



Learning Styles

A learning styles inventory provides you with a guide to your own personal learning styles. Understanding your learning style is important in understanding how you perform work related tasks, how you interact with others in the workplace, and how you can successfully acquire new skills. It also may help in identifying professions that closely match your learning style.



By asking a series of questions and then scoring the results, it will illustrate your dominant and secondary learning styles.

The learning styles inventory is free and available on this site.

<http://www.learning-styles-online.com/inventory/>

The following information is from the learning-styles website:

The Visual (Spatial) Learning Style

If you use the visual style, you prefer using images, pictures, colors, and maps to organize information and communicate with others. You can easily visualize objects, plans and outcomes in your mind's eye. You also have a good spatial sense, which gives you a good sense of direction. You can easily find your way around using maps, and you rarely get lost. When you walk out of an elevator, you instinctively know which way to turn. You love drawing, scribbling and doodling, especially with colors. You typically have a good dress sense and color balance.

Common pursuits and phrases

Some pursuits that make the most use of the visual style are visual art, architecture, photography, video or film, design, planning (especially strategic), and navigation.

You may tend to use phrases like these:

- Let's look at it differently.
- See how this works for you.
- I can't quite picture it.
- Let's draw a diagram or map.
- I'd like to get a different perspective.
- I never forget a face.

Learning and techniques

If you are a visual learner, use images, pictures, color and other visual media to help you learn. Incorporate much imagery into your visualizations. You may find that visualization comes easily to you. This also means that you may have to make your visualizations stand out more. This makes sure new material is obvious among all the other visual images you have floating around inside your head.

- Use color, layout, and spatial organization in your associations, and use many 'visual words' in your assertions. Examples include see, picture, perspective, visual, and map.

- Use mind maps. Use color and pictures in place of text, wherever possible. If you don't use the computer, make sure you have at least four different color pens.
- Systems diagrams can help you visualize the links between parts of a system, for example major engine parts or the principle of sailing in equilibrium. Replace words with pictures, and use color to highlight major and minor links.
- The visual journey or story technique helps you memorize content that isn't easy to 'see.' The visual story approach for memorizing procedures is a good example of this.
- Peg words and events come easily to you, however you need to spend some time learning at least the first ten peg words. Afterwards, your ability to visualize helps you peg content quickly.
- The swish technique for changing behaviors also works well for you, as it relies on visualization.

The Aural (Auditory-Musical-Rhythmic) Learning Style

If you use the aural style, you like to work with sound and music. You have a good sense of pitch and rhythm. You typically can sing, play a musical instrument, or identify the sounds of different instruments. Certain music invokes strong emotions. You notice the music playing in the background of movies, TV shows and other media. You often find yourself humming or tapping a song or jingle, or a theme or jingle pops into your head without prompting.

Common Pursuits and Phrases

Some pursuits that use the aural style are playing, conducting, or composing music, and sound engineering (mixing and audiovisual work).

You may tend to use phrases like these:

- That sounds about right.
- That rings a bell.
- It's coming through loud and clear.
- Tune in to what I'm saying
- Clear as a bell.
- That's music to my ears.

Learning and Techniques

- If you are an aural learner, use sound, rhyme, and music in your learning. Focus on using aural content in your association and visualization.
- Use sound recordings to provide a background and help you get into visualizations. For example, use a recording of an aircraft engine running normally, playing loudly via a headset, to practice flight procedures. Use a recording of the sound of wind and water when visualizing sailing maneuvers. If you don't have these recordings, consider creating them while next out training.
- When creating mnemonics or acrostics, make the most of rhythm and rhyme, or set them to a jingle or part of a song.
- Use the anchoring technique to recall various states that music invokes in you. If you have some particular music or song that makes you want to 'take on the world,' play it back and anchor your emotions and state. When you need the boost, you can easily recall the state without needing the music.

The Verbal (Linguistic) Learning Style

The verbal style involves both the written and spoken word. If you use this style, you find it easy to express yourself, both in writing and verbally. You love reading and writing. You like playing on the meaning or sound of words, such as in tongue twisters, rhymes, limericks and the like. You know the meaning of many words, and regularly make an effort to find the meaning of new words. You use these words, as well as phrases you have picked up recently, when talking to others.

Common pursuits and phrases

Pursuits that use the verbal style include public speaking, debating, politics, writing and journalism.

You may tend to use phrases like these:

- Tell me word for word
- Let's talk later.
- The word you're looking for is
- I hear you but I'm not sure I agree.
- Let me spell it out for you.
- In other words

Learning and techniques

- If you are a verbal learner, try the techniques that involve speaking and writing. Find ways to incorporate more speaking and writing in techniques. For example, talk yourself through procedures in the simulator, or use recordings of your content for repetition.
- Make the most of the word-based techniques such as assertions and scripting. Use rhyme and rhythm in your assertions where you can, and be sure to read important ones aloud. Set some key points to a familiar song, jingle or theme.
- Mnemonics are your friends for recalling lists of information. Acronym mnemonics use words, focusing on the first letter of the word to make up another word or memorable sequence. You can also make up phrases using the items you want to memorize.
- Scripting is also powerful for you. You don't just have to write them down. Record your scripts using a tape or digital audio recorder (such as an MP3 player), and use it later for reviews.
- When you read content aloud, make it dramatic and varied. Instead of using a monotone voice to go over a procedure, turn it into a lively and energetic speech worthy of the theatre. Not only does this help your recall, you get to practice your dramatic presence!
- Try working with others and using role-playing to learn verbal exchanges such as negotiations, sales or radio calls.

The Physical (Bodily-Kinesthetic) Learning Style

If the physical style is more like you, it's likely that you use your body and sense of touch to learn about the world around you. It's likely you like sports and exercise, and other physical activities such as gardening or woodworking. You like to think out issues, ideas and problems while you exercise. You would rather go for a run or walk if something is bothering you, rather than sitting at home.

You are more sensitive to the physical world around you. You notice and appreciate textures, for example in clothes or furniture. You like 'getting your hands dirty,' or making models, or working out jigsaws.

You typically use larger hand gestures and other body language to communicate. You probably don't mind getting up and dancing either, at least when the time is right. You either love the physical action of theme park rides, or they upset your inner body sense too much and so you avoid them altogether.

When you are learning a new skill or topic, you would prefer to 'jump in' and play with the physical parts as soon as possible. You would prefer to pull an engine apart and put it back together, rather than reading or looking at diagrams about how it works.

The thought of sitting in a lecture listening to someone else talk is repulsive. In those circumstances, you fidget or can't sit still for long. You want to get up and move around.

Common Pursuits and Phrases

Pursuits that involve the physical style include general physical work, mechanical, construction and repair work, sports and athletics, drama and dancing.

You may tend to use phrases like these:

- That feels right to me.
- I can't get a grip on this'
- Stay in touch.
- Get in touch with'
- That doesn't sit right with me.
- I have good feelings about this.
- My gut is telling me'
- I follow your drift.

Learning and techniques

- If you use a physical style, use touch, action, movement and hands-on work in your learning activities. For visualization, focus on the sensations you would expect in each scenario. For example, if you are visualizing a tack (turn) on a sailboat, focus on physical sensations. Feel the pressure against your hand as you turn the rudder, and the tension lessening on the ropes. Feel the wind change to the other side, feel the thud as the sail swaps with the wind, and feel the boat speed up as you start the new leg.
- For assertions and scripting, describe the physical feelings of your actions. For example, a pilot might script as follows: 'I feel the friction as I push the throttle forward to start my takeoff run. The controls start to feel more responsive as I check the airspeed, oil pressure and temperature. At takeoff speed, I pull back slightly, and I feel the vibrations of the wheels stop as the plane leaves the ground. After a few moments, I reach down and set the gear selector to up. I feel the satisfying bump as the gear stops fully up.'
- Use physical objects as much as possible. Physically touch objects as you learn about what they do. Flashcards can help you memorize information because you can touch and move them around.
- Keep in mind as well that writing and drawing diagrams are physical activities, so don't neglect these techniques. Perhaps use big sheets of paper and large color markers for your diagrams. You then get more action from the drawing.
- Use breathing and relaxation to focus your state while you learn and perform. Focus on staying calm, centered, relaxed and aware. If you want to gain more control over your physical state, look up some

references on Autogenics. This was a secret behind the great Russian athletic performances over the past few decades.

- Use role-playing, either singularly or with someone else, to practice skills and behaviors. Find ways to act out or simulate what you are learning.

The Logical (Mathematical) Learning Style

If you use the logical style, you like using your brain for logical and mathematical reasoning. You can recognize patterns easily, as well as connections between seemingly meaningless content. This also leads you to classify and group information to help you learn or understand it.

You work well with numbers and you can perform complex calculations. You remember the basics of trigonometry and algebra, and you can do moderately complex calculations in your head.

You typically work through problems and issues in a systematic way, and you like to create procedures for future use. You are happy setting numerical targets and budgets, and you track your progress towards these. You like creating agendas, itineraries, and to-do lists, and you typically number and rank them before putting them into action.

Your scientific approach to thinking means you often support your points with logical examples or statistics. You pick up logic flaws in other people's words, writing or actions, and you may point these out to people (not always to everyone's amusement).

You like working out strategies and using simulation. You may like games such as brainteasers, backgammon, and chess. You may also like PC games such as Dune II, Starcraft, Age of Empires, Sid Meier games and others.

Common Pursuits and Phrases

People with a strong logical style are likely to follow such pursuits as the sciences, mathematics, accounting, detective work, law and computer programming.

You are more likely to use phrases that reflect your most dominant style out of the visual, aural or physical styles, however you may also use phrases like these:

- That's logical.
- Follow the process, procedure, or rules.
- There's no pattern to this.
- Let's make a list.
- We can work it out.
- Quantify it, or prove it!

Learning and techniques

- If you are a logical learner, aim to understand the reasons behind your content and skills. Don't just rote learn. Understanding more detail behind your compulsory content helps you memorize and learn the material that you need to know. Explore the links between various systems, and note them down.
- While you study, create and use lists by extracting key points from your material. You may also want to use statistics and other analysis to help you identify areas you may want to concentrate on.
- Pay attention to your physical state, for example your breathing and stress level. It's possible that you isolate your own body from your rational thought. Remember that you are just as much a part of the 'system' as any equipment you may be using.

- Also remember that association often works well when it is illogical and irrational. It doesn't matter how logical two items are together. You have a better chance of recalling them later if you have made the association illogical. Your brain may protest at first!
- In your scripting though, highlight logical thoughts and behaviors. Highlight your ability to pick up systems and procedures easily, and that you can detect when you need to change a set procedure.
- Make use of 'systems thinking' to help understand the links between various parts of a system. An important point here is that systems thinking helps you understand the bigger picture. Often the whole is greater than the sum of the parts. For example, you may understand the individual aircraft systems and flight surfaces, but you may not have a view of how all those systems support flight in equilibrium. Systems diagrams can help you gain that understanding.
- You may find it challenging to change existing behaviors or habits. You can rationalize all you want to about why you should change a behavior, but you may find it persists. Try the shunt technique to understand what behavior you currently have and what behavior you want to have. When you understand those behaviors, use the technique to divert from the old behavior to the new.
- You may sometimes overanalyze certain parts of your learning or training. This can lead to analysis paralysis. You may be busy, but not moving towards your goal. If you find you are overanalyzing which school to start with, or you are over-planning your course maps, stop and refocus on activities that move you forward. Consider how much 'bang for buck' you get from spending more time than necessary. Measure your activities by your speed towards your goal. Planning exactly how much time to spend on each chapter of theory doesn't help learn it anywhere near as fast as starting on the theory!
- If you often focus from analysis paralysis, write 'Do It Now' in big letters on some signs or post-it notes. Place them in strategic places around your work or study area.

The Social (Interpersonal) Learning Style

If you have a strong social style, you communicate well with people, both verbally and non-verbally. People listen to you or come to you for advice, and you are sensitive to their motivations, feelings or moods. You listen well and understand other's views. You may enjoy mentoring or counseling others.

You typically prefer learning in groups or classes, or you like to spend much one-on-one time with a teacher or an instructor. You heighten your learning by bouncing your thoughts off other people and listening to how they respond. You prefer to work through issues, ideas and problems with a group. You thoroughly enjoy working with a 'clicking' or synergistic group of people.

You prefer to stay around after class and talk with others. You prefer social activities, rather than doing your own thing. You typically like games that involve other people, such as card games and board games. The same applies to team sports such as football or soccer, basketball, baseball, volleyball, baseball and hockey.

Common pursuits and phrases

Some examples of pursuits that people with a strong social style may follow include counseling, teaching, training and coaching, sales, politics, human resources, and others.

As with people with the logical style, you are more likely to use phrases that reflect your dominant style out of physical, aural and visual styles. Here are some other phrases you may also use:

- Let's work together on this.
- We can work it out.

- Tell me what you are thinking.
- Help me understand this.
- Let's pull some people together to discuss.
- Let's explore our options.

Learning and techniques

- If you are a social learner, aim to work with others as much as possible. Try to study with a class. If this is not available then consider forming your own study group with others at a similar level. They don't have to be from the same school or class. If you like, introduce them to some of the techniques from this book. It may be easier for you to try some of the Memletic Techniques in a social setting, and work with the feedback from others.
- Role-playing is a technique that works well with others, whether its one on one or with a group of people. For example, in aviation training, role-play the aerodrome area. Have people walking around in 'circuits' making the right radio calls with the tower co-ordinating everyone. Another example might be to role-play with one person being the instructor and the other being the student.
- Work on some of your associations and visualizations with other people. Others often have different perspectives and creative styles, and so the group may come up with more varied and imaginative associations compared to the ones you might create yourself.
- Rather than reciting assertions to yourself, try sharing your key assertions with others. By doing so, you are almost signing a social contract that your assertion is what you do. This strengthens your assertions.
- Share your reviews, review checklists and 'perfect performance' scripts with those in your group as well. By listening to how others solve their issues, you may get further ideas on how to solve your own issues. Try sharing the work of creating a 'perfect performance' script. Each person writes the script for the areas they want to work on the most, and then the group brings all the scripts together.
- Mind maps and systems diagrams are great to work on in class. Have one person be the appointed drawer, while the rest of the class works through material and suggests ideas. The group may have varied views on how to represent some ideas, however this is a positive part of learning in groups. If you can't agree on something, just take a copy of what the group has worked on and add your own thoughts. Often there is no right answer for everyone, so agree to disagree!
- Working in groups to practice behaviors or procedures help you understand how to deal with variations. Seeing the mistakes or errors that others make can help you avoid them later. As well, the errors you make are helpful to others! Whether it's via role-playing, a simulator or other technique doesn't matter too much. Be imaginative. Two chairs in the middle of a classroom to simulate an aircraft cockpit can be just as good as computer simulation and the real activity.
- Lastly, if you are working in groups it may help to have everyone do the learning styles questionnaire. This may help everyone understand why each person has different viewpoints. It can also help with assigning activities to people. Individuals may volunteer for activities based on either the styles they currently have, or the styles they want to learn. Remember the classroom is a risk-free environment. It's often safer to experiment, try out new techniques and make mistakes in the classroom than in the real activity.

The Solitary (Intrapersonal) Learning Style

If you have a solitary style, you are more private, introspective and independent. You can concentrate well, focusing your thoughts and feelings on your current topic. You are aware of your own thinking,

and you may analyze the different ways you think and feel.

You spend time on self-analysis, and often reflect on past events and the way you approached them. You take time to ponder and assess your own accomplishments or challenges. You may keep a journal, diary or personal log to record your personal thoughts and events.

You like to spend time alone. You may have a personal hobby. You prefer traveling or holidaying in remote or places, away from crowds.

You feel that you know yourself. You think independently, and you know your mind. You may have attended self-development workshops, read self-help books or used other methods to develop a deeper understanding of yourself.

You prefer to work on problems by retreating to somewhere quiet and working through possible solutions. You may sometimes spend too much time trying to solve a problem that you could more easily solve by talking to someone.

You like to make plans and set goals. You know your direction in life and work. You prefer to work for yourself, or have thought a lot about it. If you don't know your current direction in life, you feel a deep sense of dissatisfaction.

Common pursuits and phrases

Those that have a strong solitary style include authors, researchers, park rangers and security guards. Peak performers in any field often have a good solitary style behind other more dominant styles.

You are more likely to use phrases that reflect your other dominant styles. Here are some other phrases you may also use:

I'd like some time to think it over.

This is what I think or feel about that.

I'd like to get away from everyone for a while.

I'll get back to you on that.

Learning and techniques

You prefer to learn alone using self-study. When you spend time with an instructor or a teacher, you often only clarify information you haven't be able to clarify yourself. You may dislike learning in groups.

Don't be afraid to ask questions like 'What's in this for me?' 'Why does this matter?', 'How can I use this idea?' Be aware of your inner thoughts and feeling towards various topics. This is because these inner thoughts have more of an impact on your motivation and ability to learn than they do in the other styles. Here are a few ideas to help this along:

Spend more time on the 'Target' step of the Memletic Approach. Set your goals, objectives and plans. Define ultra-clear visualizations or scripts of what life is like once you've achieved your goals. Understand your reasons for undertaking each objective, and ensure that you are happy with your learning goals.

Align your goals and objectives with personal beliefs and values. If there is misalignment, you may run into issues with motivation or confidence. It's not always obvious what the underlying cause is. If you suspect a misalignment, try some of the techniques like 'five whys' and 'seventy by seven' to flush these issues out. Scripting and assertions also help highlight issues. If you script your goal and you find you don't like certain parts of it, that's probably a hint that you have some misalignment.

Create a personal interest in your topics. An example for pilots might be to learn more about other

aviators, both current and past. Why do others find aviation interesting? What is in it for them? What keeps them motivated? Why do they work in the field?

You may also want to look at the people behind your books or material. What was their motivation to create it? Why do you think they organized the material in the way they did? Can you ask them?

Keep a log or journal. You may want to keep one separate from your normal journal or training log. Include extra information about your thoughts and feelings. Outline your challenges, ideas on how to overcome them, and what worked. Write down what works well and doesn't work well for you. While you are studying, be aware of thoughts or concerns that arise. Write them down and come back to them. Discuss with others later if needed. Bear in mind it may be more efficient to put something that confuses you aside, and ask others later. This is often better than spending too much time trying to work it out yourself.

When you associate and visualize, highlight what you would be thinking and feeling at the time. You may want to do most of your visualization and association in private. I suggest you also try talking to others with more experience to get some idea of what thoughts and feelings they have in various circumstances.

Assertions are important for you. You drive yourself by the way you see yourself internally. Assertions are a good way to ensure your internal self-image matches your learning objectives. This also applies to the scripting techniques, so include your internal thinking and feelings in your scripts.

Modeling is a powerful technique for you. Don't just model behaviors and appearance. Try to get 'inside their heads' and model the thought patterns and feelings you believe they have in various circumstances. You can gain ideas by talking to people or reading biographies. Remember you don't have to find a single perfect model. Create a model that combines several people.

Be creative with role-playing. You don't always need other people to role-play with, because you can create plenty of people using visualization! For example, you can visualize your instructor beside you, or a colleague and you practicing a procedure or skill. Work with them and talk to them while you visualize. An advantage of this form of role-playing is that you can control their behavior!

When changing behaviors and habits, you need to have a strong desire to make the changes you want. Explore the benefits of making a change, and visualize scenarios in which you've already made the change. If you don't believe strongly in the benefits, you may find it difficult to change the behavior.

Your thoughts have a large influence on your performance and often safety. Your thoughts are just as much part of a system as is the physical equipment you are using, such as an aircraft, car or boat. In addition, other people are also part of those systems, so be aware that their thoughts and feelings can affect the overall system.

Years of refinement have made physical equipment, such as aircraft and boats, safe and reliable. For example, aircraft failure causes less than ten percent of all aircraft accidents. The largest percentage is pilot error, more than seventy percent. This is likely the case in many other fields. It's just not as visible when accidents happen. It's well worthwhile spending some time refining the reliability of your own systems.