

Resources for Teachers

Compiled by Gifted Development Center

10 Tips for Teaching Picture Thinkers

1. Give them the Big Picture up front.
2. Use visuals when teaching everything.
3. Provide models of all expected products. Credit the end product. Don't require a show of steps.
4. Expand visualization skills. Store and retrieve.
5. Teach how to organize information pictorially.
6. Teach how to take picture notes as well as word notes.
7. Imitate word processors in writing and editing. Cut/paste/add/reorder. Freeze Frame. Organize by graphics.
8. Avoid timed tests. Teach time awareness and management.
9. Increase complexity if focus decreases (many careless mistakes made).
10. Be upbeat. Let good humor, appreciation, and positive emotions rule.

Why All Students Need Visual-Spatial Methods

The first child I observed with unusual visual-spatial abilities was profoundly gifted (above 175 IQ). So I assumed that visual-spatial learners were profoundly gifted. Then, I discovered that children who fit the characteristics of giftedness, but did not test in the gifted range due to hidden learning disabilities, were usually visual-spatial learners. So I thought that visual-spatial learners were either profoundly gifted or twice exceptional (gifted with learning disabilities).

In 1991, I was asked to create a video on visual-spatial learners for the state of Missouri; the Director of Curriculum was convinced that the information would be applicable in all subject areas and at all grade levels, from Kindergarten through 12th grade. I was uncertain at the time, but he turned out to be right.

When we developed the *Visual-Spatial Identifier*, a process that began in 1992 and took the better part of a decade, we still thought that a small percentage of the population would be visual-spatial learners. The results of the second validation study of our Identifier, in 2001, astounded us. Approximately one-third of the 750 students we had assessed in two schools were **strongly** visual-spatial and another 30% were moderately visual-spatial. That represented the majority of the school population!

As I was completing *Upside-Down Brilliance: The Visual-Spatial Learner*, published at the end of 2002, I realized more clearly what Dr. Jerre Levy had said: "Unless the right hemisphere is activated and engaged, attention is low and learning is poor." She was talking about every student in the classroom.

Throughout the book I hinted that the visual-spatial learner might soon have the edge in gaining employment. Tom West (1991), author of *In the Mind's Eye*, suggests that in the 21st century employees will require strong visual skills: "ready recognition of larger patterns, intuition, a sense of proportion, imaginative vision, the original and unexpected approach, and the apt connection between apparently unrelated things" (p. 88).

Daniel H. Pink (2005), author of *A Whole New Mind: Moving from the Information Age to the Conceptual Age*, proposes that, now that information is readily available on the Internet, success in today's world is dependent on empathy, intuition, spirituality and right hemispheric-directed abilities.

“In the United States, the number of graphic designers has increased tenfold in a decade; graphic designers outnumber chemical engineers by four to one. Since 1970, the United States has 30% more people earning a living as writers and 50% more earning a living by composing or performing music. ... More Americans today work in arts, entertainment and design than work as lawyers, accountants and auditors.” (p. 55)

I began thinking about how schools are preparing students for success in their careers. It is very likely that until the modern age the skills emphasized in school were necessary for achievement in adult life. However, the world is changing very quickly and our educational systems are not keeping pace. Success in school still depends upon:

- Following directions
- Turning in assigned work on time
- Memorization of facts
- Fast recall
- Showing steps of work
- Neat, legible handwriting
- Accurate spelling
- Punctuality
- Good organization; tidiness

What positions require the skills so heavily prized in school? These auditory-sequential skills are actually limiting the potential of all students to gain employment in today's world. Citizens of the 21st century are rewarded beyond school for:

- Ability to predict trends
- Grasping the big picture
- Thinking outside the box
- Risk-taking
- Problem-finding and problem-solving skills
- Combining one's strengths with others' to build a strong team
- Computer literacy
- Dealing with complexity
- Ability to read people well

Isn't it time we recognize the importance of right-hemispheric abilities and provide all students the opportunity to develop their visual-spatial skills? These skills are essential to their success in adult life. To continue to prepare students for jobs in the 1950s is limiting their potential instead of enhancing it. One of the central functions of school has always been to prepare the citizenry for gainful employment.

Are we missing the mark?

Guidelines for Teaching Visual-Spatial Learners (VSLs)

Linda Kreger Silverman, Ph.D.

1. Present ideas visually on the chalkboard or on overheads. "A picture is worth a thousand words." Use rich, visual imagery in lectures.
2. Teach the student to visualize spelling words, math problems, etc. An effective method of teaching spelling is to write the word in large, colored print and present it to the student at arm's length, slightly above eye level. Have her close her eyes, visualize the word, then create a silly picture of the word in her mind. Then have her spell it backwards (this demonstrates visualization), then forwards, then write it once.
3. Use inductive (discovery) techniques as often as possible. This capitalizes on the visual-spatial learner's pattern-finding strength.
4. Teach the student to translate what he or she hears into images, and record those images using webbing, mind-mapping techniques, or pictorial notes.
5. Incorporate spatial exercises, visual imagery, reading material that is rich in fantasy, and visualization activities into the curriculum. Spatial conceptualization has the ability to go beyond linear thinking because it deals more readily with immense complexities and the interrelations of systems.
6. To accommodate introverts, allow the student to observe others before attempting activities. Stretch wait time after questions and have all students write answers before discussing. Develop a signal system during class discussions that allows introverts to participate.
7. Avoid drill, repetition, and rote memorization; use more abstract conceptual approaches and fewer, more difficult problems.
8. Teach to the student's strengths. Help the student learn to use these strengths to compensate for weaknesses. Visualization and imagination are the visual-spatial learner's most powerful tools and should be used frequently.
9. Allow the student to use a computer for assignments, and, in some subjects, for instruction. Teach the student how to use a keyboard effectively.
10. Give untimed power tests. Students with severe processing lags can apply to take their college board examinations untimed if the disability is documented through IQ and achievement testing within three years of the exams, and if teachers have provided extended time for tests.
11. Give more weight to the content of papers than to format. These students often suffer from deficits in mechanics: spelling, punctuation, paragraphing, etc.
12. Allow the student to construct, draw or otherwise create visual representations of a concept as a substitute for some written assignments.
13. If a bright student struggles with easy, sequential tasks, see if he can handle more advanced, complex work. Acceleration is more beneficial for such a student than remediation.
14. Expose VSLs to role models of successful adults who learn in a similar manner. Many of the most celebrated physicists were visual-spatial learners. Biographical sketches of famous visual-spatial learners can be found in *The Spatial Child* (Dixon, 1983), *In the Mind's Eye* (West, 1991), and the spatial intelligence chapter in *Frames of Mind* (Gardner, 1983).
15. Be emotionally supportive of the student. Visual-spatial learners are keenly aware of their teachers' reactions to them, and their success in overcoming their difficulties appears directly related to their perception of the teacher's empathy.

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