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What Is the Let Me Learn Advanced Learning System?

Learning is crucial to our existence. This perspective is not original or limited to the present-day. Centuries ago, ancient literature characterized learning as the wellspring of our existence. However, as the ancient literature explains, for learning to be maximized it needs to be used with intention. The learner needs to know and understand that learning encompasses the ability to think and reason, the motivation to engage and act, and the courage to acknowledge feelings and empathize. Any explanation of learning that seeks acceptance as authentic needs to acknowledge and reverence these points. Few explanations of learning meet this standard. One explanation that does is the Let Me Learn (LML) Process.

The inception of the LML Process began more than 15 years ago, when a group of academic researchers and educational practitioners sought to understand the source and potential of Intentional Learning. Their exploration and experimentation resulted in a science-based, learner-friendly explanation of learning, including the brain-mind connection, the Mental Processes it requires, and the potential it holds for individuals to use it with intention.

During the development of the LML Process, important insights into Intentional Learning yielded the development of a unique set of learning tools, an array of practical skills, and a set of terms to equip learners of all ages to communicate with others about their individual

Learning Processes. With the addition of these tools, skills, and a lexicon of learning terms, the designation of the LML Process expanded to include the phrase “an Advanced Learning System.”

The Theoretical Basis for the Let Me Learn Process

How We Take in the World

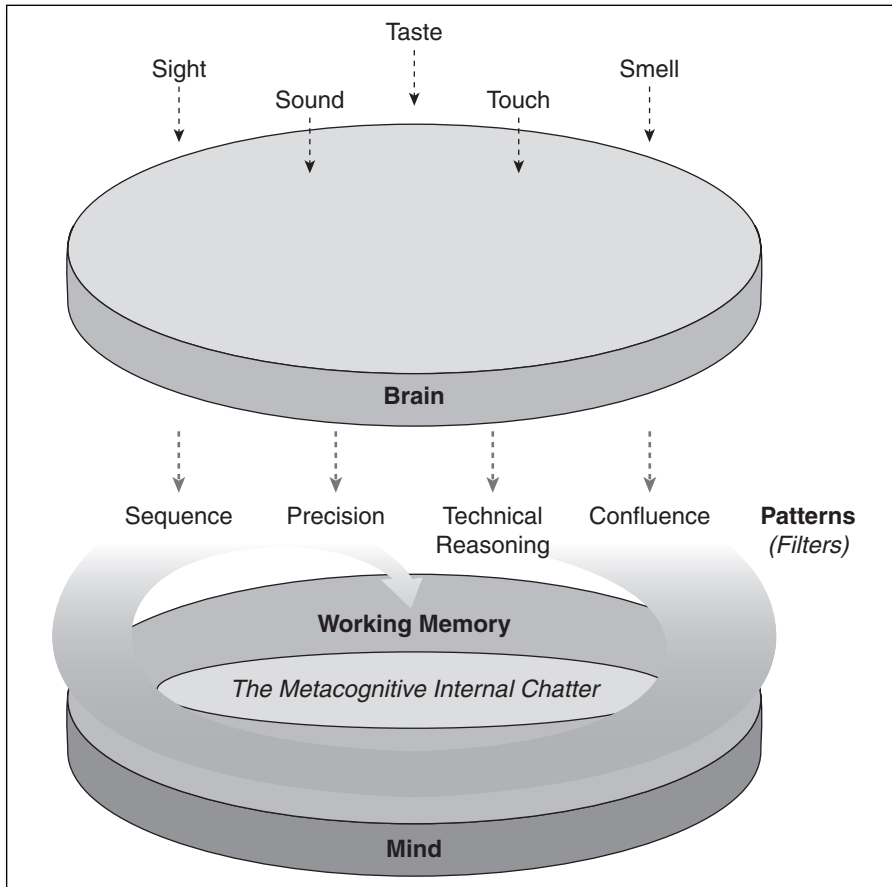
The LML Process defines learning as “taking in the world around you and making sense of it” (C. Johnston, 2007). Although this is not a school-based definition of learning, it is comprehensive and at the same time parsimonious. This definition fits well with the rationale for why learning is vital to living. To survive and thrive, individuals need to be able to comprehend the world around them, interpret its effects on them, and determine how best to respond.

Understanding the brain-mind connection is the first step in understanding how learning occurs. Simply stated, the process of learning begins as the brain takes in stimuli through the five senses. Stimuli enter the brain in the form of sight, sound, taste, touch, and smell. Our sensory portals regulate the stimuli entering the brain. Once inside the brain, the stimuli are processed by neuroreceptors and electrochemicals using all sectors of the brain. However, the stimuli require translation, something to break the electrochemical and neuroreceptor codes. The interpreter-translator is found in the working memory of the mind. To reach the mind, the stimuli must pass through a brain-mind interface and enter the working memory where they are translated into symbolic representations (language, numbers, musical notes, scientific notation, and thousands of other symbols) to be stored and retrieved when needed (Bruer, 1994).

Patterns and the Brain–Mind Connection

The LML Process posits that the interface through which the stimuli pass consists of filters that sift the stimuli as they pass from the brain to the mind. The result of this sifting action yields functions hereafter referred to as Patterns of operation or Patterns. These Patterns are labeled Sequence, Precision, Technical Reasoning, and Confluence based on a factor analysis of their discrete operations. See Figure 1.1 for a graphic depiction of the fascinating process of the brain-mind connection.

Although these Patterns are universal across race, gender, and ethnicity, their makeup and use is very person-specific (Johnston & Dainton, 2004). All learners use all four Pattern filters but to varying

Figure 1.1 Representation of the Brain-Mind Connection

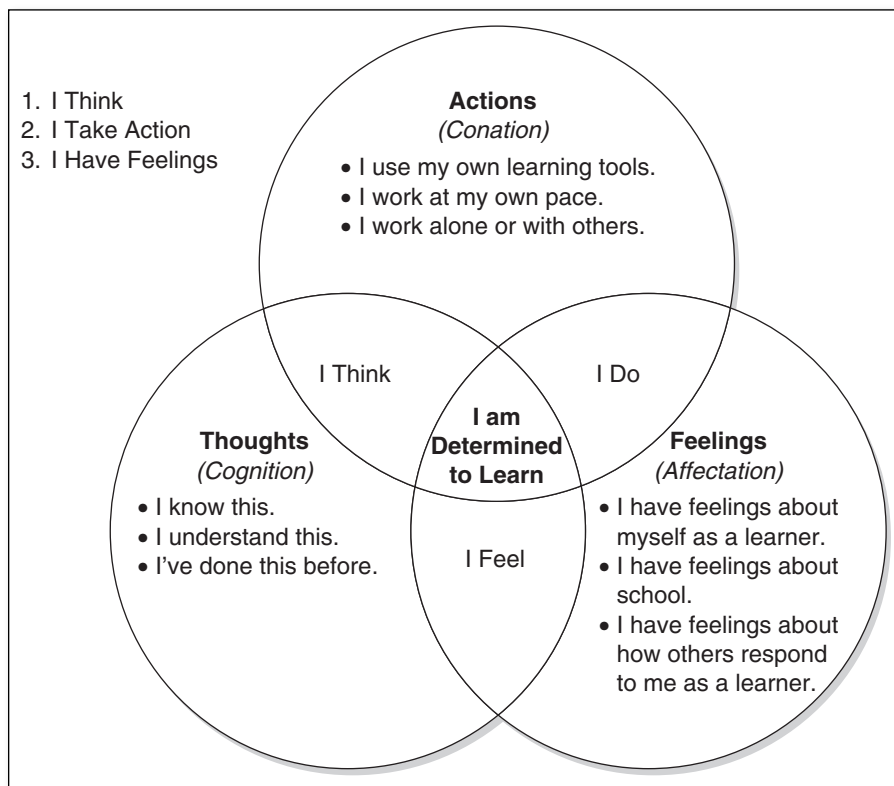
degrees. The degree to which we use each of these filters is measured by how each Pattern facilitates or limits the stimuli's entry into the mind. For example, a wide-open Pattern filter allows large amounts of specific stimuli to pass into the mind's translation and storage mechanism. However, a tightly closed Pattern filter may reject stimuli, seeking to Avoid having to cope with it.

Research indicates that most of us do not use *all Patterns* with equal comfort and naturalness (C. Johnston, 1996). We may use one or more of them to the maximum amount, one or more of them as needed—and we may do our best to Avoid one or more of them. The LML Process refers to these levels of use as Use First, Use As Needed, and Avoid. Whatever the degree to which these Patterns operate within each of us, the bottom line is the Patterns work as an internal team of processes when we engage in learning. Pattern scores are typically identified as four consecutive scale scores (i.e., S26 P19 T27 C20). Translated, these read Sequence (Use First), Precision (Use As Needed), Technical Reasoning (Use First

at a level even higher than the use of Sequence), and Confluence (at the midpoint of Use As Needed). Throughout this text, the reader will encounter student and teacher scores written in this manner.

Yet another defining aspect of these Patterns is the internal working of each. Within each Pattern is found a set of Mental Processes, which are mentioned at the very start of this chapter: Cognition (the ability to think and reason), Conation (the motivation to engage and act), and Affectation (the courage to acknowledge feelings and to empathize). It is the interplay among your thoughts (Cognition), actions (Conation), and feelings (Affectation) that create a sense of comfort and wellbeing or discomfort and frustration within each Pattern. Figure 1.2 illustrates the nature of the interaction occurring among your thoughts, actions, and feelings within each Pattern.

Figure 1.2 Mental Processes That Operate Within Each Learning Pattern



The First Tool: The Learning Connections Inventory

The instrument that launches the LML Advanced Learning System is the Learning Connections Inventory (LCI) (Johnston &

Dainton, 1997). The LCI is a self-administered “interview” that captures the degree to which an individual uses each of the four Patterns. Learners respond on a five-point scale to each of the LCI’s 28 self-report items as shown in Figure 1.3. Learners also complete

Figure 1.3 Sample Items From the LCI Form II

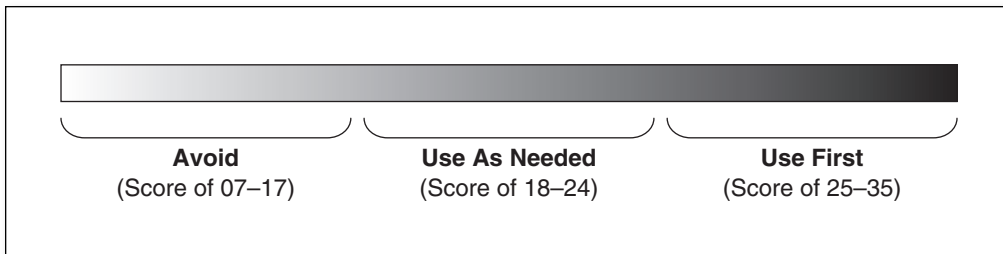
1. I would rather build a project than read or write about a subject.	never ever	almost never	some- times	almost always	always
2. I need clear directions that tell me what is expected of me before I begin a task.	never ever	almost never	some- times	almost always	always
3. I instinctively correct others whose information or answers are not totally accurate.	never ever	almost never	some- times	almost always	always
4. I am willing to risk offering new ideas even in the face of discouragement.	never ever	almost never	some- times	almost always	always
5. I clean up my work area and put things back where they belong as soon as I finish a job.	never ever	almost never	some- times	almost always	always
6. I like hands-on assignments where I get to use mechanical/technical instruments.	never ever	almost never	some- times	almost always	always
7. I ask more questions than most people because I just enjoy knowing things.	never ever	almost never	some- times	almost always	always
8. I become frustrated if directions are changed while I am working on a task.	never ever	almost never	some- times	almost always	always

three short-answer, free-responses to questions such as, “What frustrates me most about completing an assignment is. . . .” There are no correct answers on the LCI, only what a person records as valid for him or her.

Tallying an individual’s responses to the LCI produces a score for each of the four Learning Patterns (Figure 1.4). The individual’s score for each Pattern falls into one of three ranges or levels: a score of 7 to 17 indicates *Avoid*, a score of 18 to 24 indicates *Use As Needed*, and a score of 25 to 35 indicates *Use First* (C. Johnston & Dainton, 2004).

Figure 1.4

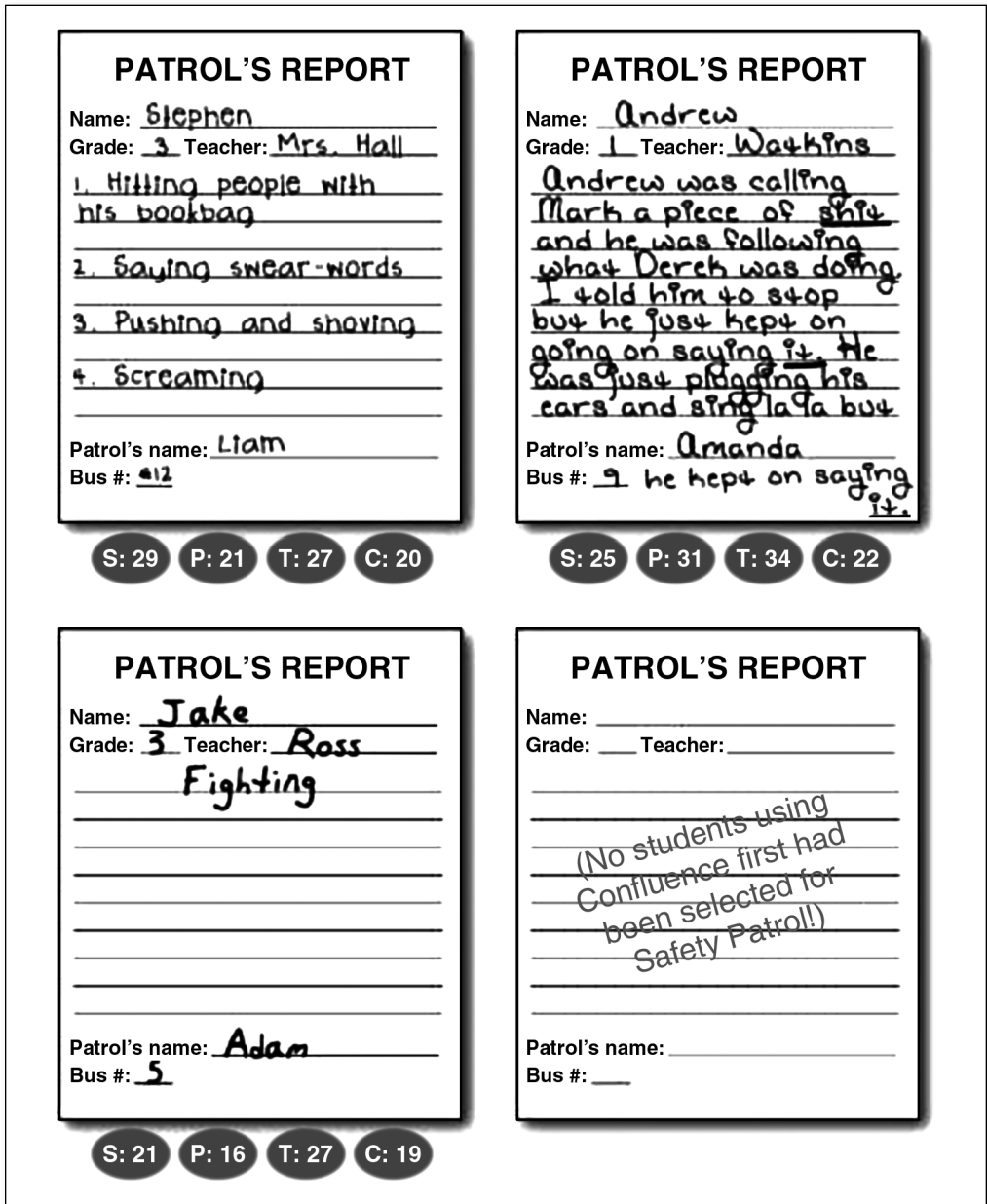
Pattern Score Ranges or Levels for Learning Connections Inventory Patterns



Responses to the short-answer questions are examined with a set of protocols that indicate the use of specific Learning Patterns. These responses are internal validity checks showing whether the individual’s self-generated responses do or do not support the forced-choice answers. Additional data are used to validate LCI scores. These data include face-to-face discussions of scores, observations of learner behaviors, and examination of work products from varied learning tasks.

Student work product provides clear examples of student Pattern Combinations. Figure 1.5 shows exemplars of actual student work products collected by a vice-principal who observed the different Learning Patterns among members of her fifth-grade safety patrol. As you read the general description of each Learning Pattern, and the greater detail found in the Appendix, you may want to return to these visual representations of students’ Pattern Combinations and note the specific Pattern characteristics found in each.

Figure 1.5 Safety Patrol Reports Indicating Pattern Differences



Understanding How Our Patterns Affect Our Learning

The first and most important LML skill involves understanding the depth and intricacies of each Pattern. Having developed this skill, you are able to understand fully the nature of the team of Patterns

within you and, therefore, will be able to answer the overarching question, “How can I get my individualized team of Patterns to work well with one another for me to take in the world around me and make sense of it?” What follows are broad descriptions of each Pattern: For the specifics of the nature of thought, action, and feeling that typify each Pattern and what each score indicates about how an individual makes use of each Pattern, see Appendix Figures A.1–A.8, which explain each Pattern’s spectrum from Use First to Avoid.

Sequence

I learn best when I have

- Clear, step-by-step directions
- Sufficient time to go over and over directions
- A sample to look at
- A plan to follow.

I say

- “What am I supposed to do?”
- “What do I do next?”
- “Could I see an example?”
- “Wait a minute! Don’t go to the next one yet.”

Precision

I learn best when I have

- A lot of detailed information
- Time to check if my work is correct
- Additional information to read
- An opportunity to ask many questions

I say

- “Is this right? What’s the answer?”
- “Where can I find the answer?”
- “Well, actually . . .”
- “Wait a minute. I’m still writing.”

Technical Reasoning

I learn best when I have

- Space to be left alone while working
- An opportunity to build things to show my skills
- An opportunity to learn from real-world experiences
- Hands-on projects instead of paper and pencil assignments

I say

- "When am I ever going to use this?"
- "I can do this myself!"
- "My homework? I didn't get it done."
- "Just let me put my head on my desk or sit here and play with my pencil."

Confluence

I learn best when I have

- The freedom to get started and ask for directions later
- The option to do assignments in a unique way
- An opportunity to take risks with new ideas
- A chance to learn from my failures

I say

- "Who will care if I do it differently?"
- "I've got another idea!"
- "I have lots of things started but not much finished!"
- "I love the word, 'imagine!'"

Different Pattern Combinations

It is useful to understand the effect of different levels of Pattern usage. Figure 1.6 provides examples of different types of Pattern Combinations which affect learners variously.

Dynamic

If you use one or two of your Patterns at the Use First level and any other combination of the remaining Patterns at Avoid or Use As Needed, you are a Dynamic Learner. You take in the world around you differently than those whose Patterns make them Bridge or Strong-willed Learners.

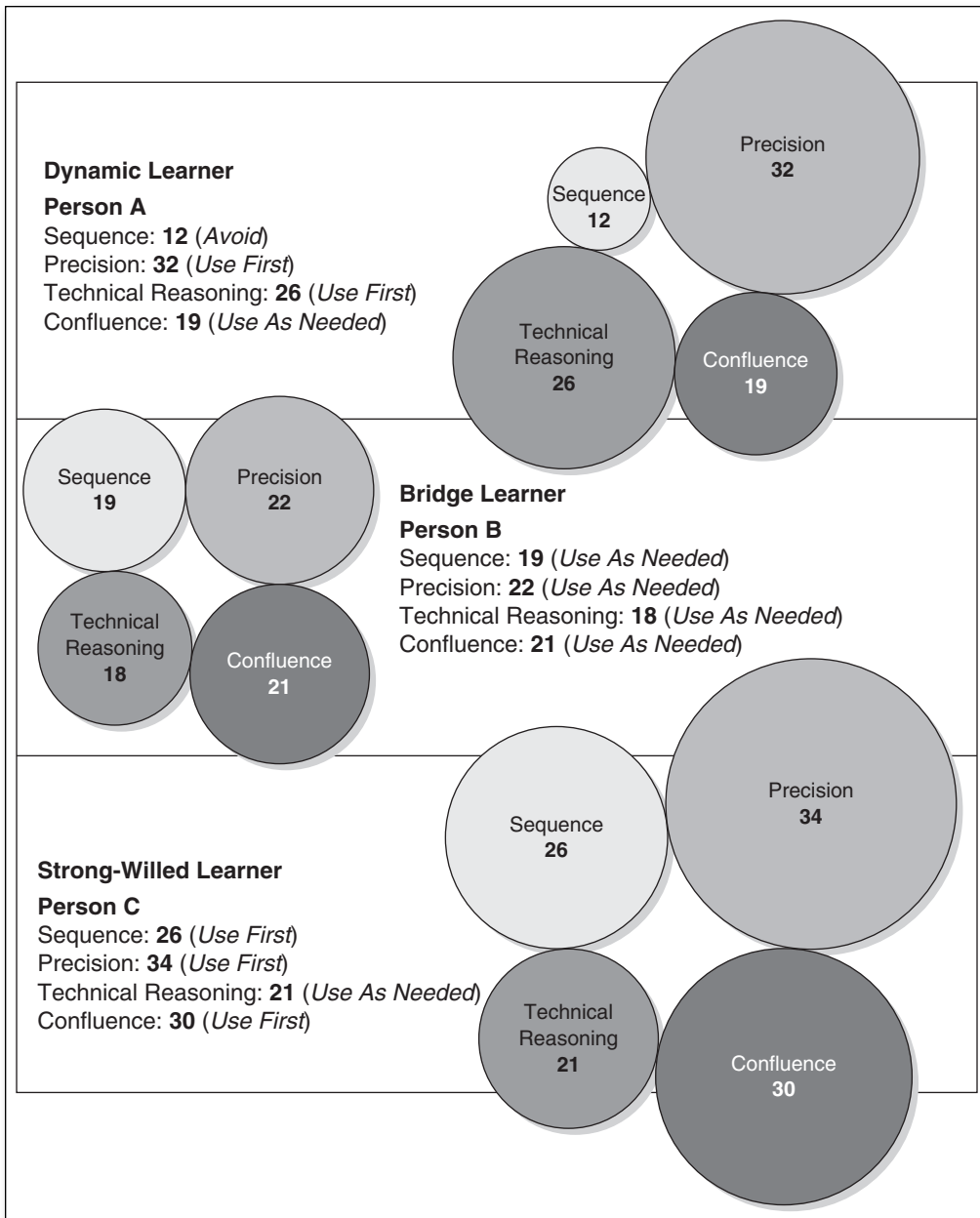
Bridge

If you don't Avoid any Patterns or use any at a Use First level, then you are a Bridge Learner. You learn from listening to others and interacting with them. You are comfortable using all of the Patterns. Sometimes you feel like a "jack-of-all-trades and a master of none," but you also find you can blend in, pitch in, and help make things happen as a contributing member of the group. You weigh things in the balance before you act. You lead from the middle by encouraging others rather than taking charge of the situation.

Strong-Willed

If you use three or more Patterns at the Use First level, you are a Strong-willed Learner. You are your own team. You prefer to work alone so that you can control the plan, the ideas, the talk, the decisions, the process, and the outcomes. Sometimes others find it hard to follow your lead (see Figure 1.6).

Figure 1.6 Dynamic, Bridge, and Strong-Willed Pattern Combinations



The Second Tool: The Personal Learning Profile

The Personal Learning Profile is a record of your Learning Patterns described in your own words. It is a way of translating the Pattern scores into an authentic profile of you as a learner. It is your opportunity to personalize your Pattern descriptions by referring not just to the descriptive words and phrases from the Pattern descriptors but by including examples of how you experience your Patterns both in the classroom and outside.

Personalizing Your Pattern Description

The first step in the personalization of the Learning Patterns begins by reviewing the standard descriptors of each and identifying which of these describes you, the learner. After selecting the specific aspect, you convert the standard phrases into your personal phrases by recalling the words you typically use to describe your thinking, actions, and feelings when asked to complete a task that requires Sequence, Precision, Technical Reasoning, and Confluence as seen in Figure 1.7.

Figure 1.7 Personal Learning Profile

Example				For Your Profile			
	Use First	Use As Needed	Avoid		Use First	Use As Needed	Avoid
Sequence			9	Sequence			
Precision		21		Precision			
Technical Reasoning		19		Technical Reasoning			
Confluence	33			Confluence			
Explanation				Explanation			
<p>Sequence</p> <p>I am a person who Avoids directions. They just don't make sense to me. The most I can handle is a three-step process. After that, I prefer to figure it out on my own.</p>				<p>Sequence</p>			

(Continued)

Figure 1.7 (Continued)

Explanation	Explanation
<p>Precision</p> <p>I use Precision as needed. Although I read a lot, I don't read nonfiction, factual books. I do research and dig into information when I am interested in a topic. I don't seek information just to know facts. I am not a walking almanac of minutia.</p> <p>Technical Reasoning</p> <p>I use my Technical Reasoning as needed, similar to my Precision. The part of Technical Reasoning that I relate to best is being able to work by myself. I am a loner not a joiner. I want just the right tool to get a job done, and I love gadgets, but I don't care how things work nor am I interested in fixing things.</p> <p>Confluence</p> <p>I use my Confluence as the leader of my personal learning team. I never met an idea I didn't like. If I do something once, the second time it becomes overworked and the third time boring. I like the excitement of pushing the envelope.</p>	

You may find your students and yourself revisiting and refining the Learner Profile from time to time, as you gain additional insights into yourself as a learner. Strive to use this tool as a means of measuring your growth in understanding yourself. It isn't necessary to have it be perfectly, totally correct the first time. The development of the Personal Learning Profile also helps to emphasize that we are not just one Pattern but all four. This is essential to understanding the totality of an individual's Patterns. It is vital to acknowledge that all four Learning Patterns are always present and valued. See Bonnie's Learning Profile on pages 29–30.

The Importance of Teacher-Learner Completion of the LCI

At this point, we strongly urge you to go online to take the LCI and receive validated scores and an individual interpretation of them. You may do this at http://www.lcrinfo.com/take_lci.shtml. Then click on “Adult Education Form.”

It is critical that teacher-learners complete the LCI and spend time comparing what their scores mean vis-a-vis their lesson plans, their classroom setup, and their manner of giving directions for learning tasks. Teacher-learners need to be prepared to share this information with their students.

Also with your LCI scores in hand, you will be able to examine and understand yourself as a learner while reading this book. Everything you have yet to read will make infinitely more sense if you take the LCI now—and infinitely less if you don’t.

The Third Tool: The Word Wall

Scores on the LCI mark the beginning, not the end, of the LML Process. Once learners understand their LCI scores, they are ready to begin preparing themselves to use the totality of the Advanced Learning System to do task analysis. Once teacher-learners and student-learners have a good grasp of their personal team of Patterns, they can prepare to develop the next skills in the LML Process.

The third tool, the Word Wall, allows the Decoding of a learning task to understand it as the teacher intended. In other words, “What Learning Pattern(s) does the task require you to use to accomplish it effectively?” More specifically, “What Patterns in what ranges does the task ask you to use?”

A valuable LML tool to use when doing task analysis is the Word Wall shown in Figure 1.8. It consists of words organized under each Pattern designation that “cue” students to the primary Learning Pattern(s) required by the specific task. This tool facilitates rapid and relevant task analysis. Students of all ages find using the Word Wall a quick and effective aid.

To use the Word Wall, simply compare the written or spoken directions of a learning task against the cue words found on the Word Wall. Circle all words found within the assignment beginning with the verbs. Next, circle specific adverbs and adjectives that indicate the degree to which a specific Pattern is to be used. Now you are ready to Decode

Figure 1.8 Word Wall

Sequence Cue Words		Precise Cue Words	
alphabetize	order	accurately	explain
arrange	organize	calibrate	facts
classify	outline	certainty	identify
develop	plan	describe	label
distribute	put in order	detail	measure
group	sequence	document	observe
in a series	show a sample	exact	specific
list	show an array	examine	write
Technical Cue Words		Confluent Cue Words	
assemble	erect	brainstorm	improvise
combat engineer	experience	carefree	incredible
build	figure out	create	independence
concrete	graphically represent	different	invent
construct	just do it	dream-up	risk
demonstrate	visualize	far fetched	take a chance
draw (drafting)	problem-solve	ideas	unique
engineer	tools	imagine	unusual

the task. Decoding does not require a decoder ring; it requires knowledge of the Learning Patterns and an awareness of what types of Patterns are required to complete the task successfully. For example, if a teacher asks students to identify three causes of the American Revolution and explain each, the student can analyze this task by looking at its key verbs and nouns and identifying what Learning Pattern each calls for. In this case, the words “identify” and “explain” are the key words that will direct the student’s response. These words call for the Pattern of Precision to be used extensively. For more detail on how to perform task analysis using the Word Wall, see the Appendix.

The Skill of Listening to the Internal Talk of Your Patterns: Metacognating

Metacognition in the LML lexicon is defined as our internal chatter or talk—the voices of our Patterns talking, arguing, negotiating how to proceed, how to achieve—how to reach our learning goals. The internal chatter of a learner’s Patterns becomes most active after a learning task has been analyzed and the learner is confronted with the reality of

what is expected. A broad description of internal or self-talk, including Pattern associated talk, appears in Figures A.1–A.8 in the Appendix. The LML Process helps learners tune in directly to this chatter within themselves and formulate strategies to use their Patterns with intention.

The skill learners apply when using their four Learning Patterns with intention is called the Metacognitive Drill. LML uses seven verbs to describe the Metacognitive Drill: (1) Mull, (2) Connect, (3) Rehearse, (4) Express, (5) Assess, (6) Reflect, and (7) Revisit. These phases are found in the Appendix under Metacognitive Drill. Definitions of the terms are also found in the Glossary.

Teachers who are aware of the power of metacognition and the “chatter” occurring in the learners within the classroom will often use this lexicon of metacognitive terms to check on how students are progressing. For example, how many are still Mulling 10 minutes into an assignment? How many have Connected and moved on to quiet Rehearsal? Who has skipped these processes and moved on to Express or even Assess? Knowing how various learners are responding to a given assignment and having the terms to explain progress or lack thereof in nonpejorative terms can enhance both the learning environment and the teacher’s ability to respond and intervene appropriately.

The Fourth Tool That FITs the Learner to the Task

Once learners have Decoded a specific learning task and listened to the internal talk among their Patterns, they frequently find their Patterns and the task requirements are mismatched. If that is the case, they need to modify their personal Patterns to align them with what the task requires. Although learners cannot stretch or hold back their Patterns for long periods, they can, with practice, achieve a temporary and limited modification of the degree to which they use each Pattern. We refer to this as FITing the learner to the task using the tools of Forge, Intensify, or Tether.

The FIT Tools

The acronym FIT represents the three verbs Forge, Intensify, and Tether. What follows is an explanation of how each works to help the learner adjust to a specific task.

- **Forge** requires learners to increase the use of their Avoid level of a specific Learning Pattern to succeed in completing a specific task. An individual can Forge the use of a Pattern by as

much as five points on the LCI scale for a limited time. Forging requires intention, strategies, and focused energy.

- **Intensify** requires learners to apply their Use As Needed Pattern(s) more forcefully. An individual can Intensify use of a Pattern by as much as five points for a limited time. Intensifying requires intention, strategies, and focused energy.
- **Tether** requires learners to restrain their use of a Use First Learning Pattern. This is done by pulling back and limiting the use of a Pattern that would otherwise mislead or dominate the learner’s ability to redirect effort to meet the task at hand.

The Fifth Tool That Pulls It all Together: The Strategy Card

The Strategy Card is an immediate and powerfully useful tool. It summarizes into one instrument all of the previously mastered LML skills and tools: understanding Patterns, describing one’s personal use of Patterns (the Learner Profile), dissecting the task (Decoding), listening to the chatter of one’s Patterns (metacognating), and identifying what degree of response is required to achieve success on a specific assignment (FITing). The Strategy Card is illustrated in Figure 1.9. It is a powerful tool for staying on task and accomplishing a specific learning assignment.

Figure 1.9 Strategy Card

	Sequence	Precision	Technical Reasoning	Confluence
Your LCI Scores				
Your Description of Your Learning Patterns				
How do you naturally use each of your Learning Processes? (Look at your Personal Learning Profile for the descriptions asked for here.)				

	Sequence	Precision	Technical Reasoning	Confluence
Your Analysis of the Learning Patterns Needed to Complete the Task (See the Decoded Task Directions)				
What does the assigned task require each of your Learning Processes to do? (Look at the Decoded task and determine each Pattern being required.)				
Your Strategies for Using Your Learning Patterns Most Effectively				
How can you Forge, Intensify, or Tether your Learning Processes to complete the task successfully?				

To complete a Strategy Card simply follow the directions provided in the far-left gloss of the card. Use the data you have accumulated about your Learning Patterns (LCI Pattern scores and your Learning Profile) and your skills of Decoding (task analysis), listening to your Patterns (metacognition), and FITing to develop your Strategy Card with intention. See Bonnie’s Strategy Card on pages 32–33.

The Overall Effects of Using LML Tools and Skills: Intentional Learning and Intentional Teaching

Intentional Learning is making the learning experience work for you by Decoding the task, matching the Pattern use required to your Patterns, and then strategizing how to FIT your personal Patterns to meet those of the task. Intentional Teaching occurs when teachers know how to use their Learning Processes with intention to shape the learning environment and activities of the classroom. Just like Intentional Learning, Intentional Teaching involves a conscious effort

on the part of the teachers to respect, value, and mentor the personal Learning Processes of their students.

The Power of Let Me Learn's Integrated System

The power of LML lies in the tools, skills, and shared language it offers teacher-learners and student-learners to communicate about learning and learning support in real time. No longer is the learning of any child a "mystery" to a teacher or to the child; no longer must a teacher attempt to "read the mind" of a student or misperceive a student's response to a learning task. No longer must a teacher attempt to create differentiated forms of instruction to meet every learner's needs. Instead, all have a way to communicate about themselves as learners; all have a way of understanding, respecting, and building on the diversity of learners and learning tasks; all have accountability to make learning work, and when there are difficulties all have the tools, skills, and terminology to diagnose, communicate, and problem solve.

This is the power that the LML Advanced Learning System offers to all learners.