

# Systems Newsletter

Center for Gifted Education

Spring 2005

The College of William and Mary

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## Supporting Teachers, Influencing Change

*“Educational change depends on what teachers do and think—it’s as simple and complex as that”* (Sarason, as cited in Fullan & Stieglebauer, 1991, p. 117).

Twenty years ago, I worked as a central office administrator. For eight years I coordinated programs for gifted students and wrote the first local plan for high ability learners. I enjoyed the work but decided that maybe I needed a reality check, so I made an important decision. I decided to become a classroom teacher with a cluster group of identified gifted third grade students. This decision turned out to be an important and influential professional decision that led me down a new consequential path - to support teacher change through effective professional development.

As an administrator, I understood the big picture about the changes necessary to address the needs of gifted learners. What I came to realize more profoundly was the isolation of the teaching profession, the difficulty of independent, ongoing growth in practice, and how little was done to support improvements in teaching. After three years, I pursued administrative, consulting, and university experiences that allowed me to study “conditions for change” in schools. In these various capacities I agreed with others who came to one inescapable conclusion—teacher knowledge and practices are the primary influences impacting student learning (Guskey

& Sparks, 1996; Richardson, 1996). This conclusion has challenged me to learn about quality teaching, leadership, and professional development and to consider how to transfer that knowledge to practice in an ongoing, consistent, and systematic way. In short, “if teachers make *the* difference” (Fogarty, 2001), what must be done to support teachers’ growth in practice and increase student learning? How can we promote a community of learners that honors teachers’ capacity to learn and embraces the reality that “learning for change” is not easy? I have highlighted two areas to summarize what I have learned through direct observation and experience, literature reviews, and my own research about effective professional development and conditions for change: 1) *Teacher Efficacy—An Important Consideration*, and 2) *Elements of Effective Professional Development*.

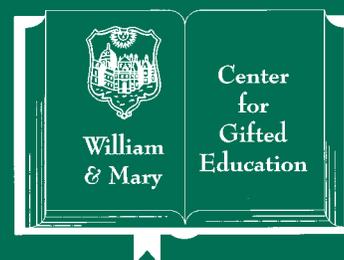
### Teacher Efficacy—An Important Consideration

All teachers are capable of gaining new skills and knowledge and transferring the new learning to classroom practice (Sparks, 1995; Showers, Joyce, & Bennett, 1987; Joyce, Bennett, & Rolheiser-Bennett, 1990). However, a variety of factors influence the extent to which teachers transfer what is introduced through professional development. Teacher’s sense of efficacy is one factor (Guskey, 1994;

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# From the Editors



We would like to welcome you to another issue in a series of *Systems* that address themes in gifted education from multiple perspectives. This spring issue focuses on professional development for educators, especially those that work with gifted learners.

The lead article is from Valerie Hastings Gregory, Ed.D., the Visiting Assistant Professor in Gifted Education for 2004-2005 at the College of William and Mary. As mentioned in the announcements of our fall 2004 issue, Dr. Gregory has worked extensively with professional development through the School Leadership Institute at William and Mary and as a gifted education specialist at the Virginia Department of Education. Her article addresses effective professional development and conditions for change through teacher efficacy.

The second article illustrates the Center for Gifted Education's (CFGE) work to address international approaches to professional development needs. Chwee Quek, a doctoral candidate from Singapore sponsored by the Singapore Ministry of Education, describes a new program to address the needs of university-bound secondary students in an effort to bypass the national examination system and provide more time for enrichment activities to provide students with a broad-based education.

The third and fourth articles describe national efforts related to educational professional development. Kim Chandler, Ph.D., who currently serves as the Chair of the Professional Development division of the National Association for Gifted Children (NAGC), and is the Curriculum Coordinator at the Center for Gifted Education, answers questions about the goals and activities of the related to professional development. Susan McGowan, M.S., herself a National Board Certified Teacher, and a Graduate Assistant at the Center for Gifted Education, highlights national efforts to study the connections between professional development and student achievement as they relate to National Board Certified Teachers.

We continue some of the new features in these theme-based *Systems* that began in the spring 2004 issue. The first is an annotated bibliography and list of recommended readings centered on the theme of the current issue. The purpose of the bibliography is to serve as a resource of research-based and theory-related publications related to professional development and gifted education. We also provide a review of one of the Center's initiative to provide thoughtful and useful information for families of gifted learners, the *Parent Handbook: A Guide to Your Gifted Child's Emotional and Academic Success*, by Frances R. Spielhagen, Ph.D., an AERA/IES Post Doctoral Research Fellow. Finally, information about current events and the current status of the various foci of the Center for Gifted Education at the College of William and Mary is still included. In a continuing effort to support the needs of our community, both the annotated bibliography and the resource review are available for you to download through our website, <http://cfge.wm.edu/publications.php>.

We hope that you continue to be enriched and enlightened by the new format of *Systems*. Please take a moment to complete our survey about the new format of systems by visiting <http://cfge.wm.edu/publications.php>, selecting *Systems* Newsletter from the list at the top of the page, and then clicking on the appropriate link. We appreciate your feedback and suggestions as we work to honor and support the lifelong development of talent in students, families, and professionals.





## *From the Executive Director*

*Dr. Joyce VanTassel-Baska*

**M**any new programs and projects have been started during this past 6 months period at the center, including new grants from Singapore, Ohio, South Carolina and the American Educators Research Association (AERA) as well as the United States Department of Education (USDOE). Yet, space does not allow me to comment on all of these new initiatives. I have chosen to focus instead on our very exciting professional development experience with Korean educators, which was implemented this past fall. It showcases the Center's newest goal of providing innovative professional development experiences to diverse audiences and represents an important model for future international exchanges.

The Center for Gifted Education at the College of William and Mary was commissioned by the Korean Educational Development Institute (KEDI) to provide professional development and school visitations for a group of 75 Korean educators ranging from elementary level teachers to college professors, representing over 40 different districts in that country. The exchange opportunity was spawned by a major initiative in gifted education that has been launched in Korea by the Ministry of Finance in order to enhance mathematics and

science preparation for its best students. The following major emphases characterized the preparation and planning for this unique professional development experience.

### **Content**

The content outline for the Institute focused on five major components. The initial overview of the Institute curriculum as well as the national status of gifted education and the role of the Center of Gifted Education at the College of William and Mary was provided by Institute Director, Joyce VanTassel-Baska. The purpose of this session in the first strand was to set the context for understanding how gifted education is carried out in the United States. A second emphasis of the Institute was on the Integrated Curriculum Model (ICM) and how it might be translated into various subject areas, but particularly math and science. Each major aspect of the model was explicated and examples provided of how to incorporate advanced content, higher-order processes and over-arching concepts into a curriculum base for gifted learners.

The third strand of the Institute emphasized curriculum, instructional and assessment approaches in teaching science and mathematics to the highly able. These sessions, conducted by content experts Dr. Beverly Sher in biology and Dr. Dana Johnson in mathematics, provided

participants with ideas for translating high-level content into active learning through the use of selected models and strategies. A fourth strand of the Institute emphasized the role of interdisciplinary pedagogical tools including concept development, higher-order thinking, developing research skills, and problem-based learning. These sessions were conducted by Center staff, Dr. Elissa Brown and Dr. Kim Chandler. A fifth strand provided participants with special topics that were deemed important. These topics included research on science Olympians, mentorships, and technology applications. Presenters for this segment included Dr. Margie Mason, Dr. Annie Feng, and Chwee Quek.

### **Process**

Institute presenters were careful to structure each presentation according to 45-minute segments, beginning with a PowerPoint presentation and punctuated by a hands-on activity. Participants presented their work, conducted in small groups, to the entire delegation for feedback and comments. Presenters provided critiques as appropriate. In the evenings, teams met to develop curriculum plans based on the ideas presented that day.

### **Language**

Even though the Korean educators who visited us know English and can read it, they have more difficulty communicating orally. As a result, part of the preparation for the professional training experience was careful planning in conjunction with bilingual Korean translators who handled the translation of written material for the training institute as well as onsite oral translation of presenter ideas. The translators also served a useful function in translating the evaluation forms back and forth in both languages so that



(l to r) Minkyong Son, Dr. Hyun-Chul Jung, Chwee Quek, Dr. Seokhee Cho, Dr. Joyce VanTassel-Baska, and Dr. Hae-Ae Seo.

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# Executive Director

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Dr. Beverly Sher with Korean Teachers

results could be interpreted by Center staff. Oral translation also reduced the number of hours that could be devoted to workshop content by half. Thus a traditional six-hour workshop in the United States became a three-hour workshop when translation was taken into account.

## Culture

Expectations for performance in Asian countries are high for professional educators as well as students. Consequently, careful planning and execution of such an institute was a critical component for its success. The involvement of Asian staff and graduate students from China and Singapore helped immensely in thinking through academic and social issues central to the implementation of the Institute. The Korean interest in mathematics and science education meant that the Institute needed to be geared toward programs for the gifted in those subject areas almost exclusively because the level of work in those areas is more advanced during the K-12 years in Korea than in the United States. Moreover, K-12 teachers in Korea are better trained in the content areas than in this country and thus require advanced content examples. Therefore, there was a need to involve content expertise across departments at the university to a great degree. Toward that end, both mathematics and science professors were integrally involved in both the planning and the execution of the Institute. Moreover, targeted evening lectures were provided by members of the science department and Center for Gifted Education staff.

## School Visitations

The Korean delegation visited some of the premiere schools in our area that provide strong math and science programs to gifted learners in order to see workshop content in action in the classroom. The sites included Thomas Jefferson High School for Science and Technology in Fairfax County, Clover Hill Magnet High School in Chesterfield County, the New Horizons Governor's School in Hampton, and special trips to VIMS and NASA-Langley. Additionally, elementary teachers visited classrooms in Williamsburg-James City County and Newport News, VA.



These visits provided Korean teachers with important insights into American classroom routines and strategies used to work effectively with gifted learners. They were asked to reflect on what ideas could be transferred into their school districts in Korea, as well as to consider the

application of strategies practiced in workshop settings.

## Conclusion

This professional development experience provided an important cross-cultural exchange for educators here at William and Mary as well as those from Korea. Lessons learned from each culture may be applied globally in the future to the enhancement of education for gifted children.



(l to r) Dr. Ginnie McLaughlin, Dean, School of Education, College of William & Mary; Dr. Bruce Bracken, Center for Gifted Education; Dr. Seokhee Cho.



(l to r) Dr. Margie Mason and Dr. Hyun-Chul Jung

# Supporting Teachers

(cont'd from page 1)

Tschannen-Moran, Hoy, & Hoy, 1999; 2001). Teacher efficacy is a teacher's "judgment of his or her capabilities to bring out desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (Tschannen-Moran, Hoy, & Hoy, 2001, p. 783). Furthermore, teacher efficacy is a multi-dimensional concept that reflects a teacher's beliefs about whether all students can learn, whether he or she is capable of learning a new skill, and whether external factors, such as home environment, have a greater impact on student learning than school factors (Guskey, 1994).

To understand why teacher efficacy is an important consideration for professional development, it is important to know sources that influence teacher efficacy: 1) mastery experience, 2) physiological arousal, 3) vicarious experience, and 4) verbal persuasion (Tschannen-Moran, Hoy, & Hoy, 1998). *Mastery experiences* concern whether success occurs early in learning or with little or no external aid. *Physiological and emotional arousal* refers to the physical and emotional reactions to anticipated events. *Vicarious experiences* have to do with how teachers gain information through observation. Teachers compare themselves to models they are exposed to when they have performed certain tasks. Vicarious experiences may be gained through teacher education programs, professional literature, professional development, the media, and gossip in teachers' lounges as well as from other sources. *Verbal persuasion* refers to conversation or comments made by others that may either increase or decrease a teacher's efficacy.

Teacher efficacy is context-specific (Tschannen-Moran et al., 1998). Teachers process, integrate and interpret information gained from these four sources when analyzing a *particular* teaching task and assessing personal teaching competence.

In large part, a teacher's sense of efficacy is related to motivation. Teachers are most likely to be motivated when: 1) what they do is meaningful, 2) they feel responsible for the outcomes, and 3) they know the results of their efforts (Sergiovanni, 1992). Thus, professional development that is meaningful, compels responsibility, and is

results-oriented influences teachers' efficacy and is most effective. Moreover, according to teachers in three urban schools with significant increases in student achievement, five factors influence the effect that professional development has on classroom practices: 1) teacher autonomy in professional development, 2) perceived impact on students, 3) practicality of application, 4) relevancy to teaching and learning in *their* classrooms, and 5) provision of concrete support (Gregory, 2001). These teachers' responses suggest how professional development may scaffold a positive sense of teacher efficacy and support teachers' growth in practice. What are the elements of effective professional development?

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*"When teachers are empowered to learn and apply new instructional techniques that increase student learning, they gain a sense of efficacy over the teaching and learning process."*

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## Elements of Effective Professional Development

Traditionally, professional development has focused first on changing teacher beliefs and attitudes (Guskey, 1985). It was believed that such changes would lead to changes in classroom practices and would increase student learning. However, more current thinking indicates that "significant change in teachers' beliefs and attitudes takes place *after* student learning outcomes have changed" (Guskey, 1985). That is, a change in teacher beliefs depends on evidence of change in students. Thus, a chain of events is put into place. Evidence of student change encourages change in classroom practices. Effective professional development incorporates concrete pressure and support to encourage classroom implementation and empower teachers. When teachers are empowered to learn and apply new instructional techniques that increase student learning, they gain a sense of efficacy over the teaching and learning process. As one

teacher stated, "All good teachers seek continual professional development to address their own needs. The best professional development happens when the development is focused, based on the need of the individual, and well supported by colleagues, staff and administration. Teachers who continuously take professional development feel empowered to make change (Gregory, 2001, p. 89).

The National Staff Development Council (NSDC) developed and revised research-based professional development standards (Hirsh, 2001; National Staff Development Council, 2001). These standards were developed by representatives of the largest education associations to "clarify the kind of professional development all teachers should experience and articulate what it takes to be sure staff development produces its intended results" (Hirsh, 2001, p. 11). The Standards are grouped to address the context, process, and content of effective professional development, and embrace a results-based, student-centered, academic standards-based, and job-embedded orientation (National Staff Development Council, 2001). *Context standards* recognize the role that climate or culture plays in professional development and describe learning communities, leadership, and resources that support adult learners. *Process standards* reflect the need for data-driven professional development that is research-based and fosters collaboration in the learning process. The process standards include the program evaluation to "guide improvement and demonstrate its impact" (Hirsh, 2001, p. 11). *Content standards* concentrate on deepening educators' knowledge of research-based instructional strategies and assessments—all focused on student achievement of rigorous academic standards. Also, issues of equity and family involvement are addressed in the content standards. In essence, the Standards respond to three key questions: "What are all students expected to know and be able to do? What must teachers know and do in order to ensure success? Where must staff development focus to meet both goals?" (Hirsh, 2001, p. 12).

In the past decade, NSDC's Standards and researchers have influenced a

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# Supporting Teachers

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re-conceptualization of professional development that is important to consider when “supporting teachers, influencing change.” The figure

below describes the paradigm shift.

<b><i>Paradigm Shift in Professional Development</i></b> (Sparks & Hirsch, 1997, pp. 12 –16)	
<b>A shift from...</b>	<b>To...</b>
<ul style="list-style-type: none"> <li>• Individual development</li> </ul>	<ul style="list-style-type: none"> <li>• Individual <i>and</i> organizational development</li> </ul>
<ul style="list-style-type: none"> <li>• Fragmented, piecemeal improvement efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Coherent, strategic staff development</li> </ul>
<ul style="list-style-type: none"> <li>• District-focused staff development</li> </ul>	<ul style="list-style-type: none"> <li>• School-based professional development</li> </ul>
<ul style="list-style-type: none"> <li>• A focus on adult needs and satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• A focus on student needs and learning outcomes, and changes in on -the-job behaviors</li> </ul>
<ul style="list-style-type: none"> <li>• Training conducted away from the job</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple forms of job -embedded learning</li> </ul>
<ul style="list-style-type: none"> <li>• An orientation toward the transmission of "experts" knowledge and skills to teachers</li> </ul>	<ul style="list-style-type: none"> <li>• The study of the teaching and learning processes <i>by</i> teachers</li> </ul>
<ul style="list-style-type: none"> <li>• A focus on generic instructional skills</li> </ul>	<ul style="list-style-type: none"> <li>• A focus on content-specific knowledge and instructional s skills</li> </ul>
<ul style="list-style-type: none"> <li>• Staff developers who function primarily as trainers</li> </ul>	<ul style="list-style-type: none"> <li>• Staff developers who provide consultation, planning, and facilitation services, as well as training</li> </ul>
<ul style="list-style-type: none"> <li>• Staff development provided by one or two departments</li> </ul>	<ul style="list-style-type: none"> <li>• Staff development as a critical function an d major responsibility performed by all administrators and teacher leaders</li> </ul>
<ul style="list-style-type: none"> <li>• Staff development directed toward teachers as the primary recipients</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous improvement in performance for everyone who affects student learning</li> </ul>
<ul style="list-style-type: none"> <li>• Staff development as a "frill" that can be cut during difficult financial times</li> </ul>	<ul style="list-style-type: none"> <li>• Staff development as an indispensable process to improve teaching and learning</li> </ul>

To reiterate, effective professional development is characterized by “the optimal mix of several critical elements” that should be considered by those responsible for professional development (Guskey, 1995, p. 176). First, leaders should, “recognize change as both an individual *and* organizational process” (Guskey, 1995, p. 118). In short, we cannot improve schools without improving the skills and knowledge of the staff members; nor can we focus on improving individuals without improving the organization.

Second, “think *big*, but start *small*” (Guskey, 1995, p. 119). Effective professional development negotiates change by identifying long-range goals and approaching these goals “in a gradual and incremental manner” (Guskey, 1995, p. 119).

Third, establish practices whereby staff members “work in teams to maintain support” (Guskey, 1995, p. 120). Discomfort from change is compounded when those implementing the change are isolated or if they have no influence in the process (DuFour, 2001; Guskey, 1995). Teams should include members from all levels of the organization.

Fourth, include “procedures for feedback on results” (Guskey, 1995, p. 121). This is especially important because the primary rewards of teaching come from influencing student learning. Teachers abandon practices perceived as not increasing teaching proficiency and retain practices perceived as promoting competence.



Fifth, provide, “continued follow-up, support, and pressure” (Guskey, 1995, p.123). Successful implementation of new knowledge and strategies requires adaptation, time, and practice. Follow-up or coaching provides the kind of pressure and guidance needed for continued practice and initiates a supportive *process* to change performance. The coaching process emphasizes companionship, technical feedback, analysis, and adaptation (Joyce & Showers, 1983; 1995). Coached teachers are more likely to practice new strategies, develop greater skill, and use strategies more appropriately. Also, coached teachers exhibit greater long-term retention of knowledge (Joyce & Showers, 1995).

Sixth, “integrate programs” (Guskey, 1995, p.124) so that implementation is more manageable and less fragmented. Coherence does make a difference (Birman et al., 2000; Garet et al., 2001). Experiences of longer duration, with greater academic focus, increased active learning, and greater coherence, are more effective.

Finally, implement professional development that incorporates varied models that are predominately job-embedded in nature (Birman, et. al, 2000; Garet, et. al., 2001; Gregory, 2001; Sparks & Loucks-Horsley, 1990). Note that, though training is not job-embedded in nature, it can be effective when characterized by longer duration, greater span, an academic focus, active learning, and coherence. Together, the five models provide a powerful support-system for teachers. (Visit <http://cfge.wm.edu/publications.php#Systems> to view a

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table describing these models.)

## Conclusion: Lessons Learned

Supporting teachers and influencing change is a complex process that calls for effective professional development. If we are going to “get real” about improving the quality of teaching and learning among gifted learners, we need to be serious about providing teachers with professional development that is cohesive, ongoing, job-embedded, and collaborative in nature. Hopefully, a “reality check” among leaders will result in professional development that will:

- 1) Promote greater efficacy among teachers.
- 2) Encourage teachers to implement new strategies in their classrooms.
- 3) Reflect NSDC's context, process, and content standards.
- 4) Recognize change as an individual and organizational process.
- 5) Think big but start small (Guskey, 1995, p. 119).
- 6) Establish learning teams to maintain support.
- 7) Include feedback on results.
- 8) Provide follow-up, support, and

pressure.

- 9) Integrate programs to reduce fragmentation.
- 10) Incorporate varied professional development models, that are job-embedded in nature.

References for this article are available from <http://cfge.wm.edu/publications.php#Systems>

by Dr. Valerie Hastings Gregory

## International Staff Development: Singapore

In the spring and fall of 2004, the Center for Gifted Education was actively involved with professional development activities involving two Asian delegations. The first comprising educators from Singapore visited the USA in March, while the second consisted of 72 math and science teachers from five South Korean provinces who were on campus for two weeks in October. The foci and objectives of the two groups were markedly different as each was at a different phase of gifted education in their country. This article will provide a summary of the professional development activities of educators from Singapore.

In 2003, the Singapore Ministry of Education announced the introduction of the Integrated Program (IP) for clearly university-bound secondary students to bypass the national examination at the end of grade 10. Four families of schools would be the first to offer the IP from 2004. Among them was the Raffles Schools.

A team of twenty administrators and teachers from the Raffles Schools embarked on a tour of gifted schools and centers in various parts of the USA to learn how exemplary practices in American institutions might be adapted and adopted for the Raffles Program. The Center had organized and facilitated the visits for the team at their request.

The Raffles Schools cater to the top three percent of students in Singapore. Raffles Institution (RI) and Raffles Girls' Schools (Secondary), (RGS), cater to boys and girls from 7<sup>th</sup> through 10<sup>th</sup> grade, while Raffles Junior College (RJC) is a two-year co-educational high school (grades 11 & 12). Admission into these schools was based on performance in national examinations at the end of grade 6 and grade 10 respectively. However, with the implementation of the integrated program at Raffles at the beginning of last year, all RI and RGS students can proceed to RJC without having to take the grade 10 national examinations. More time can thus be spent on enrichment activities and other activities to provide students with a broad-based education. Varied and innovative programs will be in place to develop students' critical and creative capacities, communication, teamwork, and leadership skills.

Such a challenge is not new to RI and RGS which were the pioneer schools when the Gifted Education Program (GEP) was introduced in 1984. However, many aspects of the GEP were under the purview of the Ministry of Education. With the Raffles Program, the schools were responsible for the identification of students, development of appropriate curriculum for high ability learners, as well as selection and training of

teachers. Dr. VanTassel-Baska visited Singapore to conduct training for the Raffles staff and their visit to the US was a follow-up to the training.

The objectives of the visit were broad: the team was interested in various aspects of gifted programming – from identification procedures to curriculum programming, and staff recruitment and training to program development and evaluation. They hoped to learn first hand the extensive programming and research which some of America's, indeed the world's best schools, have undertaken. To cover as much ground as possible, the team was divided into two groups. One group visited schools and university-based talent development centers in the mid-west. The other group concentrated on the east coast, visiting different types of schools and centers. In all, the team visited twenty institutions in six states. To ensure a common framework for discussing and integrating their learning, the Center for Gifted Education provided the two groups a set of guiding questions on key aspects of gifted programming to focus their site visits and reflect on their observations.

### **Identification of students**

- 1) How are students identified for special

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# Center Announcements and Updates

**D**r. Valerie Gregory, shortly after accepting her position as Visiting Professor in Gifted Education, is now the interim project manager for Project Clarion.

Dr. Thea Williams-Hayes will be joining us as the new Pre-Collegiate Learner Program Director in May. Currently, she is an Assistant Professor at Nicholls State University in Louisiana.

Genevieve Brittain has also joined the Center for Gifted Education staff as administrative assistant for Project Clarion.

Parama Bhattacharya is another new face at the Center. A student in the Master's Higher Education program, she is working as a graduate assistant.

Sarah Bundy will be leaving the Center for Gifted Education, where she has served as fiscal manager and administrative assistant on Project Athena and Project Clarion for the last two years, as she is expecting a second child in March. Though her presence will be missed, her colleagues offer her their best congratulations and good wishes.

Dr. Ellen Fithian has left fulltime employment at the Center but will serve as a consultant on various Center projects.

Probably the most exciting and noticeable difference for the Center in the New Year is our change of location, from 232 Jamestown Road to 427 Scotland Street. The new three-story building merges both the Stetson House and the Young House so that all Center projects now have one central location. On February 4<sup>th</sup>, the School of Education and Center staff celebrated the new home for the Center for Gifted Education.



The Center has also recently acquired a new contract with the Ohio Department of Education.

## Project Athena

The Athena team continues to collaborate with participating teachers and schools in the implementation of the Center's Language Arts curriculum for high-ability learners. Development continues on *Jacob's Ladder*, a program of strategies to enhance reading comprehension through tasks organized by skill ladders. Ladder rungs are organized to increase complexity in intellectual demand. Ladders can be used by individual students, in learning centers, with small groups, or as a whole class activity. *Jacob's Ladder* is being extended to support the 4th and 5th grade language arts units in addition to the 3rd grade program module developed last spring.

## Project Clarion

The Center staff and graduate students on Clarion team continue their work in the development of science curriculum for high ability learners in Pre-Kindergarten and Grades K-3. Observations of Pre-Kindergarten and Elementary classrooms, reviews of existing science curriculum, and aligning the project's goals with state and national standards inform the curriculum development work of the Clarion team. Implementation of the curriculum will begin in the fall of 2005.

## Project Star

The research team for Star is composed of Dr. Joyce VanTassel-Baska, Dr. Annie Feng, Dr. Kim Chandler from the CFGE at the College of William and Mary, and Dr. Julie Swanson from the College of Charleston. Ongoing data collection efforts are underway in selected school districts to examine the impact of using performance tasks to identify gifted students and to highlight prototypes of these learners.



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## Staff Development

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- 1) What are the key features of your program, those aspects of which you are well known?
- 2) What do you consider distinctive about the following components of your program? (Comments on all that apply: programs at the school? math, science, social studies, humanities, arts, technology, service learning, community service, mentorships, internships)
- 2) What mechanisms are employed to ensure representation of gender, ethnicity, SES?
- 3) What evidence is there to suggest that the identification process works?
- 3) What co-curricular emphases does your program possess? (Comments on each of the following: summer programs, competitions e.g. INTEL, exchange programs, foreign study, other)
- 4) How does your program provide social-emotional support to students?
- 5) How does your program provide

*Continued on page 9, Staff Development*

# Professional Development: A National Perspective

This article is reprinted with permission from the *California Gifted Education Communicator*, 35, 15.

The National Association for Gifted Children (NAGC) is an organization that has the primary goal of advocating for the importance of meeting the unique needs of children who have demonstrated gifts and talents. Within the organization are divisions that address special concerns and issues related to gifted education. A division that is of particular interest to teachers and administrators is the Professional Development Division. This division addresses the concerns of staff development, preservice and inservice preparation, as well as development of leadership and the role of

administrators in gifted education.

## How does the National Association for Gifted Children address the professional development needs of teachers and administrators?

The primary purpose of the Professional Development Division is to improve the quality of personnel preparation programs in gifted education, and to further the development of leadership within the field. Current division interest areas include:

- In-service and staff development;
- Leadership and administration; and
- Program standards for higher education.

The goals of the Professional Development Division relate to providing the necessary skills for individuals working in the

field of gifted education:

- To synthesize and disseminate information that expands the knowledge base in personnel preparation for gifted education;
- To encourage emerging leadership and administration skills in the field of gifted education; and
- To advocate for higher quality undergraduate and advanced degree programs to prepare individuals to work with gifted, talented, and creative individuals.

Membership in the division consists of members in good standing of the National Association for Gifted Children with expressed interest and commitment to the goals of the division. Members in good standing have paid division and NAGC dues. Administrators, teachers, consultants, professors and many other professionals are included in our membership. When you join NAGC for the first time or renew your membership, place a check by the Professional Development Division on the list of NAGC divisions on the membership form and add \$10 to your NAGC dues.

## What opportunities exist for Professional Development Division members?

The division is responsible for developing the annual conference program for topics related to the area. Members are asked to review proposals and assist the chair in designing the convention program. Members may also elect to become involved in ongoing division projects during the year. Most work is initiated during business meetings and during the division work session held during each annual convention.

The Professional Development Division regularly sponsors two projects: the division newsletter and the Administrator's Leadership Institute. The newsletter is mailed to the division membership at least twice yearly. The Professional Development Division's Administrator's Leadership Institute is held annually at the NAGC convention. Each institute focuses on current issues related to professional development and is open to any NAGC member.

by Dr. Kimberley Chandler

## Staff Development

(cont'd from page 8)

academic planning and career guidance to students?

your area?

### Assessment/Evaluation

- 1) How do you assess student learning?
- 2) What role does student performance on high stakes assessments play in your process (e.g. AP exams, IB exams, PSAT scores, state tests?)
- 3) How do you judge how well your students do? What 'indicators of success' do you employ?
- 4) Do you collect longitudinal data on graduation? If so, what have you learned?

### Teachers

- 1) How do you assess teachers in your program? What approaches do you use?

### Identification of Faculty

- 1) What criteria are used to select faculty for your program?
- 2) How are positions structured? What would be sample job descriptions?
- 3) What opportunities exist for faculty professional development?
- 4) Are there differential salary considerations for faculty in the program, compared to typical schools in

### Administration

- 1) What is the structure of a school day? What are special challenges in scheduling?
- 2) How do you organize and deploy community resources?
- 3) How do you engage in fund raising and development?
- 4) How do you involve alumnus?
- 5) How do you develop a budget for the school? How do you determine a fee structure for specific aspects of the school?
- 6) What innovative strategies do you use to enhance manpower?

### Post-Visit Reflection

- 1) What did you observe at this site that is particularly applicable to Raffles?
  - a) Features that can be implemented
  - b) Features that need to be modified
- 2) How effective do you think the learning experiences are for the students at this site?
- 3) What questions do you still have based on the observation at this site?

*Continued on page 10, Staff Development*

# Staff Development

(cont'd from page 9)

The visits and dialogues left a deep impression on the team, and provided them with ideas that could be integrated into the Raffles Program. A full account (Magendiran & Tan, 2004) appears in the Fall 2004 issue of *Gifted and Talented International*. Below is a brief summary.

## **Identification of students:**

Broad-based and multiple criteria to identify students with abilities and talents in different domains, instead of relying solely on academic achievement and performance on national exams.

## **Curriculum**

The modular approach and block scheduling appears to be an effective way to differentiate curriculum to meet the needs of different levels of gifted students. More able students have the option to do more advanced modules and proceed at a faster

pace; or they can choose to do fewer modules, saving time to explore other interests. The modular approach also lends itself to interdisciplinary teaching. Teachers and students can build on knowledge and skills students have gained in earlier/parallel modules.

Pedagogical practices emphasizing inquiry-based learning and research – the team observed that teaching and learning takes place in the context of real world problem-solving, and that curriculum centered on real world issues promoted problem finding and creative problem-solving. Many of the sites were also noted to have a strong research culture, with student researchers enjoying the support of a strong network of faculty mentors, local scientists and research institutions.

The notion of establishing a Center for Talent Development, with special program options during school vacations to augment

the regular curriculum.

## **Faculty and Staff:**

In terms of staff recruitment and development, to develop a master plan to attract suitably qualified teachers and provide in-service to enhance their skills and proficiency; to engage a fulltime mentorship coordinator to support the research agenda which is likely to become a prominent facet of the Raffles Program.

With their collective talent, experience, potential and resources, there is confidence that the Raffles Schools will take their gifted program to greater heights.

References for this article are available at <http://cfge.wm.edu/publications.php#Systems>

by Chwee Quek

# National Board Certification: Linking Professional Development to Student Achievement

Professional development has a long history of questionable effectiveness (Corcoran, 1995) despite national reforms that attempt to ensure teacher quality and competence through an increasing number of staff development activities. Establishing a link between teacher development activities and student achievement outcomes has been particularly problematic for educators and administrators alike.

Several studies involving National Board Certified Teachers (NBCTs) focus on connecting professional development and student achievement. Results of a recent quasi-experimental study conducted in Arizona public schools over a four year period

by Vandevort, Amrein-Beardsley, and Berliner (2003) reveals that students of NBCTs outperform students of non-board certified teachers as measured by student achievement.

More recently, Goldhaber and Anthony of the Urban Institute (2004) discovered that NBCTs make a significant difference in student achievement by calculating a "National Board for Professional Teaching Standards (NBPTS) effect." The NBPTS effect was measured by studying annual test scores in reading and mathematics of North Carolina students in grades three, four, and five, from three consecutive academic years (Southeast Center for Teaching Quality, 2004). Additional support substantiating the link between National Board certification and increased student achievement was discovered by Linda Cavalluzzo of The CAN

Corporation (2004), who studied NBCTs and high school math students in Florida. The significance of Cavalluzzo's research lies in the rarity of such research at the high school level; however, each study cites significant achievement data for those students assigned to a NBCT across grade levels.

The positive link between NBCTs and student achievement justifies investment in the board certification process since "a growing body of research shows that the quality of the teacher in the classroom is the most important schooling factor predicting student outcomes" (Goldhaber & Anthony, p. 4). A voluntary process lasting from twelve to fifteen months at a cost of \$2300 per candidate, "NBPTS was founded upon the notion that the attributes which make



*Continued on page 11, National Board*

# National Board

*(cont'd from page 10)*

experienced teachers successful can, in fact, be measured based on applicants' ability to demonstrate mastery of a set of standards laid out by the National Board" (Goldhaber & Anthony, p. 5). Initial certification lasts for ten years with opportunity to renew through the creation of a Profile of Professional Growth.

Each of the 27 available certificates centers on the NBPTS's Five Core Propositions: 1) Teachers are committed to students and their learning; 2) Teachers know the subject they teach and how to teach those subjects to students; 3) Teachers are responsible for managing and monitoring student learning; 4) Teachers think systematically about their practice and learn from experience; and 5) Teachers are members of learning communities (NBPTS, 1999). The NBPT's standards, developed primarily by teachers for the various

certification areas, emphasize and support the core propositions and define the "knowledge, skills, and dispositions that characterize accomplished teaching" (NBPTS, 2004).

The certification process is composed of two distinct parts: a teacher-created practice-based portfolio and assessment center examinations. Both elements are rigorous, yet realistic and attainable. Portfolio requirements include description, analysis, and reflection of both written and videotaped components. Additional portfolio requirements include descriptive analyses of interactions with families, communities, and colleagues. Activities designed to measure the depth and breadth of teacher content knowledge and the methods used to teach subject matter to a variety of learners make up the assessment center examinations.

Both portfolio and assessment center activities are scored by trained teachers, making NBPTS the only existing peer refereed assessment in the country.

NBPTS candidates represent a wide variety of teachers from diverse teaching situations. Approximately 50 percent of candidates applying for the process for the first time achieve National Board Certification (Goldhaber & Anthony, 2004). Currently over 40,000 NBCTs practice in all fifty states as well as the District of Columbia (NBPTS, 2004).

References are available at <http://cfge.wm.edu/publications.php#Systems>

by Susan McGowan

## Upcoming Center For Gifted Education Events

**PROFESSIONAL SUMMER INSTITUTE: CURRICULUM AND INSTRUCTION FOR HIGH ABILITY  
LEARNERS IN DIVERSE SETTINGS**  
June 27-29, 2005

**SUMMER ENRICHMENT PROGRAM**  
JULY 11-15, 2005 (SESSION I)  
JULY 18-29, 2005 (SESSION II)

**ADVANCED PLACEMENT INSTITUTE**  
August 1-5, 2005

Center for Gifted Education  
announces

## Professional Summer Institute: Curriculum and Instruction for High-Ability Learners in Diverse Settings

June 27-29, 2005

Participants will be able to select from eight different strands, including:

- The Center for Gifted Education Language Arts Curriculum
- The Center for Gifted Education Problem-Based Learning Science Curriculum
- The Center for Gifted Education Social Studies Curriculum
- Mentoring Mathematical Minds: Teaching Mathematics to Talented Elementary Students
- Extending Research Skills for Grades 2-6 Through Technology
- Reading, Writing, and Reflecting in a Differentiated Classroom
- Instructional Leadership: Supporting the Needs of Individuals in an Era of Standardization
- Challenging Primary Gifted Students Through Interdisciplinary Concepts

Registration materials available by contacting the Center for Gifted Education at 757-221-2166 or from our web site,  
[www.cfge.wm.edu/profdev.php](http://www.cfge.wm.edu/profdev.php).

*S*ystems  
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