

Learning Styles and Lawyering: Using Learning Theory to Organize Thinking and Writing

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Whether a lawyer, law professor, judge, or law student, whether experienced or not, all are learners, all are teachers, and all are too busy to be inefficient at learning or teaching. To illustrate, with hundreds of new statutes, regulations, and court rules, and thousands of new cases published every year, lawyers must learn new law with each legal matter and then teach the client enough of that law to enable the client to make choices about the best way to proceed to resolve a legal problem. With each new dispute, judges must learn the facts and law relevant to that dispute and teach the jury, if the dispute involves one, about its role as finder of fact; teach the parties and their lawyers how to view the case through the others' eyes to try to resolve their dispute short of a trial; and teach the rest of the legal community when they issue their opinions. With each course, every semester, law professors must learn the material for each course and any new developments, and then teach that material to the law students in class, and to others, including lawyers, other professors, and judges, through presentations and publications. With each new class, law students must learn new material and teach the professor, in their exam answers or papers, that they understand the material sufficiently to pass the course.

Because of the significant responsibilities associated with handling extraordinary amounts of information, lawyers, law professors, judges, and law students must be able to absorb, process and apply this information efficiently. Few students study more hours than law students do, and few professionals work longer hours than lawyers, judges, and law professors do. Therefore, the learning and the teaching that members of the legal community do, day in and day out, must be done efficiently as well as effectively. Learning will be most efficient and effective when the learner learns in a

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manner that is consistent with the way in which he or she learns best. Likewise, teaching will be most efficient and effective when the teacher teaches in a manner that is consistent with the learning strengths of the learners.

Knowing something about learning styles will help every member of the legal community to become a better learner, a better teacher, and a better writer. This article provides an overview of the different facets of learning styles, and applies that theory to one of the most important aspects of a legal professional's writing: organization. Section I discusses how knowledge of learning styles will help improve lawyering skills. Section II discusses the personal characteristics that contribute to learning style. Section III discusses the learning cycle necessary to improve memory and comprehension, and to achieve deep learning. Finally, Section IV will illustrate how applying the theory of learning styles can help every member of the legal community to organize written documents.

I. Knowledge of Learning Styles Will Improve Lawyering Skills

Knowing something about learning styles is important to lawyering because the foundation for all competent lawyering is acquiring and imparting knowledge. By applying basic concepts of learning styles in lawyering, your learning and your teaching of others will improve. Through increased self-awareness of how you learn best, you can improve how you learn and teach, so that you become a more efficient and effective learner and teacher. In addition, knowledge of learning styles will help you learn and teach appropriately to achieve the desired level of knowledge.¹

A. Learning styles and lawyering

The extent to which effective lawyering is based on learning and teaching is apparent from the MacCrate Report,² which identified fundamental skills³ and values⁴ essential for competent lawyering. Each of the ten lawyering skills

1. Levels of knowledge are discussed *infra* part I.C.

2. ABA Sec. Leg. Educ. & Admis. to the B., *Legal Education and Professional Development — An Educational Continuum, Report of The Task Force on Law Schools and the Profession: Narrowing the Gap* (ABA 1992) (dubbed the “MacCrate Report” because the chair of the task force was Robert MacCrate).

3. These fundamental skills include the ability to “develop and evaluate strategies for solving a problem or accomplishing an objective”; “analyze and apply legal rules and principles”; “identify legal issues and research them thoroughly and efficiently”; “plan, direct, and (where applicable) participate in factual investigation”; “communicate effectively, whether orally or in writing”; “counsel clients about decisions or courses of action”; negotiate in either a dispute-resolution or transactional context”; “employ — or to advise a client about — the options of litigation and alternative dispute resolution”; “practice effectively”; and “represent a client consistently with applicable ethical standards.” *Id.* at 138-140.

4. For fundamental values, the MacCrate Report listed the values of attaining a level of competence in one's own field of practice, maintaining a level of competence in one's own field

requires learning or teaching, whether the lawyering involves problem-solving, legal analysis and reasoning, legal research, factual investigation, communication, client counseling, negotiation, litigation and other dispute resolution procedures, organization and management of legal work, or ethical dilemmas. In addition, learning and teaching is fundamental to pursuing the four values, whether providing competent representation; promoting justice, fairness, and morality; improving the profession; or improving one's lawyering skills.

B. The importance of self-awareness

Being aware of diverse learning styles helps you to discover how you learn best, and it leads you to respect the diversity in how others learn. As a learner, you will be more successful in mastering material if you absorb, process and retain information in the manner that is most effective and efficient for you. Likewise, as a teacher, you will be more successful when you acknowledge and address the different learning styles of your audience, whether your audience is judges, jurors, clients, mentees, associates, law clerks, or law students.

To discover how you learn best, you must engage in a process called metacognition. The process of metacognition involves inventorying your learning preferences and the results you achieve from different learning processes, and it involves self-regulation of cognitive activities by monitoring them and making appropriate adjustments.⁵ Those adjustments affect the way you learn, as well as the way you teach. When you teach to accommodate diverse learning styles, all learners are included in the learning process, not just those whose learning style is similar yours. This is true whether the learner is a juror, a new associate, a client, or a law student; and whether the teacher is a lawyer, a judge, or a law professor. In addition, the process of metacognition will make you more aware of whether the learning techniques you are using are the most effective for the level of knowledge you need to attain.

C. Levels of knowledge

Knowing more about learning styles will also help you to adjust the manner of learning to the desired level of knowledge. While different schemas of the levels of knowledge exist, most are derivative of Bloom's

of practice, [and] representing clients in a competent manner"; "the values of promoting justice, fairness, and morality in one's own daily practice"; "the values of participating in activities designed to improve the profession, assisting in the training and preparation of new lawyers"; and "the values of seeking out and taking advantage of opportunities to increase his or her knowledge and improve his or her skills." *Id.* at 140-141.

5. Paul T. Wangerin, *Learning Strategies for Law Students*, 52 Alb. L. Rev. 471, 474-477 (1988). See Catherine A. Stouch, *What Instructors Need to Know About Learning How to Learn*, in *Applying Cognitive Learning Theory to Adult Learning* 59-60 (Daniele D. Flannery ed., Jossey-Bass 1993) (identifying three components to learning how to learn: knowledge about learning, knowledge about learning style, and skills to improve proficiency).

Taxonomy of Educational Objectives.⁶ For our purposes, we can simplify Bloom's taxonomy to three manageable levels: memorization, comprehension and sorting, and analysis. The simplest level of knowledge is memorization; it includes the observation and recall of information.⁷ The next level of knowledge is comprehension and sorting; it includes translating knowledge into a new context, ordering or grouping information, and inferring causes.⁸ The most complex level of knowledge is analysis; it includes applying information to solve problems, seeing patterns, identifying and organizing component parts, synthesizing information from multiple sources, comparing ideas, and making choices based on reasoned argument.⁹

These different levels of knowledge are significant because the learning or teaching required to achieve each level is different.¹⁰ To illustrate, if the teacher's goal is to have the learner know the facts of the case, e.g., by teaching a paralegal to organize discovery documents, then those learning tools that aid in effective memorization will be sufficient. However, if the teacher's goal is to have the learner apply the facts to the law and determine the strengths and weaknesses of those facts, e.g., to teach a jury how to determine if a reasonable doubt exists in a criminal prosecution, then the learning tools that aid in memorization will be inadequate; the teacher must use additional learning tools that help the learner engage in analysis.

II. Personal Characteristics that Contribute to Learning Styles

Different personal characteristics contribute to learning styles, including intelligence, personality, information processing mechanisms, social interaction needs, and instructional preferences.¹¹ (See figure on the following page.) Some personal characteristics, such as intelligence and personality, affect learning styles indirectly, but other personal characteristics, such as the preferences for absorbing and processing information, affect learning styles directly and are essential to effective learning. The following sections describe each personal characteristic and its relevance to learning style.

6. A Committee of College and University Examiners, *Taxonomy of Educational Objectives: The Classification of Educational Goals: Handbook I, Cognitive Domain* (Benjamin S. Bloom ed., Longman 1956).

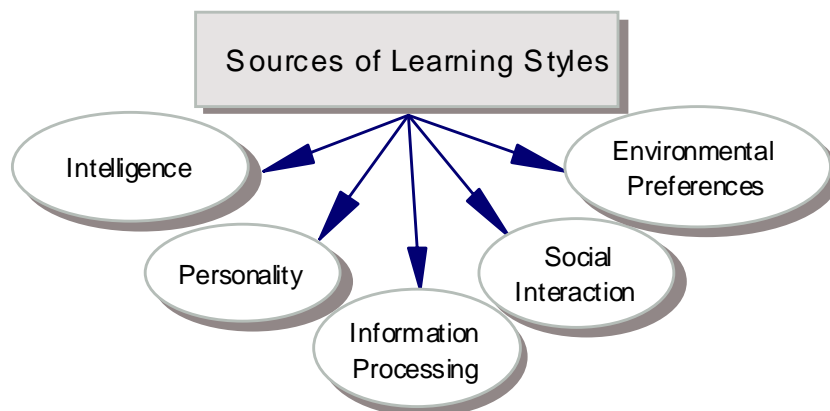
7. *Id.* at 62-88.

8. *Id.* at 89-119.

9. *Id.* at 119-197.

10. See e.g., Rand J. Spiro et al., *Cognitive Flexibility, Constructivism, and Hypertext: Random Access Instruction for Advanced Knowledge Acquisition in Ill-Structured Domains*, in *Constructivism and the Technology of Instruction: A Conversation* 62-63 (Thomas M. Duffy & David H. Jonassen eds., Lawrence Erlbaum Assocs. 1992) (teaching strategies used for the "modest goals of introductory learning may later impede the attainment of more ambitious learning objectives" for advanced learning).

11. Charles Claxton & Patricia Murrell, *Learning Styles: Implications for Improving Educational Processes* 7 (Jossey-Bass 1987) (citing Lynn Curry, Presentation, *An Organization of Learning Styles Theory and Constructs* 3-4 (Annual Meeting, Am. Educ. Research Assn., Apr. 11-15, 1983) (available at ERIC Doc. Reprod. Serv. No. ED 235 185)).



A. Intelligence

The first personal characteristic affecting learning style is intelligence. In this country, intelligence traditionally has been measured by mathematical or logical skills and linguistic skills.¹² However, Howard Gardner, professor of education at Harvard University, believes this view of intelligence reflects only those skills valued by post-industrial societies.¹³ After studying prodigies, gifted individuals, brain-damaged patients, idiot savants, normal children and adults, experts in different lines of work, and individuals from cultures around the world,¹⁴ Gardner concluded that eight different intelligences exist:¹⁵ linguistic intelligence (words); logical-mathematical intelligence (chains of reasoning); musical intelligence (melody, rhythm, timbre); spatial intelligence (seeing from different angles, imagining movement, multi-dimensional thinking); bodily-kinesthetic intelligence (bodily motions, handling objects); interpersonal intelligence (knowing the feelings and intentions of others); intrapersonal intelligence (knowing yourself); and naturalist intelligence (distinguishing among, classifying, and using features of the environment).

While some people know their relative strengths in linguistic and logical-mathematical intelligence, the only intelligences that are tested routinely, few know their relative strengths in many of the other intelligences. Nonetheless, knowledge about multiple intelligences is helpful because a person's strengths and weaknesses in different intelligences may be reflected in the person's preferences for absorbing information and in the person's receptiveness to

12. Howard Gardner, *Intelligence Reframed: Multiple Intelligences for the 21st Century* 19 (Basic Books 1999) [hereinafter Gardner, *Intelligence Reframed*]; Howard Gardner, *Frames of Mind: The Theory of Multiple Intelligences* x-xix, 3-8 (Basic Books 1983) [hereinafter Gardner, *Frames of Mind*].

13. Gardner, *Intelligence Reframed*, *supra* n. 12, at 1-4; Gardner, *Frames of Mind*, *supra* n. 12.

14. Gardner, *Frames of Mind*, *supra* n. 12, at 9.

15. *Id.* at 73-276 (discussing seven intelligences); Gardner, *Intelligence Reframed*, *supra* n. 12, at 49, 59, 66, 68, 76 (adding an eighth intelligence).

particular metaphorical images. Since preferred ways of absorbing information are discussed later,¹⁶ let me illustrate now concerning metaphorical images.

Metaphors are tools for understanding new material¹⁷ and structuring new material.¹⁸ They help learners connect new information with information they already know or with structures they already have established. For example, imagine the metaphor that a lawyer might use to establish a theme for the prosecution of a complex money-laundering scheme. The scheme could be likened to architecture, with each party's role combining with all of the other parties' roles to build the whole, the final structure that is the crime. Each role is a room, built on top of other rooms, until the structure collapses under its own weight. This metaphor will create a vivid picture for someone who is spatially intelligent or who has existing knowledge of structure.

However, imagine using a metaphor of victim rage to establish a theme for defending a woman accused of assaulting her boyfriend who involved her, unwittingly, in a money-laundering scheme. This metaphor may not resonate with someone who has low interpersonal intelligence, because that person cannot imagine why the woman would be a victim or feel rage under these circumstances. Unless the person with a low interpersonal intelligence can connect this metaphor with personal experience, which is unlikely given the jury selection process, the metaphor may not have the desired effect of creating empathy for the defendant.

B. Personality

The second personal characteristic affecting learning style is personality. The most well-known theory of personality is probably that of Carl Jung.¹⁹ Jung observed patterns in human behavior that he categorized as "attitude-types" and "function-types."²⁰ The attitude-types describe whether a person's psychic energy is directed toward external objects or events (extraversion) or away from them (introversion).²¹ The function-types refer to the manner in which persons adapt and orient themselves to their inner and outer worlds.²² These functions include sensing (gathering information through the senses);

16. See *infra* pt. II.C.1.

17. The seminal works on using metaphors to understand new material are George Lakoff & Mark Johnson, *Metaphors We Live By* (U. Chi. Press 1980); George Lakoff & Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge To Western Thought* (Basic Books 1999).

18. The seminal works on using metaphors to structure new material are Dedre Gentner, *Structure Mapping: A Theoretical Framework for Analogy*, 7 *Cognitive Sci.* 155 (1983); Dedre Gentner & Keith J. Holyoak, *Reasoning and Learning By Analogy: Introduction*, 52 *Am. Psychol.* 32 (1997); Dedre Genter & Arthur Markham, *Structure Mapping in Analogy and Similarity*, 52 *Am. Psychol.* 45 (1997).

19. C. G. Jung, *Psychological Types* (Princeton U. Press 1971) (originally published in 1923).

20. *Id.* at ¶ 556, 330.

21. *Id.* at ¶ 710, 427, ¶ 769, 452-53.

22. *Id.* at ¶ 556, 330.

thinking (evaluating information logically); intuiting (integrating large amounts of information to see beyond what the senses observe); and feeling (evaluating information by weighing the emotional response).²³

Everyone has all of these functions, but all functions may not be well-developed in an individual.²⁴ The best-developed function is the superior function, the function preferred by the individual. A superior function is supported by the other, less well-developed functions.

While personality does not directly determine learning style, some knowledge about personality theory is helpful because personality may be reflected in a person's manner of processing information, in a person's motivation, and in the preferred social milieu for learning, all of which are discussed later.²⁵ In addition, knowing about personality theory can also help structure how best to construct a learning experience. For example, a lawyer cannot assume that a particular conclusion is obvious from the information he or she gives to a client, colleague, judge, or juror, because that person's intuiting function may not be well-developed compared to the other functions. Likewise, the lawyer cannot assume that logical arguments are sufficient justification for a conclusion when the audience may believe that the feelings, the personal connections, are more significant. Instead, lawyers may need to think beyond the function strengths of their own personalities to support a conclusion or argument in a way that resonates with the function strengths of others.

C. Information processing

The third personal characteristic affecting learning style is how the learner absorbs and processes information. Both are essential to effective learning. If someone is not absorbing all the necessary information, even the most brilliant processing will not result in a satisfactory learning experience. Likewise, if someone inadequately processes information, despite absorbing all the necessary information, a satisfactory learning experience will not result.

1. *Absorbing information*

People absorb information through their senses: sight, hearing, touch, taste, and smell. Sight allows a person to absorb information verbally through reading, or visually through pictures or designs. Hearing allows one to absorb information by hearing oneself speak (orally) or by hearing others speak (aurally). Touch allows a person to absorb information tactilely or kinesthetically. Taste and smell generally would not be significant modes of absorbing information in law.

23. *Id.* at ¶ 731, 436-37.

24. *Id.* at ¶ 666, 405.

25. *See infra* pts. I.C.2 and I.D.

While learners use all of these modes for absorbing information, some learn better when they absorb information in a particular way, using verbal, visual, oral, aural, tactile, or kinesthetic modes of absorbing information.

Verbal mode. Strong verbal learners are those who absorb information best through written text, either reading or writing.²⁶ Traditionally, schools developed strong verbal learners because information was conveyed primarily through written materials. More recently, though, schools have relied less on verbal text and more on discussion and visuals, such as video or computer usage. Those who learn best through written text need to see information in writing; those who learn best in other modes of absorbing information need to have any writing supplemented with visual or other modes of information delivery.

Visual mode. A strong visual learner is one who best absorbs information through pictures, diagrams, and other models rather than through written text.²⁷ A significant number of people are strong visual learners, either because it is a natural strength or because of conditioning through use of computers, videos, television, and other visual tools.

Visual learners have a mental picture of the information that they absorb. When visual learners prepare an outline, they do not remember the information in the outline because of doing the outline, but because they can mentally see what they wrote. In addition, visual learners absorb information in its entirety, rather than in parts. Visual learners might mentally flip through several pages of text and then mentally scroll down to the third paragraph to recall what was written. Visual learners remember an idea, not because of the idea itself, but by where it appears on a page. Likewise, they might remember what someone said by retrieving the mental picture of the person's dress, demeanor, movements or visual aids; that mental picture would connect them to the substance of what was said.

While visualizing information absorbed verbatim may be good for memorizing and effective for description, it is problematic for effective lawyering for several reasons. First, the information absorbed is not synthesized with other ideas, a skill needed to establish an analytical framework. Second, the information absorbed is not prioritized, a skill needed to eliminate the irrelevant. Third, the information absorbed does not establish the connections between ideas, a skill needed to understand and critically evaluate the reasoning and logical support for the ideas.

To assist visual learners, material should be presented in a visually enhanced manner with headings, charts, diagrams, insets, shading, or color. When giving presentations, speakers should supplement verbal text with visually stimulating materials to illustrate the analytical concepts. Visual teaching tools might include making good use of a whiteboard, such as using

26. Robert F. Wislock, *What Are Perceptual Modalities and How Do They Contribute to Learning in Applying Cognitive Learning Theory to Adult Learning* 5-6 (Danielle D. Flannery ed., Jossey-Bass 1993).

27. *Id.*

color for lists or outlines to categorize or prioritize; using diagrams or other visual models to show the relationship between ideas; and using video, power point, overheads, charts, or other visual aids.

In addition, a story can be a visual. Many visual learners envision a case or legal problem as a play or television show; the characters help them to understand ideas, the plot helps to establish relationships between ideas, and the affective dynamics help to prioritize the information.

These visual tools are helpful because the visual learners can “photograph” the visual tool, and as a result, they can prioritize and organize information more efficiently. Without visuals to assist them, these learners can become lost in details and lose sight of the bigger picture. If the learner is a juror, this might mean that all evidence seems to be of equal importance. If the learner is an associate, it might mean frustration at the inability to organize effectively for the supervising attorney or judge.

Oral (speaking) mode. Strong oral learners are those whose strongest mode of absorbing information is oral. These learners absorb information best by talking out ideas.²⁸ Those who come from an environment with an oral tradition are often oral learners.²⁹ To thrive, oral learners need to have opportunities to talk.

When oral learners talk out their ideas, their initial ideas might seem half-baked, but if allowed to talk the problem through, their final ideas will be good ones. Strong oral learners may become frustrated if they are unable to work through their ideas orally. However, not every learning situation gives the oral learner this opportunity. In fact, some teachers may become frustrated by the time that it takes for oral learners to complete their process. Nonetheless, oral learners should be accommodated when possible by incorporating opportunities to talk; for example, regular meetings can be scheduled with supervising attorneys and work can be assigned to teams whose members can talk through their ideas before presenting their product.

Aural (listening) mode. Strong aural learners learn best from listening to lectures, discussions, or recordings.³⁰ Aural learners may improve their absorption of information with additional opportunities to listen, e.g., by taping the discussion for later review, or by minimizing distractions while listening, e.g., by taking fewer notes. Someone whose preferred mode of absorbing information is aural may be a passive learner, someone who is a willing receptacle for knowledge but with only a limited investment of mental energy.³¹ Someone might be a passive learner for a number of reasons, ranging from laziness to not knowing how to be more deeply engaged in the

28. *Id.*

29. Darlene M. Fierro, *Is There a Difference in Learning Style Among Cultures?* 1 (1997) (available at ERIC Doc. Reprod. Serv. No. ED 415 974) (citing Francesina R. Jackson, *A Sixth-Sense Cultural Sensitivity*, 25 *Learning* 67-71 (1996)); Herman A. Witkin & D.R. Goodenough, *Cognitive Styles, Essence and Origin: Field Independence and Field Dependence* 81-82 (Intl. U. Press 1981).

30. Wislock, *supra* n. 26.

31. Chet Meyers & Thomas V. Jones, *Promoting Active Learning: Strategies for the College Classroom* 3-6, 19-29 (Jossey-Bass 1993).

material. Included within that range are those who are insecure about their own understanding of the material, so they want to verify their understanding by listening to others, and those who are too shy or withdrawn to feel comfortable with other modes of absorbing information.

While many learners have strengths in absorbing information aurally, others do not. More significantly, they may not know that they do not. For example, about twelve years ago, I was trying to learn Chinese before a trip to Shanghai to teach at the East China University of Politics and Law. The wife of one of our Chinese students gladly offered to teach me, but after one lesson, I was certain that she thought I was incredibly dim-witted, especially for a law professor. She must have repeated the words for “big” and “small” twenty times, but I still could not remember them. Finally, I asked her to write them down in pinyin, which uses the Roman alphabet to spell the words phonetically. Once I saw the words in writing, I had them down pat. Still do: “da” and “xiao.”

For me, this was a learning epiphany because I never thought that I had any difficulty learning aurally. In hindsight, I realize that I probably had done so well in lecture courses because of the copious notes that I took, mostly to pay attention. And that is the rub: most people find it very difficult to learn solely by listening without doing something else to hold their attention. Experienced speakers know that their audience will be attentive for ten minutes, after which their minds will begin to wander to the grocery list, the office gossip, or the haircut of the person sitting in front of them. That is why experienced speakers tell stories, ask questions of their audience, or show visuals. That is also why jurors should be allowed to take notes when they are listening to testimony: it is easier to pay attention and to remember what is being said if information can be absorbed using more than one mode.

Tactile (touching) mode. A strong tactile learner needs to be able to touch and manipulate.³² Many people learn better if they can complement another mode of absorbing information with the tactile mode, by touching and feeling what they are to absorb. To illustrate, many people prefer to print out documents that are more than one or two screens on the computer because it helps their understanding of the document’s content if they can touch it and write on it. In addition, some tactile learners learn best by writing out or typing out their thoughts or by annotating their reading. Those jurors with a strong tactile mode of absorbing information might benefit from taking notes and, in appropriate circumstances, touching exhibits or evidence. Similarly, associates with a strong tactile mode of absorbing information may benefit from a more hands-on involvement in the investigation of a case, rather than trying to master the facts from written summaries. For law students, those with a strong tactile mode of absorbing information may be disadvantaged in courses that are taught using e-books unless the students have a printed copy of the materials or have other options for mastering the material that use their tactile mode of absorbing information.

32. Wislock, *supra* n. 26.

Kinesthetic (moving) mode. A strong kinesthetic learner needs to be able to move around or to see movement, for example, by the instructor in the classroom.³³ While all learners learn by doing, this may be especially true of kinesthetic learners because the “doing” allows them to move around. For that reason, kinesthetic learners might learn well through simulations, role-playing, and other experiential activities. In addition, kinesthetic learners may learn better if they can move when they study, by moving to music, by standing or pacing, or by using the computer. One attorney I know reads standing up. He puts the books on a library dictionary table so that the materials are a comfortable distance from his eyes. Then he moves while he reads, maybe pacing a step or two, or maybe stretching this way and that. For him, this kinesthetic complement to reading improves his comprehension and retention of the material.

Accommodating different styles of absorbing information. A learner’s preferred learning mode may not always be apparent to the teacher, or even known by the learner. However, one generally can teach to all learning modes because most groups likely will include each type of learner. In addition, everyone learns better if information is absorbed multiple times and in more than one modality.³⁴ While a number of evaluations exist for determining preferred modes of absorbing information, the simple assessment form on the following page will help most people to understand how they prefer to absorb information.³⁵

To interpret this evaluation,³⁶ strong verbal learners will prefer reading over lectures, discussion, pictures, charts, and audiotapes; they will remember ideas because of what they read. Strong visual learners will prefer pictures, color, and charts over words; they will remember ideas because they remember where it appears on a page or in notes, or because they remember the illustration, chart or diagram that contains the information. Strong oral learners will prefer discussion and talking over listening and reading; they will remember ideas because they talked about them. Strong aural learners will prefer lectures or listening to discussion over reading and talking; they will remember ideas because of what someone said about the idea.

33. *Id.*

34. See e.g. Spiro, *supra* n. 10 (advanced knowledge acquisition requires revisiting the same material at different times, in different contexts, for different purposes, and from different conceptual perspectives); Sarah Guri-Rozenblit, *Effects of a Tree Diagram on Students’ Comprehension of Main Ideas in an Expository Text with Multiple Themes*, 24 Reading Research Q. 236, 245 (1989) (students comprehended material better when they read text with a diagram compared to text alone, no matter how well-structured the verbal explanation).

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36. For additional guidance on how to interpret the results of a Learning Mode Assessment, see M. H. Sam Jacobson, *How Students Absorb Information: Determining Modality*, 8 Leg. Writing 175, 182-198 (2002).

LEARNING MODE ASSESSMENT

For each of the following pairs,
check your preferred choice for how you learn best::

- | | |
|-------------------------------------|--|
| lectures <input type="checkbox"/> | <input type="checkbox"/> reading |
| reading <input type="checkbox"/> | <input type="checkbox"/> discussion |
| discussion <input type="checkbox"/> | <input type="checkbox"/> lecture |
| writing <input type="checkbox"/> | <input type="checkbox"/> discussion |
| pictures <input type="checkbox"/> | <input type="checkbox"/> words |
| color <input type="checkbox"/> | <input type="checkbox"/> print (B & W) |
| charts <input type="checkbox"/> | <input type="checkbox"/> written narrative |
| audiotapes <input type="checkbox"/> | <input type="checkbox"/> reading |
| talking <input type="checkbox"/> | <input type="checkbox"/> listening |
| audiotapes <input type="checkbox"/> | <input type="checkbox"/> videotapes |

Indicate if the following are true or false when you recall information:

- T F I remember the idea.
 T F I remember where the idea appears on the page or in my notes.
 T F I remember the illustration, diagram or chart that the information was in.
 T F I remember what someone said about the idea.
 T F I remember what I read.
 T F I remember what I wrote about the information.
 T F I remember the story from which the idea arose.
 T F I remember talking about the idea.

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2. *Information processing*

After learners absorb information, they process it. Learners have habitual ways of processing information.³⁷ The foundation for understanding how the brain processes information lies in understanding the functions of the brain's hemispheres, specifically the left-brain and right-brain functions. The most significant models for processing information recognize the differences between these hemispheric functions.

37. Richard J. Riding & Stephen G. Rayner, *Cognitive Styles and Learning Strategies* 8 (David Fulton 1998).

a. Left-brain/right-brain functions

People process information in different ways, depending on which hemisphere of the brain they habitually favor. For most people, about 80%, one hemisphere of the brain is more dominant than the other hemisphere.³⁸ While everyone uses both hemispheres of the brain,³⁹ most will habitually rely upon their dominant hemisphere for processing information. The differences between the right and the left hemispheres of the brain are summarized in the table on the following page.⁴⁰

How people process information does not affect their abilities, only the way in which they accomplish a task. Sometimes, though, styles of processing may conflict, particularly when one person is strongly right-brain dominant and the other is strongly left-brain dominant. For example, the left-brain dominant thinker, who wants to move through an agenda in sequence, may think that the right-brain dominant thinker, who sees possibilities outside the agenda, has trouble staying focused.

While a majority of those who teach or practice law are probably left-brain dominant thinkers, a majority of the population is not. Effective lawyering requires effective communication skills, no matter how the people involved in a legal problem process information. For example, if an attorney's goal in a jury trial is to obtain a verdict for his or her client, then the attorney's job is to help each juror process the evidence in a way that supports a favorable verdict, whether the juror analyzes the evidence piece-by-piece or more as a whole. Similarly, effective teaching of law students requires challenging the left-brain dominant thinkers to see possibilities beyond the reasoning in a judicial opinion, including policy, values, social or political implications, and ramifications of the decision. Effective teaching also requires challenging the right-brain dominant thinkers to establish the analytical relevance of the synergies and connections they develop outside a case. The significance of hemispheric preferences is illustrated further in the following section, which discusses different models for processing information.

38. Robert Ornstein, *The Right Mind: Making Sense of the Hemispheres* 81 (Harcourt 1997).

39. *Id.* at 68.

40. This chart is synthesized from the following sources: Ornstein, *supra* n. 38, at 63-86; Sally Springer & Georg Deutsch, *Left Brain/Right Brain: Perspectives from Cognitive Neuroscience* 12-19, 102-107, 292-294 (5th ed., Worth Publishers 1998); Betty Edwards, *Drawing on the Right Side of the Brain* 35-40 (rev. ed., Jeremy Tarcher, Inc. 1989).

Left Hemisphere	Right Hemisphere
<i>Linear.</i> The left hemisphere functions linearly, moving from part-to-whole. The pieces line up in logical order and that order converges on a conclusion.	<i>Holistic.</i> The right hemisphere functions holistically, moving from whole-to-part. Beginning with the whole, the conclusions reached are divergent. The “whole” may be an answer, a total concept, or a whole pattern.
<i>Logical.</i> The left hemisphere functions logically, beginning with pieces of information and working toward an end result, with one thing following another.	<i>Intuitive.</i> The right hemisphere functions intuitively, thinking outside the constraints of the pieces. Strong right-hemisphere thinkers might have a correct answer but not be able to work through the sequential steps of how they arrived at the answer.
<i>Sequential.</i> The left hemisphere functions sequentially, looking at one thing after another. Strong left-hemisphere thinkers are “splitters,” who make distinctions between the pieces and easily see cause and effect or rankings.	<i>Simultaneous.</i> The right hemisphere functions simultaneously, seeing the gestalt of the whole and multiple possibilities for reaching the end decision. Strong right-hemisphere thinkers are “lumpers” for whom connectedness is important, and analogizers, seeing similarities amid the connections.
<i>Temporal.</i> The left hemisphere functions temporally because it has a strong sense of time. Strong left-hemisphere thinkers would prioritize their tasks, doing first things first, second things second, and so on. Because of their awareness of time, they generally are punctual.	<i>Non-temporal.</i> The right hemisphere functions non-temporally, with little sense of time. Strong right-hemisphere thinkers become diverted by the here and now. Because they lack an awareness of time, they frequently are late.
<i>Verbal.</i> The left hemisphere functions verbally, focusing on words, symbols, and numbers. Strong left-hemisphere learners would use words to remember things; e.g., in meeting someone new, they would remember the name, rather than the face.	<i>Spatial.</i> The right hemisphere functions spatially, seeing where things are in relation to each other. Strong right-hemisphere thinkers would prefer drawings, models or “mind photos” to remember things. In meeting someone new, they would remember the face, rather than the name.

b. Information processing models

The differences in left-brain/right-brain functions are reflected in several learning style models for processing information, including the field dependence/field independence model, the holist/serialist model, the sequencing model, and the impulsive-reflective model.

Field dependence/field independence. Using his Embedded Figures Test and other methodologies,⁴¹ Witkin determined that some people were field independent and others were field dependent in processing information. People who were field independent had articulated styles of processing: they immediately were able to spot a simple geometric figure embedded into a more complex figure.⁴² People who were field dependent had global styles of processing: they were distracted by the surroundings of the whole and had more difficulty finding the embedded figure.⁴³ The articulated, field-independent style analyzes and structures incoming information, while the global, field-dependent style accepts the totality of impressions in context but without structure.⁴⁴

Effective lawyering would accommodate these differences in processing by providing structural cues to aid the field dependent processor in organization and prioritization. In written documents those cues would include a thesis, or introductory, paragraph that explains the structure of the document; headings and thesis sentences that identify the beginning of the discussion of each point; transitions that explain the analytical connections between ideas; and a summary conclusion that reiterates the structure of the preceding discussion.⁴⁵

Holist/serialist. Similar to the field dependence/field independence model, this model also envisions two ways of processing information, holistic and serialistic.⁴⁶ A holistic learner is a global processor who sees the whole immediately, whose thinking may involve redundancies until the process is complete, who relies on illustration and analogy, who has a wide focus of attention, and who connects information to people.⁴⁷ A serialistic learner is a linear processor whose thinking is logical, step-by-step, and efficient, who sees the whole later in the process, and who works independently.⁴⁸ The same

41. H.A. Witkin et al., *Field-Dependent and Field-Independent Cognitive Styles and Their Educational Implications*, 47 *Rev. of Educ. Research* 1, 2-6 (1977) (describing methodologies); H.A. Witkin, *Individual Differences in Ease of Perception of Embedded Figures*, 19 *J. of Personality* 1, 1-15 (1950).

42. Witkin et al., *supra* n. 41, at 7-17.

43. *Id.* at 8-10.

44. *Id.*

45. These organizational aids are discussed further in part IV, *infra* notes 76-102 and accompanying text.

46. See Gordon Pask, *Styles and Strategies of Learning*, 46 *Br. J. of Educ. Psychol.* 128, 128-148 (1976).

47. *Id.* at 130; Robert Zenhausen, *Imagery, Cerebral Dominance, and Style of Thinking: A Unified Field Model*, 12 *Bull. of the Psychonomic Socy.* 381, 381 (1978).

48. Pask, *supra* n. 46, at 130; Zenhausen, *supra* n. 47, at 381.

organizational cues discussed for the field independent/field dependent model are relevant here. To illustrate in a different context, in trial, attorneys provide the jury with organizational cues in their opening and closing arguments. However, because of the nonlinear manner in which evidence is introduced and witnesses are examined, jurors might have difficulty connecting the evidence produced with the elements required to establish the underlying action. Those jurors might be aided by additional organizational cues in the phrasing of questions or the description of documents.

Sequencing. Under this model, learners process information either from the “top down” or from the “bottom up.”⁴⁹ Learners who are “top down” sequencers process information best if they have the general concepts first as an anchor to the facts that come later. Other learners are “bottom up” sequencers who process information best if they first have the facts from which the general concepts follow. “Top down” sequencers will be frustrated with details unless they know how the details fit into a bigger picture. Most first-year law students experience this frustration when they try to learn from a casebook, a compilation of cases with little or no narrative explaining their significance. Once they determine the reason the authors included the cases in the book, they can read the cases with focus and remember them because of their relevance to the overall analytical framework. Similarly, “bottom up” sequencers will be frustrated if the general concepts or an overview does not follow the facts. Providing an overview before and after the presentation of information will accommodate both the “top down” and the “bottom up” sequencers.

Impulsive/reflective. Under this model, some learners reflect over alternative solutions before responding, while others make an impulsive selection.⁵⁰ The impulsive processor answers rapidly but with more mistakes, and the reflective processor answers more cautiously but more accurately.⁵¹ Effective lawyering would recognize these differences and allow adequate time to respond, whether questioning a client, a witness or deponent. In law school classrooms, increasing the wait time after asking a question, even to as little as five seconds, had extraordinary benefits: more students responded, they responded more often, their answers were more complex and better supported, and they had greater confidence in their answers.⁵²

49. David P. Ausubel, *The Psychology of Meaningful Verbal Learning: An Introduction to School Learning* 79-81, 214-15 (Grune & Stratton 1963) [hereinafter Ausubel, *Meaningful Learning*]; David P. Ausubel, *The Use of Advance Organizers in the Learning and Retention of Meaningful Verbal Material*, 51 J. of Educ. Psychol. 267, 271 (1960) [hereinafter Ausubel, *Advance Organizers*].

50. Stanley B. Messer, *Reflection-Impulsivity: A Review*, 83 Psychol. Bull. 1026, 1026 (1976); Jerome Kagan, *Reflection-Impulsivity and Reading Ability in Primary Grade Children*, 36 Child Dev. 609, 609 (1965).

51. Kagan, *supra* n. 50, at 609.

52. Barbara Glesner-Fines, *The Impact of Expectation on Teaching and Learning*, 38 Gonz. L. Rev. 89, 118-119 (2003).

D. Social interaction

The fourth personal characteristic affecting learning style is social interaction, how students interact in the classroom.⁵³ This characteristic includes learners' motivations and values, and social milieu. Motivation concerns the level of interest in establishing and achieving goals that are consistent with students' values.⁵⁴ Social milieu concerns the social environment in which students learn best. Since motivation and social milieu each contribute to learning, they may be considered a part of learning style. However, these aspects of social interaction may concern only particular situations and they are more changeable than the other contributions to learning style previously discussed in this article.

1. Motivation

Motivation may be either extrinsic or intrinsic.⁵⁵ Extrinsic motivation is due to some reward or punishment outside the task itself. Intrinsic motivation exists when the task is relevant and interesting to the learner in its own right,⁵⁶ for example, because it satisfies personal values, such as self-esteem or the need for achievement.⁵⁷ Motivation involves the desire to achieve goals,⁵⁸ especially if those goals are specific (i.e., detailed and concrete); proximal (i.e., attainable within a relatively short period of time); and within perceived levels of ability and knowledge.⁵⁹

Effective lawyering will use extrinsic and intrinsic motivation to enhance learning. For example, law students are extrinsically motivated to complete law school successfully, to pass the bar, and to practice law; attorneys are extrinsically motivated to earn money, pay their bills, and generate additional business; and jurors are extrinsically motivated to decide the case and return to their jobs. However, these extrinsic motivations do not mean that the law student, attorney, or juror is motivated to learn particular material. That

53. Claxton & Murrell, *supra* n. 11; Sheryl Wetter Reichman & Anthony F. Grasha, *A Rational Approach to Developing and Assessing the Construct Validity of a Student Learning Style Instrument*, 87 J. of Psychol. 213-223 (1974) (identifying social interaction as independent, dependent, collaborative, participatory, and avoidant).

54. For a clear and concise discussion of motivation, see Noel Entwistle, *Styles of Learning and Teaching: An Integrated Outline of Educational Psychology for Students, Teachers and Lecturers* 193-98 (David Fulton Publishers 1988); Sharon L. Silverman & Martha E. Casazza, *Learning and Development: Making Connections to Enhance Teaching* 92-115 (Jossey-Bass 2000).

55. R.S. Peters, *The Concept of Motivation* 38-50 (2d ed., Humanities Press 1960).

56. *Id.*

57. John Wilson, *Philosophy and Educational Research* 100 (Natl. Found. Educ. Research 1972).

58. Paul R. Pintrich & Dale H. Schunk, *Motivation in Education: Theory, Research and Applications* 4 (Prentice-Hall 1996).

59. Dale H. Schunk, *Goal Setting and Self-Evaluation: A Social Cognitive Perspective on Self-Regulation*, in *Advances in Motivation and Achievement* 85-113 (Martin L. Maehr & Paul R. Pintrich eds., JAI Press 1991).

requires intrinsic motivation⁶⁰ and intrinsic motivation requires positive achievements that are compatible with the learner's values. The most potent motivators for adult learners are internal, including self-esteem, recognition, better quality of life, greater self-confidence, and self-actualization.⁶¹

To illustrate, large urban law firms have been unable to retain gifted associates regardless of how high they raise their salaries. The extrinsic motivator, the higher salary, is ineffective against intrinsic motivators, such as quality of life issues like shorter work hours, more vacation, and less stress. Likewise, the extrinsic motivator, serving the least amount of time on a jury, most likely would be ineffective against the intrinsic motivator of arriving at a fair decision or demonstrating compassion for a victim.

2. *Social milieu*

The social milieu in which learning takes place affects the learner's comfort; the more comfortable the learner, the more he or she will learn.⁶² People learn in a variety of social situations, including working alone, working in pairs, working with a group, and working with experienced adults,⁶³ such as more experienced judges, professors and attorneys. Those who prefer to work in groups may feel adrift if they are working without adequate social support. Similarly, those who prefer to work alone may find working in groups, or sharing their work, to be uncomfortable. However, group or collaborative work may be most effective for training others and assuring depth to the firm's coverage. No firm wants to lose business if the one person who handles a particular type of matter is not available. In addition, group or collaborative work can accelerate the learning process; as those of us who participated in law school study groups can attest, two heads are usually better than one.

E. Instructional preferences

The fifth personal characteristic affecting learning style is instructional preferences, the environmental factors that affect your ability to learn. These factors include sound (background noise, quiet); light (bright lights, windows); temperature (cool, warm); design (desk and chair preferences, isolated or with others, clean or messy); mobility (need to move around); time (duration, time-

60. Malcolm S. Knowles, *Introduction: The Art and Science of Helping Adults Learn*, in Malcolm S. Knowles et al., *Andragogy in Action: Applying Modern Principles of Adult Learning* 12 (Jossey-Bass 1984).

61. *Id.*

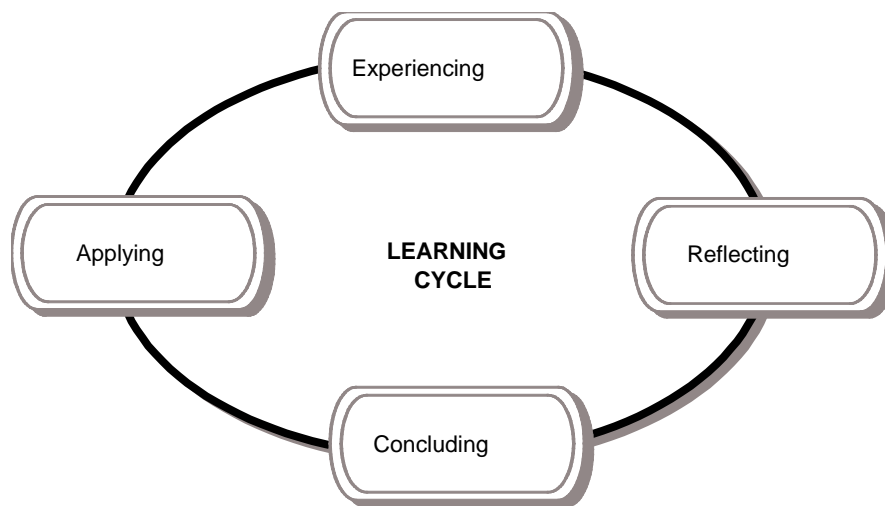
62. See Rudolf H. Moos, *The Human Context: Environmental Determinants of Behavior* 213-245 (Kreiger Publ. 1976).

63. Rita Dunn & Kenneth Dunn, *Teaching Students Through Their Individual Learning Styles: A Practical Approach* 12 (Reston 1978).

of-day); and personal quirks (yellow pads, pen or highlighter preferences).⁶⁴ While some of these factors are uncontrollable, good lawyering would recognize when the working conditions for associates, or the courtroom conditions for jurors and judges, make the understanding of the legal argument or the evidence difficult, if not impossible.

III. Applying Learning Styles Theory to the Learning Cycle

In addition to knowing about individual learning styles, effective lawyering requires understanding the components of a complete learning experience because deep learning will not occur without a complete learning



experience.⁶⁵ A complete learning experience is one that involves all stages of the learning cycle. The learning cycle, shown above, has four stages: having an experience, reviewing the experience, concluding from the experience, and doing something with the experience, such as planning the next steps or applying it to solve a problem.⁶⁶

Each stage in the learning cycle is important and necessary.⁶⁷ First, a learner must have something to learn. Each new experience, whether it is

64. See e.g. Gary E. Price et al., *Productivity Environmental Preference Survey 3* (Price Systems, Inc. 1982) (two of four categories in this instrument test for environmental and physical preferences for learning, including sound level, lighting, temperature, design, time-of-day, intake needs, and mobility needs); James W. Keefe et al., *Learning Style Profile Handbook: II. Accommodating Perceptual Study and Instructional Preferences* (NASSP 1989) (assesses study and instructional preferences, including time-of-day, design, mobility, sound, lighting, and temperature).

65. Entwistle, *supra* n. 54, at 77-78.

66. Peter Honey & Alan Mumford, *The Manual of Learning Styles 4* (Peter Honey Publications 1992); David A. Kolb, *Experiential Learning: Experience as the Source of Learning and Development 42* (Prentice-Hall 1984).

67. See Honey & Mumford, *supra* n. 66, at 3-4; Kolb, *supra* n. 66, at 42.

reading this article, participating in a discussion, or admitting expert testimony, gives a learner something to learn. For adult learners, those experiences need to be placed in context and to be connected with prior experiences.⁶⁸ Second, a learner must reflect on the experience to determine the adequacy and relevancy of the information gathered from it. Third, a learner must understand what that new experience means. This includes drawing conclusions from it and putting it into theoretical perspective by creating an analytical framework from it or by integrating it into an existing analytical framework. Fourth, a learner must do something with the information. Applying the information tests the validity of the experience and determines if the learner needs more input. Doing something with the knowledge gained includes using it to draw analogies, transfer concepts, and solve problems.

All stages of the learning cycle are equally important.⁶⁹ Without new experiences, learners would conclude from incomplete input, and any applications would be inadequate because they would not have considered sufficient perspectives. Without reflection, learners would collect experiences without determining what they could extract from them, would draw conclusions and create paradigms without adequate support, and would act without an adequate foundation. Without an analytical framework, learners would collect experiences without determining what they could build from them, would get lost in details, and would have difficulty applying or using information because they would have no structure for analogy or for making modifications. Without application, learners would collect experiences without determining how they can use them to solve problems, whether the information absorbed is accurate, or whether the framework constructed from the information is valid.

Finally, the stages of the learning cycle must be in balance.⁷⁰ The learning is not complete if learners are overly engaged in one aspect of the learning cycle at the expense of the other aspects. To illustrate, if learners are overly engaged in having new experiences, they may become manic, where the only value is having new experiences, not what they might extract from them. If learners are overly engaged in reflecting, they may become paralyzed by the details and unable to organize or to see the bigger picture. If learners are overly engaged in concluding, they may be concluding without adequate foundation for their conclusions or they might be too abstract and insufficiently concrete. If learners are overly engaged in application, they might be acting without adequate foundation for their plan or be interested only in quick fixes.

68. Knowles, *supra* n. 60, at 9-12. Adult learners connect new information to prior experiences, they learn something new when they have a reason for knowing it, and they learn what matters to their life, their immediate task, or solving a problem, not just for the sake of learning. *Id.*

69. Honey & Mumford, *supra* n. 66, at 3-4, 47-48.

70. *Id.*

For a deep learning experience, learners must experience the entire learning cycle. In law school, law students need experiences beyond reading cases, listening to lectures, and class discussion; and new associates need experiences beyond library research and observing experienced attorneys. These learners need incremental assignments (new experiences) to avoid overwhelming them and creating anxiety that would be counterproductive to learning. They need opportunities for reflection that may require thoughtful calendaring and adjusting of due dates. They need organizational guidance if they begin to drown in details. But most of all, they need the opportunity to apply the information, to reflect on their mistakes, to adjust, and to try again.

In law practice, associates need similar mentoring to experience the entire learning cycle. For example, many law firms have difficulty finding opportunities for their associates to learn courtroom practice. Either the client's case does not warrant the expense of a trial, the case is too significant to entrust to an inexperienced attorney, or the risks of pursuing the matter are too high. This means that those new associates are deprived of the deep learning that is necessary to be effective in the courtroom. Instead of beginning new associates on a simple negligence action or a debt collection, law firms now may have to send their inexperienced associates to a National Institute of Trial Advocacy program or develop their own mock trial program to achieve this learning goal.

IV. Applying Learning Styles Theory to Organize the Unorganized

With the overview of learning styles theory as a foundation, this section will illustrate more completely how learning styles theory can help legal professionals organize their thinking and their documents. Effective legal thinking and organizing relies heavily on three logical forms: deductive reasoning, inductive reasoning, and reasoning by analogy. Deductive reasoning moves from broad to narrow, deriving a specific conclusion from more general premises. Inductive reasoning moves from narrow to broad, deriving a general statement from more specific statements. Reasoning by analogy compares and contrasts two or more situations.

While these forms of reasoning are not unique to law, the intensity with which they are used is. In a single legal argument, the rule might be derived from a published judicial opinion through inductive reasoning, and applied to a specific factual situation to reach a conclusion through deductive reasoning, after determining that those facts are mostly similar to, or mostly different from, the facts of the authorities through reasoning by analogy.

Despite law's heavy reliance on these forms of logic, not all in the legal profession are equally comfortable with them and the organizational schemas⁷¹ that they produce. That is because not everyone processes

71. "[A] schema is a general knowledge structure used in comprehension. A schema serves to select and organize incoming information into an integrated, meaningful framework." Richard E. Mayer, *Thinking, Problem Solving, Cognition* 228 (2d ed., W. H. Freeman & Co. 1992).

information consistent with these logical patterns. This section discusses how learning styles influence the ability to organize effectively in law, both for developing analytical frameworks, i.e., large-scale organization, and for developing individual arguments, i.e., small-scale organization. This section first discusses how writers can develop and organize the “big picture,” and how they can communicate that organization more effectively, so that even the busiest judge, law partner, law professor, or law student can quickly assess the points made in the document. Next, it discusses how writers can develop and organize individual legal arguments within the “big picture,” and how they can communicate their organization more effectively so that every reader can understand the support they have for those arguments.

A. Learning styles and organization: left-brain/right-brain functions

As already discussed, most people rely on a dominant hemisphere of the brain for information processing.⁷² The central function of the left hemisphere is to work with the parts that lead to a whole, while the central function of the right hemisphere of the brain is to work with a whole and make conclusions from that.⁷³ A strong right-hemisphere thinker may become distracted by the whole and not be able to separate out its component parts.⁷⁴ Even if the strong right-hemisphere thinker deduces the component parts, all of the parts may seem of equal importance or value, making it difficult to rank or sequence them.⁷⁵

Because of its intensive use of logical reasoning, law is inherently a left-hemisphere activity. As a result, people might be tempted to overvalue the strengths of the left hemisphere and undervalue the strengths of the right hemisphere. However, strong left-hemisphere thinking has its limitations, just as strong right-hemisphere thinking has its strengths. For example, strong left-hemisphere thinking might be so committed to its step-by-step analysis that it fails to see other possible views. In addition, if the steps within the step-by-step analysis are too narrow in focus or if any of the premises are faulty, the analysis and the conclusions resulting from it are unsupportable.

Strong right-hemisphere thinking may be undervalued in law because a right-hemisphere thinker can have problems organizing, can get lost in details, or may be unable to distinguish between key ideas and tangential information. However, strong right-hemisphere thinking is the source of creative thinking

Schemas are used by expert learners to guide their perception and problem-solving. Robert Glaser & Madeleine T. H. Chi, *Overview*, in Madeleine T. H. Chi et al., *The Nature of Expertise* xv-xxi, xxiii-xxvii (Lawrence Erlbaum Assocs. 1988).

72. See pt. II.C.2, *supra* nn. 37-52 and accompanying text.

73. Witkin et al., *supra* n. 41, at 9-17; Bruno Rossion et al., *Hemispheric Asymmetries for Whole-Based and Part-Based Face Processing in the Human Fusiform Gyrus*, 12 J. Cognitive Neuroscience 793, 793-794 (2000) (the right hemisphere processes faces as a whole and the left hemisphere processes features of the faces).

74. Witkin, *supra* n. 41, at 8-10.

75. *Id.*

and the ability to see connections outside the rigidity of logical form. When I asked a prominent physicist about one of his theories, he expressed great certainty that his theory was right but was dismayed that it might take him a lifetime to determine why.

Effective lawyering requires both left-hemisphere thinking and right-hemisphere thinking. Lawyers must be cognitively flexible to master the logic of law and its organization, and yet still see the possibilities outside that structure. Strong left-hemisphere thinkers cannot rely on step-by-step thinking alone and strong right-hemisphere thinkers cannot rely on creativity alone. The strong left-hemisphere thinkers must develop right-hemisphere thinking to expand their view of the possibilities and strong right-hemisphere thinkers must develop left-hemisphere skills to overcome problems with organization. To do that, both types of thinkers need to use “advance organizers.”⁷⁶

Advance organizers present information prior to reading text to provide a bridge between the reader’s prior knowledge and the new information to be learned.⁷⁷ They can take several different forms. First, some advance organizers provide contextual information and organizational support.⁷⁸ When contextual information is provided in advance, it helps the learner to grasp unfamiliar, but meaningful, verbal material. Studies show significant benefit when structured information is provided before or during the instruction, because new information is learned and retained when it connects with relevant existing concepts.⁷⁹ Therefore, providing advance organizers establishes which existing concepts are relevant for subsequent information. In effect, the advance organizers become the Velcro on which the new material can stick.

Second, advance organizers also include general organizers,⁸⁰ tools that can help a strong right-hemisphere thinker to organize more effectively. A strong right-hemisphere thinker might have difficulty distinguishing between the various possibilities, seeing them all as being roughly the same. Advance organizers that provide pre-organizational guidance help this thinker to prioritize among the possibilities.⁸¹ To illustrate, imagine being immersed in a

76. Ausubel, *Meaningful Learning*, *supra* n. 49, at 146-151; Ausubel, *Advance Organizers*, *supra* n. 49, at 267-272 (1960); Thomas J. Shuell, *The Effect of Instruction to Organize for Good and Poor Learners*, 7 *Intell.* 271, 271-286 (1983).

77. David P. Ausubel, *Educational Psychology: A Cognitive View* 148-149 (Holt, Rinehart & Winston 1968).

78. Ausubel, *Meaningful Learning*, *supra* n. 49, at 148-149.

79. John Patrick & Paul Evans, *Advance Organizers and Learner Control of Sequence in Recall of Topic Attributes*, 2 *Human Learning* 269, 275-276 (1983).

80. Ausubel, *Meaningful Learning*, *supra* n. 49, at 151.

81. Ausubel, *Advance Organizers*, *supra* n. 49, at 270-271 (advance organizers facilitated the incorporation and retention of meaningful verbal information); Shuell, *supra* n. 76, at 282-283 (difference in performance between good and poor learners was cut approximately in half when learners were informed of organization in advance); Bonnie B. Armbruster et al., *Does Text Structure/Summarization Instruction Facilitate Learning from Expository Text?*, 22 *Reading Research Q.*

sea of rubber balls, balls of different sizes and colors. A strong right-hemisphere thinker might see only an ocean of balls. However, with an advance organizer, such as being told to look for the different sizes and colors, the strong right-hemisphere thinker can discern the same parts of the whole at the same level as the strong left-hemisphere thinker.

Third, some advance organizers provide route knowledge (the sequential path) and configural knowledge (the relationship of the ideas within the sequence).⁸² Route knowledge and configural knowledge are especially important to readers who read material very quickly or who may not readily see the organizational patterns without these organizational cues. In this situation, a writer's organizational tools, such as transitions, serve as advance organizers for the reader. Regardless of the type of advance organizer used, the organizer should be concrete for it to be effective.⁸³

B. Organizing the big picture (analytical framework)

This section discusses different advance organizers that writers can use to organize their thoughts and different tools that writers can use to communicate that organization to their readers.

1. *Establishing an analytical framework*

At some point in the writing process, legal writers need to know how they will organize their discussion. This requires developing some form of outline that separates the discussion of each point or sub-point, a task that many, especially strong right-hemisphere thinkers, find difficult to do. Knowing how to generate an outline and knowing what types of organizational patterns are possible will help writers to organize or to improve the quality of their organization.

a. Advance organizer #1: styles of outlines

Outlining too often is equated with the Roman-style or numeral outline, which is only one of many ways to outline. Those writers who have difficulty organizing may find outlining to be more effective if they use a style that better fits their thinking process. The primary methods for organizing are the traditional Roman-style method, the digest method, the diagram or flowchart method, the picture or mind-map method, and the brainstorming method.

331, 343 (1987) (instruction in text structure resulted in 50% better recall of the text's macrostructure).

82. Daniel L. Schacter & Lynn Nadel, *Varieties of Spatial Memory: A Problem for Cognitive Neuroscience*, in *Perspectives on Cognitive Neuroscience* 169-171 (Richard G. Lister & Herbert J. Weingarten eds., Oxford U. Press 1991).

83. See e.g. Alice J. Corkill et al., *Advance Organizers: Concrete Versus Abstract*, 82 J. of Educ. Research 76, 79 (1988) (students using a concrete organizer recalled significantly more of the text than students who used an abstract organizer or no organizer).

Roman-style traditional method. The traditional, Roman-style outline is associated with the thinking process that is left-hemisphere dominant. In a Roman-style outline, main ideas are listed and then ordered in the logical pattern most consistent with the requirements of the governing rule that establishes the framework for the analysis. Then sub-points are included under the main point that they best support.

To illustrate, a Roman-style outline for a memorandum discussing the sufficiency of a complaint under Federal Rule of Civil Procedure 8(a) might look like this:

- A complaint must include:
- I. A statement of court's jurisdiction.
 - II. A short and plain statement showing pleader is entitled to relief.
 - A. A short and plain statement.
 - B. Pleader entitled to relief.
 1. Must include the names of all individual defendants in the complaint.
 2. Must give fair notice of the claim and the grounds upon which it rests.
 3. Must include allegations that demonstrate the plaintiff is damaged.
 - III. A demand for relief.

Digest method. The digest method of outlining is helpful for writers who know what they want to say, but are not sure how to convert the material into a more traditional outline. Using this method, writers would:

- ✓ Prepare a one-paragraph summary of each major point, explaining the analysis in a nutshell.
- ✓ Examine each paragraph to determine if it includes sub-points.
- ✓ Order the paragraphs in a logical pattern, as dictated by the binding authorities that establish the framework for the analysis.

To illustrate, a digest of a memorandum discussing the sufficiency of a complaint under Federal Rule of Civil Procedure 8(a) might be this summary:

A properly pleaded complaint must indicate the basis for a court's jurisdiction, give the defendant fair notice of the claim, and demand relief based on the cause of action. First, Tunby's complaint does not contain any basis for federal subject matter jurisdiction, because she fails to mention the citizenship of either party or the amount in

controversy. Second, Tunby's complaint appears to contain a short and plain statement that gives the defendant fair notice of the claim. Her statement is short and concise. In addition, the defendant can determine against whom the complaint is made, the grounds upon which the complaint rests, and the relationship between the allegations and the damage sought. Third, the complaint appears to properly state a demand for relief because her cause of action relates to her demand for damages. Since Tunby's complaint does not satisfy one of the requirements for a properly pleaded complaint, we should amend the complaint to include the basis for subject matter jurisdiction.

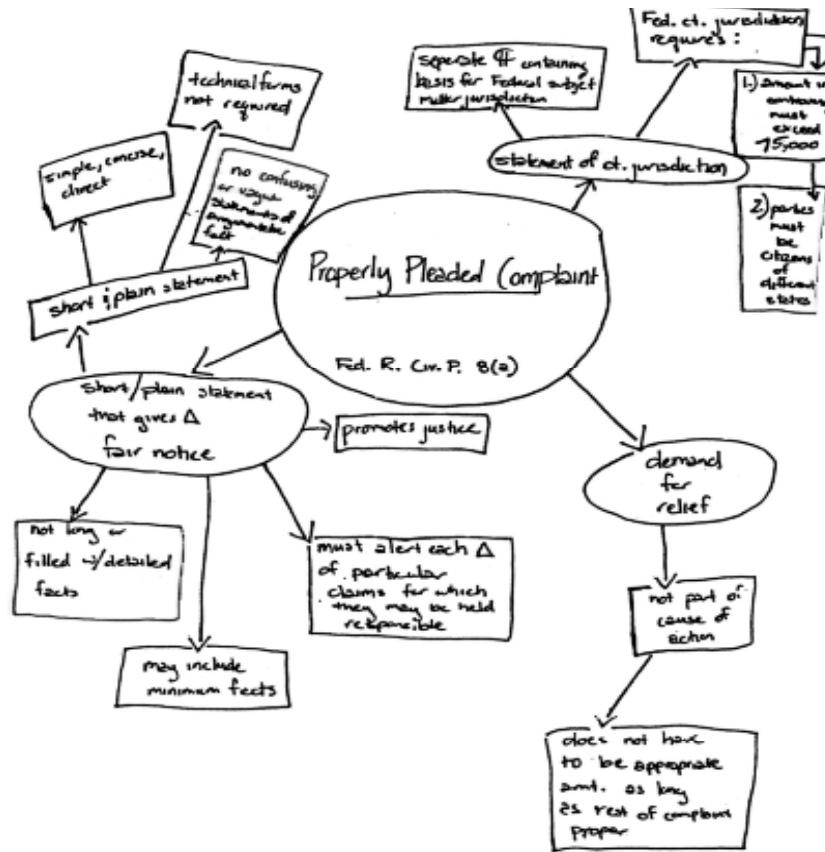
Diagram or flow chart method. The diagram or flow-chart method of organizing lets the writer visualize relationships, steps, or chronology by showing the spatial relationship between the ideas. While visual (or graphic) methods of organizing are helpful for all learners,⁸⁴ this may be helpful for right-hemisphere dominant thinkers because of their strengths in visualizing and in seeing the spatial relationships between ideas.⁸⁵ To create a diagram or flow chart:

- ✓ Write the core idea in the middle of a blank page.
- ✓ Identify the analytical points that establish the core idea.
- ✓ Connect those points to the core idea with arrows or some other graphical connector.
- ✓ For each of the analytical points that establish the core idea, identify the sub-points that analyze each of the main points.
- ✓ Connect those sub-points to the point that they concern.
- ✓ Continue the process for additional sub-points.

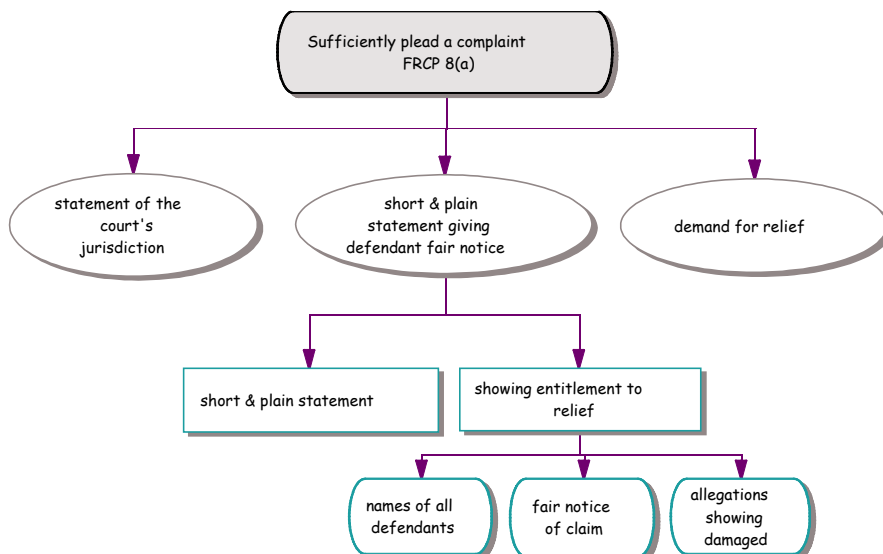
84. Daniel H. Robinson & Kenneth A. Kiewra, *Visual Argument: Graphic Organizers Are Superior to Outlines in Improving Learning From Text*, 87 J. of Educ. Psychol. 455, 465 (1995) (students given graphic organizers with text outperformed those students given outlines with text and those students given only text); Donna E. Alvermann, *The Compensatory Effect of Graphic Organizers on Descriptive Text*, 75 J. Educ. Research 44, 48 (1981) (both skilled and unskilled readers benefited from using graphic organizers with text).

85. Robinson & Kiewra, *supra* n. 84, at 465; Daniel H. Robinson & Andrew D. Katayama, *Interactive Effects of Graphic Organizers and Delayed Review on Concept Application*, 67 J. of Experimental Educ. 17, 29 (1998) (graphic organizers help students learn structure, not just the facts).

To illustrate, a diagram or flow-chart outline for a memorandum discussing the sufficiency of a complaint under Federal Rule of Civil Procedure 8(a) might look like this:



Or it might look like this:



Picture or mind map method. The picture or mind-map method uses a picture or a connection of pictures (or doodles) to organize ideas.⁸⁶ The picture might be a tree where the branches represent different points or sub-points, or it might be a tentacled doodle where the tentacles represent different points or sub-points. Often these pictures use color to represent primary and secondary points. This method may be helpful for strong right-hemisphere thinkers who need to visualize their organization through a “mind photo” that conveys a story and that prioritizes information using color.⁸⁷

86. E.g. Tony Buzan, *The Mind Map Book* (Plume 1996).

87. See e.g. Francis M. Dwyer & David M. Moore, Presentation, *Effect of Color Coding on Cognitive Style 7* (Assn. for Educ. Commun. & Tech. 1992) (available at ERIC Doc. Reprod. Serv. No. 347 986); David M. Moore & Francis M. Dwyer, *Effect of Color-Coding on Locus of Control*, 24 *Intl. J. Instructional Media* 145, 146-147 (1997); Francis M. Dwyer, *Strategies for Improving Visual Learning* (Learning Services 1978).

To illustrate, a mind-mapping outline for a memorandum discussing the sufficiency of a complaint under Federal Rule of Civil Procedure 8(a) might look like this:⁸⁸



88. **Editor's Note:** The original mind-mapping outline is in color, which we were unable to reproduce here.

Brainstorm method. The brainstorm method is helpful for the strong right-hemisphere thinker who has lots of ideas but is not yet clear on how the ideas might be connected.⁸⁹ Writers using the brainstorm method would list possible points as they come to mind. The thoughts need not be in logical sequence; instead, the ideas can flow randomly. When finished, the writer would look for patterns in the words and phrases generated. The writer might group the ideas in more than one way to find the grouping that makes the most sense, again using the law from the governing authorities as a guide.

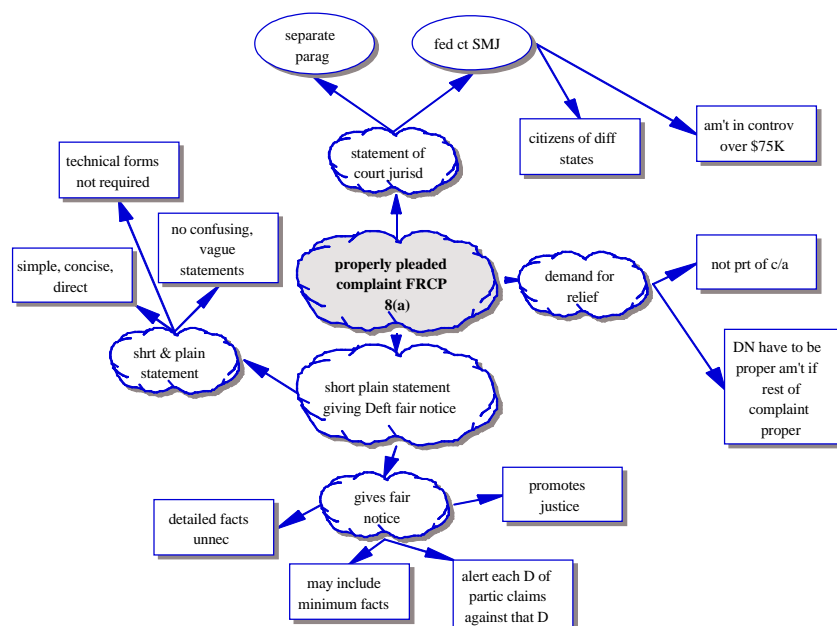
Ultimately, these groupings would separate major and supporting ideas, and identify any subdivisions of the larger points that help to break the larger points into more manageable portions to discuss. After the writer notes all of the groups, points, and sub-points to discuss, they are placed in the most effective or appropriate order, again using the law as a guide. The order may be determined by what point logically comes first, by what point is more significant than others, or by what point is stronger than others.

In sum, writers would create an outline using the brainstorm method as follows:

- ✓ In no particular order, list all of the possible points to make.
- ✓ Let one possible point suggest other possible points by considering synonyms, word associations, visual images, and the like.
- ✓ Group ideas that seem to be connected; regroup ideas as the associations evolve.
- ✓ Determine the most appropriate order for the points and sub-points.

To illustrate, a brainstorm outline of a memorandum discussing the sufficiency of a complaint under Federal Rule of Civil Procedure 8(a) might look like the diagram on the following page:

89. See e.g. Herman U. Teichert, *A Comparative Study Using Illustrations, Brainstorming, and Questions as Advance Organizers in Intermediate College German Conversation Classes*, 80 *Modern Lang. J.* 509, 509, 514 (1996) (brainstorming contributed to improved listening comprehension in learning German).



b. Advance organizer #2: organizational patterns

Once the ideas are gathered, many writers, including strong right-hemisphere thinkers, have difficulty prioritizing information, which must be done before fitting the ideas into a framework. As writers scan their ideas looking for patterns, a helpful advance organizer is one that establishes the types of organizational patterns to expect. In law, three primary organizational patterns exist: elements, factors, and schools of thought.

Elements. An elements analysis exists when the binding legal authority, either enacted law or case law, requires the proponent of the rule's application to satisfy one or more elements or requirements. Sometimes the elements are stated in the alternative, but at least one of the alternatives is required. The binding authority may establish elements either directly or indirectly.

Factors. A factors analysis exists when the court must consider a number of circumstances or interests, and then balance them to arrive at a decision. For example, the binding legal authority, either enacted law or case law, might state that a court must consider certain categories of information, that a court may exercise its discretion if certain circumstances exist, that the court must consider the totality of the circumstances, or that the court must balance opposing interests. Each of these rules involves factors. The binding authority may establish the relevant factors by directly stating them, or the factors might be developed indirectly from the facts of the authorities.

Schools of thought. A schools of thought analysis exists if no binding authority addresses a particular point and the persuasive authorities from

other jurisdictions apply different analyses or tests. In this situation, the writer would evaluate the competing schools of thought to determine which approach his or her court would most likely follow.

Any combination of these organizational schemes might exist within a single outline. For example, the main points of an analysis might be elements, but the analysis of one of the main points might involve factors.

2. *Communicating the analytical framework*

In addition to organizing material to be able to write about it, effective lawyering requires that legal writers effectively communicate their “big picture” organization or the analytical framework to their readers. Many readers, including those who are strong right-hemisphere thinkers and those who are reading in a hurry, need multiple organizational cues to follow along. Those cues include providing sufficient context for readers to understand the significance of the discussion that follows, sufficient “route knowledge” to identify the points along the way, and sufficient “configural knowledge” to understand the relationship of the ideas to each other.⁹⁰

Several organizational tools are available to writers that will accomplish these goals in communicating “big picture” organization. These tools for the writer become advance organizers for the reader when viewed from the reader’s perspective. For example, context for subsequent discussion, including the structure of the analytical framework, is communicated through the thesis or introductory paragraph and through thesis sentences that introduce each point. “Route knowledge” is provided within the thesis paragraph, which identifies the analytical framework and organizational structure of the writing, through thesis sentences, and through additional legal context that identifies sub-parts in the analysis of a point. “Configural knowledge” is provided through the legal context in the thesis paragraph and the additional context provided within the text, as well as through the transitions that communicate how the analytical points are connected to each other and to the topic of the analysis.

The use of the following advance organizers will enhance a reader’s ability to understand what a writer has written in two significant ways. First, giving background information, such as through a thesis paragraph, provides the reader with sufficient knowledge of the topic (domain knowledge) to understand and remember the information that follows.⁹¹ If readers are familiar with the topic, they automatically construct the main idea as they

90. Schacter & Nadel, *supra* n. 82.

91. Julia E. Moravcsik & Walter Kintsch, *Writing Quality, Reading Skills, and Domain Knowledge as Factors in Text Comprehension*, 47 *Can. J. of Experimental Psychol.* 360, 370-371 (1993); Ruth Garner & Mark G. Gillingham, *Topic Knowledge, Cognitive Interest, and Text Recall: A Microanalysis*, 59 *J. of Experimental Educ.* 310, 317 (1991); Wolfgang Schneider et al., *Domain-Specific Knowledge and Memory Performance: A Comparison of High- and Low-Aptitude Children*, 81 *J. of Educ. Psychol.* 306, 311-12 (1989) (subjects’ prior knowledge was crucial factor in explaining performance; rich domain-specific knowledge can compensate for low overall aptitude).

read.⁹² However, if readers are not familiar with the topic, they often resort to reading strategies that undermine their ability to understand the text.⁹³

Second, providing organizational information, such as through the organizational context of the thesis paragraph or through transitions, provides the reader with information about the text's structure, which helps the reader to understand the text better.⁹⁴ The reader uses the organizational information to interpret the text and to create a more effective strategy for remembering the text.⁹⁵

a. Advance organizer #3: thesis (introductory) paragraphs

A thesis paragraph is an introductory paragraph that orients the reader to the discussion, whether it be an introduction to a letter, a Memorandum of Points and Authorities, an internal office memorandum, or an appellate brief. A good thesis paragraph is an effective advance organizer because it orients the reader to the discussion by identifying the topic to be discussed, the legal foundation for that topic, and the points to be analyzed in a neutral evaluation (like an office memorandum) or the arguments to be made in a persuasive document (like a Memorandum of Points and Authorities or appellate brief). To illustrate, a simple thesis paragraph in an office memorandum might look like this:

Legal Context	<p>This memorandum concerns whether the federal district court will exercise supplemental jurisdiction over the state tort claim of our client, Vance Bryant. If a federal court has original jurisdiction over a claim, the federal court also has supplemental jurisdiction over a state claim if the federal and state claims before the court form part of the same case or controversy under Article III of the United States Constitution. 28 U.S.C. § 1367(a) (1994). However, the court may decline to exercise its supplemental jurisdiction under Section 1367(c). This memorandum will analyze whether the court has supplemental jurisdiction under Section 1367(a) and whether it might decline to exercise that jurisdiction under Section 1367(c).</p>	<p>◀ Topic</p> <p>◀ Organization</p>
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92. Peter P. Afflerbach, *The Influence of Prior Knowledge on Expert Readers' Main Idea Construction Strategies*, 25 Reading Research Q. 31, 43 (1990).

93. *Id.* at 41-43.

94. Lea M. McGee, *Awareness of Text Structure: Effects on Children's Recall of Expository Text*, 17 Reading Research Q. 581, 582-583, 588-589 (1982); Shuell, *supra* n. 76, at 282 (informing readers of organizational structure cut in half the difference between good and poor learners).

95. McGee, *supra* n. 94, at 589.

In addition to orienting the reader to the written document as a whole, each part of this paragraph orients the reader to the next part: the topic of the document establishes the relevance of the legal context; and the legal context, which tells the reader what the required analysis is, establishes the relevance of the organizational structure. In this manner, each part of the introductory paragraph operates as an advance organizer for the next part of the paragraph.

b. Advance organizer #4: additional legal context

To keep a thesis paragraph simple, a writer should include only the legal and organizational context for the main points. If a main point has sub-points, a writer would provide additional legal context and organizational context at the beginning of the discussion on that point. To illustrate, the writer of the thesis paragraph on supplemental jurisdiction would give additional legal and organizational context within each of the sub-points. For the first point, the writer might give this additional context:

First, the federal district court has supplemental jurisdiction over a state claim if it has original jurisdiction over a claim and if the state and federal claims arise out of the same case or controversy. 28 U.S.C. § 1367(a).

When the writer introduces the sub-point of “arising out of the same case or controversy,” the writer would give additional context to establish the sub-points of that point:

Second, to have supplemental jurisdiction, the federal and state claims must arise out of the same case or controversy. 28 U.S.C. § 1367(a). Federal and state claims form part of the same case or controversy if they from a common nucleus of operative fact and are such that one would ordinarily expect to try them together. *United Mine Workers v. Gibbs*, 383 U.S. 715, 725 (1966).

Any subsequent point with sub-points would include similar additional context. This additional context provides an advance organizer for the reader, helping the reader understand the significance of the information that follows.

c. Advance organizer #5: thesis sentences

Thesis sentences begin the discussion of each point or sub-point within an analysis. Beginning with a thesis sentence gives context for the information that follows and it gives “route knowledge,” identifying each point along the way. Thesis sentences clearly identify the analytical point for the reader, especially for those right-hemisphere learners who need additional organizational cues, or for any reader who is in a hurry and scans the first

sentences of paragraphs. Those first sentences must be clear statements of the points being analyzed for the reader to follow the organization.

For example, the following thesis sentence states the analytical point that the legal writer will develop:

First, for claims to form part of the same case or controversy, they must derive from a “common nucleus of operative fact.” [cite]

However, if the point began with this sentence:

First, the court in *Jose* held that the claims did not form a common nucleus. [cite]

the reader would assume that the topic of the paragraph is a discussion of the holding in *Jose*. While it may be clear to some readers what the probative point is supposed to be, other readers may not make the cognitive connection.

d. Advance organizer #6: transitions

Transitions communicate the “big picture” organization to the reader. They do this by identifying the beginning of a new point, “route knowledge,” and by establishing the relationship of the new point to other points, “configural knowledge.” These cues or signals are important for remembering and retrieving the information.⁹⁶

Main points. Transitions for main points define the connection between the main points. To illustrate, the transitions between the two requirements for supplemental jurisdiction might be:

The first requirement for supplemental jurisdiction . . .

The second requirement for supplemental jurisdiction . . .

Each of these transitions links the specific analytical point to the subject of the analysis, supplemental jurisdiction.

Sub-points. With sub-points, the transitions would link the sub-points to the main point under which they appear, rather than to the subject of the analysis as a whole. For example, the second requirement for supplemental jurisdiction, “same case or controversy,” has two required sub-points. The transitions might be:

First, to establish “same claim or controversy” . . .

Second, to establish “same claim or controversy” . . .

96. Bonnie J. F. Meyer et al., *Use of Top-level Structure in Text: Key for Reading Comprehension of Ninth-grade Students*, 16 *Reading Research Q.* 72, 77, 97, 99 (1980); Nancy Lockitch Loman & Richard E. Mayer, *Signaling Techniques That Increase the Understandability of Expository Prose*, 75 *J. of Educ. Psychol.* 402, 410 (1983).

Each of these transitions links the specific analytical sub-point to the subject of the main point that they concern, “same case or controversy,” rather than the subject of the analysis as a whole, supplemental jurisdiction.

By using these “larger” transitions to communicate the analytical framework, the structure of the analysis will always be clear to the reader, especially to a reader who is in a hurry and is skimming the document, or who is a strong right-hemisphere learner and needs additional organizational cues to see the relationship between the ideas.

e. Advance organizer #7: headings

A heading is an advance organizer that supplements the use of transitions and thesis sentences by providing visual cues to the points discussed. Like other advance organizers, these visual cues are especially helpful to those readers who are strong right-hemisphere thinkers or who are reading in a hurry. They improve recall by linking ideas with key words⁹⁷ and by providing important repetition.⁹⁸

Placement. Headings might be separate from the paragraph, like the heading to this section, or they might be an introduction to the paragraph, like the heading to this paragraph.

Length. Headings generally should be no more than a few words. However, for some types of legal writing, such as appellate briefs, headings must be longer because they must state the argument, not just identify the topic. For all headings, legal writers should choose their words carefully and concisely so that they identify the key topic or point without merely restating the thesis sentence.

Style. The emphasis that the headings give should be appropriate to the point. For example, in this section, the heading for the section is more dominant than the headings for these paragraphs. While headings are helpful visual cues of a writer’s organization, they can overwhelm a document if not used appropriately, e.g., by overusing different fonts and different tools of emphasis (underlining, italics, capital letters).

C. Organizing individual legal arguments

After organizing and communicating the “big picture” of an analysis, effective lawyering requires that legal writers be able to organize individual legal arguments effectively and be able to communicate that organization to

97. Zhigang Zhang & Jeanne Shay Schumm, *Exploring Effects of the Keyword Method on Limited English Proficient Students’ Vocabulary Recall and Comprehension*, 39 *Reading Research & Instr.* 202, 214 (2000).

98. John R. Surber & Linda Pallock, *Effect of Topic Frequency and Position on Memory for Information from Lengthy Informative Text*, 22 *Contemporary Educ. Psychol.* 390, 396 (1997) (frequent repetition of a topic label increases likelihood of topic recall).

their readers. This section discusses advance organizers that legal writers can use to develop and organize individual legal arguments, and it discusses the tools that writers can use to communicate that organization to the reader.

1. Developing the individual legal argument

To develop individual legal arguments, writers first need to gather the information from their authorities and from their facts to use in those individual legal arguments, and they need to evaluate what information will be the best to use. An advance organizer that helps accomplish this task is to create T-charts for each analytical point.

a. Advance organizer #8: creating T-charts

A T-chart is a form of note-taking for a single analytical point or sub-point. A carefully completed T-chart will include all information needed to properly develop an individual legal point. It works as an advance organizer because it helps strong left-hemisphere thinkers to avoid missing information when their step-by-step logic becomes too narrow, and it helps strong right-hemisphere thinkers to break down the whole of their analysis into pieces and to develop support for their conclusions.

To create a T-chart:

- ✓ Draw a T on a piece of paper.
- ✓ Collect the authorities that discuss a single point or issue.
- ✓ Separate binding and persuasive authority.
- ✓ Put your binding authorities in chronological order.
- ✓ For each binding authority, put the case discussion that supports the point on one side of the T, and put the case discussion that does not support the point on the other side of the T.
- ✓ For each persuasive authority, put the case discussion that supports the point on one side of the T, and put the case discussion that does not support the point on the other side of the T.
- ✓ Put the facts from your legal problem that support the point on one side of the T and the facts that do not support the point on the other side of the T.

To illustrate, determining whether a federal court has supplemental jurisdiction over a state claim includes determining whether the state and federal claims arose out of a common nucleus of operative fact. A T-chart for this point might look like the following:

		Yes ← common nucleus → no	
Binding authority:	S.Ct.	<i>MacKey</i> (SCt '89) – COBRA and state breach of K/tort claims stemmed from same nucleus of op fact [concl only; no analysis]	<i>Kokkonen</i> (SCt'94) – no SMJ of ancillary claim b/c br of K (sett agr) involves diff facts than orig situation which arose at sett agr (br of agency agr) and b/c sett agr DN reserve juris w/ crt
		<i>Bouman</i> (SCt '91) – sex discrim claims under Title VII, Const, & state statute [conclusory]	
9 th Cir.		<i>Marcos</i> (9 th '88) – RICO & pendent claims are interdependent b/c must get deeply into the pendent claims to prove the RICO claim	<i>Stevedoring</i> (9 th '92) – state claims for overpayment of disab benefits are indep of fed claim for attorney fees (abuse of discovery)
		<i>Nishimoto</i> (9 th '90) – concl only re ERISA & state wrongful discharge	<i>Lyon</i> (9 th '94) – FLSA claim for overtime & state claims for bonus b/c only fact in common is employment relationship
D. Or.		<i>Jose</i> (D Or '90) – federal claim for back wages & state tort for interference with prospective advantage (blacklisting, retaliation for claiming back wages) b/c cause and effect is not common nucleus	<i>Galt G/S</i> (9 th '95) – fed admiralty claim for cargo damages & state indemnity claim for damage to ham b/c are separated by carrier relinquishing control of ham to store
	[persuasive authority would follow binding]	_____	_____
Client's facts		claims relate to debt collection: fed claim of debt coll harassment, state claim of breach of oral K (modifying the debt pymt), & state claim for interference with prospective bus adv (br of oral K meant could not pay rent to landlord)	claims have no other evid that overlaps
			state claims occurred 4 months after fed claim
			fed claim caused state claims

The T-chart serves several functions as an advance organizer. Ultimately, it collects the information that the legal writer will use in developing an

individual legal argument. However, the individual legal argument is no better than the information that goes into it. This advance organizer helps assure that the legal writer has completely analyzed the authorities, has segregated information by relative importance, and is not distracted by other, irrelevant possibilities.

First, by reviewing binding authority before persuasive authority, this advance organizer helps the legal writer to break down the body of authority into manageable chunks, chunks that establish an appropriate order of authority. Second, by reviewing each authority to determine how it supports a point and how it does not support a point, this advance organizer helps the legal writer to be more complete in collecting information from the authorities. Strong right-hemisphere thinkers often enjoy multi-tasking, but multi-taskers take 20-40% longer to do their task and make many more mistakes in doing the task than those who did one task at a time.⁹⁹ The more complex the information involved in the multi-tasking, the more time that is lost and mistakes that are made.¹⁰⁰

Third, by evaluating the facts of the legal problem for how they support and do not support the point, this advance organizer helps the legal writer to segregate the different possibilities so that the writer can evaluate the relative significance of the possibilities before drafting the individual legal argument. This segregation is especially effective with the strong right-hemisphere learner who may see all the possibilities as equal. Fourth, by collecting information into T-charts, the writer's thinking is memorialized, so if the writer is distracted, as may happen often with strong right-hemisphere thinkers or any thinker who is busy, the work does not have to be redone.

2. Organizing the individual legal argument

After gathering information from the relevant authorities and from the facts of the legal problem, legal writers must organize that information to

99. Joshua S. Rubinstein, David E. Mayer & Jeffrey E. Evans, *Executive Control of Cognitive Processes in Task Switching*, 27 J. of Experimental Psychol.: Human Perception & Performance 763, 773-777 (2001) (calculations made from tbl. 2); Doug Rohrer & Harold E. Pashler, *Concurrent Task Effects on Memory Retrieval*, 10 Psychonomic Bull. & Rev. 96, 99-100 (2003) (multi-tasking reduced recall by ~25% and reduced speed by ~54%); David L. Strayer & William A. Johnston, *Driven to Distraction: Dual-Task Studies of Simulated Driving and Conversing on a Cellular Telephone*, 12 Psychol. Sci. 462, 463, 465 (2001) (persons using a cellular phone while driving missed twice as many traffic signals and took longer to react to signals they did detect compared to persons who were only driving).

100. Rubenstein, Mayer & Evans, *supra* n. 99, at 779-780; Strayer & Johnston, *supra* n. 99, at 465 (errors were greater if the cell phone conversation required an active, attention-demanding, word-generation task); Eric Ruthruff et al., *Vanishing Dual-Task Interference After Practice: Has the Bottleneck Been Eliminated or Is It Merely Latent?*, 29 J. of Experimental Psychol.: Human Perception & Performance 280, 280 (2003) (citing Harold Pashler & James C. Johnston, *Attentional Limitations in Dual-task Performance*, in *Attention* 155-189 (Harold Pashler ed., Psychol. Press 1998) ("For novel tasks at modest practice levels, dual-task slowing tends to be severe. . . .").

develop an individual legal argument. Within the individual legal argument, the legal writer compares the facts in the client's legal problem to those of the authorities to determine whether those facts meet, or do not meet, the requirements of the rule, reasoning by analogy.

Traditionally, individual legal arguments have been organized around IRAC, which stands for Issue, Rule, Application, and Conclusion. Unfortunately, IRAC is not entirely helpful to many writers, especially those who are strong right-hemisphere thinkers, because nothing in the heuristic guides the writer through reasoning by analogy, which is what occurs in the "Application" portion of the heuristic. More effective advance organizers are the heuristics RAFADC and CRAFADC, which expand on IRAC to guide the writer through the steps of reasoning by analogy.

a. Advance organizer #9(a) for neutral writing: RAFADC
("raffaduck")

RAFADC is an advance organizer that guides writers through the steps of reasoning by analogy. Its letters represent the words: Rule, Authorities, Facts, Analogy, Distinction, and Conclusion. RAFADC begins by defining each of the things to compare within the individual legal argument: *Rule* and *Authorities* (from the T-chart) define the law that will be compared with the *Facts* (from the T-chart) of the legal problem by *Analogizing* and *Distinguishing* them. From that comparison, the writer can *Conclude*.

To elaborate, RAFADC consists of the following parts:

Rule. The rule directly states the legal point to analyze. It is also the thesis sentence.

Authorities. The authorities establish and define what the rule means, either directly or indirectly. A direct definition comes from explanation and an indirect definition comes from factual illustration.

Explanation. Authorities may clarify the meaning or scope of a rule by rephrasing it, defining it, or refining it. Explanation would be stated in present tense.

Illustration. Authorities may clarify further the meaning or scope of a rule through their facts. The facts of an authority determine how broadly to interpret the rule and they indirectly define what the rule means. For example, a requirement for "due diligence" may have no concrete meaning until courts determine that some specific facts meet this requirement and other specific facts do not.

Facts. The facts are those from the client's legal problem that are relevant to the particular point (rule) being discussed.

Analogizing & Distinguishing. Analogizing and distinguishing involves comparing the facts of the legal problem with those of the authorities to determine whether the facts of the legal problem are sufficient to satisfy the rule. This requires determining how the facts from the authorities and the facts from the legal problem are similar and how they are different from each

other. The similarities and differences must be ones that are significant to the analysis of the particular point.

Conclusion. The conclusion states how a court would most likely rule on the specific point. A court likely would rule that your facts are included within the scope of the point if your facts are mostly similar to the facts of the cases within the scope of the rule and mostly different from the facts of the cases that were not within the scope of the rule. A court likely would rule that your facts are not included within the scope of the point if your facts are mostly different from the facts of the cases within the scope of the rule and mostly similar to the facts of the cases that were not within the scope of the rule.

Following the order of RAFADC and including all of its parts assures that the individual legal argument is complete and logically developed. Each part of RAFADC provides context for what follows: the rule gives context for the authorities; the explanation gives context for the illustration; the authorities give context for the facts; the authorities + facts give context for the analogies and distinctions; and all of RAFADC establish the basis for the conclusion.

b. Advance organizer #9(b) for persuasive writing: CRAFADC
("craffaduck")

Similar to RAFADC, CRAFADC is an advance organizer that guides writers through the steps of reasoning by analogy in a persuasive document. Unlike RAFADC, it begins with the Conclusion, the contention that the legal writer wants the reader to adopt. In addition, the analogizing and distinguishing is not neutral. In CRAFADC, the legal writer wants to establish the similarity of the facts to those in the favorable authorities and the differences from those in the unfavorable authorities. Finally, the conclusion is not neutral. In CRAFADC, the conclusion is what the writer wants the reader to conclude, not what the reader most likely would conclude.

RAFADC and CRAFADC are flexible organizers that can adapt to the variety of legal arguments. Law is a complex, ill-structured (irregular) domain, meaning that it has complexity and case-by-case irregularity in its patterns of knowledge.¹⁰¹ Learning law requires flexible instruction because learners must apply what they have learned to new and unique situations. Likewise, any tool to help organize must be sufficiently flexible to function in different contexts for different purposes and from different points of view.¹⁰² This flexibility exists with RAFADC and CRAFADC.

These organizers work effectively even if the individual legal argument is simple and all of the pieces are not necessary. For example, an individual legal argument would have no discussion of Authorities if no authorities have ever interpreted the point (Rule). Likewise, an individual legal argument would

101. Jeanette A. Lawrence, *Expertise on the Bench: Modeling Magistrates' Judicial Decision-Making*, in Chi et al., *supra* n. 71, at 229.

102. *Id.*

have no Explanation within the discussion of Authorities, if the authorities provided only factual illustration. In addition, an individual legal argument would not include both analogizing and distinguishing if the point involves no controversy. For example, if a rule requires the amount in controversy to be over \$75,000, and the legal problem involves a dispute over \$150,000, an individual legal argument would need little or no discussion of authorities to explain or illustrate the rule, and it would not include any distinguishing since the \$150,000 exceeds \$75,000.

Just as these organizers work effectively with simple individual legal arguments, these organizers work effectively when the individual legal argument is complex. For example, in collecting the authorities for an individual legal argument, a legal writer may discover that they create sub-parts within the organizer, because the authorities present a split of analysis or because they include different types of authorities.

Finally, these organizers work effectively for all types of individual legal arguments, although the amount of discussion in a particular part may vary considerably. For example, the bulk of the discussion of a constitutional law argument might be in the Authority portion of RAFADC or CRAFADC, while a tort argument might have more discussion in the Facts and the Analogizing/Distinguishing portions of RAFADC or CRAFADC.

3. Communicating the organization of the individual legal argument

After collecting information for an individual legal argument and organizing it to reflect reasoning by analogy, legal writers must communicate this organization to their readers. They can do this by using transitions that communicate the function of the information included in the argument.

a. Advance organizer #10: transitions

Transitions within an individual legal argument are an effective organizational tool for the writer and an effective advance organizer for the reader. Possible transitions between the parts of RAFADC or CRAFADC include:

Between Authorities that explain & Authorities that illustrate	“to illustrate” or “for example”
Between Authorities & Facts	“in our case”
Between Facts & Analogizing/ Distinguishing	“similar to ___” or “unlike___”
Between the Analogizing/ Distinguishing & Conclusion	“Therefore”

The following examples illustrate two individual legal arguments, one neutral, using RAFADC, and the other persuasive, using CRAFADC.

EXAMPLE 1

A Neutral (Predictive) Individual Legal Argument

<p>For claims to form part of the same case or controversy, they must derive from a “common nucleus of operative fact.” <i>Gibbs</i>, 383 U.S. at 228. Claims share a common nucleus if both derive from a single decision or transaction. <i>Nishimoto v. Federman-Bachrach & Assoc.</i>, 903 F.2d 709, 715 (9th Cir. 1990). A cause and effect relationship does not form a common nucleus. <i>Jose v. M/V Fir Grove</i>, 765 F. Supp. 1015, 1021 (D. Or. 1990). To illustrate, claims arose out of a common nucleus when facts relevant to the federal claim for back wages were also relevant to the state tort claims alleging that defendants blacklisted them in retaliation for the federal lawsuit. <i>Id.</i> Claims did not form a common nucleus when a causal connection existed between the federal claim and the state claims for blacklisting, <i>id.</i>, or when different occurrences led to the claims, and the occurrences were separated in time. <i>Galt G/S v. Hapag-Lloyd AG</i>, 60 F.3d 1370, 1374 (9th Cir. 1995). In <i>Galt</i>, no common nucleus existed when a carrier’s mishandling of cargo during shipment was the basis for the federal claim and a storage company’s subsequent storage of that cargo was the basis for the state claim. <i>Id.</i> at 1374-75. In our case, three claims are involved. First, Lorah has a federal claim in which she alleges that Pettey harassed her in violation of the FDCPA. Second, Lorah has a state claim in which she alleges breach of an oral contract formed with Pettey to modify the payment schedule for the debt, a contract formed four months after the harassment. Third, Smith has a state claim against Pettey for tortious interference with prospective economic or business damage, in which he alleges that Pettey’s collection efforts and subsequent breach of the repayment agreement resulted in Lorah being unable to pay her office rent to him.</p>	<p>Rule</p> <p>Authorities: support</p> <p>Authorities: explanation</p> <p>Authorities: illustration</p>
<p>Similar to the argument that the court accepted in <i>Jose</i>, the three claims derive from Pettey’s attempts to collect a debt. However, no other evidence would overlap. Similar to the argument that the court rejected in <i>Jose</i>, the claims were</p>	<p>Facts</p> <p>Analogize/ Distinguish</p>

<p>in sequence, and similar to <i>Galt</i>, the claims were separated in time. The two state claims occurred four months after the alleged harassment that led to the federal claim. Since claims separated in time and claims having a cause-and-effect relationship do not form a common nucleus, most likely a court would find that no common nucleus exists here, even though the claims would not have occurred if Pettey had not attempted to collect a debt from Lorah and even though some evidence might overlap.</p>	Conclusion
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EXAMPLE 2

A Persuasive Individual Legal Argument

<p>First, the federal district court does not have jurisdiction over the supplemental state claims because Lorah=s federal claim and the state claims do not derive from the same common nucleus of operative fact. Pendent jurisdiction over a state claim cannot exist absent a common nucleus of operative fact between the federal claim and the state claims. [cite] An allegation of Acause and effect@ is not the same as a common nucleus of operative fact that would allow pendent jurisdiction over supplemental claims. [cite] Where plaintiffs argued that their federal and state claims derived from a common nucleus of operative fact because the defendant blacklisted them in retaliation against their filing an action to recover wages, the court disagreed that allegations of cause and effect are equivalent to common nucleus of operative fact. [cite] However, a common nucleus of operative fact between a federal claim and a state claim exists when the operative facts for both claims are the same actions. Where a plaintiff brought a federal claim alleging that the defendant maintained control of a business through racketeering and a state claim alleging the defendants used the funds from their racketeering to establish a business to damage the plaintiffs, the operative facts for both the federal and state claim were based on the same actions. [cite]</p>	<p>Conclusion</p> <p>Rule</p> <p>Authorities:</p> <p>Explanation</p> <p>Illustration</p>
<p>In our case, Lorah filed a federal claim against Pettey Collection Agency for alleged violations of the FDCPA stemming from an attempt to collect a debt. Lorah also filed a state claim against Pettey Collection Agency for an</p>	Facts

<p>alleged breach of an oral contract to reduce the monthly payment of the debt. Lorah claims this alleged contract breach caused her to breach her lease with Verne Smith. This case is similar to <u>Jose</u> because Smith=s state claim is essentially asserting that Pettey Collection Agency=s efforts to collect a debt caused Lorah to breach her lease. However, this case is distinguishable from <u>Brady</u> because the operative facts for Lorah=s federal and state claims and Smith=s state claim are not the same. Lorah=s federal claim alleges harassing telephone calls, her state claim alleges breach of an oral contract to modify a repayment plan, and Smith=s state claim alleges tortious interference with prospective economic or business advantage based on Lorah=s breach of her lease. Therefore, Lorah=s state and federal claims, and Smith=s state claim do not derive out of the same nucleus of operative fact.</p>	<p>Analogy</p> <p>Distinction</p> <p>Conclusion</p>
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V. Conclusion

For all of us in the legal profession, every day we are learners and every day we are teachers. By knowing more about how we learn, we will not only be more effective and efficient in our learning, but we will be better teachers, whether the teaching involves mentoring new associates, counseling clients, arguing to the jury, or actually teaching a course. While intellectual strengths, personality, information processing strengths, social interaction needs, and teaching preferences all contribute to one's learning style, the most significant gain to effective learning results from absorbing information using one's preferred modes of absorbing information. The most significant gain to effective teaching results from incorporating all modes of absorbing information into one's teaching so that no learner is excluded from effectively absorbing the information.

Likewise, the most significant gain to effective organization results from using advance organizers to communicate legal analysis and argument. How legal writers organize, and how their audiences perceive that organization, is influenced by learning styles, including habitual preferences for processing information. The left hemisphere of the brain structures and stores information in a step-by-step sequence, while the right hemisphere processes the whole in a gestalt-like fashion. Those legal writers who rely more on the right hemisphere may have more difficulty organizing their thoughts and their documents. However, when strong right-hemisphere thinkers are given advance organizers, their ability to organize improves dramatically. This article discussed ten advance organizers and organizational tools that legal

writers can use to develop and communicate their analytical framework and their individual legal arguments. By using these advance organizers and organizational tools, every legal writer can produce well-organized documents that are easy for any reader to consume, regardless of their learning styles.