A note from the guest editor

Creative Children, Creative Thinking and Talent Development

In this themed issue, we look closely at creatively gifted children and their need for challenging venues that develop and celebrate their amazing talents. Although many gifted children possess extraordinary creativity, most schools inadequately develop creativity, if they address it at all. However, creative children can use creative thinking skills to support academic success and develop their creative talents.

E. Paul Torrance, nicknamed “The Father of Modern Creativity,” devoted his life to defining the creative process and studying how it transforms people’s lives. These inspirational phrases, from the Torrance Incubation Model (TIM), remind us of how rewarding it is to embrace creativity:

Creativity is digging deeper.
Creativity is looking twice.
Creativity is crossing out mistakes.
Creativity is talking/listening to a cat.
Creativity is getting in deep water.
Creativity is getting out from behind locked doors.
Creativity is plugging in the sun.
Creativity is wanting to know.
Creativity is having a ball.
Creativity is building sand castles.
Creativity is singing in your own way.
Creativity is shaking hands with the future.

Connie Phelps, Guest Editor
Parenting for High Potential

Discovering Creative Thinking Process Skills: A Win-Win for Children
By Bonnie Cramond

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Parenting for High Potential

Double Issue: Celebrating Creativity!
Discovering Creative Thinking Process Skills: A Win-Win for Children

By Bonnie Cramond

I remember my daughter telling me that the only things that she really learned in middle school were from the Future Problem Solving Program competition (now Future Problem Solving Program International, FPSPI). Although I know she learned more from school than the competition, the FPSPI experience stood out in her mind because it was so different from her other activities. It was the first time someone had taught her how to solve problems and to think creatively. What if she had not signed up for FPSPI?

We teach our children manners, what to do in certain emergencies, and other life basics, but most of us do not intentionally teach our children about thinking strategies and creative problem solving. Perhaps this is the case because many of us have never formalized these processes within ourselves so that we feel capable of communicating them to others. Another reason may be that we expect schools to teach most of the cognitive skills. Although society considers creativity one of the most important skills today, schools usually lack training about creativity or the processes of creative thinking.1 Moreover, many schools fail to give students opportunities to use their creative abilities.

Programs and competitions, such as the International Torrance Legacy Creativity Awards (featured in this issue of PHP), Future Problem Solving Program International (FPSPI), Odyssey of the Mind (OM), Destination Imagination (DI), various inventing programs, and competitions that are specific to certain content areas, afford many students their best opportunities to stretch their creative muscles and see what others their age are doing (see competition website URLs in the Resources section of this article).

School programs often incorporate some of these competitions, such as FPSPI,
DI, and OM, by including lessons on how to think and solve problems along with giving students opportunities to do so. However, there are many school programs lacking any instruction on problem-solving or producing creative ideas. When children attend schools without any creativity instruction, parents can significantly help their children learn about the creative process and ideation strategies.

The Creative Process

Various scholars have described the creative process through definition or as a stage-process model. Perhaps the best known description of the creative process is one that English social psychologist Graham Wallas suggested in *The Art of Thought* almost 80 years ago: He devised a four-stage process model that includes Preparation, Incubation, Illumination, and Verification.2 Although each step of the model can take a different amount of time, and is often recursive, other researchers have verified Wallas’ basic process steps through the years.3 This is usually true whether the person engages in adaptive creativity (solving a problem) or expressive creativity (developing an artistic product). Although we often separate scientific creativity and artistic creativity, researchers find that people who engage in thinking creatively...
use the same basic processes. Although the stimulus and final product may differ between scientific and artistic creativity, there is good reason to think that the two creative processes are similar.

**Preparation.** To guide children through the creative process, we need to instruct them to prepare by finding out as much about the problem as possible. For example, a probing question to explore an artistic venture, might ask, “How can I express this idea or emotion most effectively?” Even if the child has a preferred modality such as painting, there are still questions such as the type of palette, composition, medium, and size to determine. In finding a solution to a problem, parents can direct children toward thinking about the components of the problem, finding analogies in other fields or nature, looking at the problem from another perspective, or discovering why previous solutions, if any, were unsatisfactory.

For example, it is clear from his many initial sketches that Picasso carefully considered the composition of *Guernica* before he completed the iconic painting. Dean Kamen invented the wheelchair capable of ascending and descending stairs by considering the problem of wheelchair accessibility from different perspectives. Previous attempts to solve this problem required ramps inside buildings to create accessibility. However, that solution was considered unsatisfactory due to the difficulty related to putting ramps in old buildings or because the ramps sometimes required an individual to take an inconvenient route. Instead of making buildings-accessible wheelchairs, Kamen asked, “How could I make a wheelchair capable of navigating stairs?”

**Incubation.** Schools often ignore the second step of Wallas’ creativity process model, incubation. Students rarely have adequate time or encouragement to ponder various facets of a problem. Evidence shows, however, that when individuals have time to relax and think of other things after exploring the problem, the solution to the problem often appears. There are many anecdotal stories of this phenomenon, such as when Poincaré realized the solution to a complex
mathematical problem as he was boarding a bus during a vacation. Parents can teach their children that “sleeping on a problem,” taking a walk or riding a bike, doing yoga, or relaxing and listening to music may contribute productively as incubation than continuing to push ahead when stumped in problem-solving. Torrance’s Incubation Model is the only curriculum model that actively encourages students to incubate as part of the learning process, yet it is rarely used in instructional settings.

Illumination. The instantaneous “Aha!” moment that occurs when all of the pieces finally fall into place comprises the third step in Wallas’ model. Neurological evidence shows changes in brain activity that occur during insight. This usually happens after a period of some relaxation, and this research validates the practice of teaching children to relax during the creative process.

Verification. The final step in the Wallas process model takes place when the creator tests the idea’s suitability, soundness, and validity. For an artistic production, verification may occur subjectively through an assessment of the product quality. With a scientific solution, more objective verification may prove the product’s workability.

Since the creative process is recursive, the creator may return to a previous stage to discover additional information, find an alternative solution or idea, or amend an initial idea. Returning to a previous stage may occur at any time in the process, so the process may be considered non-linear. For example, when an aha! idea comes first, children need to gather information from the preparation stage and implement a relaxation period to incubate ideas during the learning process. Teaching children the process of creativity provides worthwhile interactions between parents and children. Parents can encourage children to use these skills when they want to solve a problem or create something new, possibly for a competition.

Resources

Book

Websites
International Torrance Legacy Creativity Awards
Future Problem Solving Program
International
http://fpspi.org
Invent America
http://www.inventamerica.com/
Invent Now
http://www.inventnow.org/
Kids Invent
http://www.kidsinvent.com/
The Lemelson Center/Smithsonian
http://invention.smithsonian.org/home/
Dean Kamen’s FIRST
http://www.usfirst.org

Author’s Note
Bonnie Cramond, Ph.D., is a professor of Educational Psychology/Gifted and Creative Education at the University of Georgia. She has been a member of the Board of Directors of the National Association for Gifted Children, director of the Torrance Center for Creativity and Talent Development, editor of the Journal of Secondary Gifted Education, and a school teacher. A survivor of parenting two gifted and creative people, she is an international and national speaker who has published numerous articles and chapters, a book on creativity research, and teaches classes on giftedness and creativity.

Endnotes

New Book Available from NAGC!

Ideal for students and families seeking scholarship money and national recognition for skills and abilities in academics, the arts, leadership, and community involvement!

Purchase from the Online Store at www.nagc.org.
Educators in the field of gifted education attempt to not only accelerate curriculum for their students, but also to encourage and expand their critical and creative thinking. They often explain this creative approach to students as *out-of-the-box* thinking. The *box* is an effective analogy to help children understand how to shift their thinking and learning styles toward taking initiative and becoming more original, questioning, and imaginative.

As a psychologist who specializes in gifted children, I sometimes work with students who do indeed enjoy learning and working *out of the box*, but struggle with *in-the-box* assignments, even when they are at appropriate challenge levels. They say things like, “I would enjoy math if 6 plus 4 could equal something different each time, but we always have to put down the same exact answer. It’s boring.” These children often have uneven abilities, so that while they may enjoy talking, they prefer to write little, and specifically find repetitive study unpleasant, even when it is helpful for their mastery of information. Many children underachieve in school.

Underachieving children are not always creative, and creative children are not always underachievers. However, an alarming number of highly creative children do not achieve to their abilities in school. Parents of those highly creative children frequently conclude with a certain amount of pride that “their children have always seemed to march to the beat of different drummers.”

**What Parents and Teachers Can Do to Help Creative Underachievers**

Ideal home and school environments that foster both creativity and achievement include parents and teachers who value creativity within the limits of reasonable conformity. Children are praised and encouraged to work hard, but also for their unusual and critical thinking and production. The creative thinking does not become a device or a manipulation for avoidance of academic or home responsibilities, even when they are not as exciting. If, in any way, creativity takes on a ritualized position of regularly avoiding parents’ requirements or the school’s expectations, creativity becomes used as “an easy way out” for avoidance of responsibility and achievement. Here are some recommendations for parents and teachers for the prevention and reversal of underachievement in creative children:

- As a parent, don't, if at all possible, ally with children against a parent or teacher
in the name of creativity. Parents should communicate their concerns to the other parent or the teacher, but it must be done respectfully so the children are not overempowered to avoid home or school expectations.

- Encourage creative children to be productively engaged in at least one area of creative expression, and help them to find audiences for their performances. Children that are happily and productively involved in creative areas are less likely to use their energy to fight authority. Whether their choice of creative expression is art, drama, music, or science, a creative outlet frees them of some of their internalized pressures to be nonconformists in other areas.

- Be sure not to permit children to use their creative outlet as a means of evading academic assignments. Demanding music practice or impending art show deadlines are reasons for flexibility in academic requirements but not excuses for avoidance of responsibility.

- Don’t label one child in the family “the creative child.” It causes other siblings to believe that they’re unwilling to compromise and causes other children to feel pressured to be most creative and risk losing the opportunities to develop their unique talents. If parents and teachers don’t encourage avoidance of responsibility in the name of creativity, creative children can channel their important talent toward productive contributions, feel better about themselves, and share their creative contributions with society.

Author’s Note
Sylvia Rimm, Ph.D., is a psychologist who directs the Family Achievement Clinic in Ohio and specializes in working with gifted children. She is also a clinical professor at Case School of Medicine. Dr. Rimm speaks and publishes internationally on parenting, giftedness, creativity, and underachievement. Among her many books are Education of the Gifted and Talented, How to Parent So Children Will Learn, Keys to Parenting the Gifted Child, and Jane Wins Again. Dr. Rimm was a longtime contributor to The Today Show, hosted Family Talk on public radio nationally, and served on the Board of Directors of the National Association for Gifted Children. She has received many awards for her lifetime contributions to gifted children.

Endnotes
4Rimm, 2008b.
5Rimm, S. B. (1996). The arts are important for your children. How to Stop Underachievement, 6(4), 1-5.
6Rimm, 2008b.

also teaching competition. Children should learn to enjoy the creative process for the joy and satisfaction of their personal involvement. However, they should not be permitted to entirely avoid the competitive arena. They should experience a balance of winning and losing to build confidence and resilience.

- Use creative strengths to build up weaknesses. Children don’t have to be equally strong in all areas, but they do have to accomplish, at least minimally, in school-required subjects so that they don’t close educational doors for themselves. Artists who don’t like math or creative writers who don’t like memory work can use their creative strengths as a means of adjusting to their weaknesses. Artistic or unique folders, assignment notebooks, or technology may help the non-mathematician remember to do assignments, particularly if the artist is encouraged to share these artistic creations with peers. Creative children can often find their own solutions to dealing with their weaknesses, and some flexibility and encouragement on the part of teachers will foster creative solutions for creative children.

- Avoid confrontations, particularly if you can’t control the outcomes. This is not an excuse to avoid firmness and reasonable consequences, but it is a warning to prevent overreaction, overpunishments, and the continuous struggles and battles that often plague creative adolescents’ environments. Modeling and sharing positive work and play experiences can keep parents, teachers, and children in an alliance.

- Help creative adolescents to plan a creative future. Though they are underachievers at this time, it’s most critical that they understand that most creative careers are open only to achievers. If they’re unwilling to compromise and conform to reasonable requirements, they’re likely to close doors to future creative opportunities.

There is a precarious balance between creativity and oppositionality. Creative children often feel so internally pressured to be creative that they define their personal creativity only as nonconformity. If they’re unwilling to conform at least minimally, they risk losing the opportunities to develop their unique talents. If parents and teachers don’t encourage avoidance of responsibility in the name of creativity, creative children can channel their important talent toward productive contributions, feel better about themselves, and share their creative contributions with society.
E. Paul Torrance was a monumental figure in the field of creativity. Certainly, no one has done more for the cause of creativity in understanding its substance and application in this country and abroad than “the father of creativity.” With over 50 years of educational research on the creative process, including his revelatory longitudinal studies and groundbreaking Torrance Tests of Creative Thinking, E. Paul Torrance left the world with a much richer definition of the creative process and a global vision for how it could be harnessed to transform peoples’ lives. His pioneer work examined correlations between intelligence and creativity, provided the means to measure creativity in concrete ways, and revealed methods for unlocking the potential within all learners to apply their ingenuity, imagination, and inventiveness.

With over 1,800 publications and presentations, Torrance’s influence was vast in its scope and remains great today. His approach to creative thinking and problem-solving, evident, for example, in the Future Problem Solving Program International, continues to be used as a means to tap the creative potential of individuals in all sectors of society throughout the world.

At every stage of his life, Paul exhibited persistence and a high energy level. He worked 18-hour days for most of his career. His hundreds of books, articles, and presentations, in addition to his normal duties as a professor, reflected not only amazing organizational ability, but a high level of energy.

Paul became comfortable as a minority of one. He displayed great courage in questioning the status quo in education and psychology. His foray into the field of creativity was single-minded. Some of his findings challenged the ideas of traditional scholars and educators. From Georgia farm boy to world renowned scholar, E. Paul Torrance made an indelible mark and significant contribution to our understanding of creativity, problem solving, and intelligence.1

From the front cover:
The Great Smoky Mountains
Edward Freeman
Chicago, Illinois
Honoring the fundamental contribution of Torrance and keeping his legacy alive for future generations is a burning duty for those who have been inspired and influenced by his work. For example, the International Torrance Legacy Creativity Awards reflect and heighten the commitment of this extraordinary pioneer. Torrance stated that creativity is the highest form of mental functioning, and award submissions have proven his assertion. The legacy awards began in 2009 as a collaborative effort between Joan Franklin Smutny of the Center for Gifted and Midwest Torrance Center and John D. Kauffman of Scholastic Testing Service to offer students from all over the world the opportunity to apply the central concepts and ideas of E. Paul Torrance to their own creative work.

The first Torrance Award category offered was Creative Writing. During the past six years since its inception, hundreds of children from many countries—including Singapore, Turkey, India, Australia, Bahrain, Poland, and the U.S.—have submitted their poems and short stories. In subsequent years, Visual Arts and Musical Composition were added—and, in 2014, Inventions joined the annual awards competition. Each year, the response from children and young people, ages 8 to 18, has grown as more teachers encourage their students to submit their most imaginative work. The Midwest Torrance Center publishes a magazine each year containing the winning submissions in all four award categories. The impact of the award becomes a heartening sign for teachers and parents that, despite pressures of standardized testing, a narrowing curriculum in many schools, and less time or freedom for creativity or the arts in the classroom, creativity is alive and well.

Invitation to Parents and Teachers

Everyone between the ages of 8 to 18 can send their creative work to the annual International Torrance Legacy Creativity Awards competition. Hundreds of students from all over the world have shared their extraordinary talents by submitting original poetry or short stories, photos of two- or three-dimensional visual arts, music compositions for solo or any combination of instruments or voice, and inventions for arts and leisure, science and engineering, and toys and games dimensions.

Annual themes act as catalysts to stimulate the imagination and provide a supportive structure for students to extend their learning through creative production of original pieces of creative writing, art, music composition, and/or inventions. The 2015 themes include: Beyond Boundaries or Transcending Limits; Courageous Endeavor; A Huge Step Forward; Finding, Discovering, or Uncovering Solutions; Choosing a Brighter Tomorrow; and Building Anew.

Experiences inspired by the Torrance Legacy Awards offer remarkable catalysts for both parents and educators to grow in their understanding of creativity and to incorporate more creative activities and projects in their homes and classrooms. Students discover that the kind of thinking and creating demanded by the award categories offers rich individual learning experiences. Parents and teachers—the strongest advocates for the expression of their children’s talents—provide the climate and encouragement to support the growth of creativity.

As Torrance proved throughout his life, significant creative growth occurs within a supportive climate of environment, resources, catalysts, questions, and explorations. The imagination takes hold, and new ways of thinking emerge.

Author’s Note

Joan Franklin Smutny is the Director of the Center for Gifted and Midwest Torrance Center for Creativity. Each year, she welcomes thousands of bright, talented children and young people in grades PreK–12 to her year-round programs. Joan has authored, co-authored, and edited many articles and over 21 books on gifted education for teachers and parents, including Parenting Gifted Children: The Authoritative Guide from the National Association for Gifted Children (2011). In 1996, Joan received the NAGC Distinguished Service Award for her contributions to the field of gifted education. In 2012, she received the E. Paul Torrance Award in Creativity, given by NAGC.

Endnotes

“Hidden”

It may always seem
that the grassy shades of emerald
are never enough
to spark the imagination of the sky
so that its canvas of cerulean
can never change
into the hopeful color
of misty tangerine
but in the early mornings
when you can only see a speck of
periwinkle
covered by the light of the stars
there is always the hope
that daylight will come soon

so the forest
will awaken
and while the sun rises
and gives off its rays of light
it does not take long to realize
that what your memories have seen
are not the same
as the others have
so as you breathe in the sunshine
the stars have already disappeared
into the brightness
but you are still there
waiting for a sign
of understanding.

Angelina Goo-Yun Chan, age 10
Long Grove, Illinois

Talented, gifted young writers are invited to submit their most creative compositions in poetry and short stories, in recognition of the creativity pioneer, E. Paul Torrance. During the past six years, the International Torrance Legacy Creative Writing Awards has attracted hundreds of young writers whose work expressed a high degree of imagination and maturity.

As in the other Torrance Awards categories, participating students represent ages 8–18. Qualified judges evaluate submissions in four groups: ages 8–10, 11–12, 13–15, and 16–18. During the 2014 award, the annual themes elicited a wide range of imagination, originality, and creativity in student poems and short stories. Submissions arrived from children and young people throughout the United States and other parts of the world, including Bahrain, Poland, Singapore, and South Korea.

Parents and teachers commented on the enthusiasm of the young writers who pondered the award themes, the material around them (e.g., their life experiences, books, media, current events, family stories), and eagerly launched into the process of composing their own poem or short story.

For some young authors, it was their first voyage; no one had ever asked them to write before. For others, although they loved creative writing and had filled notebooks with original work, they had rarely submitted anything. Then there were those who, though fluent in English, courageously sent their first English composition out into the world.
Most students rarely found creative writing offered in school systems. Students wrote essays and reports which certainly gave them skill in writing composition. But few felt the exhilaration of a creative idea urging them towards an imagined destination. Where was this going? What might happen next? Whether the seed of their idea came from literature, life, or film, it enabled writers to experiment with voice, tone, and metaphoric language. The process of using the award themes to explore questions, engage the senses, do research, learn stories, and study words and language gave students the experiences they needed to create truly original compositions.

Four judges evaluated and assessed the creative quality and mastery of the authors’ work: Janet Bartell, Chairman; Elizabeth Brown; Nancy Messman, Co-Chairman; and Sarah von Fremd. All four judges commended the sensitivity, freshness, and originality expressed in the writing of poetry and short stories. They used professional rubrics to evaluate the excellence of each submission. The rubric for short stories included the following criteria: (a) organization and flow, (b) character development, (c) language expression, (c) originality and insight, and (d) plot development. The rubric for poetry focused on these criteria: (a) originality and depth, (b) elaboration and articulation, (c) emotional expressiveness, (d) imagery, and (e) unity and cohesiveness.

"From an Atlas of a Not So Difficult World"
(first half of poem)

I am reading this poem,
late, in the snug familiarity of my bed,
with gentle night-light and sable night sky,
stars swimming beyond the glass,
warm breaths fogging up the panes.

I am reading this poem,
curled on a beanbag in a library with her by my side,
breaths stirring against my skin,
like the winds of time, of change, taking me away from here.

I am reading this poem,
in a room that is abound with remembrance and days gone by,
where the bedclothes are heaped, fresh and steaming with warmth,
with the same freedom that the open valise speaks of,
a journey ending in success, a triumphant flight.

I am reading this poem,
as the underground train screeches to a halt,
and before heading up the stairs,
towards the love that life has bestowed on me.

I am reading this poem,
by the glow of the laptop screen,
where the headlines flash and flicker,
for once, joy is splashed across the monitor.

I am reading this poem in a waiting room,
of meeting eyes and crinkling smiles, more friends than strangers,
without fear.

Adelyn Tan, age 15;
Singapore
International Torrance Legacy Creativity Awards

Visual Arts

By Stephen T. Schroth
Director of the Visual Arts Award

Following the successfully conceived and implemented Torrance Legacy Creativity Award for Creative Writing, the competition expanded in 2011 to include the Visual Arts category. Recognition of the diverse talents of gifted young painters, sculptors, photographers, and other artists formed the central focus of the Visual Arts Award. Children from the ages of 8 to 18 are encouraged to submit photographs of any 2D or 3D visual art creation, which includes paintings, collages, printmaking, photographs, sculptures, ceramics, or other related work. During the four years since the inception of the Visual Arts Award category, the creativity, cleverness, and capability demonstrated in

I Wonder What’s Next
Alejandro Fajardo
Dalton, Georgia

(Continues on p. 14)
A Dad to Remember
Maia Palomar
Chicago, Illinois

Penelephant
Emma Bridges
Madison, Mississippi
the work of these young artists has been startling. Their ability to pay homage to the sagacity of Dr. E. Paul Torrance through the imagination, dexterity, skill, talent, and ability of all entrants has testified marvelously to the enduring impact of Torrance’s work in domain-specific creativity.

Participants in the Visual Arts Award category increasingly have submitted entries from all four corners of the globe, including North America, Europe, Asia, and Africa. During the 2014, the young artists responded to one of six award themes. As in previous years, the young artists freely interpreted a theme of their choice and created works that spoke to their own goals and aspirations, as well as the award themes.

Working artists and professional teachers from around the United States formed a panel of judges to evaluate the Visual Art Award entries submitted. Each year, the judges expressed their admiration for all of the entries, and praised the creativity, maturity, and competence of the artists who submitted their work. The competition is fierce each year, and the judge panel uses scoring rubrics based upon the National Visual Arts Standards. Rubric criteria includes (a) understanding and applying media, (b) techniques, and processes; (c) using knowledge of structure and functions; (d) choosing a range of subject matter, symbols, and ideas; and (e) making connections between the visual arts and other disciplines.

I value having a competition such as this as it really provides my students who do not always have a chance to demonstrate their incredible talents a chance to shine.

Alejandro Varela
3rd Grade Teacher
Galesburg, Illinois

Overcoming the Fear
Joo Young Park
Wrocławski, Poland
▲ Town in Nature
Luna Sugiyama, age 11
Wroctaw, Poland

▼ Between Land and Water
Sebastian Atkinson
Wroctaw, Poland
Author's Note

Stephen T. Schroth, Ph.D., is an Associate Professor of Early Childhood Education at Towson University in Towson, Maryland. The author of over 375 books, monographs, chapters, articles, and other publications, he has served as a classroom teacher, gifted coordinator, and arts prototype school coordinator in the Los Angeles Unified School District. Schroth studied Educational Psychology/Gifted Education with Carolyn M. Callahan and Carol Ann Tomlinson at the University of Virginia. As Past-Chair of the NAGC Arts Network, his research interests include the development of artistically talented students, differentiated instruction, effective instructional and leadership practices, and working with English Language Learners.
As a teacher from a relatively isolated Midwestern school, I appreciate the opportunity where my students can compete against those from around the United States—as well as places such as Singapore, Poland, and Turkey—as it makes those places much more relevant to the children I serve.

Jordan Willits
2nd Grade Teacher
Kewanee, Illinois

Perpetual Challenge
MiSeon Kim
Wroctaw, Poland

Cute Chihuahua
Odessa Laurie
Santa Maria, California
Historically, music programs in K–12 schools have emphasized performance opportunities for children and young people. Typically, these opportunities provide children the opportunity to develop technical facility through singing or playing an instrument. This is understandable, since music is a performing art—a talent meant to be experienced “live” either as a performer or audience member. During the 1960s and 1970s, a number of grants provided funding to composers, school districts, colleges, and universities to establish programs where a composer would work with choirs, bands, and orchestras in order to create compositions tailored to the abilities of the children by providing well-crafted, “real” music for them to perform.

Unfortunately, these programs, by and large, became extinct by the early 1980s. Until the release of the 1994 National Standards in Music, targeted instruction in composition was frequently overlooked due to the emphasis on performance as well as the expectations of what a school music program ought to produce for a school (e.g., performances for the PTA, marching band, holiday concerts, and “winning” contests). Yet, even with composition—and improvisation—identified as important parts of every child’s musical education, as well as the variety of computer programs that support children in this work, many children lack opportunities to more fully pursue and share their work.

Students in 2nd through 12th grades interested in composition have limited opportunities to receive recognition for their work. The Musical Composition Award category provides a venue for children for children and young people to share their creative work. Rather than require students to demonstrate their ability to perform their compositions, students may submit their compositions to the judging panel to receive feedback and, possibly, recognition for their work.
and interest by fitting their ideas into a predetermined form (e.g., binary or tertiary) or requiring that they use specific timbres, tonality, or genre, the Torrance Music Composition Award permits the entrants the opportunity to make their own musical decisions in order to create a composition that demonstrates the entrants’ musical understandings. Participants may develop their own inspiration or utilize award themes available each year as a stepping stone for creativity in domain-specific talents.

One of the challenges facing a young composer is the revision of work over time. Now with the multitude of computer programs available, children have the opportunity to both notate and revise their work, as necessary, without the concern of losing an idea. Thus, the Torrance Music Competition Award provides an opportunity for children and young people to share their musical ideas, using current technology to ensure that they develop the skills of a professional composer as well as support those who wish to pursue their interest in musical composition.

Resources

Author’s Note
Jason A. Helfer, Ph.D., serves as the Assistant Superintendent for Educator Effectiveness at the Illinois State Board of Education (ISBE) where he oversees programming and requirements tied to educator licensure and professional development, educator preparation programs, and teacher evaluation. He also spent over a decade in higher education, serving as both a faculty member and department chair, and as a teacher in Evanston, Illinois, and for the Grapevine/Colleyville Independent School District in Texas. Dr. Helfer has co-authored a series of curricular materials for the Lyric Opera of Chicago, and he has authored over 200 publications. His research interests include talent development, teacher preparation, and arts education.

The National Association for Gifted Children invites you to the largest annual convention devoted to gifted and talented learners . . . and CREATIVITY!

Classroom teachers, gifted/talented coordinators, school administrators, researchers, parents, college and university faculty, and more, will converge in Phoenix, November 12-15, 2015, for the 62nd Annual NAGC Convention. Highlights include pre-convention sessions and action labs, concurrent education sessions, poster sessions, exhibit hall, general sessions, and networking events (both formal and informal!).

Join us for Parent Day on Saturday, November 14, featuring special guests Joe Hudy (and his mom Julie!) and Jason Babler, Creative Director of Make magazine and Maker Media.

Joe Hudy is a 17-year-old who amazed President Obama with his Extreme Marshmallow Cannon at the White House Science Fair when he was 14. Joe participates in Maker Faires across the globe and was a keynote speaker at the first International Maker Faire in Rome. He attends Herberger Academy at Arizona State University and is the youngest participant in Intel’s internship program. His message? “Don’t be BORED . . . MAKE something!”

“Making saved Joey. He was wandering around, trying to figure out what he was good at . . . and making is the thing that he found he’s good at.”

Julie Hudy, “Maker Mom”
In 2014, the Invention category expanded the talent domains offered by the International Torrance Legacy Creativity Awards. Participants in the Invention category learn to apply critical thinking, problem-solving and scientific principles to design and create an original invention with real-world applicability. Because inventions relate to many aspects our lives and the world, the award addresses three diverse dimensions: (a) Arts & Leisure, (b) Science & Engineering, and (c) Toys & Games. Applicants submit a purpose summary in 300–500 words and a 3D graphic representation of the product. Qualified judges in the 2014 competition with teaching or professional experiences formed evaluation teams coordinated by Bo Andersen (Science & Engineering), Lori Byers (Arts & Leisure), and Angie Sauerwein (Toys & Games). The judging teams used a rubric to evaluate applications based on the following criteria: (a) conceptual development (40%), (b) problem-solving skills (35%), and (c) product presentation (25%).

Creativity and Inventiveness

Creativity is the “ability to produce work that is novel (e.g., original, unexpected), high in quality, and appropriate (e.g., useful, meets task constraints).” Researchers consider the creative process a dynamic movement between divergent-exploratory thinking and convergence-integrative synthesis in domain-specific talents. Those who invent new products or processes in a particular field need both divergent and convergent thinking skills to harness and transform innovative concepts into a workable and useful solution. While some great inventors such as Leonardo da Vinci contribute broadly across disciplines, many inventors create within a domain-specific talent.

Divergent Thinking Skills. Brainstorming techniques are used in creative problem-solving to generate many possible solutions. Other strategies that promote divergent thinking include writing journals, free writing, and play which encourage free-flowing, open-ended activities. Many famous inventors recorded their scientific observations and drawings in notebooks to document and retrieve valuable information. Thanks to Project Gutenberg, interested persons can view a translation of Leonardo da Vinci’s extensive two-volume notebooks online without charge. Thomas A. Edison remarked, “I have not failed. I’ve just found 10,000 ways that won’t work.” By gathering and recording many possible ideas, the chances of identifying a viable and unusual solution increases.

Convergent Thinking Skills. In contrast to divergent thinking, integrative/convergent thinking results in one response, similar to the “correct answer” expected by teachers in schools. Standardized tests, the Weschler Intelligence Scale for Children (WISC-IV), and criterion-based exams in school rely on the empirical nature of convergent thinking for a well-established “right” answer. Strategies such as mind mapping draw ideas together to form logical connections between ideas in order to evaluate choices. The scientific method uses convergent thinking by analyzing data systematically in order to draw conclusion about the tested hypothesis.
Award Recipients

Although the three dimensions for the Inventions Award permit young inventors to create products within a variety of domain-specific talents, the processes all involve divergent and convergent thinking skills to conceptualize, develop, and present a unique and useful product of quality. One award recipient discovered his invention, the “Angler’s Friend,” evolved organically over time as a solution—a “fishing case you can wear” that organizes rods, reels, and tackle in an efficient manner.

Resources

Books

Websites
Invent Now, Inc.
http://campinvention.org/
The Lemelson Foundation
http://lemelson.org/our-programs/us-programs
Spark!Lab from the Smithsonian National Museum of American History
http://invention.si.edu/try/sparklab

Author’s Note

Dr. Connie Phelps directs the gifted special education program, teaches gifted program courses, and supervises gifted practica experiences at Emporia State University, Kansas.

Prior to her appointment as assistant professor in 2004, she taught gifted students language arts and social science classes in the Wichita public schools in grades 6–8, provided consultation services for gifted students in grades 9–12, and staff development in gifted education for teachers in grades K–5. Dr. Phelps’ contributions in the field of gifted education include the Kansas Association for Gifted, Talented and Creative Board of Directors Historian; and the National Association for Gifted Children. She delivers professional presentations at state, national and international conferences with research studies in online learning, gifted girls, underachievement, and creativity.

Endnotes
3. Roberts, J. (2015, January 6). Necessity might be the mother of invention, but avid angler was part of the process, too. The Kansas City Star. www.kansascity.com

2015 International Torrance Legacy Creativity Awards Arts & Leisure Winner

“I had a ‘what the heck’ mentality, just apply for it and see where it goes. I was surprised and really grateful (it won). It didn’t seem like it was anything that cool, just a project I was working on, and here it goes and wins.”

Corben Tannahill
“Angler’s Friend” Inventor
Arts & Leisure Winner
Merriam, Kansas
Creative Thinking Skills for All Seasons: A Reflection

By Sarah E. Sumners

An often overlooked area of creativity is how it can be used to attain personal triumph in our everyday lives. The role of parents and mentors who nurture everyday creative thinking in children cannot be understated. Academic and everyday life challenges provide the opportunity for parents, teachers, and coaches to foster creative thinking by promoting ideation, analogous and lateral thinking, visualization, group and individual problem-solving, and other strategies that teach children how to think creatively.

My parents played this role for me when I was young and then encouraged me to seek out mentors who would support my need for productive creative behaviors during my adolescence and teenage years. These extended parents came in the form of teachers and coaches who taught me important lessons about how to compete in the classroom and on the tennis court—lessons that have served me well from childhood into my adult years.

By modeling creative behaviors related to my academic and athletic challenges, these mentors made it clear to me that every essay, project, game, and opponent presented separate, individual challenges to overcome. Each shot on the tennis court posed specific problems to solve with myriad ways in which to return the ball. My mentors taught me to visualize the game from every angle, consider my opponent’s approach, empathize with the movement of the ball, and explore and evaluate as many outcomes as possible. As a result, I was better equipped to determine the course of action my body and my mind needed to take in order to win the point… then game, set, and match! By practicing these techniques in singles tennis matches, I then applied them to my success as a doubles partner. Ultimately, these creative thinking skills translated from the tennis court to the academic school setting.

Although creative thinking sharpened my competitive edge in a sport, children of all ages can successfully use these skills in a wide variety of competitions. Some competitions, such as the International Torrance Legacy Creativity Awards, embrace the need that all children have to express themselves creatively across all areas of learning. By focusing on the highest form of mental thinking, the Torrance Legacy Creativity Award program nurtures creativity in children and young people, ages 8–18. The Creative Writing, Visual Arts, Music Composition, and Inventions award categories provide a competitive outlet with minimal resources required. Mentors who model the creative thinking skills needed by children in specific talent areas significantly impact children throughout their school years and beyond, whether in competitions or everyday lives.

Author’s Note
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Parenting the Creatively Gifted Child

By Kathryn P. Haydon

Creatively gifted kids often just don’t fit the mold—any mold—and that’s why it is critical to support them accordingly. Here are three ways that parents can help their highly creative children to be comfortable in their own skins.

Allow exploration. Highly creative kids may jump into a deep interest and stick with it for years. Or, they may prefer to explore. For example, your child might choose to play the trombone in fourth grade and then want to switch to the clarinet in fifth grade. You may need to ask yourself, Why not change to clarinet? To make activity switching more palatable and possible, you might consider renting instruments in order to avoid investing too heavily in new equipment before you know the interest has staying power.

Find mentors. Creatively gifted children need people on their team who “get” them and inspire them to be just who they are. A mentor might be a grandparent, a neighbor, a babysitter, a tutor, or a community member. It might be someone who shares a deep interest with your child, such as physics or bird watching, cooking or reading. Or it might be someone who simply loves children and likes to listen to their musings. Highly creative children understand they are different from others, and they need to feel valued and understood by someone who enjoys them just the way they are.

Identify meaning. Highly creative children tend to have a strong inner drive to pursue their interests, curiosities, and activities that they feel will help them grow and learn. On the flip side, engaging in tasks that don’t hold personal meaning or deep enough learning (like that math work sheet in the homework folder) can be almost painful to complete. Children need someone who can help them identify what lights them up, their interests, and their motivations. Parents and creative children, together, can figure out ways to connect personal passions with activities that they find mundane, or search for new approaches that better connect with their own sense of purpose. Parents who support the flexibility, mentoring, and meaning needed by their children discover even more joy by successfully parenting their highly creative children.

Author’s Note
Kathryn P. Haydon is the founder of Sparkitivity. She facilitates innovative professional development workshops for teachers; consults with families to support their children’s learning; and has written and spoken widely on the topics of creativity, creative learning, and supporting creative and gifted students. She co-authored Discovering and Developing Talents in Spanish Speaking Students (Corwin, 2012), and her current research focuses on developing innovative and creative learning infrastructures. Kathryn is a graduate of Northwestern University, and a Master of Science candidate in Creativity and Change Leadership at SUNY-Buffalo in New York.
advanced learning developed by Stanford University

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