NORTHWESTERN UNIVERSITY

Talent

The Center for Talent Development

Parenting Young, Gifted Children

An Interview with Nancy Robinson

Nancy Robinson

Dr. Robinson is Professor Emerita of Psychiatry and Behavioral Sciences at the University of Washington. A psychologist, her research interests throughout her career have been in the development of young children — first, those at the lower end of the distribution of intelligence, and then, those at the higher end. She assesses young, gifted children in her clinic and confers with parents.

What are some indicators of giftedness in a very young child? What might parents or teachers observe that might lead them to wonder if a child is exceptional?

Giftedness really refers to *advanced development* in any set of abilities or skills. For intellectually and academically gifted children, the earliest indicators will probably be unexpected glimmers of advanced understanding: a baby sorting plastic blocks alternately by color and shape; a 14-month-old "feeding" her doll from an empty animal cracker box; a 3-year-old, having been scolded, writing: "DEER DAD, I HATE YU, LOVE MARY"; a 4-year old, impatient with his mother's explanations about where he "came from," exclaiming, "I am, so I was. Where was I?" These events have to happen spontaneously. What is unusual about each is not the event but how early it occurred. One event does not prove anything, but early patterns are worth attending to.

We do best at noticing advanced development when we are familiar with typical development and when the skill is just emerging. We have found that parents are quite good at spotting advanced language during toddlerhood. Most people have a pretty good sense of when children learn to read, when they can handle two-digit numbers, and when drawings should look more realistic. However, most parents don't have norms in their heads about, say, puzzles or pretend play. Some parents fail to notice precocity until they see other children at the park, day care, or preschool.

Parents shouldn't conclude that their child is *not* gifted because their advancement isn't even across domains. *Asynchrony* in development is very common among gifted children.

Is early reading an indicator of giftedness? Does mathematical ability show up in young children? How?

Many very bright children read before kindergarten – some as early as two or three. Many don't. Some crack the codes for reading and math with little help, and others need systematic instruction in the basic skills, though they catch on quickly. Some gifted children learn the letter names very early and plateau. Early reading is clearly a sign of being at least "medium bright," though, according to research by Nancy Jackson. Early readers tend to stay ahead, although eventually their advantage will lessen. By the time their classmates are reading well, the early readers' assets will be seen more in comprehension.

Children probably need strength in both

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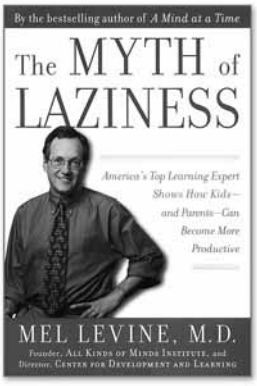
BOOK REVIEW

The Myth of Laziness: America's Top Expert Shows How Kids—and Parents—Can Become More Productive

Mel Levine, M.D. Simon & Schuster: New York. 2003.



"I know you're smart! So why can't you ..." Dr. Mel Levine argues in this book that kids displaying what educators call "underachievement" should never be labeled "lazy." Levine outlines a set of hidden handicaps, involving neurodevelopmental areas such as motor function, memory, language, and organization, that keep children from the productive output they are capable of. Levine is a holistic clinician, collecting evidence from children's social, emotional, school, and family lives as well as from educational and neurological testing. Similarly, his recommendations for remediation run the gamut from school accommodations to suggestions about the type of extracurricular activities the child might experience success in. A particularly interesting section of the book profiles a family in which parents have poised their children for success in school, suggesting ways to structure family life for high academic achievement. Levine also turns his attention to how schools could do a better job of fostering "output" in their students. Both parents and teachers who have wondered why a child shows a gap between ability and productivity will benefit from this accessible, elegantly written book.

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Parenting Young, Gifted Children

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verbal and visual-spatial reasoning to read very early. We followed for five years a group of verbally gifted children identified as unusually advanced talkers by 18 months. By 4, they were not readers, although they did know a lot about books. By first grade, they were reading well and loved to read. Often gifted children have so much to say that they become frustrated with the mechanics of writing and spelling and need help that they sometimes don't get.

No one has identified mathematically gifted children during toddlerhood, but we've found a large number of such children at ages 4 and 5. The parents were good at describing their children's skills and interests, which included not only number knowledge and a desire to play with numbers, but a passion for challenge – thinking of the "biggest number in the world," solving word problems, playing store, cooking, and measuring everything. I often ask parents of young gifted kids what amuses them in the car when there's nothing else to do. Verbally gifted kids like rhyming and playing the alphabet game with signs and license plates they see out the window; mathematically gifted kids like to solve math problems; almost everybody likes singing and playing Twenty Questions!

What behaviors are not really good indicators of giftedness in a young child? What other myths can you dispel?

We can be so impressed by children's early academic skills that we overestimate their talents. I've seen a number of children who in kindergarten and first grade were remarkable readers and calculators, but whose intellectual maturity was not as advanced. In later grades, they were better at the basic skills than at reading comprehension, or inventing ways to solve complex math problems. Academic skills are important assets, but we should not equate skills with general cognitive maturity.

Another myth is that children don't need special guidance until they get to third grade. This is wrong. Bright children can get turned off very early and lose momentum, shut off curiosity, and become depressed. One autistic girl was brought to my clinic because the teachers concluded she had nothing to learn in preschool – or probably ever! Children need appropriate schooling to stay turned on and progressing into *the future* and to enjoy a happy childhood filled with challenge and engagement *now*.

How stable are the abilities of young children?

We're not sure; however, in three studies at the University of Washington, children in groups recognized as precocious by parents stayed well ahead of their peers over a two to five-year period. They were more ahead afterward than they were beforehand.

A few reports, however, found that babies only with high scores on early infant tests did not stay ahead. When children are nominated by parents or teachers, their advancement is confirmed by objective measures, children are likely to continue to show advancement.

Do you recommend testing young children? How old must a child be for reliable test results? What kinds of testing are best?

Children can be tested at infancy, but the scores of individual children (as opposed to groups) are not very reliable in early years when they are still doing pretty much what they want, not what you want. There is no reason to test a child unless it will serve a purpose, and because test patterns can change over time, I strongly advise parents to wait as long as possible. The usual reasons for testing below age 7 are to qualify for a program (if you're lucky to have one available); to investigate why a child is bored in school and how the curriculum might be modified; or to figure out why a child is having trouble with a skill. After children have been in school for a while, their scores become a little more stable. Life experiences make a big difference.

Find a psychologist who is experienced and patient with gifted children. Low expectations can lead to thinking that a child who pauses before answering doesn't know the answer. You may need to seek someone in private practice, since school psychologists spend much more time with less capable chil-

BOOKS FOR PARENTS OF VERY YOUNG GIFTED CHILDREN

Recommended by Nancy Robinson

Klein, P.S., & Tannenbaum, A. (Eds.). (1992). *To be young and gifted*. Norwood, NJ: Ablex. This book is intended for researchers, but is one of very few books focusing on the very young, gifted child.

Robinson, N.M., & Weimer, L.J. (1991). Selection of candidates for early admission to kindergarten and first grade. In W.T. Southern & E.D. Jones (Eds.), *The academic acceleration of gifted children* (pp. 29-50). New York: Teachers College Press. Considers the many issues parents and professionals need to take into account in making this important decision.

Roedell, W.C. (1989). Early development of gifted children. In J.L. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners: The home, the self, and the school* (pp. 13-28). New York: Teachers College Press.

Saunders, J., with P. Espeland (1991). *Bringing out the best* (Rev.) Minneapolis: Free Spirit. Probably the single best resource for parents of young, gifted children, including parenting issues, activities, toys, and other resources. Written engagingly. Beware: The chapter on affecting brain development goes too far.

Smutney, J. F. (Ed.) (1998). *The young gifted child: Potential and promise, an anthology*. Cresskill, NJ: Hampton. A mixed-bag of short articles about young gifted children.

Smutney, J.F., Veenker, K., & Veenker, S. (1989). *Your gifted child: How to recognize and develop the special talents in your child from birth to age seven.* New York: Ballantine. Full of information on how to encourage and identify advanced development.

Some popular books by authors such as Doman, White, Engleman, and Beck assert that following their program of activities will make a child more intelligent. Most have ideas for stimulating activities, but the intensive programs (particularly Doman's) are not in the best interests of children or parents. No scientific evidence exists for IQ-raising in young children already living in supportive families.

dren. They may be unaware of issues gifted children face.

Should gifted children participate in organized programs?

Young gifted children are often tiring for parents. Parents look for interesting out-of-home activities for their own respite and for their children to gain new ideas and improve fine and gross motor skills and social relationships. Parents have choices. If they are working full time, they will look for high quality care in a family or center. At-home care can be combined with day care, preschool, an informal playgroup, and/or introductory skill-based lessons in swimming, music, or interpretive dance. Most young children shouldn't be in full day care *plus* other lessons. Some are very sensitive to too much stimulation and can take one activity a day for a few hours, although others thrive on being on the go.

To aid the transition to school, group experience is important, and most young children enjoy them. A young, gifted child may be happier in dramatic play and circle time with older children than riding tricycles and napping with their age group. A basic need of gifted children is to find friends at their mental level for some activities. By the time they reach the oldest preschool group, a new setting may be needed.

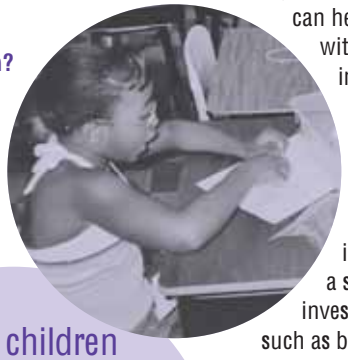
What about early school entry or acceleration for young gifted children?

Good news: if young children are carefully selected – they fall within several months of the school cut-off, are a bit more mature than average for the class they are entering, are doing OK in fine and gross motor skills, and have the emotional maturity to handle it – early entrance works very well. Such early entrants often thrive academically. This step is not right for every child – particularly shy, clingy or easily stressed children. Evidence suggests being more careful with boys than girls, probably a social maturity matter.

Early entrance is the first of many accelerative options that will be open during a child's school career. Choices will include adapted curricula, advancement in one or more subjects, grade-skipping, special advanced programs, summer classes, AP classes, and early entrance to college. This is not an all-or-none affair. When the decision about early entrance is borderline, a conservative stance is best with many options available later on.

What can parents do at home to nurture children's early abilities?

When children are doing well, the parents are already doing a lot of things right! Gifted children really are labor-intensive. They usually want to be read to by the hour. They are eager for projects and home experiments; they are full of questions; they want to learn, learn, learn! Some show early talents in sports or art or music and deserve gentle introductions to those activities (*not* high-powered lessons at this age – those can come later). Children learn a lot from visits not just to formal places like aquariums, zoos, and museums, but also to ethnic groceries, bakeries, bookstores, small airports, repair shops, appliance stores, and farms. Outings are great opportunities for conversations and new vocabulary. Once home, children can draw pictures and report to dad or mom at the dinner table. Cooking, gardening, pet care – anything can be a learning experience. Some young children love workbooks, and there's nothing wrong with these in small doses. Activity books and guides to children's literature, and other resources can help parents with ideas. Don't invest in expensive puzzles or games that will hold children's interests only a short time; invest in materials such as building sets or a puppet stage that can be used in many ways as your child matures.



Gifted children are also enormous fun! They can tell us what they think and feel, they are funny, and they are up to something new every day.

Anything else?

All children need firm rules, routines and expectations, adapted to their maturity levels. It's a big mistake to give in too often to young children's arguments just because they are so articulate!

Gifted children are difficult to parent because they operate at many maturity levels simultaneously. They are often farther ahead in some areas than others, and they may seem grown up one moment and throw a tantrum at another. Parents must accept unpredictability and avoid unrealistic expectations based on their children's highest level of maturity. Some children also show extreme sensitivities, and may be disturbed by world events or injustices that other children don't have a clue about. This is part of giftedness.

Gifted children are also enormous fun! They can tell us what they think and feel, they are funny, and they are up to something new every day. Take time to watch and enjoy them, to play silly games, to be together. Don't let their gifts become stressful burdens. This is a very precious time that won't come around again. ●

RESOURCES

Resources from the National Research Center for the Gifted and Talented

This federally-funded research center publishes numerous helpful materials. Parents are advised to order the full-length papers even though shorter versions are available. (www.ucc.uconn.edu/~wwwgt)

Abelman, R. *Some children under some conditions: TV and the high-potential child.*

Alvino J. *Considerations and strategies for parenting the gifted child.*

Jackson, N. E., & Roller, C. M. *Reading with young children.*

Robinson, N. M. *Parenting the young gifted child.*

Waxman, B., Robinson, N. M., & Mukhopadhyay, S. *Parents nurturing math-talented young children.*

Organization

National Association for Gifted Children, 1155 15th Street NW, Suite 1002, Washington, D.C. 2005 (202-785-4268; www.nagc.org). NAGC's magazine, *Parenting for High Potential*, is available only to members. NAGC also publishes position papers on issues about which parents have questions.

Resources from Nancy Robinson continued on back cover

CIVIC LEADERSHIP INSTITUTE EXPERIENCE

Student Reflects on Service-Learning through Civic Education Projec

by Alex Bartik

Alex Bartik is a rising 12th grader from Kalamazoo, Michigan. He participated in the Summer 2003 CTD Civic Leadership Institute at Northwestern University's Lake Shore Campus in Chicago, IL.

21 days. Never have 3 weeks felt so short, or so long. I can't believe it's over, but I also feel like I've lived at 840 N. Lakeshore Drive forever. I have grown more these last 21 days than during any other 3-week period in my life. I've made great friendships, learned incredible things, lost and found my keys 3 times, and had wonderful new experiences.

However, I would do a disservice if I just talked about my great experience, great new friends, or fantastic growth. This program is not about me. It is about seeing the world for what it truly is — a flawed but beautiful place — and finding ways to fix the flaws, without ignoring its incredible strengths. Most people will never see the most beautiful parts of this world, or meet incredible people who do not all live on Madison Avenue, in the Hamptons, or even on Lakeshore Drive. Incredible people are everywhere, especially in low-income, "ghetto" neighborhoods in the United States.

There is Ernie, the director of food services at the Living Room Café, a restaurant style soup kitchen on the south side. Ernie is a former homeless man who graduated from the Living Room Café program. When we arrived late our first day volunteering, Ernie shouted, "I started the cooking without you. You're a half hour late. I didn't think you were going to come." Then his stern face broke into one of the most beautiful laughs. Ernie knows the story behind everyone who comes into the Living Room Café and loves them all. No one leaves without a slap on the back, one of Ernie's jokes, and a big heartfelt laugh.

There is Frankie, the youngest boy in the Head Start class at Christopher House in Lincoln Park. He had just turned 4 and is one of the most adorable little boys I have ever met. Frankie only left my side once when I was there, and that was my fault: we were playing horsie, and I accidentally gave him a head butt.

I visited Pilsen, one of the poorest, most gang-troubled neighborhoods in Chicago — a neighborhood suburban parents tell their kids to never stop at under any circumstances. I never saw that Pilsen. The Pilsen that I saw was vibrant and

> There are enormous problems in the world, but when we look at them we often fail to see the incredible people, doing incredible things

Leapfrog for PreK-3rd Grade Program Highlights

by Natalie Jackson, M.Ed, NCC

On a sunny morning in late June, 200 children and parents arrived at St. Athanasius Elementary School poised for an academic adventure: The Leapfrog Summer Program. Designed to provide hands-on academic enrichment to gifted PreK-Third graders, Leapfrog experienced tremendous growth and success in 2003, serving over 600 children.

In its fourth summer, Leapfrog had a dedicated staff and a phenomenally talented faculty. Academic Coordinator Mara Holland and her tireless team of runners created a welcoming environment and ensured that the day-to-day aspects of the program ran smoothly. Outside CTD, Mara teaches first grade, so Leapfrog benefited from her expertise in early-childhood learning as well as from her organizational skills and enthusiasm.

The 2003 faculty were master teachers from both public and independent schools across Chicagoland. With ample expertise in gifted and early childhood education, each teacher created a dynamic learning environment suited for the stimulation of curious young minds. Many took advantage of educational resources from local institutions such as the Field Museum, the Shedd Aquarium, and the Chicago Architecture Foundation to further enhance classroom study. Teachers made good use of the newly available computer lab access and incorporated technology into the classroom.

The three, week-long sessions offered enrichment courses designed to combine different topics with students' area of academic strength. Young scholars had the opportunity to explore new lands in Ancient Africa, delve into oceanography and marine biology in Underwater Adventures, learn basic anatomy and physiology in Human Body, and gain new knowledge of measurement and weather patterns in Meteorology. The curriculum for each course was interactive and engaging.

PreK Building and Architecture students constructed a model of the St. A's playground, and third-grade Detective Stories students wrote mysteries, analyzed clues from a crime scene, and solved a case.

Teachers had teaching assistants who were either experienced teachers or students pursuing a teaching career. TAs facilitated the learning process by assisting students with various tasks and projects and lent their creativity and careful supervision to the extended day lunch and play program. They engaged children in a variety of activities including arts and crafts projects, chess matches, and outdoor games like kickball and hop-scotch during the afternoon.

Learning and laughter were the hallmarks of the 2003 Leapfrog Program. Young minds were nurtured and challenged, new friendships formed, and parents connected with others interested in gifted education. As one parent stated, "[My son] came alive this past week, happy for the first time with learning, writing, creating, and, even more of a bonus, making friends." ●

colorful; every possible surface was painted or covered with artwork. The elementary school had a mosaic across its entire front depicting scenes from neighborhood life, and there were murals on buildings throughout the neighborhood. Even the steps leading up to people's houses were painted pink and baby blue.

My only encounter with Pilsen's "ugly" side also highlighted its beauty. We met Victor, who led us to a cardboard box in front of a set of stairs. The box contained six candles and a picture of the Virgin Mary. Victor told us how a 16 year-old boy had been killed on those steps during a gang fight a year ago. As Victor talked, a candle went out. Not even two minutes later, someone came out and relit it. The memory of that boy was so important that the community would not let one of the candles go out for even five minutes. Victor explained Pilsen's sense of community the best when he said, "I didn't know him then, but I do now. I feel like I know all these kids."

There are enormous problems in the world, but when we look at them we often fail to see the incredible people, doing incredible things, in incredible places despite them. There are beautiful people everywhere. During these 3 weeks we've found some of those people. They are what made this program so incredible; they are what this program is ultimately about. ●

TEN YEARS AFTER ACCREDITATION

High School Credit and Placement for Summer Coursework Taken Outside of Local Schools

by Paula Olszewski-Kubilius, Ph.D & Seon-Young Lee, Ph.D.

Accredited by the North Central Association of Colleges and Schools (NCA) in 1994, the Center for Talent Development grants 1 or 2 semesters of credit (depending on the course) upon completion of high school-level courses. CTD surveyed 262 school administrators (180 high school, 82 middle school) of students who attended CTD's accelerated Summer Program to determine if students were awarded course credit and/or appropriate placement as a result of CTD coursework.

The following summary highlights important findings from this survey, and presents them in the context of previous research data (from surveys conducted in 1992 and 1994).

Findings

• Students increasingly receive credit for CTD summer courses: 28.0% in 1992, 36.0% in 1994, 64.1% in 2002. (Olszewski-Kubilius, Laubscher, Wohl, & Grant, 1996)

• 60% of schools awarded high school credit or appropriate placement in honors-level or AP courses in similar subjects.

• Despite CTD's designation of most summer courses as two-semester courses, schools increasingly award only one semester credit. One awarded: 34.2% in 1992, 30.0% in 1994, 52.4% in 2002; two awarded: 6.1% in 1992, 50.0% in 1994, 29.5% in 2002.

• The school's policy on credit and placement, the school's evaluation of students' mastery level, and summer instructors' comments about student performance all critically affected whether credit or appropriate placement was awarded.

• Both CTD's accreditation by NCA and the school's policy regarding credit or placement profoundly impacted schools' actions.

• Prior notice of students' planned participation and previewing summer course syllabi increasingly factored into high schools' decisions about credit: 24.8% in 1992, 35.8% in 1994, and 61.2% in 2002.

• High schools in states with dual enrollment programs were more likely to grant credit and factor CTD grades into the overall GPA since they already accepted credits earned "outside" their schools.

• The type of course (i.e. whether it was the same as the school's course or different) was increasingly an important consideration for credit decisions (48.2% from 1994 to 74.0% from 2002).

• Middle schools used the level of students' mastery or achievement, based on the school's own criteria or the summer program's standardized tests or measures, to decide whether to adjust students' placement.

• Less than half of students had CTD course grades factored into their GPA. Families may have been concerned how CTD course performance would affect GPA.

• Advocacy for outside-of-school coursework credit is imperative to receiving it (Olszewski-Kubilius, Laubscher, Wohl, & Grant, 1996). ●

References are available at www.ctd.northwestern.edu.

Putting the Research to Use:

Students considering taking a credit-bearing CTD summer course should:

• Consider requesting credit from their home schools, particularly if the school is also accredited by NCA, CTD's accrediting agency

• Familiarize themselves with the school's stated policy on credit and placement

• Contact the school prior to the summer program, providing school personnel with the opportunity to preview the summer course syllabus.

(Re)Discovering Excitement in Learning: An Interview with Leapfrog Educators

To find out more about how Leapfrog educators create dynamic, challenging learning environments for our youngest Summer Program students (PreK-3rd graders), we recently interviewed four master teachers from the 2003 Leapfrog program. Emily Hayden*, currently on leave from Joseph Sears School in Kenilworth, has taught at CTD since 1992.* Selene Stewart *teaches in Oak Park and loops from first- through third-grade with the same students.* Andrea Cocke *has taught children from preschool through second grade in both public and private settings for 10 years.* Michelle Brashears *taught fifth and third grades in Illinois before her current position teaching sixth grade in California.*

What distinguishes a young gifted child from one who is not gifted? How do you handle giftedness in your classroom?

Hayden: Gifted children wonder and ask difficult questions. They love projects and solving mysteries. They express themselves in sophisticated language and love to trade ideas with peers and teachers. They are undaunted by open-ended assignments and call upon vast knowledge reserves to solve problems. Often, gifted children become experts in esoteric fields, such as archaeology, zoology, or astronomy. Gifted children can direct their energy in original ways. Working with gifted children can be confounding, exhausting, inspiring, exciting, and always rewarding.

Stewart: Gifted children show advancement in cognitive development. They already grasp "grade-level" material, learn new material in a shorter time, or think more abstractly than kids their age. I combine acceleration, compacting, and enrichment to meet their needs. Acceleration exposes students to content designed for older students. Compacting increases the pace of grade-level material. Enrichment expands the breadth of what is covered and permits more integrative projects involving higher-order thinking.

Cocke: Gifted children are blessed with attention, rich literature, conversation and experiences. Dealing with these characteristics in the classroom is a gift!

Brashears: Gifted children are eager to learn and learn quickly. They think creatively and enjoy challenging, critical thinking activities. Gifted children also love problem-solving and find unconventional solutions. In my regular classroom, I put gifted students together and provide more challenging projects. I select harder novels and assign more involved writing assignments.

How do Leapfrog students compare to your school-year students?

Hayden: Leapfrog students are inquisitive, eager to learn, undaunted by new approaches to subjects, and effective at communicating. Leapfrog students love projects and can initiate and complete them with a minimum of teacher guidance. Leapfroggers also love playing games with their newfound knowledge and often form strong bonds with classmates.

Stewart: Actually, some of my school-year students attend CTD programs. Leapfrog students are motivated to learn and enjoy trying things that older students and adults do. They like to know how skills and concepts apply to the real world. They are better at integrating many skills into a single project than other students their age.

Cocke: Leapfrog students are very similar to my other students. Leapfrog students are incredibly motivated and inquisitive. Every day the children came in full of questions and ideas about the world around them — a teacher's dream!

Brashears: Leapfrog students are more motivated and curious about the world. They have extensive backgrounds in many areas, and they come to school excited to learn. They ask great questions and enjoy challenge.

What distinguishes an effective Leapfrog teacher?

Hayden: Successful teachers create a variety of experiences to challenge different kinds of learners, aim to bring out the best in every child, and shouldn't fear lots of classroom activity. Students should feel comfortable making mistakes and encouraged to participate in activities to stimulate them in different ways. Teachers should stress process — how to think and analyze — as well as product — what they have learned. Successful teachers are organized but flexible; have consistent rules yet allow for different needs; and have a sense of humor. Teaching and learning should be fun!

Stewart: Leapfroggers want to connect what they learn to the real world. They may respond negatively to tasks that aren't justified. Conversely, when the importance of a skill is explained, gifted children are eager to take on the responsibility of acquiring that skill. Young gifted children are more unevenly capable than older gifted kids. They develop their gifts in areas that interest them intensely. They may be able to tell you everything about twelve different types of clouds but not be reading yet. An effective teacher builds a program that can take gifted kids farther — both in areas of strength and weakness.

Cocke: Successful teaching requires an open and fresh mind, a willingness to think outside of the box, and a great deal of patience.

Brashears: Gifted children need to be involved directly in learning. Hands-on activities keep students engaged. A successful teacher needs to plan extra activities for students who move through the material quickly. A fast-paced learning environment is key. Gifted children need challenge; assigning more of the same work is not as meaningful to them as additional work that involves critical thinking.

Successful teachers create a variety of experiences to challenge different kinds of learners, aim to bring out the best in every child.

Describe an activity that characterizes the learning environment Leapfrog students need.

Hayden: As an opening activity in my architecture class, I read *The Big Orange Splot*, by Daniel Pinkwater, a story about a man who convinces his neighbors to accept his unique home and motivates them to express their own individuality through their homes. After reading the story, students use their creativity and information from class to

make their own homes. The book provides an exciting springboard to get students to express themselves in an architectural manner and make use of what they have learned.

Stewart: In Kindergarten Meteorology, I combine discussion and hands-on work to enforce their understanding of what meteorologists do. Students brainstorm the elements of weather that meteorologists might measure. When they arrive at "wind," I ask them what could be measured about the wind. They arrive at "direction" and "strength." Then, I ask them for ways to measure wind strength and ideas for an instrument that might do this. I show them a cup anemometer and ask students to describe how to use it to measure wind speed. The lesson culminates with the students building cup anemometers and using them to measure and compare daily wind speeds.

Brashears: A highlight for students in my three-dimensional math class is constructing a geodesic dome out of newspaper and masking tape to show what they know about how domes are used in architecture. The students work in groups to roll newspapers into tubes and measure and cut them into pieces of different lengths. Finally, they form hexagons with the tubes to create the foundation for the dome. Students communicate and cooperate extensively in order to complete the project: a solid, five-foot tall geodome. The students crawl inside for a group photo.

How do you accommodate differing levels of ability in your Leapfrog classroom?

Hayden: I plan many varied activities emphasizing different learning styles: visual, tactile, kinesthetic, etc. The idea is for students to have immediate success with some activities and challenge with others. I mix whole class discussions, small group work, and one-on-one activities to provide different environments and regularly check in with students to mold lessons to their individual abilities.

Stewart: I try to present two levels of activities: activities 1-2 years above grade-level, and activities 3-4 years above grade-level. Leapfrog kids enjoy and grasp parts of advanced subject material. With a wide range of difficulties presented, everyone receives some "just right" activities as well as some that stretch them.

Cocke: I use hands-on experiments, constructive-open ended activities, and lots of literature. I often set up "centers," where I use a range of learning materials, literature and lessons spread throughout the classroom. At one center students might build with blocks, while they construct the Sears Tower with poster board, learn about the people involved in the architecture process, and examine books about Frank Lloyd Wright at others. This format lends itself well to differentiating instruction.

Brashears: A few students always finish quickly. I use extra activities and learning games for those students, or I have them work on an ongoing project or some type of manipulative activity that correlates with the topic of study. I pick projects that can be adjusted for additional difficulty.

How has the Leapfrog program impacted children in your classes?

Hayden: Leapfrog provides students with content not typically covered in school — content beyond the basics of reading, math, social studies, and science. In addition, Leapfrog students learn how to approach new material and analyze and synthesize information in unique ways.

Stewart: Leapfrog impacts every child differently. Some enjoy further developing their ideas; some discover that there are other kids who love a subject as they do; some encounter challenge for the first time, and learn to handle frustration; some learn to use their stronger abilities to improve weaker ones.

Cocke: One of the most important effects is that they realize there are other children who have the same interests and ideas about the world.

Brashears: Being with students like themselves helps students build confidence socially. Many create lasting friendships with students from other schools. The Leapfrog curriculum centers on unique topics, so students experience fresh, interesting material. Some kids develop new interests to explore independently.

Finally, can you describe a memorable incident from your Leapfrog teaching experience?

Hayden: I need to show many gifted children how to complete challenging projects to make full use of their "gifts." One child was convinced he could not create his own pyramid. I stressed that building a pyramid was important to understanding one. This child ultimately designed and wrote about a pyramid with a rock band motif!

Stewart: Continuing a discussion on water and wind in Kindergarten Meteorology, we discussed the water cycle. The next day we talked about how the constant exchange of warm and cold air in the atmosphere creates wind. One child exclaimed, "They should call it the wind cycle!" Leapfrog kids are abstract thinkers who make connections between the things they are learning.

Cocke: After learning about Chicago's most famous buildings along Lake Shore Drive in architecture class, my students proceeded to construct a model of LSD down the hallway out of blocks. It was amazing.

Brashears: One student took all three classes I taught last summer. At the tail end, the boy's father thanked me. He told me his son had really struggled with boredom and poor performance over the past school year, and that he had rediscovered his excitement for learning in Leapfrog. The father said that every day his son came home bursting with stories about class activities, sharing everything he learned. I was touched to have made a difference. ●

Summer Program 2004

Leapfrog: July 5-July 9; July 12- July 16; and July 19- July 23
Session 1: June 27-July 17
Session 2: July 25-August 15
Equinox at Case Western Reserve: July 11-July 31 at CWRU campus in Cleveland, Ohio
We are currently hiring teachers and staff!

Civic Education Project

Week-long Spring Break Trips leave March 21, March 28 & April 12.
Civic Leadership Institutes:
At CTY, Washington, DC, June 27-July 16
At CTD, Chicago, IL, July 25-August 14

Saturday Enrichment Program

Spring courses begin April 17, 2004

LearningLinks Distance Learning & LearningLinks for Young Students

Summer session starts June 1, 2004

"Opportunities for the Future" Conference

Sat., June 26, 2004, 1-5 pm at Northwestern

Midwest Talent Search

SAT testing: January 24
ACT testing: February 7

Midwest Talent Search for Young Students

EXPLORE testing—January 31 & February 28

On-line registration for both MTS and MTSY continues through June test dates.

Jack Kent Cooke Young Scholarship Program

Applications deadline: May 2004

Visit www.ctd.northwestern.edu for more information. ●

RESOURCES FOR GIFTED EDUCATION

Dr. Robinson's recommendations continued from page 3

Book Guides

Guidance can be useful when going to the library or bookstore with so many choices, however, there is no substitute for your own "aha" when you see a book that fits your needs.

Chinaberry Book Service, 2780 Via Orange Way, Suite B, Spring Valley, CA 98978 (I-800-776-2242). This commercial catalogue of books, sensitively chosen and reviewed, provides a wide spectrum of trustworthy materials for children and adults.

Halstead, J. W. (2002). *Some of my best friends are books, 2nd editions: Guiding gifted readers from pre-school to high school.* Scottsdale, AZ: Great Potential Press. Valuable tips about using books for emotional and intellectual development. Contains annotated bibliography of books with gifted-child characters.

Trelease, J. (2001). *The new read-aloud handbook,5th ed.* New York: Viking Penguin Books.

Helpful Web sites

www.ditd.org
(Davidson Institute on Talent Development). Offers considerable help for families of profoundly gifted children and provides many complete articles and links for families of gifted.

www.hoagiesgifted.org
(well-reviewed resources)

www.gifted-children.com
(supported by *Gifted Child Monthly*) ●

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The Center for Talent Development at Northwestern University is an accredited learning center and research facility serving the gifted community of the Midwest. Through the Midwest Talent Searches and other programs, CTD has assisted more than 350,000 families. Offering a variety of learning alternatives for the gifted student, CTD provides school-year programs such as Saturday Enrichment Program, LearningLinks distance learning, Civic Education Project, and Project EXCITE, as well as summer academic programs (Leapfrog, Apogee, Spectrum, and Equinox), informational conferences for families and educators, scholarships, and graduate courses on gifted education. Led by nationally recognized scholar Paula Olszewski-Kubilius, Ph.D, the center also conducts and publishes academic research on gifted students, particularly in the areas of accelerated learning and special populations of gifted learners. CTD is accredited as a special function school for the gifted by North Central Association of Colleges and Schools.

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