1.2: The Learning Process

Right now, you are investing substantial amounts of time, money, and energy in your education. What you get in return for this investment depends on how well you understand the process of learning and use it to your advantage.

If you don’t understand learning, you might feel bored or confused in class. After getting a low grade, you might have no idea how to respond. Over time, frustration can mount to the point that you question the value of being in school.

Some students answer that question by dropping out of school. These students lose a chance to create the life they want, and society loses the contributions of educated workers.

You can prevent that outcome. Gain strategies for going beyond boredom and confusion. Discover new options for achieving goals, solving problems, listening more fully, speaking more persuasively, and resolving conflicts between people.

Start by understanding the different ways that people create meaning from their experience and change their behavior. In other words, it is important to learn about how we learn.

When we learn well, says psychologist David Kolb, two things happen. First, we perceive. That is, we notice events and “take in” new experiences.

Second, we process. We “deal with” experiences in a way that helps us make sense of them. According to Kolb (1984), each mode of learning represents a unique way of perceiving and processing our experiences. The following image illustrates the four modes of learning:

Mode 1: Concrete experience (feeling)
Mode 2: Reflective observation (watching)

Mode 3: Abstract conceptualization (thinking)

Mode 4: Active experimentation (doing)

**Concrete experience.** Some people prefer to perceive by feeling (also called concrete experience). They like to absorb information through their five senses. They learn by getting directly involved in new experiences. When solving problems, they rely on intuition as much as intellect. These people typically function well in unstructured classes that allow them to take initiative.

**Reflective observation.** Some people prefer to process by watching (also called reflective observation). They prefer to stand back, watch what is going on, and think about it. They consider several points of view as they attempt to make sense of things and generate many ideas about how something happens. They value patience, good judgment, and a thorough approach to learning.

**Abstract conceptualization.** Other people like to perceive by thinking (also called abstract conceptualization). They take in information best when they can think about it as a subject separate from themselves. They analyze, intellectualize, and create theories. Often, these people take a scientific approach to problem solving and excel in traditional classrooms.

**Active experimentation.** Other people like to process by doing (also called active experimentation). They prefer to jump in and start doing things immediately. These people do not mind taking risks as they attempt to make sense of things; this helps them learn. They are results oriented and look for practical ways to apply what they have learned.

**Perceiving and Processing—An Example**

Suppose that you’re considering a new smartphone. It has more features than any phone you’ve used before. You have many options for learning how to use it. If you were to get the phone, which of the following would you tend to do to learn how to use it?

- Get your hands on the phone right away, press some buttons, and see whether you can browse online and access apps. This is an example of learning through concrete experience.
- Recall experiences you’ve had with phones in the past and what you’ve learned by watching other people use their phones. This is an example of learning through reflective observation.
- Read the instruction manual and view help screens on the phone before you try to make a call. This is an example of learning through abstract conceptualization.
- Ask a friend who owns the same type of phone to coach you as you experiment with making calls and sending messages. This is an example of learning through active experimentation.

In summary, your learning style is the unique way that you blend feeling, thinking, watching, and doing. You tend to use this approach in learning anything—from cell phones to English composition to calculus.
People often think that being smart means the same thing as having a high IQ, and that having a high IQ automatically leads to success. However, psychologists are finding that IQ scores do not always foretell which students will do well in academic settings—or after they graduate (Bernstein et al. 2006, 368–69).

Howard Gardner of Harvard University believes that no single measure of intelligence can tell us how smart we are. Instead, he defines intelligence in a flexible way as “the ability to solve problems, or to create products, that are valued within one or more cultural settings” (Gardner 1993). He also identifies several types of intelligences.

### Multiple Intelligences

People using **verbal/linguistic intelligence** are adept at language skills and learn best by speaking, writing, reading, and listening. They are likely to enjoy activities such as telling stories and doing crossword puzzles.

People who use **mathematical/logical intelligence** are good with numbers, logic, problem solving, patterns, relationships, and categories. They are generally precise and methodical, and they are likely to enjoy science.

When people learn visually and by organizing things spatially, they display **visual/spatial intelligence**. They think in images and pictures and understand best by seeing the subject. They enjoy charts, graphs, maps, mazes, tables, illustrations, art, models, puzzles, and costumes.

People using **bodily/kinesthetic intelligence** prefer physical activity. They enjoy activities such as building things, woodworking, dancing, skiing, sewing, and crafts. They generally are coordinated and athletic, and they would rather participate in games than just watch.

Individuals using **musical/rhythmic intelligence** enjoy musical expression through songs, rhythms, and musical instruments. They are responsive to various kinds of sounds; remember melodies easily; and might enjoy drumming, humming, and whistling.

People using **intrapersonal intelligence** are exceptionally aware of their own feelings and values. They are generally reserved, self-motivated, and intuitive.

Outgoing people show evidence of **interpersonal intelligence**. They do well with cooperative learning and are sensitive to the feelings, intentions, and motivations of others. They often make good leaders.

People using **naturalist intelligence** love the outdoors and recognize details in plants, animals, rocks, clouds, and other natural formations. These people excel in observing fine distinctions among similar items.

Each of us has all of these intelligences to some degree. And each of us can learn to enhance them. Experiment with learning in ways that draw on a variety of intelligences—including those that might be less familiar. When we acknowledge all of our intelligences, we can constantly explore new ways of being strategic in our learning.
You can approach the topic of learning styles with a simple and powerful system—one that focuses on just three ways of perceiving through your senses:

1. Seeing, or visual learning
2. Hearing, or auditory learning
3. Movement, or kinesthetic learning

To recall this system of learning, remember the letters VAK, which stand for visual, auditory, and kinesthetic. The theory is that each of us prefers to learn through one of these senses. We can enrich our learning with activities that draw on the other channels.

To illustrate how each type of learners perceives and processes information, use the following questions to reflect on your VAK preferences. Each question has three possible answers. Write down the answer that best describes how you would respond in the stated situation. This is not a formal inventory—just a way to prompt some self-discovery.

**When you have problems spelling a word, you prefer to**

1. look it up in the dictionary.
2. say the word out loud several times before you write it down.
3. write out the word with several different spellings and then choose one.

**You enjoy courses the most when you get to**

1. view slides, overhead displays, videos, and readings with plenty of charts, tables, and illustrations.
2. ask questions, engage in small-group discussions, and listen to guest speakers.
3. take field trips, participate in lab sessions, or apply the course content while working as a volunteer or intern.

**When giving someone directions on how to drive to a destination, you prefer to**

1. pull out a piece of paper and sketch a map.
2. give verbal instructions.
3. say, “I’m driving to a place near there, so just follow me.”

**When planning an extended vacation to a new destination, you prefer to**

1. read colorful, illustrated brochures or articles about that place.
2. talk directly to someone who’s been there.

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**Reference**


3. spend a day or two at that destination on a work-related trip before taking a vacation there.

**You've made a commitment to learn to play the guitar. The first thing you do is**

1. go to a library or music store and find an instruction book with plenty of diagrams and chord charts.
2. pull out your favorite CDs, listen closely to the guitar solos, and see whether you can play along with them.
3. buy or borrow a guitar, pluck the strings, and ask someone to show you how to play a few chords.

**You've saved up enough money to lease a car. When choosing from among several new models, the most important factor in your decision is**

1. the information you read from sources like Consumer Reports.
2. the information you get by talking to people who own the cars you’re considering.
3. the overall impression you get by taking each car on a test drive.

**You've just bought a new computer system. When setting up the system, the first thing you do is**

1. skim through the printed instructions that come with the equipment.
2. call someone with a similar system and ask her for directions.
3. assemble the components as best as you can, see whether everything works, and consult the instructions only as a last resort.

**You get a scholarship to study abroad next semester, which starts in just three months. You will travel to a country where French is the most widely spoken language. To learn as much French as you can before you depart, you**

1. buy a video-based language course that’s recorded on a DVD.
2. set up tutoring sessions with a friend who’s fluent in French.
3. sign up for a short immersion course in an environment in which you speak only French, starting with the first class.

Now, take a few minutes to reflect on the meaning of your responses.

- All of the answers numbered “1” are examples of visual learning.
- Those numbered “2” refer to auditory learning.
- Those numbered “3” illustrate kinesthetic learning.

A consistent pattern in your answers indicates that you prefer learning through one sense channel more than others. Or you might find that your preferences are fairly balanced.