Parents often are the first to suspect their young child may be gifted by observing their child’s developmental milestones, learning style, words, questions, and endless curiosity. However, parents also often find there is limited practical, hands-on information available to help them navigate and nurture their young child’s abilities at home and school.

The authors in this issue fill that gap by sharing practical and wise suggestions for parents of young gifted children. They emphasize the importance that parents trust their insights, experiences, and intuitions when it comes to their children, and that it’s essential parents view their young ones’ abilities as strengths, not weaknesses. This issue also provides numerous educational and enrichment ideas for sparking curious young learners, both inside and outside school walls, in reading, math, geography, technology, and creative pursuits. Armed with helpful information, parents will be better equipped to embrace the process of identifying and finding solutions for their young, high-ability children.

My hope is that parents find that raising a young gifted child isn’t a struggle, but rather an adventure full of surprises and unanticipated joys. The joy of learning for a young gifted learner can happen when started on strong footing in an open and supportive environment. Children who see their parents with them on this journey will grow and become more resilient to discovering new, fresh ideas. They learn that they are fine just as they are while they watch their parents advocate for them thoughtfully and respectfully. Standing by these children hand-in-hand, parents will have a lasting impact.

Joan Franklin Smutny, Guest Editor
Parenting for High Potential
I’m sorry, but I think my child might be gifted.” As a coordinator of gifted services for a school district, one of the most frequent conversations I have with parents often begins with an apology. Or, they say something like, “I just know my child is different.”

Such statements are not intended to be boastful, but sometimes are the only words that parents can find to explain the great complexity of their child’s development. Yet when these words are spoken, they are often in hindsight, or whispered in rooms with gifted advocates or only those who value intellect.

Why the Silence?
Parents of highly gifted children recognize the children’s precocity within the first few years of life and are often the first and best identifiers of early giftedness. So, if we know that primary caregivers are early identifiers of potential, why aren’t more parents consulted when developing educational goals for young children in preschool programs? Why aren’t more parents comfortable having conversations about their children’s precocious development? And when those conversations occur, why the apology?

Precocity in the very young should be a valid topic of discussion in parental and educational circles, yet too frequently those conversations are slow to occur or are absent altogether. Many parents and educators remain silent about raising and nurturing...
precocious preschoolers. I believe the silence is due to a lack of information or awareness about young children’s development and perceived attitudes of anti-intellectualism.

**Lack of Information**

In my experience, many of the popular child development resources readily available in books or on the Internet are inadequate for parenting a gifted preschool-aged child. Much of that information is based on models of typical development and offers disclaimers that “every child progresses at her own rate.” Such information, while a useful starting point, often leads to more questions than answers regarding the development of an infant or young child with gifted tendencies. Few sources address the asynchronous or uneven cognitive, social-emotional, and physical development that frequently occurs with gifted learners.

Where can parents find developmental information on gifted youngsters? Unfortunately, there appears to be an information and programming gap for the gifted preschool subgroup. Much of the academic and popular literature on child development does not address the topic with a gifted child in mind. Even as an educator, with access to theory and research on child development, I’ve had difficulty finding everyday, practical parenting information on gifted children.

In addition, many early childhood educators may not be able to provide information on parenting children who fall outside the typical development ranges because they lack expertise or training in working with gifted populations. Furthermore, gifted services in schools typically do not reach down to the preschool age group.

**Anti-intellectual Attitudes**

As a society, Americans seem to have a preoccupation with outliers. Child prodigies—the exceptionally and profoundly gifted—make headlines. News articles featuring the youngest members admitted to Mensa capture our attention and awe. But what about the young child who is simply precocious?

Let’s be honest: In social situations, it’s not really a conversation starter to discuss your child’s intellectual tendencies. When parents feel shut down by other parents, caregivers, or educators for sharing the accomplishments of their precocious children, they are less likely to engage in conversations that might satisfy their own need for more information. Such silencing contributes to a general lack of awareness, and in some cases denial of developmental differences.

Also, parents of highly gifted children are often accused of
“hothousing”—that is, pushing their children to learn more quickly than their cognitive age or interest guides them.² “Hothouse parent” is a label frequently given to parents who are perceived to schedule too many enrichment opportunities or seek out the “best” programs for their children.

So, where’s the line between wanting to create optimal experiences for your child and being accused of parental hothousing? Often attitudes toward precocity, giftedness, and talent differ according to the area of giftedness. However, regardless of domain, studies have shown that early experiences matter for all children—early stimulation and interaction are vital for optimal development. Early learning opportunities play a significant role in either facilitating or inhibiting the development of intellectual ability.³

Suggestions for Parents

What should parents do who suspect their young child is gifted?

Trust yourself. One of the most critical things that parents can do is to trust in their own observations and not ignore their intuition related to their child's development. Research demonstrates that parents are a reliable source of information and intuition about their children's abilities and needs. Parents' observations about their children's cognitive abilities and behaviors are typically accurate, and these observations provide important, necessary information for gifted assessment.⁴

Take cues from your child. Parents should listen to their children and pay attention to strengths and needs from their interactions rather than from sole reliance upon guidelines for typical development patterns. Parents who are not afraid to affirm and support their young child's gifts once they identify or even suspect them can make a significant difference in actualizing the potential of that child.⁵

Talk to others. Parents should reach out and talk with other parents to avoid feeling isolated or frustrated with gifted children's unique challenges as well as to share and celebrate their accomplishments. Parents who communicate with other families can share ideas and solutions for difficult moments in a child's development and learn from each other's mistakes or triumphs.⁶ In many cases, parents can band together to create their own resources where few or none exist. Making contact with others who share similar concerns also can be a source for friendship among the gifted children in those families. One way to connect with other families and to stay current on information pertaining to giftedness is to join a local, state, or national advocacy group for gifted children.

(Continues on p. 19)
Parent Perceptions of Their Children’s Reading Skills

By Dr. Kathy Austin

While driving one day with her 3-year-old son strapped into his car seat, Bricker’s mother discovered he knew how to read. They were following a garbage truck when Bricker asked his mom, “Why does that truck say ‘caution?’” His mother asked him how he knew. “Because we have a book with a truck that has ‘caution’ on it,” he answered.

Laura could identify letter names and sounds when she was between 18 and 24 months old. She began to simultaneously speak, spell, and read at 24 months old, and was reading Charlotte’s Web at 36 months old.

Owen knew color words such as pink, green, and purple at 15 months old. He could identify letters by name, shape, and sound at 20 months, and was reading easy picture books by 36 months. By age 6, he was reading independently at the sixth-grade level with a listening comprehension at the eighth-grade level.

What Bricker, Laura, and Owen have in common is that none of them were formally taught how to read. However, they are not alone. Many gifted preschoolers are self-taught readers. This was confirmed by more than 200 parents in a 2011 study at Oregon State University focusing on young children’s reading experiences. The purpose of the study was to determine how parents of gifted children and gifted students perceived the children’s learning-to-read process, their early school reading experiences, their current school reading experiences, and changes parents and children would like to make to current reading instruction methods.

(Continues on p. 22)
When people talk about mathematics they frequently refer to the computational aspects of mathematics. Those rooted in innumeracy will easily say, “I can’t balance my checkbook” or “I can never figure the tip.” Parents of gifted children often say, “My five-year-old can multiply,” “My four-year-old can add numbers in her head,” and “My second-grader is doing fourth-grade math.”

Schools seem firmly rooted in the emphasis on computational mastery, and seldom seem to have time to develop other areas of mathematical thinking, such as real-world problem solving and the application of mathematical concepts. All too often, children seem to do well in math in the early grades because they easily memorize the facts and the algorithms needed for computation.

However, merely learning arithmetic algorithms is not sufficient preparation for solving real-world problems. Even computational situations such as balancing a checkbook and figuring a tip are grounded in understanding the application of the computation. In the real-world, you are rarely given all the information you need, requiring data collection from a variety of resources. There are usually several viable strategies to approaching the problem. Life has no answer key.

Math in Daily Routines

Luckily, there are opportunities for young children to practice mathematical thinking at home every day. References to time, for example, lend themselves to real-life problem solving and often take the form of typical phrases: “You have one more minute,” “We are leaving at 8:00 for school,” or “It takes 45 minutes to get to grandma’s house.” There is more to the subject of time than being able to successfully read a digital or analog timepiece.

What other daily routines can be discussed mathematically? Sequencing and patterns are the foundations of algebraic thinking. Recipes, anything involving money, weather, sports statistics, and shopping, whether at the
Incorporate Math into Reading Time!

Reading a bedtime story is a common practice in many households. Why not incorporate math literature into reading time? Children’s literature is an effective tool for mathematics instruction because it:

• Incorporates stories into the teaching and learning of mathematics
• Introduces math concepts and contexts in a motivating manner
• Acts as a source for generating problems and building problem-solving skills
• Helps build a conceptual understanding of math skills through illustrations

These books provide encounters with mathematical concepts and vocabulary in the context of something familiar—a story.

**Math Concepts**

**Books for younger children:**
- The Hungry Caterpillar, 1, 2, 3, to the Zoo, 10 Rubber Ducks, Rooster’s Off to See the World, and The Secret Birthday Message are a few.
- Anno’s Counting Book by Mitsumasa Anno
- Shape Up! Fun with Triangles and Other Polygons, If You Were an Inch or a Centimeter, and You Can, Toucan by David Adler
- Actual Size and Biggest, Strongest, Fastest by Steve Jenkins

**Books for ages 6 and up:**
- A Cloak for the Dreamer by Aileen Friedman
- How Do You Lift a Lion?, Is a Blue Whale the Biggest Thing There Is?, and What’s Faster Than a Speeding Cheetah? by Robert Wells
- Sea Squares and Wild Fibonacci: Nature’s Secret Code Revealed by Joy Hulme

**Books for ages 8 and up:**
- G is for Googol (a dictionary of sorts), If You Hopped Like a Frog, Millions to Measure, and On Beyond a Million by David Schwartz
- The Book of Think (or How to Solve a Problem Twice Your Size), The I Hate Mathematics! Book, Math for Smarty Pants, and The $1.00 Word Riddle Book by Marilyn Burns
- The Adventures of Penrose the Cat, Fractals, Googols, and Other Mathematical Tales, Math for Kids and Other People, Too!, Math Stuff, and Math Talk – Mathematical Ideas in Poems for Two Voices by Theoni Pappas

**Cultural Tales**

**Books for younger children:**
- Two Ways to Count to Ten – A Liberian Folk Tale by Ruby Dee
- My Granny Went to Market: Around the World Counting Rhyme by Stella Blackstone and Christopher Corr

**Books for ages 8 and up:**
- The King’s Chessboard by David Birch
- One Grain of Rice by Demi
- Amelia to Zora by Cynthia Chin-Lee
- Sweet Clara and the Freedom Quilt by Deborah Hopkinson
- The Man Who Counted: A Collection of Mathematical Adventures by Malba Tahan

---

grocery or toy store, provide parents with many opportunities to share mathematics with their children.

**Building Materials**

Recent studies confirm that children who actively play with blocks do better when they attempt higher mathematics such as algebra and calculus. Geometry concepts, such as balance, visual spatiality, and symmetry, are embedded in blocks.

The beautiful thing about building materials is that you can engage in mathematical discourse with your child. “What are you making?” “How did you make this part hang over the section below?” “How did you decide which blocks to use?” As children begin to use exploded view drawings—directions that show how parts should be assembled—parents’ questions can continue to elicit mathematical discourse. Questions can promote solution justification, strategy formation, pattern recognition, conjecture formation, and perseverance.

In addition to **LEGO® bricks** and **K’nex®,** other building sets designed to further mathematical thinking include:

**For ages 3, 4, and up:**
- **Geoblocks,** hardwood blocks in an array of metric sizes and pattern blocks, including cubes, rectangular prisms, and triangular prisms
- **GoldieBlox™,** construction sets designed to introduce young girls to engineering with wheels, axles, hinges, levers, pulleys, and gears
- **Keva Planks,** structures built by stacking planks with no glue or connectors
- **Magformers®,** 3-D structures created with magnetic 2-D pieces
- **Squigz,** colorful, flexible “suction” construction parts that stick to each other and any flat, non-porous surface

**For ages 5 and up:**
- **Q-Ba-Maze,** translucent cubes to set up complex marble runs
- **ZomeTool,** colored struts and balls/“nodes” inspired by Buckminster Fuller’s dome geometry

**Puzzles**

Like building materials, puzzles develop spatial visualization, perseverance, and in many cases, creativity. In fact, research has found that children who play with puzzles between 26 and 46 months of age have better spatial skills when assessed at 54 months of age. And, early puzzle play has been found to lay the groundwork for future STEM (Science, Technology, Engineering, and Math) abilities.

A variety of other puzzles with roots in two-dimensional and three-dimensional geometry also challenge mathematical thinking. These include **Fractiles, Pentominoes, Tangrams, In the Ocean, Tessels-gons, and Ball of Whacks.**

**Family Game Nights**

Whether conscious of it or not, game playing involves analyzing, predicting, decision-making, and evaluation. Even a simple game of Tic-Tac-Toe or Checkers involves a great deal of strategy if you wish to be successful. The best games maintain interest and strategically challenge both the child and the parent (or any other family members who wish to play). During game play, parents can also stimulate the child’s mathematical thinking by asking open-ended questions such as “Why?” and “How?”

Intriguing games that incorporate mathematical and spatial concepts include:

**For ages 3-8:**
- **Enchanted Forest,** an adventure to be the first to tell the king where the fairy tale treasures are hidden
- **Labyrinth,** continually shifting walls that make it challenging to get the treasures
- **Rivers, Roads & Rails,** an ever-changing matching game that creates intricate networks for transportation
• **Robot Face Race**, with the goal of finding the one robot that matches the particular attributes rolled (color of face, eyes, nose, and mouth) before your opponent

• **Spot It!**, which uses visual perception to find the one matching on two cards

**For Ages 8 and up:**

• **Logic Dots**, challenges you to use deductive reasoning to find the “Golden Dot.”

• **Otrio**, which looks like Tic-Tac-Toe but is far more complex

• **Prime Climb**, built on arithmetic and prime numbers, requiring strategies so your opponents don’t beat you to 101

• **Rock Me Archimedes**, combining balance with strategy

• **Suspend**, where hand-eye coordination works in conjunction with strategy for an exciting balancing game.

No matter what you choose, from pots and pans to tessellation puzzles, from simple counting books to those examining fractals and googols, from a deck of cards to complex, three-dimensional challenges, parents’ interactions with their children are key.

In today’s school environment, it’s even more critical than ever for parents to provide support for mathematical thinking. Parents should play with their children when they are young, letting the children guide the exploration. As children get older, parents should encourage more independent play, but can still interact with their children by asking questions, providing feedback, or playing games with them.

**Author’s Note**

Carol Fisher has been involved with gifted children for more than 40 years, teaching, coordinating, and creating curriculum in mathematics for the Chicago Public Schools. She has worked with the Center for the Gifted in Glenview, Illinois, for more than 25 years, creating math and integrated curricula for summer and weekend programs. A recipient of the Golden Apple Award for Excellence in Teaching, she is looking forward to new adventures.

**Endnotes**


What parent doesn’t hope to give their children “the world,” and at the earliest possible age start their journey in becoming responsible global citizens? Through play, children as young as 3 years old can assume active roles in learning important cultural-historical concepts. At home, parents can provide cultural information and resources, and later partner with early elementary teachers to provide cultural experiences in the classroom.¹

A Social-Emotional “Geographic” Journey

Studying only geographic land forms is not enough. Our future citizens of the world also need a social-emotional, human connection to balance their journey.

Today’s school populations comprise a melting pot of cultures. Children want to know where others come from and what their country looks like. They may begin exploring their own cultural heritage or family history by asking:

- Where was I born?
- What country did my parents and grandparents come from?

This type of childhood curiosity can be an opportunity to not only explore your own family’s cultural heritage, but also acts as a springboard to invite other families in your neighborhood and school to meet and share family origins, cultural heirlooms, stories, photographs, customs, and native dress.

As the questioning continues, children want to know where other states and other countries are located in relationship to where they live. They want to learn how children of other cultures live—to discover what they have in common and how they differ. They want to know about other children’s families, homes and schools, their clothes and food, and their friends and favorite games.

Supported by enthusiastic parental guidance for research and making connections between cultures, young gifted students will discover that children around the world are “just like me!”—a very powerful concept.

Limited Time for Social Studies and Geography

With the time pressures of competing daily school priorities of reading, language arts, mathematics, and frequent testing, many of today’s teachers are forced to severely limit children’s daily exposure to social studies and world geography.
Creative parents can begin to fill this deficit by providing a meaningful social studies and geography curriculum at home that provides opportunities for young gifted children to experience their knowledge of the world rather than just read about it.

Each global destination the children choose (or one that you suggest) can focus on the cultures and traditions of each country, further supported by visits to travel agencies, museums, embassies, cultural celebrations, travelogues, books, newspapers (current events), magazines (e.g., National Geographic), and guided research on the Internet.

**The Sky’s the Limit**

By including many cross-curricular activities, each “trip” has the potential to integrate social awareness and human connections with the international cultures and lives of people all over the world through reading, writing, large and small motor activities, art projects, and dramatic play. Family involvement can prove to be infectious, perhaps even leading to real-life excursions to some of the global destinations that began at home.

**Make It Fun!**

Social studies and geography are natural platforms for multi-disciplinary creative expression. The most important thing is to make every new exploration fun by providing “hands on” creative activities for their choice and encouraging their input for additional activities.

Parents have the unique opportunity at home to provide an integrated approach to social studies through activities in world language, world traditions, language arts, science, math, life skills, and art. The ways young children can “visit” countries include:

- Participate in map and global studies (locate and draw oceans, continents, mountains, islands, and other landform features of each country).
- Identify regional weather from a selected country.
- Identify individuals who have made significant contributions through science, music, art, and inventions.
- Role-play cultural traditions and celebrations, and dress up in native costumes.
- Understand key milestones, contributions, or events in the country’s history.
- Practice native language words and counting.
- Study native plants and animals and their habitats.
- Identify and color native flags.
- Learn songs, native dances, games, and folklore stories.
- Prepare native foods.
- View short Internet programs that visually explore the highlights and famous buildings of each country.
- Visit museums, embassies, and cultural events for each country in person or online.

In addition, young gifted children should be given a “travel journal” and encouraged to draw, document, or verbally report on all travel experiences. In their
World-Class Explorers

Below are some suggested global destinations and activities for young “world travelers.” For each country, students make a “suitcase” to cover with souvenir stickers and a “passport” to this new country. Parents and teachers may introduce children to each country’s location, history, flag, songs, language, and clothes—and complement with other topics, themes, or activities below.

ITALY

Italian artists, inventors, composers—Leonardo da Vinci, Michelangelo, Antonio Vivaldi, Galileo

Italian opera (e.g., Luciano Pavarotti)

Food—pizza, spaghetti, gelato

Cities—Rome, Florence, Venice

Famous buildings—Leaning Tower of Pisa, Colosseum

Mt. Vesuvius (famous volcano)

TAHITI

Food—coconuts, mangos, pineapples

Tahitian fishing with poles/nets

Oyster/pearl hunting

Ocean inhabitants and green turtles

Island life and weather

MEXICO

Spanish phrases and numbers

Mexican clothing—silver jewelry, serapes, sombreros

History of Mexico—Aztec civilization, pyramids

Holidays and celebrations—fiestas, mariachi bands, Day of the Dead, Cinco de Mayo

Ancient pottery

Food—tortillas, enchiladas, tacos, salsa

Famous artists
**Australia**
- Australian animals and their habitats
- Sydney Opera House
- The Great Barrier Reef and its ocean inhabitants
- Native Australian Aboriginals
- Make a native Aboriginal boomerang or didgeridoo instrument

**Germany**
- Make a German cuckoo clock and practice telling time
- German composers, music, and dance
- Food—pretzels, wiener (sausages), sauerkraut, apple strudel
- Retell and act out famous German stories—Rapunzel, Rumpelstiltskin, Goldilocks and the Three Bears, Little Red Riding Hood, Sleeping Beauty, Snow White
- Make a gingerbread house
- Make puppets and tell the German fairy tale story of Hansel and Gretel

**China**
- Chinese zodiac calendar (Are you a monkey? Horse? Snake? Dog?)
- Chinese food (How to eat with chopsticks)
- Chinese writing and language
- Chinese New Year
- Pandas—native to China
- The Great Wall of China

---

**Resources**

**Author’s Note**
Carol Sandberg-Howe is a classroom teacher with specialties in gifted education, differentiation, common core, music, and science instruction in Chicago and suburban schools. She has participated in numerous gifted programs throughout Illinois, has held several positions at WTTW-Channel 11, Public Broadcasting, and has served as editor of several magazines.

**Endnotes**
In 2012, the National Association for the Education of Young Children (NAEYC) revised its position statement regarding the appropriate use of technology in early childhood classrooms. The increased accessibility of touch screens on tablets and smart phones led to this revision, which moves the conversation from the question of “When shall we introduce children to computers?” to “How shall we introduce children to computers?”

One of the primary takeaways of the new statement is that teachers and parents must be informed and intentional when making decisions about which devices, apps, and games we choose for our children and students. We must consider the context in which the technology is being used. We must ask ourselves, for example, does this technology help children connect, socialize, and communicate—or does it promote solitary play and isolating behaviors?

Along these same lines, Marina Umaschi Bers of Tufts University’s DevTech Research Group, in her book Blocks to Robots: Learning with Technology in the Early Childhood Classroom, describes the essential characteristics of a rich learning environment where even very young children experience meaningful engagement with computers and tangible technology devices like robots. In short, children must be active creators and producers, not passive consumers of technology. As an extension of traditional learning manipulatives, the use of technology, such as robotics, builds problem-solving and sensory-motor skills.

Is your child eager to learn about coding and robotics? Here are some ideas and resources for parents and teachers to introduce your child to kid-friendly, computer science activities. These resources meet the guidelines described by NAEYC and Bers regarding the age-appropriate exploration of computer science concepts through engaging, playful, collaborative, and hands-on projects and games.

However, when considering any technology tool or media source, parents should remain the gatekeepers and monitors. Families must make their own decisions, such as how much screen time children are allowed each day.

**Apps & Websites**

- **Daisy the Dinosaur.** A free iPad app that teaches children how to animate a figure (Daisy) by creating a sequence of commands in block programming. The app also introduces coding concepts such as looping and conditions.
- **Kodable.** This free educational game for tablets teaches coding concepts by challenging players to sequence commands that move a fuzzy creature through a maze. Players work their way up through various levels, encountering increasingly difficult challenges.
- **Scratch Jr.** An app that makes MIT Scratch animation programming available to young children on touch screens. Available for free on iPads and Android tablets, Scratch Jr. provides an accessible introduction to coding with plenty of options to progress to more varied and complex characters, settings, and stories.
• **Code.org.** A non-profit organization with a mission to expand access to computer science education. The “Hour of Code” tutorials are engaging and fun. Children as young as 6 can complete the tutorials independently. Bright and motivated preschoolers may enjoy working through the tutorials with adult assistance.

**Robot Kits & Toys**

• **Bee-Bots.** Tangible tech tools that teach children to program a robot to navigate a path, avoid obstacles, or act out a story. Available at https://www.bee-bot.us/beebot.html

• **Dash & Dot.** This pair of interactive robots, can be programmed using an app on a tablet or smartphone. Available at https://www.makewonder.com/

• **LEGO WeDo & Mindstorm.** LEGO robotics kits have long been the gold standard of robotics education. WeDo kits provide an introductory experience to building and programming robots; Mindstorm EV3 kits are next in complexity and challenge. Kits are available for home and school at http://shop.lego.com/en-US/

**Tinkering & Inventing**

• **DIY Take-a-Parts.** Your child may enjoy taking apart old or broken toys or household appliances to see how they work. Clocks, fans, typewriters, and telephones make great take-a-parts. For electronic items, a quick Internet search will tell you if there are any hazardous parts to be avoided. Even with simple take-a-parts, young children will need adult assistance with tools. A good set of screwdrivers in a variety of sizes is often all that is needed.

• **Blocks & Construction Toys.** Any kind of construction play, such as building with wooden blocks or plastic bricks, builds design engineering skills and knowledge. Challenging children to build three-dimensional representations of virtual structures provides an especially deep and complex learning experience. When children use world-building games and apps, such as Minecraft or Toca Builder, challenge them to draw or build a replica of their digital creations.

**Board Games**

These board games have been developed to teach coding and computer science skills.

• **Robot Turtles** http://www.robotturtles.com/

• **Code Monkey Island** http://codemonkeyplanet.com/

• **Code Master** http://www.thinkfun.com/products/code-master/

**Places to Visit**

• **Maker Spaces & Children’s Museums.** Look for opportunities in your community for children to build and code using novel and interesting materials such as 3D printers. Places like the Exploratorium in San Francisco (http://tinkering.exploratorium.edu/) and the Chicago Children’s Museum (http://www.chicagochildrensmuseum.org/) offer tinkering workshops where children can experiment and invent using both digital and tangible tools.

• **Your Local Library!** Many public libraries now offer maker space activities and robotics kits to children and families. For example, Chicago Public Libraries have a fleet of Finch robots that can be checked out and taken home: http://www.finchrobot.com/loan-program/main

**Resources**

**Common Sense Media** https://www.commonsensemedia.org/
Provides reviews and ratings of all kinds of media, including apps and computer games.

**Raising Digital Natives** http://www.raisingdigitalnatives.com/
Helpful resource for parents in determining how to set technology limits for their children.

**Author’s Note**

Ann Gadzikowski brings 25 years of experience as a teacher and administrator to her role as Early Childhood Coordinator at Northwestern University’s Center for Talent Development. A graduate of the Erikson Institute for Advanced Study in Child Development, Ann is the author of textbooks, leveled readers, and teacher guides including Challenging Exceptionally Bright Children in Early Childhood Classrooms (Redleaf Press, 2013) and Creating a Beautiful Mess: Ten Essential Play Experiences for a Joyous Childhood (Redleaf Press, 2015).

**Endnotes**

1 http://www.naeyc.org/content/technology-and-young-children


The Importance of Parent Intuition and Observation in Recognizing Highly Creative Children

by Kathryn P. Haydon

In my work with hundreds of families, I have observed one common truth: Parents are the experts on their own children, especially when it comes to giftedness. Parents often observe certain characteristics in their children and view them as positive traits until those same characteristics are regarded negatively in school. Though there may be outside pressure not to accept a “gifted” or “highly creative” label, sometimes the label is the one thing that can save a child from being misinterpreted and misidentified at home and at school.

Recognizing the Highly Creative Child

Sometimes it’s not easy for highly creative children to “comply” with a regular curriculum, even at the preschool age. They are wired to explore, experiment, build, imagine, and create. If forced at a young age into a diet heavy on rote learning and directed work, they may struggle. It’s not that these children can’t do the work. It’s that the work does not engage their depth of thinking, ability to make connections, and need to contribute original ideas. Their needs are so much more complex than what a traditional classroom can meet, especially if they want to voraciously pursue knowledge on their own.

Creative Traits in Action

So that you may see the traits of a highly creative preschooler in action, take a look at Talia’s story.

Talia was a sweet, helpful, and independent yet generally obedient 3½-year-old child. She had a beautiful personality, loved to share her insightful thoughts with adults, had a rich imagination that usually involved her stuffed animals, and was quite helpful around the house. She loved to explore and learned effectively when she pursued her interests. For example, she taught herself to read at age 2, among many other things.
Talia had strong ideas about what she wanted to explore. She resisted being confined to small spaces, and sometimes only the vast variety and peace of the outdoors seemed to calm her. She didn’t want to do things other kids were doing, and sometimes her mother despaired at group events when she left the group activity to do her own thing. She created new uses for toys, or skipped over the toys to make original use of their shipping boxes instead.

With careful observation, however, it was clear that every activity that Talia pursued was embedded with a discovery process, an opportunity for deep exploration. She vehemently resisted prescriptive—or pre-scripted—activities. For example, if the art project in preschool was to glue eyes, nose, and mouth onto a page in a certain way to create a monster, she wouldn’t do it. That was too prescriptive. But if the teacher provided red, yellow, and blue paints with brushes and paper, she would eagerly experiment with abstract markings, watching how the colors mixed and the lines formed on the canvas. Every move she made demonstrated a hunger not only for knowledge, but to integrate that knowledge through her own imagination and power to originate.

Talia had one year of preschool under her belt, in a nurturing classroom with a veteran teacher who gave the children plenty of freedom to explore, create, and direct their own learning. The following year, she matriculated to the next class, when teachers began to say that she had serious behavior problems. She was not following directions, would run out of the classroom and ask to go home, and wasn’t participating in the lessons on colors, numbers, and letters.

Her teachers knew that Talia had taught herself to read a year earlier, was already reading Magic Tree House chapter books independently, could write, and had an extensive knowledge of geography, including all of the U.S. states and capitals. However, they would approach her parents at drop-off and say, “Talia did not participate in the letter lesson today.” Or, with “good” news, “Talia learned something today along with all of the other children. She didn’t know the word ‘dog’ and learned to read it.” (To please the teachers, Talia had pretended not to know the word “dog,” as “dog” was one of her favorite words to write at home.)

The school suggested bringing in a behavior specialist to evaluate Talia since she was running out of the classroom and didn’t follow directions. The parents met with the teachers, and shared their experiences: Talia was a highly creative, rapid, self-taught learner, and didn’t exhibit behavior problems at home.

It was then that the parents realized that based on her learning style, a traditional kindergarten might not be the right fit for Talia. They felt that it would be cruel to both teacher and student for her to sit through hours of learning to read, write, and do basic math when she had already learned these skills on her own at an early age. Soon, they had Talia take an IQ test with a psychologist who had extensive experience with gifted children, and she fell within the profoundly gifted range.

For a profoundly creative thinker such as Talia, rote academic work often does not engage learning. It can sometimes do more harm than good, forcing a child to numb his mind in order to comply with repetitive tasks. A creative learning setting, with ample freedom to explore, may be a better environment that won’t choke creative pursuits or a love of learning.

**Analysis**

In analyzing Talia’s case, one of the most important factors was that her parents understood her creative traits—originality, imagination, curiosity, and energy—and they viewed these as strengths. They actively looked for ways to support these characteristics as part of Talia’s identity, rather than to make her shed them in order to follow a typical, prescribed path. For parents, this is not always an easy road to take, but it’s a road that supports the child in the long term. Sometimes it requires great sacrifice—socially, financially, or career-wise. But it gives children a firm foundation from which to grow, and a healthy self-confidence that helps them to accept themselves, including their differences, and to feel confident in their own skin.

In hindsight, Talia’s 4-year-old classroom could have become a place where she thrived, even with her different rate of development. The first step would have been a willingness on the part of the teachers to acknowledge the needs of the individual child. The second step would have been the flexibility to meet Talia where she was, even if her learning styles and abilities seemed out of sync with the standardized program. This might have included structuring the classroom differently, with more independent centers and theme-based explorations, exempting Talia from lessons in content areas where she demonstrated mastery, and acknowledging creative strengths as positive traits to be nurtured rather than negative traits to be controlled.

**Conclusion: Fortitude and Openness**

Open, flowing communication between home and school is absolutely essential to meet the unique needs of creative learners. Therefore, each member of the child’s learning team must be an active, open-minded, and willing collaborator.
Teachers should try to avoid making generalized assumptions. They are in a strong position to unlock the potential of their gifted and creative students, but must be open and willing to evaluate the suitability of their classroom practices for students. Parents need to know their child, be clear on his/her strengths, and have the fortitude to stand by these strengths even when the characteristics are called deficits by others.

There is tremendous pressure today for kids to conform, academically and socially. For gifted, creative kids, this is often not possible or prudent. Highly creative children are unique, and the only way for them to thrive long-term is for those around them to accept their uniqueness. They will still need to do what is required to be successful, but they may need different routes to get there.

### Resources


### Author's Note

**Kathryn P. Haydon**, author of *Creativity for Everybody*, is a former teacher who writes, speaks, and consults to support an educational paradigm based on student strengths and creative thinking. She holds a master’s degree in Creativity and Change Leadership from the International Center for Studies in Creativity at State University of New York. Learn more at [http://www.sparkitivity.com](http://www.sparkitivity.com).

### Endnotes


### Characteristics of Highly Creative Thinkers

<table>
<thead>
<tr>
<th>CREATIVE STRENGTH</th>
<th>NEGATIVE INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIGINAL</td>
<td>disobedient; divergent</td>
</tr>
<tr>
<td>CURIOS INQUIRY</td>
<td>challenges authority; goes off on his/her own; busy; asks too many questions</td>
</tr>
<tr>
<td>SENSE OF HUMOR</td>
<td>immature; disruptive; class clown</td>
</tr>
<tr>
<td>ENERGETIC</td>
<td>fidgets; hyperactive; disobedient; inattentive</td>
</tr>
<tr>
<td>INTENSE THINKER</td>
<td>daydreams; spaces out; slow with rote work; slow or forgetful with daily tasks such as getting ready; talks to self</td>
</tr>
<tr>
<td>OPEN-MINDED</td>
<td>indecisive; stops work in the middle to move on to something else</td>
</tr>
<tr>
<td>LOVES A CHALLENGE</td>
<td>complicated; resists “easy” or rote work; makes simple things harder than they “need” to be; distracted when doing rote work; wastes time</td>
</tr>
<tr>
<td>NEEDS TO BE ALONE</td>
<td>not always with the group; anti-social; moody; plays alone; poor social skills</td>
</tr>
<tr>
<td>SENSITIVE</td>
<td>needy; clingy; insecure</td>
</tr>
<tr>
<td>INVENTIVE</td>
<td>strange; non-conforming; doesn’t do assignments the “right” way</td>
</tr>
</tbody>
</table>

---


---

Suggestions for Educators

In addition to supporting parents, there are steps educators can take to nurture the strengths and talents of young children.

Listen to parents. Just as parents have an obligation to advocate on their children’s behalf, educators have a professional imperative to listen to, respect, and respond to parents’ observations, questions, and concerns.

Create rich learning environments. The National Association for Gifted Children’s position statement on early childhood suggests that early childhood educators and families should have the mutual goals of developing “children’s capacity and passion for learning to the fullest potential.” Additionally, it calls for the creation of “rich and engaging learning environments” in homes, schools, and communities. Thus, there is a need for early childhood programs to provide responsive learning environments for all learners—programs that are rich in experiences, use varied materials, and respond to children’s unique abilities, needs, and interests.

Engage in professional development. Issues such as asynchrony can make identifying and meeting the needs of young gifted learners particularly difficult, especially if educators lack formal training in acceleration and differentiation. Early childhood educators need to be informed about identification and needs of early gifted learners, including those from underrepresented populations. Similarly, gifted educators need to be informed about early childhood development. Cross-pollination of knowledge between these two groups can lead to greater awareness and information sharing that builds stronger educational services for all children. Additionally, participating in gifted advocacy groups can be a valuable method for disseminating information and encouraging collaboration between fellow educators and parents.

Cultivating intellect must begin in infancy, and certainly by the time a child enters preschool, let alone by kindergarten. Breaking the silence on precocious preschoolers is important because in doing so, both parents and educators alike can learn valuable lessons. Instead of beginning conversations with an apology, parents need to feel comfortable having conversations with each other and with their children’s teachers—a child’s optimal development may hinge upon it.

Do you have the courage to break the silence and speak up on behalf of our young gifted children?

Resources

Author’s Note
Leigh Ann Fish, Ph.D., received her doctorate in Educational Administration from Miami University and has served as a District Coordinator of Gifted and Talented for the Troy City Schools in Troy, Ohio. Prior to this, she worked as an elementary teacher and gifted specialist. Leigh Ann is a member of NAGC and sits on the governing board for the Ohio Association for Gifted Children. She looks forward to continuing her work at the University of Maine Farmington as an Assistant Professor of Early Childhood Education in the fall of 2016.

Endnotes
3 Clark, B. (2007). Growing up gifted: Developing the potential of children at home and at school. (7th ed.). Columbus, OH: Charles Merrill.
There’s a myth that some people are creative and others are not. You’ve heard (and maybe said), “I’m just not the creative type.” However, all children are born creative. They love to explore, ask questions, and are incredibly imaginative. Parents are key in nurturing their child’s creativity in the early years. Look at some things you can do at different ages and stages of your child’s early development.¹

**Infants**
- **Music.** Play music in your home, beginning in infancy. Expose your child to a variety of music types, including Rock, Country, Classical, R&B, and your favorites. Listening to music also helps practice better listening and soothes your child before nap or bedtime.
- **Singing.** Make up songs, rhythmic play, or chants to accompany every day activities like diaper changes, baths, eating, and bedtime. These daily routines can become more fun for you, too, when you add a dash of creativity.
- **Bouncing, Clapping, & Dancing.** Movement of the body helps with coordination and balance. It is a perfect medium for creative self-expression.
- **Songs & Nursery Rhymes.** Teach your child songs and nursery rhymes, which often have a pleasing, repetitive rhythms. Have fun making up new versions.
- **Stimulating Toys.** Provide safe toys and household items for play that are colorful, multi-textured, and make interesting noises or movements.

**Toddlers**
- **Allow your child to experiment.** Explore with pans, keys, cardboard boxes, and old “dress-up” clothing. Kids often prefer ordinary household objects (and even the boxes they come in) to the actual toys!
• **Read, read, and read.** Share your own creative versions, and you will begin to see your child use his imagination to make his own stories. Hesitate turning the page and let him guess or invent what will happen next.

• **Dance with your child.** Dancing helps her get used to movement activities. Use your bodies to make new letters, shapes, animals, or plants.

• **Ask your toddler open-ended questions.** “How can we build this?” “How should we decorate this?” “Where does the sun go at night?” Just listen and learn how his creative mind works!

**Preschoolers**

• **Mix directed and free play.** An example of directed play is playing a board game. An example of free play is giving your child a piece of paper with one squiggly line on it and asking her to draw a picture that includes the line. Both activities involve using her imagination.

• **Continue to ask your child open-ended questions.** “How can we build this?” “How should we decorate this?” “Where does the sun go at night?” Just listen and learn how his creative mind works!

• **Many children are visual-spatial learners.** Visual-spatial learners think in terms of pictures, shapes, patterns, and designs. Provide materials and time for drawing, sketching, building, sculpting, and designing. Some parents worry their child “draws too much” or “draws all the time.” Drawing is the way young beginning writers understand and convey meaning. Allow them to do this at their own pace.

• **Keep a portfolio of your child’s work.** Take pictures or videos of projects that are not easy to save. As your child gets older, the portfolio can encourage or challenge her to go further with a product or even revise it—inpiring higher levels of creativity. These projects could be the spark that produces the next idea for the number one best seller or prize winner.

    Whether your child is a newborn, toddler, or preschooler, early childhood is an important time to protect and nurture your child’s innate creative thinking and creativity. They will soon enter school, and you will send them off hoping they receive an education to prepare them for a good job and a happy life. However, many schools still have a long way to go as far as acknowledging, fostering, and encouraging creativity in students. Conformity and teach-and-test seem to have won out in many schools over curiosity, creative thinking, and problem solving.

    Reflect on the resources and strategies shared in this article. So what’s your plan for maintaining your young child’s natural creativity, curiosity, and passion?

**Authors’ Note**

**Dr. Rick Shade** is an internationally known author, consultant, and speaker who is passionate about unleashing the power of creativity in the classroom, home environment, and work place.

**Patti Garrett Shade** has worked in education in Europe and the U.S. as a consultant, author, and educator. Her work focuses on creating interactive learning environments that result in the production of rigorous and creative student work.

Learn about the authors at: www.curiositateaching.com.

**Endnotes**

(Continued from p. 5)

Flash Paper Reading Ability

The most surprising pattern to emerge from the 2011 study is that when asked how their preschool children learned to read, parents said their children displayed a flash paper ability to learn and that they appeared to learn to read out of thin air. (Flash paper was the instantly igniting paper used by early photographers to create the bright flash before flash bulbs were invented.) Children were given little to no formal instruction in reading. Then, all of a sudden, poof! The children were reading above age level. By the time they started kindergarten, over half of the children in the study were reading significantly above grade level. Those who began to read in first grade were reading several grade levels above in less than 4 months.

Early Readers

Early readers often set themselves apart from other children because of their ability to comprehend language significantly above their peers. They tend to be the children who lurk behind books during their daily lessons at school. They may have several books open at once, have a nuanced and sophisticated use of language, enjoy wordplay and puns, and invent their own stories based on favorite characters.

Therefore, requiring gifted students who are already reading above grade level to submit to repetitious basal reading activities is not only boring for the children, but also can be detrimental to their reading progress. They already have the basics of what it takes to grasp meaning from a book and turn what they know into something new and special.

That’s why it’s important that parents understand early literacy skills. If parents understand how reading happens for gifted children, they are better prepared to ensure their child has challenging and appropriate reading material, to help teachers understand their child’s abilities, to help them obtain the best education experience possible, and to advocate for them in school, if necessary.

Challenging Books in Kindergarten

Parent participants in the Oregon study were asked if their child was given books in kindergarten to read that were challenging enough to develop further reading skills. The results were mixed. Several parents felt that their children’s teachers did not want the children to get too far ahead, remained focused only on identification of letters, forced children to read teacher-selected books, refused to budge when parents made requests for harder books, or didn’t believe a kindergartener could read books such as The Chronicles of Narnia. Parents who found their child didn’t have challenging or interesting books provided for them by the teacher either had to send books from home or arrange for the child to go to the library to pick out books.

Other, but fewer parents felt that their child got wonderful care and nurturing in terms of their reading at school. There were those magic teachers who just seemed to know the very best book for each child and steered the children toward books that might be the most exciting and interesting for that particular child. According to the parents in the study, those wonderful teachers were few and rare.

When children in the study were not allowed to read books at school that were both interesting and challenging, they began to be turned off by reading. Some, who were distraught by what their teachers required them to read at school, quit reading altogether.

What Parents Can Do

Parents were asked what they did to make reading enjoyable for their children. The literacy culture of the home influenced the children’s desire to read initially, but other factors kept the children’s interest in reading.

Make Reading Fun

Even though many gifted children possess the ability to learn to read early, they won’t continue to read if they don’t have fun in the process. Parents can make reading fun by:

- Reading to their children very early in the child’s development.
- Encouraging a significant person in their child’s life—parent, grandparent, sibling, or friend—to read books together.
- Being aware of what kinds of books their children most enjoy.
- Allowing the children to choose their own books at the library and bookstore.
- Allowing their children to stow books under their pillows to read before sleeping or after waking up.

Provide Support

After nurturing their children’s love of reading and learning during their early development at home, parents in the study were heartbroken when their children become disengaged from the learning process at school. Here are additional strategies parents can implement to help their gifted children have successful reading experiences:

- Validate the child’s experience. It’s vital for parents to be empathetic, patient listeners to their children, particularly when they express frustration over school.
- Become knowledgeable about the learning-to-read process. Even if good readers, occasionally some children need help to surmount hurdles. Young gifted children may know how
to pronounce diphthongs (two vowels that combine in one syllable of a word such as “oi” in coin) or blends (two or more letters that combine to make a blended sound such as “cl” or “st”), but they may not know what to call them or even be aware that a name for special consonant combinations exists.

• Provide a rich literacy environment at home. Parents should make reading a central activity for their children and not impose restrictions (except when content is not appropriate). However, parents do not need to enroll their child in a formal reading program before he/she is of school age.

• Teach your child to use the library. Families should make friends with the children’s librarian—in both their public and school libraries—who can be a goldmine for guiding book choices.

• Advocate for your child. Young children often are not able to articulate their frustrations or needs to their teachers. Sometimes children are afraid of repercussions from the teacher if they speak out. Parents can ease their children’s anxieties by helping them talk with their teachers, often in conferences that include the child.

• Know when to seek educational alternatives. Parents should exhaust all possibilities with their child’s teacher and school first. However, if the school refuses to work with you, or if the child exhibits signs of emotional and psychological distress, parents may wish to investigate alternate options, such as homeschooling, university-sponsored programs, co-ops and study groups, public online schools, and private schools.

Conclusion

Each gifted child is different and will have different reading experiences. What’s most important is that early readers be allowed to explore and learn about what interests them and at their own pace.

Parents can and should develop strategies for working with teachers and school administrators. Positive, collaborative teacher-parent relationships have resulted in children advancing to upper grade reading levels, the ability to bring books from home to read while the rest of the class reads the prescribed texts, and permission to visit the school library to choose books beyond their grade level.

The main goal is for gifted readers to experience the joy of reading. Parent should be sensitive to both their child’s academic and social and emotional needs, be strong advocates for them in school, and ensure they are placed in safe, productive, and appropriate learning environments.

Resources

Author’s Note
Dr. Kathy Austin is a seasoned veteran teacher with more than 30 years of experience teaching students from Kindergarten through university graduate students. Her groundbreaking doctoral research revolved around literacy skills acquisition in very young children who grew up to be identified as academically gifted in reading.

As a Reading Specialist, Kathy has worn many hats from being the Chair of a high school reading program to a pre-service teacher education instructor and a field supervisor for students teachers seeking their Reading Endorsement. She is currently a teacher/mentor at Sheridan AllPrep Academy located in rural Oregon.

Endnotes
2 Austin, (2011).
3 Austin, (2011).
7 Austin, (2011).
8 Austin, (2011).
9 Austin, (2011).
10 Austin, (2011).
11 Austin, (2011).
What will you do at Innovation Lab @Ross?

- Pursue your passions and interests through independent investigations.
- Design and create innovative solutions to complex problems.
- Interact with experts and professionals in academics and industry.
- Engage in service learning that addresses local and global needs.
- Harness the power of “crowd-funding” to raise money for entrepreneurial ventures.
- Share your discoveries worldwide using a variety of media.

Innovation Lab @Ross is an academy within Ross School, located in East Hampton, New York, that is designed for students grades 5–12 who are passionate about science, mathematics, engineering, media, technology, and now marine science.

Watch us innovate!
www.ross.org/innovationlab