

# Tickling the Creativity of Gifted Visual-Spatial Learners\*

Steven C. Haas

## Four Students

A student in physics class: In the middle of a discussion of electric and magnetic fields, Lisa asked if they were like sand on a beach, piled up in various shapes by the wind, or more like waves of ocean being pushed by currents. She seemed most concerned with the granular or *discrete* quality of the sand compared with the fluid or *continuous* character of the water, hinting at insights into the quantum nature of electromagnetism that stretched several levels above the instruction she was being offered. When asked where those notions had come from, she appeared to have no idea.

A student in middle school art class: In response to an assignment to do some art project about the sky, Jacob drew what looked like the shadow of an airplane on the ground, viewed from inside the plane looking down, with the shape shifting as it undulated over the changing landscape. As an explanation, he said matter-of-factly that that's what planes look like.

A student in elementary math class: When her class learned about the three aspects of percentage problems (solving for the whole, the part, or the percentage), Julie became visibly exasperated. She burst out that there's really only one kind of percentage problem, and the rest you could solve just by standing the problem on its head.

An elementary school student writing poetry in class: After Joseph turned in a rambling and seemingly unconnected series of lines of verse, his teacher asked him to explain what the words meant to him. He laughed and told her that he was writing about a stream flowing in the mountains and that the individual words didn't have to mean anything. He just liked the way they looked on the page, like they were flowing down the paper, and he also liked the way they sounded because they reminded him of the way a stream sounds on rocks.

These composite profiles are all based upon individual students, but to some extent are distilled from a large number of gifted and highly gifted children whom the writer has mentored and tutored individually and taught in the classroom. They are chosen here as beacons to shine light on some of the commonly shared characteristics of creativity in gifted children. The creativity in each of these cases springs from a giftedness that is strongly visual-spatial in nature, and opens up avenues of investigation into the functioning of that creativity in visual-spatial learners (VSLs)—its surprises, its quirks, and its pitfalls.

## **Obstacles to Creativity**

One roadblock to demonstrations of creativity in the visual-spatial gifted child involves issues of risk and risk-avoidance. The further outside the box a creative idea or solution falls, the more likely others will find that it does not conform to expectations, guidelines, and parameters. The gifted visual-spatial child, by internalizing expected negative reactions, finds his expressions of creativity self-censored and blocked.

One might wonder what happens in the mind's eye of the visual-spatial child before she sees it, before it has flown into her head. Without a step-by-step recipe to fall back on to guide her to new ideas or creative breakthroughs, it may seem like gazing into a bottomless chasm. Especially for a visual-spatial child who has been told she is creatively gifted, there can come a moment of fear that she may not be able replicate her creativity in finding a new idea or a solution path to a tricky. Finding the way through that fear can sometimes take time as pictures and bits of video images are pulled up and accessed. In the meantime, that fear can take many shapes, fear that the visual-spatial child cannot justify her answers, fear of an inability to replicate processes, fear of a shutdown if she cannot see the path, fear that she may be accused of cheating.. All of these fears combine into what I call a "phoniness" syndrome in which she fears that she is a fraud and not really gifted at all.

## **Teaching Strategies**

1. *Flexibility*: The teacher, tutor, mentor, or home-schooling parent should try to go with the flow to see where a student's current inquiry can lead. Sometimes, an offbeat question, idea, or insight flows directly back to the main instructional issue. But even if it does not, by allowing some latitude, the instructor demonstrates some willingness to consider new ideas.
2. *Organization Skills*: It may not always be possible, appropriate, or timely to throw open the doors of the classroom to a free-for-all discussion. But as long as students know that time is coming and is in the daily lesson plan, teachers can use their creative impulse to teach them the patience to keep a list. Students can be encouraged to jot down a phrase, a word, a drawing, or even a doodle to remind them of what they wanted to say, something-anything—that will jog their memory and will assure them that it won't be forgotten. One of the reasons why the distracted thought lures a student away from the main idea is the fear that, if not pursued right now, that thought is perishable and will vanish just as easily as it appeared.
3. *Listening Skills*: Especially in group settings like a classroom, students—even creative VSLs—may tend to tune out when another student has the floor for a creative digression. But, sometimes, one student's comment is so thought-provoking that the instructor might wish to pursue it. Others in the room should be encouraged to chime in if they have something that directly relates.
4. *Connections*: Instead of pursuing a tangential comment directly, the instructor always has the option to ask the originator or other members of the class to offer ideas on how

this comment connects back to material already covered. So often, a truly creative comment integrates well not just with the concept from which it sprang but also with earlier, sometimes much earlier, material. Finding those connections and context provides some of the most powerful glue for new learning, to make sure it sticks permanently.

5. *An Overall Plan*: It is crucial to have an overall blueprint of where the teacher wants not just this one day's lesson, but this whole series of lessons, to go. The instructor should always have a plan, because it helps her judge what to do with a creative digression offered up by a member of the class. But a spontaneous approach to teaching can feel intimidating unless the instructor is thoroughly familiar with the material. Unfortunately, so many creative interruptions branch off into areas that are not directly within the teacher's competence. If an instructor's credibility as a knowledgeable guide to curricular material is in doubt, that only makes it more likely that the instructor will pre-emptively shut down the student's creative curiosity.

The instructor could use those opportunities to engage students in creative problem-solving. An instructor should try to teach students not to be afraid to say those three most important words: "I don't know." Ignorance is not a bad thing; only ignoring ignorance is. Admission by the instructor that (s)he does not know an answer can also serve to build credibility in powerful ways. The teacher, in this case, is not the ultimate dispenser of knowledge and wisdom, but the first among equals in the joint pursuit of learning. Such a redefinition leads to a transformation of the classroom into a community of learners, headed by a chief investigator called the teacher.

6. *One Step Ahead*: In the sort of interactive and potentially chaotic classroom environment described here, the most a teacher can hope for is to stay one step ahead. But if one is patient and entertains some seemingly off-topic interruption, so often it serves as a natural segue into the very next concept in the scope and sequence.

7. *"Why" Questions*: Some student questions will not fit neatly into what the teacher needs to accomplish, especially if they come up in the last three minutes of class. But there should be only one guaranteed show-stopper, a genuine "Why?" question that gets to the heart of an issue. That takes precedence over all other questions and is worthy of a detour.

8. *Journaling*: If the instructor treats creative tangents as serious and not just efforts to waste class time, then students should reciprocate with a serious attitude toward them. Such seriousness mutually reinforces respect in the classroom, for ideas as well as individuals. One way for students to demonstrate that respect is to keep a journal handy into which they can place tangential ideas and thoughts for reflection and questioning at a later time.

\*adapted from Haas, S. C. (in preparation). Ticking creativity in gifted visual-spatial learners.