The way we go about accomplishing learning will of course depend upon what we conceive of learning to be. I begin this concluding chapter by discussing definitions of learning. Then, I deal with the approaches students take to the task of learning in school. Approaches are the observable attempts of students to adapt to school, and they reflect both the school environment and the students themselves—individuals made up of unique past experiences and unique styles of perceiving and thinking. I consider some of the variables that contribute to the individuality of the student, including motives, self-concepts, and cognitive styles. I end by considering ways of improving learning, but since we can do little to change personality and cognitive style directly, suggestions generally involve modifications to the school environment.

WHAT IS LEARNING?

Traditional psychologists define learning as relatively permanent changes in behavior. Rightly or wrongly, changes in verbal behavior seem to be the focus of most school learning. Furthermore, most of the
changes measured in the school setting reflect recall as demonstrated through reproduction or recognition of the verbal material. Marton, Pask, and Ramsden have all emphasized that changes in verbal behavior indicating recall do not necessarily mean that a student has achieved an understanding, and they argue that understanding should also be an official part of the definition of school learning.

Marton emphasizes that we should strive to measure not only whether the students understand a particular topic but also how they understand it. In his own research, he has used a measure that he refers to as "retelling the text," a measure similar in some ways to one Pask calls "teachback." Pask says that people understand a concept when they can derive it from their own mental structures. Pask states, "An 'understood topic' is one for which teachback has been obtained. Teachback involves not only saying what other topics a topic may be derived from, but also how the other topics relate to reproduce the one that is to be understood. It is not enough merely to parrot back a definition; the topic must be used in a novel way that shows the learner's ability to manipulate topics and their entailments and produce a novel interaction" (Chapter 4). Pask goes on to note that, in addition to recall, teachback involves prediction "in Bruner's sense of going beyond the information given," and he adds that "understood topics are resilient" (Chapter 4).

Entwistle, Marton, and Ramsden all discuss research (e.g., Säljö, 1982; Van Rossum & Schenck, 1984) concerned with the conception that students hold of the learning process. If you ask students what learning means to them, different students will describe different conceptions of the process. At one end of a continuum you will find a quantitative conception in which learning is described as the accumulation of facts or bits and pieces of information, or knowledge. At the other end of the continuum, you will find students who have a more qualitative view in which learning is seen to involve the interpretation and reinterpretation of experience to produce self-actualization or personal growth and development. Similarly, with regard to conception of writing, Biggs describes a study by Hounsell (1984) in which students on the quantitative end of the continuum who saw writing as "a loose collection of thoughts and ideas" were contrasted with those on the qualitative end who felt that "data and organization were subordinate to the overall interpretative stance adopted by the writer" (Biggs, Chapter 8).

Marton has pointed out on several occasions that teachers hold conceptions of the learning process similar to those Säljö found in students and that may explain where students get their conceptions. Entwistle, Marton, and Ramsden all point out that students sense the relation between learning process and learning outcome, and they study so