accurately describe the concept, "air takes up space," by describing their observations made during two in-class activities: parachutes and sailboat submarines, and applying this knowledge to the development of a new demonstration of the concept.
Body	**Introductory discussion.** Review the process for making scientific observations; introduce the new concept, "air takes up space"; and preview the parachutes and sailboat submarines activities. **Toy Parachutes.** Using clothespins, string and paper towels, students create their own parachutes and test them by throwing them into the air and observing their descent. **Sailboat Submarines.** Using walnut shells, toothpicks, construction paper and glue, students create small sailboats and use transparent plastic cups placed over their boats to submerge them in a glass tank filled with water, observing how the upper portions of the

Conclusion	**Summative Discussion.** Students draw conclusions about their observations related to "air takes up space."
Assessment	Students are asked to develop their own demonstrations for the concept, "air takes up space." Acceptable responses range from simple re-configurations of the activities (for example, "flying an airplane under water") to new and original demonstrations of the concept.

▶ Long Description for Figure 7.1

Figure 7.1 An Example of a K–12 Teacher's Lesson Plan
Source: Author

The eminent instructional designer and scholar Robert Gagne (1916–2002) theorized that there are nine *events of instruction* (1985).

1. gain learners' attention
2. inform learners of the objective
3. stimulate recall of prior learning
4. present the stimulus
5. provide guidance for the learners
6. elicit learner performance
7. provide feedback
8. assess learner performance
9. enhance retention and transfer (varied practice and reviews)

To put this theory into practice, each of the events described requires at least one instructional activity. The order of the activities makes a difference in the effectiveness of the instruction. The careful consideration of instructional events is analogous to the consideration that goes into a well-planned meal: the order of dishes served affects the overall experience.

Although the events of instruction are most often described in terms that make it seem as if the teacher is the active participant while the learners passively receive instruction, this should not be the case. Both directed and open-ended learning environments have carefully planned instructional events. In both environments, students may take an active role in each of the instructional events. Smith and Ragan (2005) observe that each instructional

open-ended learning environments have carefully planned instructional events. In both environments, students may take an active role in each of the instructional events. Smith and Ragan (2005) observe that each instructional event can be viewed as having two aspects: the *supplantive*—those supplied by the instruction itself—and the *generative*—those generated by the student. For example, during an introduction event, the instructor may present activities intended to gain the learner's attention, but the learner must activate his or her attention in order to participate effectively. During the body of a lesson, the instructor may present the activities, but the learner must actively participate by doing such things as focusing his or her attention, employing learning strategies, and offering and responding to feedback. The events of instruction should be considered a reciprocal process, with instructors and students making contributions that lead to an effective learning experience.

The Continuum of Learning Experiences

All learning experiences can be placed within a continuum. At one end of this continuum are the experiences in which the learner picks up skills, concepts, and attitudes by participating in a concrete, real-world activity. As an example of an extreme version of this, a person may learn to swim by being thrown into deep water, where the only option available short of drowning is to figure out how to stay afloat and propel oneself. At the other end of this continuum are the experiences in which the learner is exposed to skills, concepts, and attitudes through completely contrived or abstract activity. An example of an extreme version of this would be learning to swim by having someone describe it without actually getting near water.

Most instructional activities fall somewhere between the two extremes of this concrete-abstract continuum. One of the most popular methods of categorizing learning activities within this continuum is Edgar Dale's *cone of experience* (Dale, 1969; Smaldino, Lowther, & Russell, 2008). At the base of Dale's cone are direct, purposeful experiences (real-world activities), simulations, and dramatizations. In the middle of Dale's cone are film or video presentations, pictures and photographs, and audio recordings. At the top of the cone are visual and verbal symbols (text and speech).

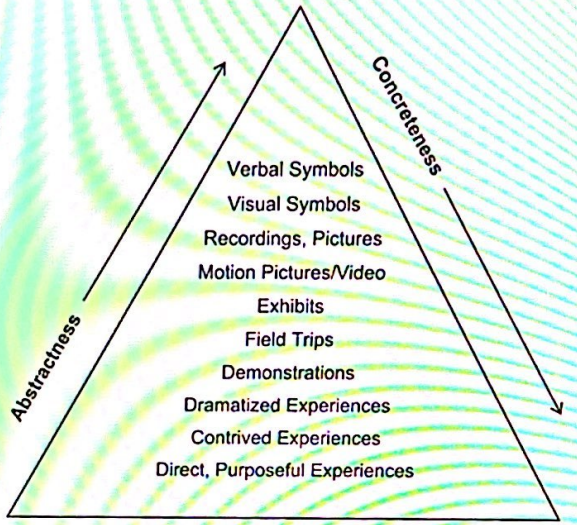
The psychologist Jerome Bruner describes learning experiences as being one of three types: enactive, iconic, or symbolic (Bruner, 1966). *Enactive experiences* are those at the base of Dale's cone. As Bruner puts it:

> We know many things for which we have no imagery and no words, and they are very hard to teach to anybody by the use of either words or diagrams or pictures. If you have tried to coach somebody at tennis or skiing or to teach a child to ride a bike, you will have been struck by the wordlessness and the diagrammatic impotence of the teaching process.
>
> (1969, p. 10)

Iconic experiences are those that are placed within the middle of Dale's cone. The iconic experience, "… depends upon visual or other sensory organization and upon the use of summarizing images" (Bruner, 1966, p. 10). Iconic experiences offer explanations through symbols or representations.

Symbolic experiences are those that are placed at the top of Dale's cone. A symbolic experience is one in which the entire communication is conducted by using sounds and signs that have no direct association with the actual event. For example, languages are symbolic communication systems; the words we speak or read may arbitrarily represent concepts and real things, but they do so by completely artificial means. Bruner points out that symbolic systems are capable of conveying a tremendous amount of information in a compact and efficient manner. For example, scientists and poets convey vast amounts of information through symbols and words. Consider Einstein's "$E = mc^2$" or Frost's "nature's first gold is green." Each are brief expressions that carry a tremendous amount of information to individuals who know how to interpret the symbols in the case of Einstein's theorem and symbolism in the case of Frost's words. It would take quite a long time to enact the content of either expression.

Dale's cone of experience (see Figure 7.2) and Bruner's descriptions are used by instructional designers to analyze the characteristics of various activities in order to make informed decisions about their use within an instructional plan. It is generally considered a good idea to make use of a wide range of enactive, iconic, and symbolic activities in order to provide students with a variety of learning opportunities.



ure 7.2 Dale's Cone of Experience

urce: Adapted from Dale, E. (1969). *Audio-visual methods in teaching* (3rd ed.). New York: Holt, Rinehart and Winston.

A modern look at enactive, iconic, and symbolic experiences must include digital media as well. Computing tools allow for the presentation of all three experiences using bi sential elements instead of the atoms (Negroponte, 1995). For example, fully immersive virtual reality may provide enactive experiences that feel as real as the direct, pu periences that form the base of Dale's cone (Brown & Newton, 2020; Figure 7.3).