



NAGC receives similar questions from teachers and parents; however, rarely is there an opportunity to explore how the "other side" might be facing the issue. Interestingly, both groups benefit from the same information even though they look at it from different perspectives and have different roles to play in helping gifted children reach their potential. Our ongoing goal is for teachers and parents to develop a broader understanding of children's potential and thus create stimulating learning environments.

Topic for this issue: "Creative Thinking and Creativity"

A Teacher's View

During the course of the past school year I observed 3 different groups of students I consider to be "creative thinkers." For some creative students, ideas come easily, and they need little or no intervention. Others find themselves seeking examples and modeling before they offer their own thoughts, which do come with time. A last group, trained in rote memorization, often sit in silence, and unless regularly prompted, often decline to participate.

I'm finding it difficult to differentiate instruction for this last group of gifted students. I'd really like to learn more about the many techniques to think creatively that some colleagues of mine have been talking about. How do I begin to "teach for creativity?"

A Parent's View

I have been hearing a lot about 21st century thinking skills, but I have some questions about them. The term '21st century' sounds like using technology, but then I hear about creative thinking and problem solving.

I understand the importance of creativity. After all, our world is filled with the results of innovative thinking. However, I am not sure what the implications are for my children, their education, and their extra-curricular activities. Is this something that is already embedded in their learning or something new? My kids are pretty well rounded, but they are not really interested in the arts. Will that make a difference in terms of creativity? What should I know and how can I help make sure they are getting what they need in this new century?

For many, the term creativity brings the arts to mind. While the arts inherently embody creativity, the concept of creative thinking as a 21st century thinking skill is much broader than that. The freedom to think about and use thinking tools designed specifically for the expression of creativity should be at the forefront of many lessons that educators teach, for students, in all their diversity, express their thoughts in different ways. In recent years there have been many developments in the research associated with the creative process, and as a result there are a multitude of strategies that can be used at home and at school.

1. Creative Problem Solving

AT SCHOOL

- One of the first strategies is to highlight the process or framework known as Creative Problem Solving or CPS. In a nutshell, teaching students to think **fluently** (produce a number of ideas) and **flexibly** (extend ideas into a variety of categories) with a touch of **originality** (unique ideas) and **elaboration** (focus on detail and specific characteristics).
- To instill these traits in students there are proven strategies that focus on the parts of this process. Some of the most widely used are SCAMPER, Morphological Matrix, Creative Dramatics, Brainstorming, and de Bono's Six Thinking Hats. You can learn about these strategies and

AT HOME

Creative Problem Solving (CPS) is a six-step process. It can be learned and applied in the context of everyday situations, giving children a chance to practice and ultimately master it for wider application. Here are the basics you can try with just about anything "problematic" at home.

- 1. Find a Problem: Once you identify it, define it and turn it into a question that can be answered.
- Analyze the Problem: Describe it. Determine what is known and can be known. Decide what is important and unimportant.
- 3. Come up with a Solution: Generate many possible





- others by visiting the Mycoted website. http://www.mycoted.com/Category:Creativity_Techniques
- Mind Tools http://www.mindtools.com/pages/main/ newMN_CT.htm is another great resource. Try infusing some of the strategies into lessons that are already developed.
- solutions and judge them against relevant criteria.
- 4. Try the Solution: Test out your plan before officially adopting it.
- 5. Evaluate the Results: Does the plan solve the problem? Are the results satisfactory?
- 6. Implement the Solution: Put your finalized plan into place.
- Vist the Center for Creative Learning http://www.creativelearning.com/ for more information.

2. Nurturing Creativity

AT SCHOOL

As you begin to allow students to recognize their own sense of creativeness, be sure to keep in mind that creative students often exude independence, high energy, open-mindedness, a great sense of humor, and are attracted to complex problems. They may also seek "alone" time in order to be more perceptive.

While these may sound like positive traits, to the unseasoned educator trying to maintain control of the lesson, those traits can quickly turn negative. Creative students may be forgetful, careless, hypersensitive, and disorganized. They often question rules and authority and may be seen as withdrawn. It is important as you nurture creative thought in your classroom that consideration is made for the students on the fringes. Allowing these students the freedom to work according to their personality in an area of interest while assessing and instructing them on how to move on to the next step in a creative process is a useful way to help your creative students succeed.

AT HOME

There are a lot of wonderful aspects to creativity. Fostering open-mindedness, independence, wonderment, perseverance, humor, and fluency of thought are great ways to support innovation and experimentation. In doing so, however, we should also help children learn to manage these skills in moderation. Wonderment is wonderful, but there is also a time to move on from questioning to coming up with solutions. Single-mindedness of purpose is beneficial, unless it is to the exclusion of other important matters. Generating many ideas is encouraged, but creators must eventually move on to judging those ideas and putting them into practice. Like other aspects of parenting, it comes down to not only providing children with fundamental understandings and tools, but also the guidance for a healthy social-emotional balance in using them.

3. Creative Thinking Models, Strategies, Programs, and Resources

- Looking for a great article to read? Access the free download of the article Creative Problem Solving Embedded into Curriculum, http://www.nagc.org/uploadedFiles/THP/THP_Articles/THP_Fall_2010_CreativeProblemSolving.pdf
- NAGC also has a Creativity Network http://www.nagc.org/index.aspx?id=1419 whose mission is to "initiate, develop, and implement practices and materials that will promote the creative potential of all persons."
- Access the February 2011 Teacher's Corner, The Mathematician, the Inventor, the Artist, and the Athlete: Creative Minds, Creative Ideas http://www.nagc.org/index.aspx?id=7652
- Watch creative minds in action. While many online videos of TED Talks (Technology, Entertainment, Design) are good for all ages, there are some tagged specifically for children. http://www.ted.com/talks/tags/children
- Get involved in creative thinking contests. Programs like Future Problem Solving International http://www.fpspi.org/, Destination Imagination http://www.idodi.org/, and Odyssey of the Mind http://www.odysseyofthemind.com/ have individual and team options for learning and competition.

"One of the most powerful wellsprings of creative energy, outstanding accomplishment, and self-fulfillment seems to be falling in love with something – your dreams, your image of the future."

--E. Paul Torrance



