What is the Meaning of an IQ Test Score?

The following is an excerpt from an article by Carol Bainbridge. For the full text, visit http://giftedkids.about.com/od/gifted101/qt/IQ_scores.htm

Your child takes an IQ test. You get the score back. You learn that your child, with an IQ score of 150, falls into the highly gifted range. What does that mean?

Before you can understand what it means for a child to be highly gifted (or moderately gifted or profoundly gifted), you need to understand what IQ scores represent. An IQ score is an Intelligence Quotient, which is a measure of intelligence, primarily reasoning ability. The higher the score, the greater the reasoning ability.

If we took everyone's IQ scores and plotted them, we would see they would be distributed in a normal bell curve. That means that most scores would fall somewhere in the center of that bell curve. Continued on page 4

Students Advance to State Science Fair

Three District 58 middle school students have advanced to the State Science Fair, which will be held May 5-6, at the University of Illinois in Champaign.

Monica Resh, an eighth grade student at O'Neill Middle School, won for her project, "How effective are stain guards?" Michelle Hsu and Carrie Smith, both eighth grade students at Herrick Middle School, won for their project, "What type of material is most affected by acid?"

Both projects move to the state competition as a result of the 25th annual District 58 Science Fair. At the event, three students from O'Neill and four students from Herrick advanced to the Regional Science Fair on March 18 at the Illinois Institute of Technology. Representing District 58 were O'Neill students Julianna Estall, Marc Vanderjack and Cassidy Williams. Also attending the regional competition were Herrick Middle School students Kendal Hellman, Jennifer Brinkman, Jehona Osmani, and Lisa Lutz and Meghan Schmitt.

Herrick students Cee Cee Chang and Vlora Osmani also qualified for the regional science fair, but were unable to attend the competition. For further information on the annual Science Fair, call the District 58 Office of Curriculum and Instruction at 630-719-5809.

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Summer Family Activities Abound

Try a Walk on the Wild Side

As the school year comes to an end and the blighted landscape turns lush and green, it’s a great time to take a family nature walk.

For the seventh summer season, Lance Herning, a Downers Grove resident with a Naturalists Certificate from the Morton Arboretum, will be offering free guided walks through Belmont Prairie and Waterfall Glen in Downers Grove.

Lance has offered naturalist courses with the Downers Grove Park District since 1999. He is also the Lacey Creek prairie restoration monitor for the Lacey Creek project running from Highland Ave. to I-88. In addition, he has worked with Morton Arboretum staff to put together an update to the flora species list for Belmont Prairie in 2002.

Register for one of the walks, below, by emailing membership@dgfrog.org and put "Nature Walks" in the subject line. A list of other summer activities is found on Page 7.

June 21, 9-10 am: Belmont Prairie (parking lot on Cross St. just west of the Downers Grove Golf Course and just north of the intersection of Haddow and Cross). This time of year is best for seeing white, purple, and orange flowering plants (among other colors) in a virgin prairie that contains over 300 species of flora in only 10 acres including 2 species on the endangered list. In a year with adequate moisture as 2008 is shaping up to be, the potential for a dazzling floral display is highly likely.

July 26, 9-11:30 am: Waterfall Glen. Parking lot on Bluff Rd. just east of the end of Cass Ave. and in the drive leading in past the ranger’s residence. Waterfall Glen has a wonderfully diverse habitat and a loop walk of about 2 miles takes one along and down the bluffs overlooking the Des Plaines river valley where a massive woodland restoration project is taking place and along dry gravel prairies and rock outcroppings of Sawmill Creek. An oak savanna restoration project is restoring the woodlands to the beautifully open woodlands that existed in the area prior to habitation by the settlers. This is a great walk for those interested in seeing an ongoing restoration projects at its best.

Aug. 23, 9-10 am: Belmont Prairie. The sunflower family is potentially at its peak at this time of year with a great display of yellow from many different species of sunflower mixed in with purple and blue asters and blue and white gentians. It takes a moist year to bring out the best in floral display, and 2008 looks like it has that potential.
Support Gifted Education Statewide and Locally

The Illinois Association for Gifted Children sponsored the second annual Springfield Day on April 17 where families from all regions of the state converged on Springfield to give state legislators the message “Don’t Leave Our Children Behind.” Many thanks to Jill Ko of the Oswego parent group who organized the event. There were an estimated 1,000 people who traveled to Springfield to advocate for more state funding for gifted education. It was thought that this was one of the largest parent groups ever to visit the Springfield legislature. Six families from Downers Grove participated in Springfield Day. Many thanks to those families for representing our town in Springfield. A special thanks goes to Yen Albert for organizing these families. Next year’s Springfield Day is already being planned with hopes that it will be even bigger and better than this year.

Besides supporting gifted education at the state level, FROG is trying to make its own impact locally. We are trying to bring families together who are interested in networking with one another and in supporting gifted education. We are planning a few social events, such as our 3rd annual picnic and our 2nd annual “wine and cheese” parent get-together. The information is found on page 4.

Besides social gatherings, FROG is also trying to support local gifted education. The Illinois Association for Gifted Children (IAGC) is offering several summer Professional Development courses on gifted education. FROG is offering tuition scholarships to two District 58 teachers to attend one of these courses. Application information can be found on page 4 of this newsletter.

It’s hard to believe that it is the end of another school year; I am finishing my one-year stint as acting president of FROG. I am very glad to report that there is new leadership for the organization that will carry the organization forward. We are always looking for volunteers to help with the Chess Tournament, be a Super Saturday class hall monitor, or just to help organize one social event like the picnic or our fall bowling activity.

Volunteering is a great way to meet other families in our organization. Keep us in mind as you look forward to the next school year!!!

Sincerely,

Vida Winans
President
FROG
The score in the absolute center of the bell curve is 100 and that is where we would expect most scores to fall, or where we expect them to cluster.

As the scores move away from the norm (100), we will find fewer and fewer scores. However, to make the numbers meaningful, we need to be able to measure the variability of the scores. That is the purpose of standard deviations, which is, quite simply, the average distance scores are from the norm. Statisticians determine the Standard deviation of data through a specific formula.

**Categories of Giftedness**

Once you understand these scores and how they fit in a bell curve, you can better understand the different categories of giftedness. Why is a score between 115 and 130 considered mildly gifted? Why is a score of 131 and 145 highly gifted? The answer lies in the standard deviation of the scatter of IQ scores on the bell curve. The standard deviation used in many tests, including the Weschsler IQ test, is 15. The majority of test scores (about 70%) fall somewhere between one standard deviation below and one standard deviation above 100. That means most scores are somewhere between 85 and 115. Those scores are considered the "average" or normal intelligence range.

The farther the score is from 100, the fewer people we will find with that score. If we move one standard deviation below and one standard deviation above 100, we will find about 25% of the scores falling in those ranges. In other words, people with IQs between 70 and 85 and between 115 and 130 make up about 25% of the population. That leaves only about 5% of the population who will have scores somewhere beyond those first two standard deviations away from the norm.

**What does this score variance mean for the gifted child?**

People often want to lump all gifted children into one group, assuming that all gifted children have the same needs. Nothing could be farther from the truth. A good way to understand the difference in the needs of these different groups of gifted children is to consider how far they are from the norm of 100:

- **Mildly Gifted** -- 115 to 129
- **Moderately Gifted** -- 130 to 144
- **Highly Gifted** -- 145 to 159
- **Exceptionally Gifted** - 160 to 179
- **Profoundly Gifted** -- 180

If you look at the scores for each group, you will notice that each category represents one standard deviation from the norm. To understand the difference one standard deviation can make, consider the scores below 100. One standard deviation on either side of 100 is within the normal, or average range. Move down one more standard deviation and you move into the range of moderate intellectual functioning (70-84). Children with scores in this range qualify for special academic services. Moving down another standard deviation takes us into the range of moderately retarded (55-70). The farther a child's score is from the norm, the more he or she needs special academic services.

Now move in the opposite direction from 100. An IQ score up to one standard deviation above 100 is considered normal, or average. Move up one standard deviation is mildly gifted. That means that a child with a score of 130 is as different from a child with an IQ of 100 as is the child with an IQ of 70, a score which definitely qualifies a child for special services.

*Continued on page 8*
The following is an excerpt from an article by Carol Bainbridge. For the full text, visit http://giftedkids.about.com/od/schoolissues/i/even_out_2.htm

One of the obstacles parents of gifted children encounter when trying to get more appropriate learning materials and instruction for their children in school is the argument that “everything evens out by third grade.” They are told that although their children are advanced in kindergarten or first grade, by third grade the other children will have caught up, but is that true?

**What's all the Fuss About?**
The answer to the question is important because it can determine the way parents raise their children. Perhaps more importantly, it can determine whether a gifted child receives an appropriate education. So what is the answer? Do abilities even out in third grade?

**YES**
There are two reasons that the answer to the question is “yes.”

1.- **Ability is equated with knowledge and achievement**
Many parents today have gotten caught up in the “superbaby” syndrome and believe the earlier their child learns to read, play the violin, etc., the more advantages the child will have in school and in life. Lessons begin early for these children, with parents often using flashcards with their infants. Some parents don’t even wait until their child is born to start the teaching process; they begin by talking to the fetus through a “pregaphone.”

Even parents who aren’t trying to create a superbaby, but are simply trying to give their children a “leg up” when they start school, may look for preschools to teach their children material and skills that will be taught in kindergarten or even first grade, such as reading. Or they may teach their preschooler themselves at home.

Children who are “hothouse” this way often lose any advantages their early instruction may have given them. In fact, there is no evidence to suggest that such early learning has any long-lasting educational advantage. In other words, the other children catch up and “everything evens out.”

2.- The children involved are average, or non-gifted, children
Average children who are formally taught skills and information before they begin school may have an initial advantage over average children who have not received such instruction, but a child with average abilities is not going to become gifted as a result of formal early instruction, and unless that child continues to receive advanced instruction, early advantages will be lost.

The obvious solution is to continue providing advanced instruction, but that won’t work for most average children. A child’s brain is either developed sufficiently to allow the child to grasp some concepts or it’s not. A child can learn to memorize math facts in preschool, but that doesn’t mean that he or she will be able to understand algebra in third grade.

**NO**
There are two reasons that the answer to the question is “no.”

1.- **Ability is not the same as knowledge and achievement**
Parents of gifted children can get just as caught up in the “superbaby” syndrome as parents of non-gifted children can. However, in most cases, gifted children practically teach themselves or beg their parents for information and instruction. Gifted children may come to school knowing more than their age mates or they may not. It depends in part on their home environment, on whether or not they have opportunities that allow them to learn and nurture their abilities. Some gifted children come to school already knowing how to read; others learn to read when their age mates learn. Once they learn, however, they learn quickly, as they do with most things they are taught.

The ability gifted children have to learn and understand more advanced concepts than their age mates is a characteristic of their giftedness. They do not lose that ability to learn more advanced material or to learn it more quickly than other children. A gifted child who at age four knows how to add and subtract will have little trouble learning how to multiply long before third grade, when it is usually taught.

2.- **Gifted children are cognitively advanced**
The advanced cognitive development of gifted children enables them to learn and understand more advanced and complex material than their non-gifted age mates.

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Continued – Do Abilities “Even Out” in the Third Grade?

The advantages come from the advanced ability, not the instruction. As long as they continue to receive material and instruction that is appropriate for their intellectual level, they will retain any academic advantages they have over their non-gifted age mates. Even if they don't get appropriate instruction, they will not suddenly become children with only average abilities.

Where it Stands

Although it seems clear that gifted children should continue to have advantages over non-gifted children, in terms of academics that is not always true. Gifted children who are not challenged appropriately in their first years of school may “turn off” and “tune out.” That is, they lose interest in learning and can become underachievers. This loss of interest in school tends to happen at around third grade, the same time that “hothouse children” start to lose their advantages over other children, when other children start to catch up.

Bored and disinterested gifted children are then lumped together with those hothoused children who have lost their academic advantage and educators then believe that “everything has evened out.” This is one of the reasons many gifted programs in schools do not begin until third or fourth grade. The students who continue to achieve are seen to be the truly gifted children, those needing supplemental or special instruction.

Schools often shy away from identifying children as gifted for fear that they will later have to tell the child he or she isn't really gifted after all. They want to wait until “everything even out” and they can see who is left at the top of the academic achieving ladder.

The problem with this approach is that for many gifted children the first years in school can be critical to their later success. This is especially true for intrinsically motivated children, those who are motivated to learn for the love of learning, not for the reward of good grades.

Scholarship Opportunity!

The Friends of the Gifted and Talented, (FROG) is offering two tuition-only scholarships for a Professional Development summer course offered by the Illinois Association of Gifted Children (IAGC). The scholarship recipients may choose from six professional development courses this summer. Descriptions of these courses can be found at this web page: http://www.iagcgifted.org/professionaldevelopment/graduatecourses.shtml.

Online applications can be found at: www.dgfrog.org and are due by May 16, 2008. Recipients will be notified by May 30. Preference will be given to District 58 teachers.

Upcoming FROG Events

FROG Family Picnic
Saturday, May 10
4-7pm
Gilbert Park
Downers Grove

Parents’ Wine & Cheese Social
Friday, June 6
7-9pm
at The President’s Home
1636 61st St. (at Springside)
Downers Grove
RSVP by June 3 to membership@dgfrog.org
Summer Camps & Programs for Curious Kids

This is a sampling of local camps and programs for curious kids. For a complete list of summer camps, workshops and classes, visit: http://stage203.homestead.com/K5Enrichment.html

Adler Planetarium & Astronomy Museum
1300 Lake Shore Drive, Chicago
312-922-STAR
www.adlerplanetarium.org
Adler offers summer mini-camps, astrology camps and girls’ technology camps for ages 5-14.

The Art Institute of Chicago
111 S. Michigan Ave., Chicago
312-857-7161
www.artic.edu
The Art Institute’s Kraft Education Center offers family programs throughout the spring and summer.

Avery Coonley School
1400 Maple St.
Downers Grove, IL
630-969-0800 x200
www.Averycoonley.org
Avery Coonley offers a variety of two-week day camps featuring enrichment and recreational activities for ages 4-14. Contact

DuPage Forest Preserve
3 S. 580 Naperville Road
Wheaton, IL
630-933-7200
www.dupageforest.com/education
The Forest Preserve’s Summer Kids Camp includes Horse Sense Camp, Roger Raccoon Club, Hodgepodge Lodge and Kline Creek Farmhands camps for ages 6-14. Other free activities are available.

FasTrack Kids
24117 103rd Street
Naperville , IL 60564
630-355-8555
www.fastrackkids.com
FasTracKids camps offer enrichment education for ages 3-7. Engaging topics include dinosaurs, Biology, Astronomy, different countries/cultures, and Speech, Drama, and Art in a fun, creative learning environment.

Fermilab
Kirk & Pine St.
Batavia, IL
(630) 840-8258
http://ed.fnal.gov/
The Lederman Science at Fermilab offers tours, as well as science, physics and prairie adventures for kids of all ages. The Center is open to the public Monday - Friday 8:30 am - 4:30 pm; and on Saturdays from 9:00 am to 3:00 pm.

The Peggy Notebaert Nature Museum
2430 N. Cannon Drive.
Chicago, IL
http://www.naturemuseum.org/index.php?id=37
One thousand butterflies of every color are here to greet you, as are informative exhibits, programs, discussions, and field trips that let you experience (rather than just read about) our connections to nature.

Naper Settlement
523 S. Webster
Naperville, IL
630-420-6010
www.napersettlement.org/programs/summer_camp.htm
Kids in grades 1-6 can spend an exciting week in “Treasure Hunters (Day) Camp” using maps, compasses, puzzles, secret codes and high-tech GPS devices to seek out adventures. Also new -- “Adventures in Time Camp,” where every day is a journey through time.

North Central College
30 North Brainard St.
Naperville, IL
630-637-5560
www.northcentralcollege.edu/x4459.xml
North Central College offers a wide variety of workshops and camps including vocal jazz, musical productions, academics and athletics. Open to ages 5-18.

SciTech Hands On Museum
18 W. Benton St.
Aurora, IL
630-859-3434
http://scitech.mus.il.us/
SciTech offers daily hands-on fun, as well as Dr. Shaw’s Science Adventure Camp for ages 6-14. Contact camp coordinator Esther Allen for more information. 630-859-3434 x228.

The Morton Arboretum
400 IL Route 53
Lisle, IL
630-719-2468
www.mortonarb.org
The Morton Arboretum’s Science Camps are outdoor experiences filled with engaging observations, hands-on activities, and fun-filled explorations that awaken and support kids’ curiosity about the natural world. Kids meet new friends, develop science skills, experience nature, and have fun. Age 4 through grade 8.

Waubonsie Valley High School Planetarium
2590 Ogden Ave.
Aurora, IL
(630) 375-3247
http://planetarium.ipsd.org/
The planetarium hosts monthly Friday night Family Nights were groups of all ages, including young children, can explore a variety of astrology topics.
Continued – What is the Meaning of IQ Test Scores?

Cautions about IQ Scores
IQ testing is not a science. It may seem that way at times, but it’s not. Scores from tests are really estimates based on test performance on a particular day. There is always a margin of error. The "actual" score could be higher or it could be a little lower (within the margin of error). However, it is also important to note that the score won't change substantially. The highest score a child gets will be the best reflection of the child’s IQ.

FROG Membership

If you would like to become a FROG member, please email membership@dgfrog.org