**11 Ways to Teach Academic Skills to Visual-Spatial Learners**

[**AUGUST 15, 2013**](http://www.institute4learning.com/2013/08/15/)

[**THOMAS ARMSTRONG**](http://www.institute4learning.com/author/thomas-armstrong/)

[**EDUCATION**](http://www.institute4learning.com/category/education-2/)**,**[**LEARNING DISABILTIES**](http://www.institute4learning.com/category/dyslexia/)**,**[**MULTIPLE INTELLIGENCES**](http://www.institute4learning.com/category/multiple-intelligences-2/)**,**[**NEURODIVERSITY**](http://www.institute4learning.com/category/neurodiversity/)**,**[**SPECIAL EDUCATION**](http://www.institute4learning.com/category/special-education/)**,**[**UNCATEGORIZED**](http://www.institute4learning.com/category/uncategorized/)

[**ACADEMIC SKILLS**](http://www.institute4learning.com/tag/academic-skills/)**,**[**DORLING KINDERSLY**](http://www.institute4learning.com/tag/dorling-kindersly/)**,**[**EINSTEIN**](http://www.institute4learning.com/tag/einstein/)**,**[**IMAGINATION**](http://www.institute4learning.com/tag/imagination/)**,**[**KINSPIRATION**](http://www.institute4learning.com/tag/kinspiration/)**,**[**NEURODIVERSITY**](http://www.institute4learning.com/tag/neurodiversity/)**,**[**OREGON TRAIL**](http://www.institute4learning.com/tag/oregon-trail/)**,**[**STEM**](http://www.institute4learning.com/tag/stem/)**,**[**TALENT DEVELOPMENT**](http://www.institute4learning.com/tag/talent-development/)**,**[**TEACHING STRATEGIES**](http://www.institute4learning.com/tag/teaching-strategies/)**,**[**THE VISUAL LEARNER**](http://www.institute4learning.com/tag/the-visual-learner/)**,**[**THOUGHT EXPERIMENTS**](http://www.institute4learning.com/tag/thought-experiments/)**,**[**VISUAL THINKING**](http://www.institute4learning.com/tag/visual-thinking/)**,**[**VISUAL-SPATIAL SKILLS**](http://www.institute4learning.com/tag/visual-spatial-skills/)

[](http://institute4learning.com/blog/2013/08/15/11-ways-to-teach-academic-skills-to-visual-spatial-learners/visual-thinker/)When I was a special education teacher, most of my students had difficulty with academic tasks involving either words or numbers (or both).  However, many of these kids were gifted artists, cartoonists, Lego experts, mechanics, visualizers, and in other ways demonstrated competence in visual-spatial thinking.  Now, an [exciting new article by a Duke researcher](http://blogs.kqed.org/mindshift/2013/07/why-we-need-to-value-spatial-creativity/)makes a strong case for doing more in our schools to develop and utilize the visual-spatial abilities of  our students.

In his collaborative study, Jonathan Wai, a research scientist with the Duke University Talent Identification Program used longitudinal data from multiple data sets across 50 years to show that spatial talent (in addition to math and verbal talent) is important, especially for success in STEM domains.   Among the top 1% in spatial ability, 70% of these students were not in the top 1% for either math or verbal talent.  Since the schools mostly value those with math and verbal skills, students with spatial intelligence often have their gifts neglected and never have the chance to shine.

Here are 11 ways to help spatially intelligent students use their visual thinking skills in mastering academic subjects:

* Allow time after teaching a concept for students to close their eyes and visualize what they have just read or learned (e.g. ”picture in your mind’s eye how the main character we’re studying in this novel might respond to his car breaking down”) .
* Let students draw pictures of the material they are learning (e.g. making spelling words into pictures, drawing images of their vocabulary words, using pictures to illustrate a project etc.)
* Use computer software or apps that are highly visual and interactive to teach academic subjects (e.g. let students illustrate their ideas with draw and paint software or study history using [The Oregon Trail](http://www.oregontrail.com/hmh/site/oregontrail/) software program).
* Allow students to demonstrate their understanding of a concept by building a model of it (e.g. clay figures to illustrate a story they’ve read, a diorama to show an historical event, pipe cleaners or commercially-made construction materials to show the structure of a molecule etc.).
* Make mathematics visual by using math manipulatives, by letting students create sketches to show their mathematical thinking, and by demonstrating new mathematical concepts through highly visual-spatial  demonstrations (e.g. learning the formula area = length x width by measuring the classroom).
* Show videos to accompany material being learned (e.g. watching the movie *To Kill a Mockingbird* either before or after reading the book by Harper Lee).
* Schedule brief ”visual thinking” breaks for students which might involve solving visual-spatial puzzles, playing visual-spatial games (e.g. [Pictionary](http://www.hasbro.com/games/en_US/shop/details.cfm?R=96C13CEE-19B9-F369-D9E8-73D9C5517F50:en_US)), or doing imagination exercises (like imagining what their ideal school would look like).
* Allow students to keep visual-thinking journals where they can record images, visual thoughts, and other spatial inspirations that come to them during the school day.
* Show students how to use the Internet to gain access to highly visual material related to a specific academic skill  (e.g. entering vocabulary words into Google Images provides a wide range of pictures that vividly illustrate each word).
* Let students use mind-mapping as a way of taking notes (e.g. [Kidspiration](http://www.inspiration.com/Kidspiration)is a great app for mind-mapping on a computer).
* Use heavily illustrated reading material for academic subjects  (e.g. books published by [Dorling Kindersley](http://us.dk.com/)are especially helpful for visual learners).

Keep in mind that Einstein used to do ”thought experiments” in his mind during his class time, and out of his imagination he created the general and special theories of relativity, which literally changed the way we think about the universe.  By bringing more visual-spatial learning into your own school, you can make sure that the little Einsteins in your classroom will thrive!

For more information on visual-spatial approaches, especially for students with special needs, see my book [Neurodiversity in the Classroom:  Strength-Based Strategies to Help Students with Special Needs Succeed in School and Life.](http://www.ascd.org/Publications/Books/Overview/Neurodiversity-in-the-Classroom.aspx)

**13**SHARES



*About the author*

[**Thomas Armstrong**](http://www.institute4learning.com/author/thomas-armstrong/)

I am the author of 16 books including my latest: The Myth of the ADHD Child: 101 Ways to Improve Your Child's Behavior and Attention Span Without Drugs, Labels, or Coercion (Tarcher-Perigee). http://amzn.to/2ewwfbp.