

Newsletter

Preparing the Next Generation of STEM Innovators: Identifying and Developing Our Nation's Human Capital

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On November 17, 1944, in the midst of World War II, President Franklin Delano Roosevelt wrote a letter to Vannevar Bush, head of the U.S. Office for Scientific Research and Development. In that letter, President Roosevelt posed the question:

Can an effective program be proposed for discovering and developing scientific talent in American youth so that the continuing future of scientific research in this country may be assured on a level comparable to what has been done during the war?¹

In *Science—The Endless Frontier*, Vannevar Bush offered his answer to this question. In his response, Bush called for the renewal of our scientific talent through the U.S. education system. He wrote:

The responsibility for the creation of new scientific knowledge rests on that small body of men and women who understand the fundamental laws of nature and are skilled in the techniques of scientific research. While there will always be the rare individual who will



rise to the top without benefit of formal education and training, he is the exception and even he might make a more notable contribution if he had the benefit of the best education we have to offer.²

A little more than a decade later, mobilized by the Soviet's successful launch of Sputnik, the United States embarked on a collective, coordinated, and sustained effort to recruit and educate the "best and brightest" who subsequently would form a new generation of leaders and innovators in science and engineering.

This effort resulted in unprecedented scientific and technological progress, leading to the creation of new enterprises, new jobs, and the betterment of the national standard of living. At the root of this progress was a substantial investment in research and development, along with a nationwide focus on excellence in science, technology, engineering, and mathematics (STEM) education and talent development. Regrettably, by the 1970s, this national sense of urgency had diminished, and complacency soon supplanted the ideal

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**VAG Awards, Grants and Scholarships
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STEM Innovators

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of excellence in education. Today, faced with growing international competition, the cost of inaction continues to grow at an intensifying pace.

The National Science Board (Board) firmly believes that to ensure the long-term prosperity of our Nation, we must renew our collective commitment to excellence in education and the development of scientific talent. Currently, far too many of America's best and brightest young men and women go unrecognized and underdeveloped, and, thus, fail to reach their full potential. This represents a loss for both the individual *and* society. The Nation needs "STEM innovators"—those individuals who have developed the expertise to become leading STEM professionals and perhaps the creators of significant breakthroughs or advances in scientific and technological understanding. A key component of innovation is the development of new products, services, and processes essential to the Nation's international leadership. Just as in generations past, there are talented students from every demographic and from every part of our Country who with hard work and with the proper opportunities will form the next generation of STEM innovators. The vital importance of innovation to the U.S. economy led the Board to embark on a two-year exploration of this issue.

Our analyses of research and demographic data, as well as our consultation with a wide range of experts, practitioners, policy-makers, and STEM innovators, led us to identify three major areas where focused attention is essential. First, while there are some examples of high-impact educational policies and practices that are effective in enabling tomorrow's potential STEM innovators to thrive, many more are needed. Second, a commitment to equity and diversity, and analyses of demographic trends, lead to the conclusion that new, ambitious efforts to cast a wide net in seeking and inspiring tomorrow's STEM leaders are critical. Finally, it is clear that when the learning environment is infused with high expectations and a commitment to excellence, the potential for future innovators to flourish is great.

To identify and develop the next generation of STEM innovators, the Board

makes three *keystone recommendations*. Each recommendation contains several *policy actions* for the National Science Foundation (NSF), other Federal entities, and the Nation. Additionally, for each keystone recommendation, the Board proposes a *research agenda* for NSF that will ensure the policy actions are supported by the best available research. The keystone recommendations and a summary of the policy actions are listed below. The findings and research agenda can be found in the main body of the report (pp. 15-25/<http://www.nsf.gov/nsb/>).

Keystone Recommendations:

I. *Provide opportunities for excellence.*

We cannot assume that our Nation's most talented students will succeed on their own. Instead, we must offer coordinated, proactive, sustained formal and informal interventions to develop their abilities. Students should learn at a pace, depth, and breadth commensurate with their talents and interests and in a fashion that elicits engagement, intellectual curiosity, and creative problem solving—essential skills for future innovation.

To achieve this goal, the Board proposes the following policy actions:

A. Encourage states and/or local education agencies to adopt consistent and appropriate policies on differentiated

instruction, curriculum acceleration, and enrichment, and to recognize the achievement levels of students moving or transitioning to different schools.

- B. Increase access to and quality of college-level, dual enrollment, and other accelerated coursework, as well as high-quality enrichment programs.
- C. Support rigorous, research-based STEM preparation for teachers, particularly general education teachers, who have the most contact with potential STEM innovators at young ages.
- D. Provide Federal support to formal and informal programs that have a proven record of accomplishment in stimulating potential STEM innovators.
- E. Leverage NSF's *Broader Impacts Criterion* to encourage large-scale, sustained partnerships among higher education institutions, museums, industry, content developers and providers, research laboratories and centers, and elementary, middle, and high schools to deploy the Nation's science assets in ways that engage tomorrow's STEM innovators.





stereotypes towards potential STEM innovators.

B. Encourage the creation of positive school environments that foster excellence by providing professional development opportunities for teachers, principals, counselors, and other key school staff.

C. Support the expansion of computing and communications infrastructure in elementary, middle, and high schools to foster peer-to-peer connections and collaborations, and direct connections with the scientific research community.

D. Hold schools, and perhaps districts and states, accountable for the performance of the very top students at each grade.

E. Have NSF, in partnership with the Institute of Education Sciences, hold a high-level conference to bring together researchers in the learning sciences, other scientists, education school administrators, current teachers and principals, and teacher professional associations to discuss teacher preparation and pedagogical best practices aimed at fostering innovative thinking in children and in young adults.

The United States is faced with a clear and profound choice between action and complacency. The Board firmly believes that a coherent, proactive, and sustained effort to identify and develop our Nation's STEM innovators will help drive future economic prosperity and improve the quality of life for all. Likewise, providing opportunities for all young men and women to reach their potential will serve the dual American ideals of equity *and* excellence in education. The decisive action taken years ago in the wake of Sputnik created a legacy guaranteeing that today's generation would live in a more prosperous and secure society than that of their predecessors. It is our collective responsibility today to do the same, and ensure that future generations reap the benefits of our choice to act. We believe that the recommendations set forth in this report represent one step of many towards continuing this legacy.

F. Create NSF programs that offer portable, merit-based scholarships for talented middle and high school students to participate in challenging enrichment activities.

G. Increase the technological capabilities and network infrastructure in rural and low-income areas, and expand cyber-learning opportunities.

H. Create a national database of formal and informal education opportunities for highly talented students, and publicize and promote such opportunities nationally to parents, education professionals, and content and resource providers.

II. Cast a wide net to identify *all* types of talents and to nurture potential in all demographics of students. To this end, we must develop and implement appropriate talent assessments at multiple grade levels and prepare educators to recognize potential, particularly among those individuals who have not been given adequate opportunities to transform their potential into academic achievement.

To achieve this goal, the Board proposes the following policy actions:

A. Improve pervasiveness and vertical coherence of existing talent assessment systems.

B. Expand existing talent assessment tests and identification strategies to the three primary abilities (quantitative/

mathematical, verbal, and spatial) so that spatial talent is not neglected.

C. Increase access to appropriate above-level tests and student identification mechanisms, especially in economically disadvantaged urban and rural areas.

D. Encourage pre-service education and professional development for education professionals (including teachers, principals, and counselors) in the area of talent identification and development.

E. Encourage pediatricians and early childhood educators, especially *Head Start* teachers, to become knowledgeable about early signs of talent and the need for its nurturance.

III. Foster a supportive ecosystem that nurtures and celebrates excellence and innovative thinking. Parents/guardians, education professionals, peers, and students themselves must work together to create a culture that expects excellence, encourages creativity, and rewards the successes of all students regardless of their race/ethnicity, gender, socioeconomic status, or geographical locale.

To achieve this goal, the Board proposes the following policy actions:

A. Create a national campaign aimed at increasing the appreciation of academic excellence and transforming

President's Letter



First of all I would like to thank the presenters, board members, volunteers, and participants who contributed to the success of this year's seminar in Newport News. The sessions were well received and were attended by a wide range of educators. It was an honor and a pleasure to present awards to the Nicholas Green winner as well as to the teachers of the year. As I read each award application, I was truly inspired by their commitment to best practices, their creative and thoughtful approaches to teaching and learning, and their dedication to gifted learners. Please visit our web site, review the awards, and consider nominating a student, teacher, parent, or leader who you think is deserving of this recognition at our next conference in October 2011.

With the approval of the new state regulations, many of us will be working hard to strengthen the services that are provided to gifted and talented learners in our schools, districts, and regions. One resource that you may want to review is the two volume report on acceleration, *A Nation Deceived: How Schools Hold Back America's Brightest Students* published by Dr. Nicholas Colangelo, Director of the Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development, University of Iowa.

The report provides language and research that supports how gifted learners need to move at a faster pace with complex and advanced content; and every statement regarding acceleration in Volume 1 connects to and is supported by research in Volume 2. According to the report, the three most difficult decisions faced by parents and educators are 1) early entrance to school; 2) grade skipping; and 3) early entrance to college. Through a meta analysis of the research, the authors consistently conclude that educational acceleration helps students academically without shortchanging them socially and emotionally. This report supports the important work that is being done in the field of gifted education, and provides valuable evidence that the need for a differentiated educational approach for gifted learners is imperative. The report is available online at http://www.accelerationinstitute.org/nation_deceived/ND_v1.pdf.

As we prepare to update and revise our local plans for gifted education and align them with the revised state regulations, I hope that we can find opportunities to share research-based best practices for gifted learners that strengthen the educational opportunities that are provided to them. Our VAG newsletter is one avenue that can be used to contribute and exchange ideas. Please consider taking the time to write an article so that others may learn from your experiences in the field.

Carol Horn

From the Executive Director

We wish to thank the over 230 participants who attended our Fall 2010 VAG Seminar in Newport News. Even though our attendance was less than our usual 350 attendees, it was a great seminar in a wonderful new location with outstanding presenters. Mark your calendar for the 2011 Conference to be held at the Williamsburg Marriott on October 20-22. Fill out a Call for Proposal and submit it by February 11, 2011.

In this newsletter you will find the announcement of our continuing awards and scholarships: Nicholas Green Distinguished Student Award, Teacher of the Year, and Summer Scholarships, Parent of the Year, Leader of the Year, and Teacher Grants for Innovative Ideas. Visit our web site: www.vagifted.org for application materials. Deadlines vary, so check them out today.

Thank you for your support of VAG. Please keep your membership updated. Don't forget you can now renew online. It is important that we continue to advocate for gifted learners throughout the Commonwealth.

Liz Nelson



Virginia Association for the Gifted

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Nominations for the 2010-2011 NAGC Nicholas Green Distinguished Student Award now being accepted!

Application deadline
is February 1, 2011.

The Virginia Association for the Gifted is pleased to announce that it is now accepting nominations for the NAGC Nicholas Green Distinguished Student Award for the 2010-2011 school year. The award – a \$500 U.S. Savings Bond and a Certificate of Excellence – is designed to recognize excellence in young children, and is awarded to one student in each state by the National Association for Gifted Children who is between grades 3 and 6 and has distinguished him or herself in academics, leadership, or the arts.

The award program was established through funds provided by Maggie and Reg Green to honor the memory of their seven-year-old son Nicholas who was killed in a drive-by shooting while visiting Italy in 1994. The Greens felt it was important to recognize gifts and talents in children who are now at the age that Nicholas was when he died.

Students may nominate themselves or be nominated by parents, teachers, students or community/civic groups. To apply, please contact your local school division administrator for the gifted, or go to the VAG web site: www.vagifted.org. In addition to the application form, applicants must submit a letter of recommendation, and a composition about why they feel their effort is important and how they got interested in the area for which they are being nominated. The composition must respond to the following questions: (a) what is the activity or interest area for which the student is being nominated; (b) how did the student become interested/involved in the activity; (c) what impact has the activity had on the student and on others; (d) how well does the interest or activity fulfill a need or solve a problem; and (e) how have the student's future

plans and goals been affected by this activity or interest area. The letter of recommendation must be from someone other than a nominee's family member such as a teacher or principal, explaining why the student is deserving of the award, what sets the student apart from others and how the nominee is impacting others. Send your completed application to:

Nicholas Green
Distinguished Student
Award

Virginia Association for the Gifted
P. O. Box 26212
Richmond, VA 23260-6212



Virginia Association for the Gifted – Awards for 2011

Grants for Innovative Ideas

The Virginia Association for the Gifted will sponsor up to 10 "Grants for Innovative Ideas" each in the amount of \$500 to individuals or teams whose proposed projects support the goals of VAG and *directly services gifted students*. The VAG Scholarship and Awards Committee will award the grants annually. For more information and application visit our web site: www.vagifted.org and click on Grants. **Deadline for applications is December 1, 2010.**

Leader of the Year Award

The Virginia Association for the Gifted will present an annual "Leader of the Year" award to an individual at any level (parent, teacher, coordinator, administrator, legislator, other) whose exemplary leadership and outstanding contribution to gifted education has affected Virginia's children, teachers, schools, programs, and/or policies. The award will be presented at the annual conference or seminar. For more information and application visit our web site: www.vagifted.org and click on Awards. **Deadline for applications is February 1, 2011.**

Parent of the Year Award

The Virginia Association for the Gifted will present an annual "Parent of the Year" award to a parent whose exemplary contribution to gifted education has affected Virginia's children, teachers, schools, programs, and/or policies. The award will be presented at the annual conference or seminar. For more information and application visit our web site: www.vagifted.org and click on Awards. **Deadline for applications is February 1, 2011.**

Regional Teachers of the Year

The Virginia Association for the Gifted will recognize its regional Outstanding Teachers of the Gifted at the annual conference or seminar. School divisions may select one nominee per 30,000 students enrolled. Contact your local administrator of gifted programs for application materials. Or, you may contact the VAG office at 804-355-5945. **All applications are due to the VAG office no later than March 1, 2011.** VAG will select up to one Outstanding Teacher of the Gifted for each of the nine regions in Virginia.

VAG Summer Scholarships for Students K-12

VAG is pleased to announce it will offer summer scholarships designed for those gifted and talented students who wish to attend academic or artistic programs during the summer months. The scholarships are in amounts arranging from \$100-\$500 and are available for students, K-12. No more than one scholarship is awarded to a single individual within a three-year period. **Application deadline is March 1, 2011.** Applicants will be notified of their award status by April 15.

Applying for a scholarship through VAG does not constitute application to a specific program; you must make application to the summer program of your choice directly. **VAG scholarships are contingent on acceptance into the program.** Many programs offer financial aid in the form of scholarships and grants. You must contact the program directly for information on their scholarship and grant offerings. Scholarship checks are made payable to the program.

To apply visit the VAG web site: www.vagifted.org and click on Scholarships.

Regional Teacher of Year Presentations

This is an annual VAG award highlighting the accomplishments of talented educators who have shown excellence in teaching gifted learners and a commitment to furthering the development of their teaching skills.



Region I – **Deborah Gribben**, *Henrico County Public Schools*

Deb Gribben, a fifth grade teacher at Colonial Trail Elementary in Glen Allen, has extensive experience in gifted education spanning the elementary, middle school, administrative, and college levels. Her work with students who are identified gifted has led to numerous awards, publications, and extensive program involvement. Currently the VCU Outstanding Economic Educator of the Year, Deb exemplifies characteristics of a teacher of the gifted – creative, motivating, enthusiastic, flexible, and understanding of gifted students' unique needs. In the words of her colleagues, “first and foremost, Mrs. Gribben’s enthusiasm for teaching and learning is contagious. When you are around her, you cannot miss the vibe that she emits.” And her principal, Philip Cantone, wrote, “She is a truly an outstanding, innovative educator who makes a difference in the lives of students every day.”

... understanding of gifted students' unique needs.

Region II – **Christopher Eric Bone**, *Virginia Beach Public Schools*

Eric Bone has been teaching English/language arts and social studies to gifted students for the past 15 years. Focusing his attention on the intellectual, social, and emotional needs of gifted learners is paramount to his work at Kemps Landing Magnet School in Virginia Beach as he strives to reach his students by developing a rigorous and relevant seventh grade Advanced English curriculum. Daily, he models and creates differentiated learning opportunities which are engaging and thought-provoking while promoting 21st Century skills. In the words of his principal, Charles Foster, “Mr. Bone has high expectations of his students, engages them in high-level thinking and authentic learning opportunities, and is continuously striving to achieve more in all he does for our school.” And from one of his students “I strive to be like Mr. Bone: a caring, humorous man who always does his best and takes a personal interest in all he meets.”

... models and creates differentiated learning opportunities ...



Region III – **Gaye Murphy**, *Gloucester County Public Schools*

Gaye Murphy is a third grade teacher at TC Walker Elementary School in Gloucester County where she consistently works to provide a variety of learning opportunities for all students with particular attention to encouraging growth and development of students identified for gifted education services. In the words of her principal, “Mrs. Murphy is truly the most motivated educator I have ever met. She is never satisfied with her current level of knowledge and she instills the value of education in her students by modeling her belief in lifelong learning each and every day.” And from parents of one of her students, “We have been nothing but impressed by the ability of Gaye Murphy to teach in creative and challenging ways, while gaining the love and respect of her students. They are better people for having known her.”

... her belief in lifelong learning each and every day.



Region IVE – **Betty Fitzhugh**, *Stafford County Public Schools*



With 42 years of experience in the field of education, Betsy Fitzhugh has taught for the past twenty years as the FOCUS Resource teacher at Garrisonville Elementary, serving the gifted and talented population. In the words of a colleague, “Ms. Betty Fitzhugh is an exceptional teacher, who truly cares about the needs of each student. She loses sleep over children and the best ways to meet their needs. It is hard to imagine a more dedicated, professional, or innovative teacher. I am proud to be able to call her a colleague. And in her own words, “Teaching is such a joy! It’s like shining a spotlight onto each child to bring their gifts into the light of day. . . there’s a tremendous joy in the ultimate shining light that comes from a knowledge and an understanding that everyone has gifts and talents to share and the importance of working together to honor those unique and diverse gifts that will illuminate our hearts forever more”

... an understanding that everyone has gifts and talents ...

Region IVW – **Allen Burton**, *Mountain Vista Governor's School, Warren County Public Schools*



Allen Burton taught physics and astronomy at Warren County High School before taking a position at Mountain Vista Governor's School. Throughout the inaugural years of the program, he has challenged students through large-scale engineering projects, pioneered means of using technology to extend instruction beyond the walls of the classroom, developed creative, school-wide activities that challenge students to become innovative thinkers, and implemented many other creative, student-centered initiatives. In the words of a school board member, “Very rarely does one encounter a gifted teacher who loves what he does, instills excitement in students and teachers alike, has the ability to oversee other teachers, and still embodies the wonder and joy of intellectual discovery.” And from a colleague, “Teachers often set the tone for their classrooms, but Allen sets the tone for our whole school. His deep moral commitment to provide gifted students with an exciting, academically founded and creative classroom gives them a challenging and supportive education.”

... sets the tone for our whole school.

Nicholas Green Distinguished Student Award

This year's Nicholas Green Distinguished student award winner is Jacob Brunner, a fifth grade student at Luther Porter Jackson Middle School in Dendron. Jacob earned this award for his leadership, facilitation, and presentation skills demonstrated in a student-driven independent research project.

While working on his own project, a study of fire, Jacob also took time to help his friends. He wrote “The impact this had on me was to help others no matter how challenging it might be. This includes helping my little brother even if he plucks all my nerves right out of me. Also it means that even if I have a broken leg, I’ll still help the old lady get across a bustling street . . .

Jacob with his family at VAG Seminar in October



This project has affected my future goals by making me want to be a doctor. Being a doctor could allow me to not only help my friends but also help people that I don't know . . . in my city, my town, or even the state or world.”

Reach Each Star

Virginia Seminar on Gifted Education • Virginia Association for the Gifted
Newport News Marriott City Center, Newport News, Virginia • October 17-18, 2010



An opportunity to share with others from different school divisions was valuable to me.



Facility was wonderful! Well organized! Thank you!

This will assist me in finding appropriate curriculum and instructions for my gifted learners.





I am excited about sharing new technology strategies/tools through in-services with K-5 staff at my school.



All the information presented at my Monday session was very useful. I am full of amazing ideas I will use in class immediately.

New insights to assist me with implementing the new regulations for gifted students.



What I Did on My Summer Vacation!

Reports from Some
of our Summer
Scholarship Recipients

Wipeout!

from *Emily Brubaker*
Virginia Beach Public Schools

My acting camp (Theater for Kids/Teens) was great...even better than the year before! It was very different from last summer, but in a good way. Well, first things first: the play was a totally different theme and way more professional and complicated, and it had more of a teen theme than "Kamp Kaos," the play we did last year. This year's play was called "Wipeout!" It's a 1960's surfing musical. I could really relate to the theme of it because I live in a community that is split between the haves and the have-nots, which is how the cast was split up – the Cove kids (the haves) and the Avalon kids (the have-nots). So it was easy to get the feel of the play more.

We didn't just work on the play though. We had more experiences than just working on the singing, dancing, and acting parts. For example, this year to get the feel of the play's theme, we had a surfing beach party at the ocean front that was really fun because we got to swim, eat, and (for those who knew how to surf) surf. In fact, it actually inspired me to try surfing! We also got to take a tour of The Sandler Center (a big performing arts theater at the Town Center) and learn all about what it's like to perform in a real theater. Another

Emily



thing we did was a stage make-up class, where we learned a few tricks of the trade!

The camp really benefited me because I came out of my shell way more than I did last year. My friend who came last year couldn't come this year, so I didn't have her as a crutch. I made friends with everyone who was at the camp, as opposed to last year when I stuck with my friend. The camp really gave me more self-confidence, and it gave me a great social experience as well as an acting experience. Also, this year I had a solo in a duet song, and it was really fun and something new because I had never sung in front of anyone ever before!

I also learned a life lesson from the camp this year too. You see, last year I only



wanted one part in the play and I got that part, but this year I wanted a part but got a different part. In the beginning I was disappointed but then I started to really like my part and got to thinking of all the things I could do with the part, and I forgot why I wanted the part that I originally wanted in the first place. I learned that in life you don't get everything you want and sometimes it's for the best.

I am really thankful that I got the scholarship to do the camp again this summer. I am even thinking about taking some fall classes with the camp director, and I know I'll be even more excited for next time!

Forensic Chemistry

from *Will Lane*, Floyd County Public Schools

Thank you for the opportunity to attend the Summer Enrichment Program at the University of Virginia this summer. It was a fun experience and I learned about many new subjects during my time there. I am interested in becoming an engineer but the program showed me many different fields that I had not even known about before or had not considered. I enrolled in the class of Forensic Chemistry in which we compared the field to how it is portrayed on the TV series CSI. I also attended counselor seminars in which I learned about roller coasters and the ways that stereotypes and sexism appear in Disney movies.

While I wasn't in class, I enjoyed the many activities the program had to offer. Despite a severe thunderstorm that wreaked havoc in the area, cutting off power temporarily

and preventing us from going to the pool on Saturday, I still found that there was plenty to do. I played Capture the Flag with many of the new friends that I made while attending the program. There was a movie night when we watched the comedy *Ferris Bueller's Day Off* and had another unexpected movie, *10 Things I Hate About You*, when it was discovered the pool was closed. There was also free time to sit back and relax or play cards with your friends in the suite.

The Summer Enrichment Program was a fun experience all the way around. While it was fun, however, I still learned a lot about a wide range of subjects and the information was interesting and useful at the same time. I had a great time and I would like to thank you again for allowing me the opportunity to attend.

Will





Deeksha

Summer Enrichment at U.Va.
from Deeksha Chaturvedi
Moody Middle School
Henrico County Public Schools

The first two weeks of summer were an exciting time for me and other students attending the Summer Enrichment Program at the University of Virginia. The Summer Enrichment Program is a camp for rising fourth through 10th graders. This camp gives an option of one academic course, and the course I chose was Neuroscience. In this course, campers learned the important structures of the brain and what could happen to these parts if there is mutation or disease. After morning classes, students would go to their second class. My second class was Ultimate Frisbee: Challenging Conceptions of Sport. During this class, students learned the physics of sports and what makes an athlete. In addition, students got to play Football and Ultimate Frisbee. Later, students got to walk to their dorms for an afternoon of fun and games. Each day ended with an hour of relaxation and suite meeting to discuss the highs and lows of the day. The camp was terrific and I cannot wait to go back next year. I want to thank the Virginia Association for the Gifted for granting me a scholarship to attend the camp.

If you are interested in applying for a summer enrichment scholarship, see page 5 of this newsletter or visit our web site at www.vagifted.org. The deadline is March 1, 2011.

Space Camp

from Jack K. Rickey, Prince William County Public Schools

Thank you so much for the scholarships that allowed me to attend Space Camp this past summer. I learned that the astronauts in the Mercury Program had only one size of boots and gloves! That would stink to have to wear a too-small boot or glove in space! I also watched the IMAX movie "Hubble" about the space telescope and learned that stars have bubbles around them when they are first formed.

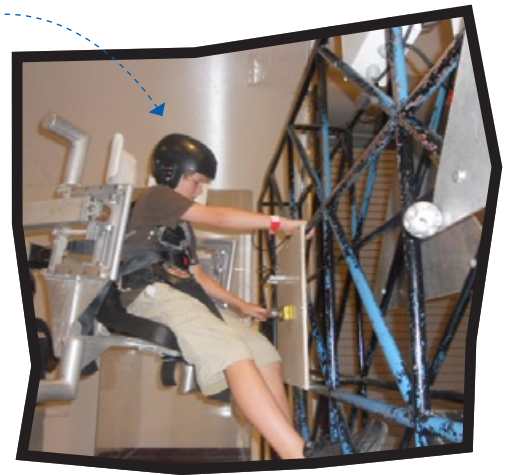
I looked forward all week to riding Space Shot, which is a take-off simulator. It was so worth it when I rode it with my family on graduation day. One of the pictures shows me in another simulator that spun me around and then I had to try to work those levers and push those buttons in a correct order even though I was so dizzy!

At graduation, I found out that my team had won the Best Mission Award for how we handled the simulated mission in a mock Space Shuttle. I was the commander of the mission, which means I was the co-pilot. I also had lunch with Captain Robert "Hoot" Gibson. He had flown everything that flies, including the Space Shuttle, on which he was the commander too! He went to space five times for a total of 36.5 days, including docking with the International Space Station, Mir. He said their food was awful.

The Space Center's Museum had a traveling exhibit this summer on Star Wars that included models and costumes from all the movies. My favorite was the model of the Millennium Falcon! These are some of the awesomely educational and fun things I learned and participated in at Space Camp, thanks to your generous scholarship!



Jack



VAG Newsletter Dates and Deadlines

The VAG Newsletter is published online four times each year. Deadlines for items are November 15, February 15, May 15 and August 15. We invite you to submit your suggestions and/or articles you have written and would like to share with VAG members through this newsletter. Parents and teachers are especially encouraged to submit their children's original creative writing pieces. Email articles or photographs to vagifted@comcast.net or mail to VAG, P. O. Box 26212, Richmond, VA 23260-6212. Black and white or color prints can be used, but will not be returned to you.

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Reaching All Teachers with Instructional Practices in Gifted Education

Bronwyn MacFarlane, alumnae of The College of William and Mary School of Education with a Ph.D. in EPPL 2008, was selected by Toyota and the Institute for International Education to provide curriculum development expertise and guidance to 26 American teachers selected from a pool of 800 teachers to travel to Costa Rica and learn about environmental sustainability. The 26 American teachers teach more than 4,300 students each year combined.

One of the objectives of the Toyota International Teacher Program is to “facilitate the development of interdisciplinary curricula that teach environmental and global issues through creative and

hands-on approaches.” In keeping with the objectives and in response to participant feedback, they introduced a curriculum development component to the 2010 Toyota International Teacher Program to Costa Rica, tapping former program alumna, Dr. Bronwyn MacFarlane, as the curriculum study leader.

Dr. MacFarlane provided expert curriculum development guidance and support before, during, and after the program through a series of workshops, lectures, and other thought-provoking activities. In addition to learning about the people and culture of Costa Rica, its flora and fauna, and the environmental initiatives which have made it a world leader in conservation and sustainability, participants also explored how to apply what they learned into their classrooms upon return. By the end of the program, each participant will create a curriculum

project based on their experience. All of the projects will be compiled, edited, and shared with other teachers across the United States so that they may also benefit from the experience and Dr. MacFarlane’s curriculum expertise.

Using what is known in the field of gifted education about rigorous curriculum and professional development, Dr. MacFarlane led a series of intense curriculum sessions to establish a shared curriculum paradigm among the group of 26 teachers from 22 different states who collectively teach more than 4,300 students each year combined. Dr. MacFarlane said, “Together we had eight curriculum sessions in 12 days to develop continuity in producing a top-notch integrated curriculum product related to environmental sustainability, the concept of interdependence, and translate the experience for American students.”

Bronwyn MacFarlane, curriculum development coach for the Toyota International Teacher Program, leading one of eight curriculum development workshops for 26 American secondary teachers at Earth University in Costa Rica.

Additional story resource information provided at the following two links:

<http://pressroom.toyota.com/pr/tms/toyota-international-teacher-program-158392.aspx>

<http://tiny.cc/9qtnr>



Light Up Your Child's Mind: Finding a Unique Pathway to Happiness and Success

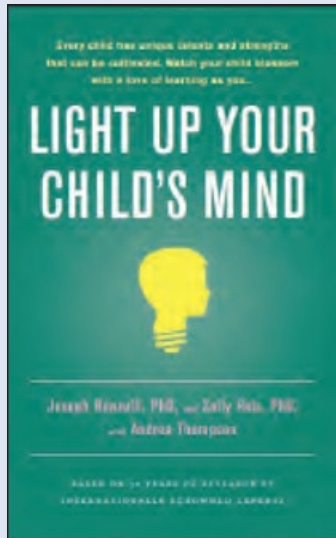
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Reviewed by Carolyn R. Cooper, St. Louis, Mo.
Authors: Joseph S. Renzulli, Ph.D. and Sally Reis, Ph.D., with Andrea Thompson
Publisher: Little, Brown & Co.

At last! The ultimate “how-to” guide for parents of gifted children. Written by parents for parents, *Light Up Your Child's Mind* is the resource that parents of gifted children have been seeking for years. Teachers, counselors, and administrators now have a new way to share philosophies of gifted education long used in classrooms, with parents seeking to enhance their understanding of their gifted child. Sure to become a favorite recommended resource for parents, this book is a necessary addition to the GT coordinator's resource library.

Compact, easy to understand, and chock full of practical tips gleaned from nearly 40 years of research and firsthand experience, *Light Up Your Child's Mind* spells out the type of education gifted and talented youngsters need as they learn to maximize their own potential. From a focused look at what giftedness actually is, to how children can experience genuine success by investigating authentic, real-life problems (rather than spending precious time on those old, worn-out “book problems” that call for memorizing, not thinking), Renzulli and Reis provide examples of how parents can help their children develop their own gifts and talents.

A 2009 winner of the prestigious Harold W. McGraw, Jr. Prize in Education, Renzulli has made an enormous impact on education worldwide. His practical approach to identification and development of creativity and giftedness in children and youth and his development of models and strategies for differentiating learning environments that contribute to



“*Light Up Your Child's Mind* spells out the type of education gifted and talented youngsters need as they learn to maximize their own potential.”

school improvement have given gifted education a veritable giant upon whose shoulders countless others will stand.

Light Up Your Child's Mind brings to parents a uniquely valuable gift: Reis's own extraordinary experience as a teacher of gifted and talented children. Her firsthand classroom involvement with highly able children lends parents her techniques and suggestions, based on the sound theory and practical applications she used so successfully with her students first and, later, as both a researcher and a parent. Using this guide is akin to having Reis help you with your own child.

Though familiar to educators, topics addressed may—or may not—sound familiar to parents. Higher-end learning. Producing knowledge, not repeating it. Independent thinking. Seeking the novel and complex. Handling overexcitabilities. And socially constructive creativity: Changing the world (a little). The topic “Capitalizing on strengths” is actually the backbone of this guide while others range from “On the information-gathering track” to “Serving as a role model for your children,” with numerous other topics in

between, which the authors discuss as they help parents understand that research is a gifted child's wonderland. Parents of underachieving gifted children, also, will find this book a rare treasure. The authors, who know firsthand about the gifted child with learning disabilities, give parents needed encouragement not always readily accessible elsewhere. A major point parents will find useful: You must speak up for your underachieving gifted child. Less than stellar performance in one academic area must not condemn the child to a low-level class in other subjects. Finally, teachers and parents will treasure the plethora of resources Renzulli and Reis list at the end of this book. It's simply exploration at its best! Following “Let's Build a City in the Solar System,” “Secrets at Sea,” and “Enemy Pie” are “Secrets of the Dead: Search for the First Human,” and “Who Wants to Win a Million Dollars?”—and these are just for starters. Mind-stimulating, spine-tingling activities your bright child(ren) will absolutely love!

Light Up Your Child's Mind is the definitive parent guide for helping gifted children soar. Teachers will be well-served to keep a copy handy.

Collaborative Efforts and Endeavors in Region VI

by Amanda G. Gibson; Region 6 Gifted Consortium Secretary

Our Region VI Gifted Consortium has been busy collaborating together for many years working as one to provide unique learning experiences for the gifted children in our region as well as provide professional development for the teachers in our region that work with our identified students. We would like to share some of our endeavors with each of you in hopes that our collaborative work will inspire your consortiums to embark on collaborative ventures that will better the lives of the gifted children you serve in the present difficult economic climate.

We recently worked together to purchase Rosetta Stone, a web-based foreign language learning program, children can utilize in the classroom and at home. Languages students can choose from include Spanish, French, German, Russian, Italian, Mandarin Chinese, and Japanese. As a result of our collaborative purchase, we were able to save money in our school systems. These savings have been paramount as many of the gifted programs in our region have been faced with multiple funding cuts due to the state of the economy in our state. For more information on Rosetta Stone, go to <http://www.rosettastone.com>.

We also purchased Renzulli Learning Systems, as a consortium, and were able to purchase student licenses for the gifted students in our region at a discounted price. Renzulli Learning Systems is a

web-based learning program that puts identified gifted students in touch with engaging individualized resources specially chosen for their interest areas and learning styles. Teachers also have access to Renzulli Learning Systems as well. Once logged in teachers can work with their identified gifted students on special projects within the site as well as search for differentiated teaching and learning activities for all of their students. If you would like to learn more about Renzulli Learning Systems go to <http://www.renzullilearning.com/default.aspx>.

For the past two years we have worked together to provide regional professional development workshops for the teachers that work with the gifted children in our region. Last year we brought in Dr. Joseph Renzulli, an expert in the field of Gifted Education from the University of Connecticut, to our region to work with teachers in our region on utilizing Differentiated Teaching, Learning, and Assessment Strategies and Enrichment Opportunities in the classroom to benefit *all* of the children in our diverse classrooms.

In addition he shared with teachers his insight on his web based learning program, Renzulli Learning Systems, and how teachers can utilize this program together to put students in touch with engaging, individualized resources specially chosen for their interest areas and learning styles. While here, we also held "An Evening with Joseph S. Renzulli" that was specially designed for the parents of gifted children in our region.

This past April, we held a regional professional development workshop with Bob Iseminger, author of *Demystifying Differentiation in the Elementary School* and *Demystifying Differentiation in the Middle School*. Bob Iseminger educated 150 teachers in our region with engaging hands on learning activities focusing on gifted brains in the digital age, critical thinking, and differentiated teaching, learning, and assessment activities and tools that meet the needs of today's students.

We also have a regional web site that we have collaborated together on the past several years that has multiple gifted education resources for gifted programs coordinators, teachers, and parents. Resources include, professional development resources for teachers, links to web sites for teachers, parents, and students, technology tutorials, and other aids.

Our Region VI Consortium is in the process of looking to the future now, in hopes of continuing these collaborative efforts together to better the lives of the children we work with. We are already in the process of planning more professional development for the teachers that work with children on a daily basis for next year. We are looking at enrichment camps and opportunities that our children across the region can take advantage of. We are very proud of the collaborative efforts and endeavors we have cultivated as a group and believe these efforts and endeavors have bettered the lives of all of the children in our region.

VAG Membership Application

Name _____ Address _____

City _____ State _____ Zip _____ Fax No. _____

Home Phone _____ Work Phone _____ E-mail _____

Check as appropriate:

____ Parent _____ (Name of school division your child/children attend)

____ Professional _____ (Name of school division where you are employed)

____ 1 Year \$20.00 ____ 2 Years \$35.00 ____ *New Member* ____ *Renewal – Membership No.* _____

Why Our Nation Needs to Educate Our Gifted and Talented Youth

Compiled by the Davidson Institute, August 2010. Visit <http://tiny.cc/n1g75> to see source reference for these national statistics.

High School

- In the fourth grade, U.S. students score above the international average in math and near first in science. At eighth grade, they score below average in math, and only slightly above average in science. By 12th grade, U.S. students are near the bottom of a 49-country survey in both math and science, outscoring only Cyprus and South Africa.
- The United States can expect to lose well over \$300 billion in potential earnings a year due to high school dropouts. If this annual pattern is allowed to continue, more than 12 million students will drop out of school during the next decade at a cost to the nation of more than \$3 trillion.
- If the 1.2 million high school dropouts from the Class of 2008 had earned their diplomas instead of dropping out, the U.S. economy would have seen an additional \$319 billion in wages over these students' lifetimes.

- The United States has among the smallest proportion of 15-year-olds performing at the highest levels of proficiency in math. Korea, Switzerland, Belgium, Finland, and the Czech Republic have at least five times the proportion of top performers as the United States.
- Four-fifths (81%) of teachers believe that "our advanced students need special attention – they are the future leaders of this country, and their talents will enable us to compete in a global economy."

Bachelor Degrees

- The number of students in the United States planning to pursue engineering degrees declined by one-third between 1992 and 2002.
- As recently as 1995 America was tied for first in college graduation rates; by 2006 this ranking had dropped to 14th.
- Only 11 percent of bachelor's degrees in the United States are in the sciences or engineering, compared with 23 percent in the rest of the world and 50 percent in China.



- China graduates about 500,000 engineers per year, while India produces 200,000 and the United States turns out a mere 70,000.
- Less than 15 percent of U.S. students have the prerequisites to pursue scientific or technical degrees in college.

Workforce/Career Choices

- About one-third of all jobs in the United States require science or technology competency, but currently only 17 percent of Americans graduate with science or technology majors ... in China, 52 percent of college degrees awarded are in science and technology.

Patents

- 45% of new U.S. patents are granted to foreigners.
- Only three of the top 10 recipients of U.S. patents in 2003 were American companies.

2011 Davidson Fellows Scholarships Applications

\$50,000, \$25,000 and \$10,000

Students who will be younger than 18 as of October 1, 2011, and are working on a graduate-level project in any field of study, are eligible to apply for the 2011 Davidson Fellows scholarship.

The Davidson Institute for Talent Development is offering high-achieving young people across the country the opportunity to be named a 2011 Davidson Fellow, an honor accompanied by a \$50,000, \$25,000 or \$10,000 scholarship in recognition of a significant piece of work in Science, Technology, Mathematics, Music, Literature, Philosophy or Outside the Box.

Applicants must submit an original piece of work recognized by experts in the

field as significant and it must have the potential to make a positive contribution to society. The scholarship must be used at any accredited institute of learning.

The scholarship application deadline is March 2, 2011. To find out more, please visit www.davidsongifted.org/fellows.



Initial Call for Proposals
Announcing the 14th Virginia Conference on Gifted Education

The Many Faces of Gifted

October 20-22, 2011 • Williamsburg Marriott • Williamsburg, Virginia
Sponsored by the Virginia Association for the Gifted

Proposal Postmark Deadline: February 11, 2011

The Virginia Association for the Gifted invites you to submit a presentation proposal for consideration.

Name of Presenter (s) _____

Name of Institution/School/Division _____

Primary Presenter's Preferred Mailing Address:

Street _____

City, State, Zip _____

Phone (h) _____ Phone (w) _____

E-mail address _____

Presentation Title _____

(All presentations will be scheduled in 60-minute blocks.)

Have you made this presentation previously? *(Circle one answer.)* YES NO

If you answered YES, where did you present it? _____

Target audience for your presentation: Please check all that are appropriate.

Teachers, Grades K-2 Teachers, Grades 3-5 Teachers, Grades 6-8
 Teachers, Grades 9-12 Administrators Parents

Please include a description of your presentation (*typed, double-spaced, limit 50 words*) on a separate page. This description will be included in the conference program if your proposal is accepted.

Please site the relevance of your topic to Virginia's Gifted Regulations _____

_____ Please mark if you will need an overhead projector. Screens will be placed in all rooms.
All other audio-visual equipment will be the responsibility of the presenter.

_____ Please mark here if you will need tables for participants.

Acceptances will be mailed to Lead Presenter only by May 31, 2011.

Please send two (2) copies of this form with the 50-word description attached to each copy to VAG no later than February 11, 2011.

Mail presentation proposal information to:

VAG Conference Chair
Virginia Association for the Gifted
P.O. Box 26212
Richmond, Virginia 23260-6212