What follows in this chapter is a study of learning style theory, the rationale underlying the choices learners make along the continua of perceiving and processing.

**A CYCLE OF LEARNING**

Learning styles are the result of preferences in the ways people perceive and process experience. They are described in a four-quadrant construct. But learning styles are not the most important thing; by themselves, they offer no guidance for teachers. For this guidance, we turn to the cycle of learning.

This cycle is defined by the four axes. Picture a clock. At 12:00 we have the top of the perceiving line. This place on the cycle represents direct experience, the feeling place. At 6:00, at the bottom of the perceiving line, we have abstract concepts, the thinking place. Twelve o’clock is subject, being “in it.” Six o’clock is object, “studying it.”

The two points of the processing line represent a move from reflection (at 3:00) to action (at 9:00).

Now put the whole clock together. Learning begins with direct experience at 12:00. Then learners move toward analysis at 6:00 via reflective processing at 3:00. After the cycle swings past 6:00, learners become more active, moving from analysis to usefulness via active processing at 9:00. The movement from 9:00 back to 12:00 offers learners the opportunity to integrate the new material back with the self. Learning is complete at the top of the cycle.
Learning style. Particular approaches individuals have to perceiving and processing information and experience that result in certain preferred places on the learning cycle, to the partial exclusion of others.

While relatively stable over time, our style preferences are highly affected by the situations we find ourselves in. We do what we have to do. But some of those situations are a real stretch.

It is critical that we learn to be flexible at those places on the cycle that are a challenge for us, even as we maintain our individual learning preferences—the special spins we put on our growth and development. Teachers must design instruction with a framework that encompasses the cycle and honors individual differences throughout the complete learning process.

HOW PERCEIVING DEFINES US AS LEARNERS

We perceive things differently. We take things in differently. In new learning situations, some of us sense and feel our way, staying with our direct experiences. Others think things through, preferring to move quickly to abstractions.

Those who perceive in a feeling way, an intuitive way, sense the experience, connecting the information to meaning. They learn through the lens of the affect, the emotional. These sensor-feelers believe in their intuition. They are, by their very nature, holistic. The gestalt of direct experience at 12:00 is home to them.

On the other hand, those who think through their experiences tend more to the abstract. They analyze what is happening, examining the parts. Their intellect makes the first appraisal. They reason experience.

Analysis necessitates a standing outside, an attempt to override (although never entirely possible) the personality of the perceiver. This is the 6:00 place where learners strive to be as free from bias as possible.
“Who could ever tire of this heart-stopping transition, of this breakthrough shift between seeing and knowing you see, between being and knowing you be? It drives you to a life of concentration, it does, a life in which effort draws you down so very deep that when you surface you twist up exhilarated with a yelp and a gasp.”

The particular perceiving orientation that you come to favor over time, feeling (depending largely on direct experience) or thinking (depending largely on abstraction), is one of two major factors determining who you are as a learner. Both kinds of perception are equally valuable: both have their own strengths and weaknesses.

Schools do not value the feeling approach; it is grossly neglected (and even that is an understatement). Progression through the grades leads learners away from feeling, dealing more and more with abstractions about experience—botany without flowers, astronomy without stars, life skills without emotion. This is very frustrating for those who are feelers, and a great loss for those who are thinkers as well.

I do in fact doubt that schooling, as presently conceived and conducted, is capable of providing large segments of young people with the education they and democracy require, and I include among these young people a significant proportion of those now “making it.”

—John Goodlad

HOW PROCESSING DEFINES US AS LEARNERS

The second major difference in how we learn is how we process what we experience, what we do with what happens to us.

Some of us jump right in and try things; others watch what happens and reflect on it before jumping in. Some of us reflect; some of us act. Both approaches have their strengths and weaknesses.

Schools ask learners to watch and listen and reflect. This is frustrating for those who need to act, to do, to try things. (This is a great loss for those who prefer to reflect, as well.) Those who prefer to reflect filter new learnings through their own experiences.
That is how they make meaningful connections. Those who prefer to act need to try things out; they need to do it, to extend it into their world. That is how they make meaningful connections.

*Even if the theory that now exists were perfect, most of us in education have never before worked from theory to practice. . . . We cannot expect the theory itself to solve our problems. The understanding has to be applied.*

-Deciding what is to be abandoned is crucial . . . and letting go is often much harder than taking hold.

—Leslie Hart

**THE PROCESSING DIMENSION AND JOHN DEWEY**

John Dewey maintained that if learning is real, it will create purpose and direction. That direction will lead to change and then to transformation.

Dewey talked of the transaction between the learner and the environment. His theory of education is a theory of doing. Dewey addressed the importance of human experience as the gateway to understanding.

Cognitive potential evolves through use. Learning happens as we unite our experiences and their meaning with actions that test those meanings in the world. Dewey believed we should unite mind and body through a method of thinking and doing he called “the art of education.”

Schools have overlooked the wisdom of Dewey. Think of how different our assessment strategies would be if we applied Dewey. For example, students would have performance requirements. They would have to do what they learn. It would not be enough to recite information. Learners would have to make what they learn useful. They would have to show how they use it in their lives.
All children have intelligence. We have asked the wrong question. We ask, “How much?” We must ask, “What kind?”

—Mary Meeker

PERCEIVING AND PROCESSING AND STYLE

Our favorite places on the 4MAT cycle result in individual learner differences. The perceiving continuum of 4MAT moves from direct experience (DE) to abstract conceptualizing (AC). Those of us who feel more graceful in direct experience tend to linger at 12:00. Those of us who feel more graceful in conceptual abstraction tend to linger at 6:00.

The processing continuum of 4MAT moves from reflection (R) to action (A). Those of us who feel more graceful in reflection tend to linger at 3:00. Those who feel more graceful in action tend to rush toward 9:00.

The combination of these two choices forms our individual differences. I call them:

Type one learners,
Type two learners,
Type three learners, and
Type four learners.

Designers of instruction at all levels, in all fields, in all settings both formal and informal, need to understand the legitimacy of these differences and design instruction to accommodate them.
Type One Learners: Why?

Type one learners perceive information directly at 12:00 and process it reflectively at 3:00.

They learn by feeling their experiences, being present to them, trusting in their perceptions, and being open to sensory input. They take time to reflect and ponder their experience. They seek meaning and clarity. They integrate experience with the self. They learn primarily in dialogue, by listening and sharing ideas. They excel in viewing these ideas from many perspectives. They have highly developed imaginations. They are insightful, absorbing reality, taking in the climate. They thrive on lots of reflecting time, especially when pondering new ideas. They seek commitment. They work for harmony and clue in to the needs of others with ease. They are great mentors. They nurture others to help them accomplish their goals. They tackle problems by reflecting alone and then brainstorming with others. They exercise authority through group participation. If they are forced into a conflict situation (which is usually difficult for them), they deal with it through dialogue and a great deal of listening. They build trust through personal interactions.

Their favorite question is “Why?” They seek to know the underlying values. As teachers they:

- Are interested in facilitating individual growth and self-awareness,
- Encourage their students to be authentic,
- Believe curricula should help students know themselves and others,
- See knowledge as the basis for achieving potential,
- Involve their students in discussions and group projects,
- Believe reflection is a primary method for enhancing self-awareness, and
- Are informed about social issues that affect human development.

Strengths: People skills, reflection
Goals: To be involved in important issues and to bring harmony
Need to Improve: Working under pressure and taking risks

Type Two Learners: What?

Type two learners perceive information abstractly at 6:00 and process it reflectively at 3:00.

They learn by thinking through experiences, judging the accuracy of what they encounter, examining details and specifics. They take the time to reflect and ponder on what
they experience. They seek to achieve goals and to be personally effective. They integrate their observations into what they already know, forming theories and concepts. They excel in traditional learning environments and are thorough and industrious. They judge new learning by how theoretically sound it is. They are intrigued by how systems function. They look for structure. They thrive on stimulating lectures and readings. They seek continuity and certainty and are wary of subjective judgments. They have clearly defined goals and monitor cutting-edge research in their fields. They want to be as knowledgeable and accurate as possible. They are systematic. They tackle problems with logic and analysis. They exercise authority with principles and procedures. If they are forced into a conflict situation, they deal with it systematically, dissecting the problem before coming to a conclusion. They build trust by knowing the facts and presenting them systematically.

Their favorite question is “What?” They seek to know what the experts know. As teachers they:

- Are interested in transmitting the best knowledge,
- Try to help their students become good thinkers,
- Encourage excellence,
- Believe curricula should encompass significant information with facts in service to that goal,
- See knowledge as the basis for achieving goals,
- Involve their students in lectures, note taking, and readings,
- Believe people should approach learning systematically, and
- Are up-to-date on the expert knowledge in their content areas.

Strengths: Concepts and theory, reflection
Goals: Intellectual recognition
Need to Improve: Creativity

**Type Three Learners: How Does This Work?**

Type three learners perceive information abstractly at 6:00 and process it actively at 9:00. They learn by thinking through their experiences, judging the usefulness of what they encounter. They take the time to figure out what can be done with what they learn. They seek utility and results. They integrate new learning by testing theories. They excel at down-to-earth problem solving, often tinkering to make things work.
Type three learners learn best with hands-on techniques. And once they have it, they move quickly to mastery. They are pragmatists; they need closure; they like to get things done. They thrive in the company of competent people and excel at problem solving. They seek to get to the heart of things. They work for deadlines and “keep to the plan.” They like to be considered competent, and they help others to be competent. They tackle problems quickly, often without consulting others. They exercise authority with reward and punishment. If they are forced into a conflict situation, they deal with it by creating solutions. They build trust with straightforward forcefulness.

Their favorite question is “How does this work?” They seek to know the usability of theory.

As teachers they:

Are interested in helping their students achieve high skills competence,
Try to lead their students to mastery for life skills,
Encourage the practical aspects of learning,
Believe curricula should stress economic usefulness and opportunity,
See knowledge as enabling learners to make their way in the world,
Involve their students in problem solving, experiments, and hands-on activities,
Believe their students should approach problems scientifically, and
Excel in the technical aspects of their fields.

Strengths: Action, getting things done
Goals: Productivity, competence
Need to Improve: People skills

**Type Four Learners: What If?**

Type four learners perceive information directly at 12:00 and process it actively at 9:00.

They learn from their perceptions and the results of their experiences. They are open to all manner of sensory input. They take the time to consider the possibilities of what they
learn. They seek challenge and are risk takers. They integrate their present experiences with future opportunities. They learn primarily through self-discovery. They excel at synthesizing. They are flexible and flourish in challenging situations. They are enthusiastic about enriching reality, putting new “spins” on things. They thrive on chaotic situations. They seek to influence others. They push their potential. They are at ease with all types of people. They actively seek growth and pressure others to do so. They tackle problems with their intuition. They exercise authority by influence and expect their people to be accountable. If they are forced into a conflict situation, they react emotionally and then move to cool rationality. They build trust with high communication skills and openness.

Their favorite question is “What If?” They seek to know the possibilities.

As teachers they:

Are interested in enabling learners to seek possibilities.
Help their students act on their dreams,
Believe self-awareness comes from challenging oneself,
Encourage real-experience learning,
Believe curricula should be geared to individual learner interests,
See knowledge as important to bringing about change,
Involve their students in many out-of-school activities, and
Use the community as their classroom, seeing community needs as learning opportunities.

Strengths: Innovation and action for change
Goals: To be on the cutting edge of social progress
Need to Improve: Digging into the details

Putting It All Together

Learning moves from 12:00—the sensory place, the “Me” place, where we feel our world—from direct experience (DE) into reflective observation (RO). Then we assimilate the experience and abstract it into a concept (AC).

We stand back and examine; we name “It.” The 6:00 place is the “It” place, where things are objects to be examined and understood. Then we try things out, discovering what personal meaning we can make of this experience, this thing, transforming concepts into actions via active experimentation (AE).

Last, we return to new direct experience (DE) with an ever-renewing focus. We have integrated meaning, concept, and action.
NOTE