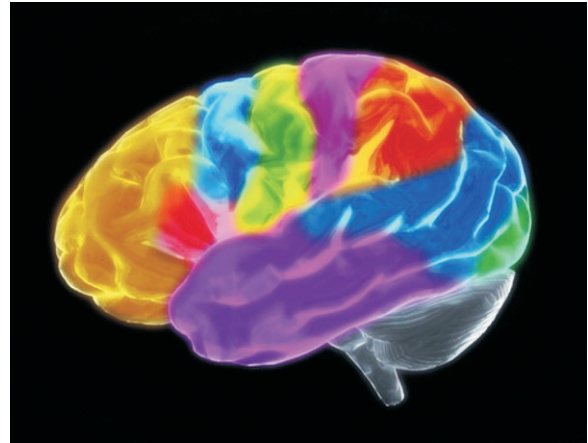


# Learning Styles and Multiple Intelligences

**R**ESearch indicates that different learning styles use different parts of the brain. By involving more of the brain during learning, we can remember more of what we learn. Using multiple learning styles may improve learning and may make learning easier.



## Objective:



Identify and describe your learning style / multiple intelligence preference, and explain how this knowledge can enhance learning potential and assist with career decision making.

## Key Terms:



bodily (kinesthetic) intelligence  
interpersonal intelligence  
intrapersonal intelligence  
learning style  
linguistic intelligence

logical/mathematical intelligence  
multiple intelligences  
musical intelligence  
naturalistic intelligence  
spatial intelligence

## Your Learning Style and Multiple Intelligence Preference

You could easily share with someone the names of classes that have been easiest for you or in which you have learned best. You could also probably describe the teaching techniques that seem to help you learn or make learning easier. Why do you think those classes and techniques work for you so well? Likely those classes and techniques support your learning style and multiple intelligence preference.

## LEARNING STYLES

A **learning style** is a particular way in which the mind receives and processes information. There is no “best” way to learn, nor is there one way to learn. There are many different learning styles, and different styles are suited to different people and/or situations. Everyone has a mix of learning styles, typically with one dominant style. Learning styles guide the way we learn, the way we internalize experiences, the way we recall information, and the words we use. See the Bryant and Jones website at <http://snjones.myweb.uga.edu/page2.htm>. There they cite a book titled *Keys to Study Skills: Opening Doors to Learning*, by Carter, et al. (1999). Several of the comments on the site are attributed to this work. The website is an excellent resource that presents study skills in a way that supports the individual’s learning style and multiple intelligences.

### Why Are Learning Styles Important to the Learner?

When you know and understand your learning style, you are more capable of selecting suitable techniques that may improve learning. Learning styles are not fixed; they can be developed. Less dominant areas can be strengthened.

Research indicates that different learning styles use different parts of the brain. By involving more of the brain during learning, we can remember more of what we learn. Using multiple learning styles (i.e., trying study skills that are typical of other learning styles) may improve learning and may make learning easier.

Learning styles are often closely related to our working style and to our skills and strengths. This should be a major consideration in career choice. Knowledge of dominant and less dominant learning styles should not discourage you from pursuing careers in which you are interested.



**FIGURE 1.** Learning styles are often closely related to our working style and our skills and strengths.

### Specific Learning Styles

There are three specific learning styles. They are visual, auditory, and tactile/kinesthetic. Visual learners learn through seeing. Auditory learners learn through listening. Tactile/kinesthetic learners learn through moving, doing, and touching.

# MULTIPLE INTELLIGENCES

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**Multiple intelligences** are different ways to demonstrate intellectual ability.

## *Gardner's Theory of Multiple Intelligences*

American developmental psychologist Howard Gardner is a professor of cognition and education at Harvard Graduate School of Education, senior director of Harvard Project Zero, and an author. He is best known for his theory of multiple intelligences.

Gardner's theory was proposed in 1983. It presents a model that differentiates intelligence into various modalities (manners in which it is shown) rather than seeing it as dominated by a single general ability. Gardner presented several criteria for a behavior to be considered an intelligence.

The eight intelligences according to Gardner are placed in a categorized list. The list is characterized by the following: often valued in educational settings; often associated with the arts; “personal intelligences”; and the newest, or eighth, intelligence.

### Often Valued in Educational Settings

**Linguistic intelligence** is the talent for the spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals.

**Logical/mathematical intelligence** is the ability to analyze problems logically, carry out mathematical operations, and investigate issues scientifically.

### Often Associated with the Arts

**Bodily (kinesthetic) intelligence** is the ability to use one's whole body or parts of the body to solve problems.

**Musical intelligence** is the talent in the performance, composition, and appreciation of musical patterns.

**Spatial intelligence** is the ability to recognize and use the patterns of wide space and more confined areas.

### “Personal Intelligences”

**Interpersonal intelligence** is the ability to understand the intentions, motivations, and desires of other people.

**Intrapersonal intelligence** is the capacity to understand oneself, to appreciate one's feelings, fears, and motivations.

### Eighth Intelligence, Added by Gardner in 1999

**Naturalistic intelligence** is the ability to recognize, categorize, and draw upon certain features of the environment.

## Style and Intelligence Inventories

Just as there are multiple learning styles and intelligences, so are there several style and intelligence inventories. No one inventory is complete and perfect. Each inventory represents a piece of the puzzle with a certain perspective or flavor. Take several different inventories, and compile a cumulative personal profile. You may also want to complete a career interest inventory. Many are online or available in the school career center.

Some suggested learning style and multiple intelligence inventory sites are:

- ◆ Memletics Learning Styles Inventory  
<http://www.learning-styles-online.com/inventory/questions.php?cookieset=y>
- ◆ What Are My Learning Strengths?  
<http://www.ldrc.ca/projects/miinventory/mitest.html>
- ◆ Multiple Intelligence Inventory  
[http://www.uen.org/utahlink/activities/view\\_activity.cgi?activity\\_id=7119](http://www.uen.org/utahlink/activities/view_activity.cgi?activity_id=7119)

Key areas of the brain are responsible for different learning styles. For specifics, see <http://www.learning-styles-online.com/overview/>. There you will find a great deal of information and a graphic. You may also want to read the article by Fara E. Green at <http://www.questia.com/googleScholar.qst?docId=5001285062>.

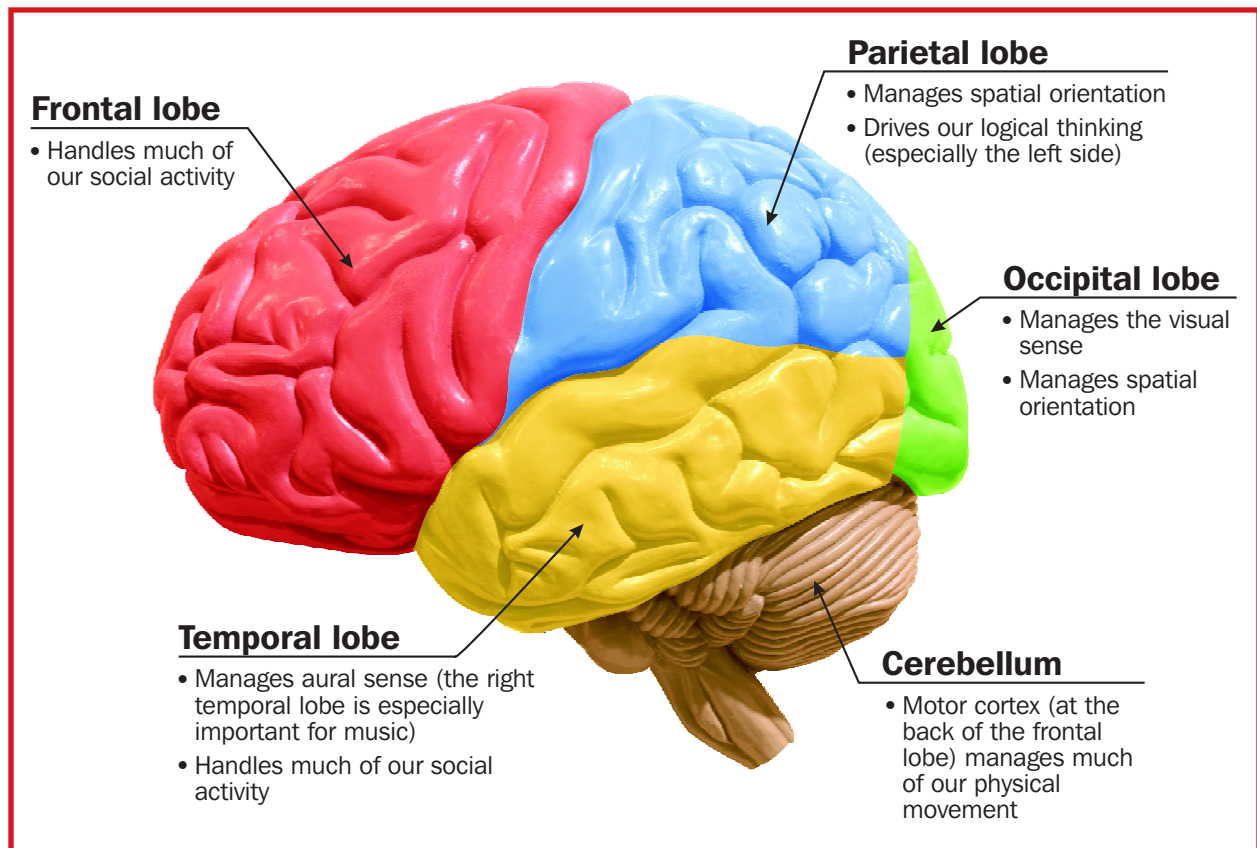


FIGURE 2. Key areas of the brain are responsible for different learning styles.



## FURTHER EXPLORATION...

### ONLINE CONNECTION: What Is Your Learning Style?

Just when you think you completely understand the concept of learning styles and know exactly which one is your dominant style, the road can take a turn. While the material presented has primarily asked questions about learning style in an educational setting, the following simple learning style assessment asks questions about a wide variety of situations, such as when you relax, when you talk with others, and when you do something new. You may discover that your style changes depending on the task and the environment. You may think you use one style, but overall you may discover that you use all of them. Complete the assessment at <http://marciaconner.com/assess/learningstyle/>, and then describe your results using your dominant style. Are there any implications you can make from your results? Did you discover something new about your abilities? Describe any plans to tap into other styles.

### *Practical Suggestions Organized by Learning Style*

Once you understand your learning style and intelligence preference, dig further into your own strengths. Once you have done this, dig further into the other styles and preferences. This will help you become a better learner, and it will also help you work with other people who may have other dominant areas. Some common pursuits, phrases, and learning techniques broken down by seven different learning styles (these are similar to the abovementioned intelligences, minus the naturalistic intelligence) can be found at <http://www.learning-styles-online.com/overview/>.

Here you will find information on likely pursuits (hobbies and careers), commonly heard expressions (by yourself and others), and learning techniques. For example, someone who is a visual learner may find the pursuit of visual art, architecture, or photography to be a good fit. That person may use phrases such as “I can’t quite picture it” or “I never forget a face.” The most useful learning techniques may include images, pictures, and color.

Review each of the learning styles presented on this website, as they possess invaluable information for you and those with whom you live, learn, and work. Remember, you can develop other learning preferences. This would be an excellent site to use as an instructional guide. If, for example, you wanted to tap into the visual learner area, this site would list the techniques often used by the visual learner. You could experiment with these techniques and assess whether they helped you memorize and learn new information.

Some additional practical suggestions pertaining to each of the three learning styles (visual, auditory, and tactile/kinesthetic) can be found at [http://www.ldpride.net/learning\\_style\\_work.html](http://www.ldpride.net/learning_style_work.html). This, too, would be a good site to use as a tool for learning other styles.

As you study, be aware of which style you are using and what type of intelligence demonstration may be required of you on a test. Practice to that intelligence. You must consciously assess whether the strategy you are using is effective. Use study strategies from various style and intelligence areas to strengthen your abilities and to use more areas of your brain to learn material and concepts. See <http://snjones.myweb.uga.edu/page2.htm>.

When considering career decisions, do so with knowledge of your assessed learning styles and intelligences. Career choice / job title descriptions should be searched for parallel strengths and links, as these career areas may be natural fits. Career areas presenting information that parallels or links to other learning styles and intelligences outside your assessed strengths should be noted, in that these careers may require you to strengthen and develop some areas first. As your career choice develops, be on the lookout for an environment that suits your style best. This fit will allow you to work more effectively on work teams, excel at on-the-job training, and learn new techniques.

Use data from learning style and multiple intelligence assessments, and couple it with data from interest area assessments, such as Illinois workNet ([http://www.illinoisworknet.com/vos\\_portal/Industry/en/Home/HealthCare/](http://www.illinoisworknet.com/vos_portal/Industry/en/Home/HealthCare/)). On this site, you can take an interest inventory that reveals interests by career cluster. You can then review the career pathways and programs of study in the cluster of indicated interest. Then, learn more about specific careers in a cluster, research the associated programs of study, and document everything with your counselor in your ICP or senior portfolio. Career counselors can assist with verifying and documenting your career research and can assist with specific educational and training options.



**FIGURE 3.** As you study, be aware of which style you are using and what type of intelligence demonstration may be required of you on a test. Practice to that intelligence.

## Summary:



A learning style is a particular way in which the mind receives and processes information. When you know and understand your learning style, you are more capable of selecting suitable techniques that may improve learning.

Three specific learning styles are visual, auditory, and tactile/kinesthetic. Visual learners learn through seeing. Auditory learners learn through listening. Tactile/kinesthetic learners learn through moving, doing, and touching.

Multiple intelligences are different ways to demonstrate intellectual ability. The eight intelligences according to Gardner are linguistic intelligence, logical/mathematical intelligence, bodily (kinesthetic) intelligence, musical intelligence, spatial intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence.

Once you understand your learning style and intelligence preference, dig further into your own strengths.

When considering career decisions, do so with knowledge of your assessed learning styles and intelligences. Career choice / job title descriptions should be searched for parallel strengths and links, as these career areas may be natural fits.

## Checking Your Knowledge:

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1. Name the three specific learning styles, and explain each of them.
2. What are the eight intelligences as presented by Gardner?
3. Describe your multiple intelligence preference.
4. Describe a different multiple intelligence preference.
5. Explain how you can study for a science test by using both your dominant and less developed styles and preferences.

## Expanding Your Knowledge:

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Research a career interest inventory, and complete it. You may want to try this one: <http://careerservices.rutgers.edu/PCCPinterests.shtml>. How do the results connect with your earlier investigation of learning style and multiple intelligence?

## Web Links:

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**Career Development and Guidance: Worksheets, Handouts, and Workbooks**

<http://www.khake.com/page95.html>

**Career Interest Game**

<http://career.missouri.edu/students/majors-careers/skills-interests/career-interest-game/>

**Index of Learning Styles**

<http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSpage.html>

**Books by Howard Gardner**

<http://www.howardgardner.com/books/books.html>