



**Learning Objective:** The student shall have an understanding of learner styles and characteristics of those styles.

**H**ave you ever tried to learn something simple, yet failed to understand the key idea's concepts? On the other hand, have you tried to teach and found that some students were overwhelmed or confused by the most basic elements of the lesson?

If so, you have experienced conflicting learning styles. Your learning preferences and those of your instructor or students may not have been aligned. When this occurs, not only is it frustrating for everyone, but also the communication process breaks down and learning fails. Once you know your own learning preferences, you can adjust or augment the way you learn and develop other ways to learn, not just in your preferred style.

In addition, by understanding learning styles, you can study and create an environment in which everyone can learn from you, not just those who use your preferred style.

### Felder and Silverman's Index of Learning Styles

One of the most widely used models of learning styles is the **Index of Learning Styles** developed by Richard Felder and Linda Silverman in the late 1980s. According to this model (which Felder revised in 2002), there are four dimensions of contrasting learning styles. In the first column, view these dimensions as a continuum with one learning preference on the far left and the other on the far right. The second column presents examples of characteristics defining the dimensions listed in the first column.

Dimensions of Learning		Examples of Learner Characteristics
<b>Intuitive:</b> prefer conceptual, innovative and theoretical information.	<b>Sensory:</b> prefer concrete, practical and procedural information.	<b>Intuitive</b> learners look for meaning. <b>Sensory</b> learners seek the facts.
<b>Visual:</b> prefer graphs, pictures and diagrams.	<b>Verbal:</b> prefer to hear or read information.	<b>Visual</b> learners look for visual representations. <b>Verbal</b> learners look for explanations with words.
<b>Active:</b> prefer to manipulate objects, do physical experiments, and learn by trying.	<b>Reflective:</b> prefer to think things through, evaluate options, and learn by analysis.	<b>Active</b> learners enjoy working in groups to figure out problems. <b>Reflective</b> learners enjoy figuring out a problem on their own.
<b>Sequential:</b> prefer to have information presented linearly and in an orderly manner.	<b>Global:</b> prefer a holistic and systematic approach.	<b>Sequential</b> learners put together the details to find the big picture. <b>Global</b> learners see the big picture first, then the details.

Once you understand your learning preferences, you can initiate efforts to go beyond those preferences and develop a more balanced approach to learning. Not only will you improve your learning effectiveness, but also you will open yourself up to many different ways of learning and comprehend other life applications.

Balance is crucial. Never go too far on any one side of the learning dimensions. When you do, you limit your ability to take in new information and make sense of it quickly, accurately and effectively.

Source: R.M. Felder and L.K. Silverman, "Learning and Teaching Styles in Engineering Education," *Engr. Education*, 78(7), 674-681 (1988). The article that originally defined the Felder-Silverman model and identified teaching practices that should meet the needs of students with the full spectrum of styles. The paper is preceded by a 2002 preface that states and explains changes in the model that have been made since 1988.