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ABSTRACT

The four issues of this 1998 publication on gifted and talented students address the themes of: (1) acceleration and grouping, (2) professional development, (3) core content areas, and (4) giftedness: a Texas tradition. Major articles are: "Cooperative Learning, Curriculum Access, and the Challenge of Acceleration" (Ann Robinson); "Acceleration and Grouping: Pieces in the Array of Services Puzzle" (Betsy Carpenter); "Is There a Social and Emotional Price when Gifted Children Are Accelerated?" (Karen Rogers); "Could Gifted English-Language Learners Save Gifted and Talented Programs in an Age of Reform and Inclusion?" (Ernesto M. Bernal); "Progress and Problems: Creating a New Gifted Science Curriculum" (Tim Holt); "A Lost World Explored: A Dinosaur with a '90s Roar: Pull-Out Block-Scheduled Program" (Carolyn Kitchens); "Fast Forward and Rewind: Strategies for Gifted Students with Learning Disabilities" (Janet Ray); "Exceptional Opportunities for Exceptional High School Students at the Advanced Academy of Georgia" (Diane Boothe and Beheruz N. Sethna); "Meeting the Needs of the Gifted Student" (Christine Harmon); "Gifted Education: Arguments and Answers Written by a Parent...for Parents" (Colleen Elam); "Accepting an Ability Grouped Environment" (Katherine Georges); "Positive Ripple Effects of Professional Development for Gifted Programs" (Peggy Dettmer); "Sparks from the Heart: Conducting Successful Gifted and Talented Inservice Workshops" (Keith Polette); "Teaching Teachers To Meet the Needs of the Gifted" (Karen Kraft and Janis Laughlin); "The In-House Staff Development Model: A Plan for Effective Change" (Joyce E. Juntune); "What Higher Standards Really Mean" (Evelyn Hiatt); "Adding Depth and Complexity to the Mathematics Curricula for Mathematically Promising Students" (Linda Sheffield); "A Long and Winding Road" (James Collett); "Performance Tasks: Encouraging Excellence in Mixed Ability Classrooms" (Bertie Kingore); "Young Adult Literature: A Viable Foundation of Language Arts for the Gifted" (Bob Seney); "Characteristics of and Educational Services for Children and Youth Who Are Gifted in Mathematics" (Gail Ryser and James Schaller); "Approaching Citizenship through a Community-Based Model" (Eric Croce); "Walking on the Wild Side" (Mary Nied Phillips and C. Janet Wallace); "TAGT: A Texas Tradition for Twenty-one Years" (Wayne Craigen); "Myer-Briggs Type Indicator Scores of Dallas-Area Teachers of the Gifted and Talented" (William R. Ogden); "What Do

We Mean by Depth, Complexity, and Pacing?" (Evelyn Hiatt); "Essential Elements for Parent Advocacy Groups: Establishing a Tradition of Excellence" (Nancy Lashaway-Bokina and Jane Robinson); "Strategic Parental Involvement: Developing Student Advocacy and Leadership" (Becky Whittenburg); and "Maximizing the Achievement of Gifted, Learning Disabled Children" (Janet Whitley and others). (Individual articles contain references.) (DB)

TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED

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TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED
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VOLUME XVIII ISSUE I
WINTER 1998

CONTENTS

Acceleration and Grouping

COOPERATIVE LEARNING, CURRICULUM ACCESS, AND THE CHALLENGE OF ACCELERATION

Ann Robinson
University of Arkansas at Little Rock

In both comedy and curriculum, timing is everything. To engage and motivate learners, classroom instruction should be paced appropriately and curriculum access should be unfettered. The classroom fare offered to all students, including academically talented students, should be pitched slightly above their current levels of knowledge and skill. A stretch is desirable. Meeting the needs of academically talented students implies that we offer a rich and rigorous curriculum and that students' access to it be at *their* pace, not one inflexibly dictated by the conventions of the classroom plan book or the school calendar.

How to differentiate the curriculum for diverse learners and how to vary the pace of instruction to accommodate their different learning rates are significant challenges for the teacher. Adaptations to the complexity, breadth and depth of the curriculum have been recommended frequently by experts (Kaplan, 1886; Maker & Neilson, 1996; VanTassel-Baska, 1993). The key issue for academically advanced learners is access to a rich, rigorous and stimulating curriculum. Such access implies accelerative experiences be available to talented students.

No fewer than seventeen different types of acceleration have been catalogued in the literature (Southern, Jones & Stanley, 1993). Some of these, such as grade skipping, are administrative solutions to the problem of curriculum mismatch between student readiness and needs. Other types of acceleration, such as curriculum compacting, in which grade level textual materials are eliminated for students who know them, are examples of curriculum adaptations which permit students to "move on" to something new.

"Moving on" to something new is a key educational need for talented students. Unfortunately, evidence suggests that it does not happen for advanced learners in the regular classroom (Archambault, et al, 1993; Tomlinson, 1995; Westberg, et al, 1993). Admittedly, adapting the curriculum for talented learners presents the classroom teacher with a complex and demanding task.

(See ROBINSON, page 6)

FROM THE PRESIDENT

Benny Hickerson

If you have built your castles in the air, that is where they should be. Now put the foundations under them. (Thoreau)

In our twenty-first year of the Texas Association for the Gifted and Talented, our vision is that every individual with exceptional abilities or potential talent--regardless of ethnicity, gender, socioeconomic status, educational background of parents, geographic region, cultural background, rural or urban or suburban setting--*every* gifted person will have those gifts recognized, identified, appreciated, and appropriately addressed. And, this will happen as a matter of course, because *every* teacher, parent, counselor, principal, administrator, businessperson, and community member will understand that gifted children and adults do exist; that they have unique attributes that make them different; that appreciation and development of those talents and gifts are democratic, fair, just, and the right of the individual; and that it is important and necessary for us as a society to see that potential abilities are not wasted and lost.

That vision is our "castle in the air." As for the foundation under it, consider the architectural principle of the triangle: three major points.

First, there is the legacy we have received: twenty years of TAGT as an organization, of commitment from every person who has served on the Board, as an officer, committee member, volunteer, affiliate member, staff member, donor or patron or supporter, or as a member; every person who has attended a conference or Awareness Certificate workshop or who has applied for a scholarship, grant, or award, or who has read *Tempo* or any other publication of this 8200-plus member organization, which is the largest and strongest advocacy group for gifted education in the world or the cosmos. We can believe in the future of gifted education in Texas because of the strength of our past and of what has been accomplished in just one generation.

The second point of the foundation is an initiative that is on our agenda for this year and which will be

(See HICKERSON, on page 36)

Tempo

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The Texas Association for the Gifted and Talented (TAGT) is a nonprofit organization of parents and professionals promoting appropriate education for gifted and talented students in the State of Texas.

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Connie McLendon

1997: A Stellar Year

1997 has been an exceptional year for TAGT. Programs for gifted and talented students not only survived a series of efforts introduced during the 75th Session of the Texas Legislature to eliminate funding for gifted education, but by the end of the session, had actually gained ground among state and local policy makers. With the attendance of 6,027 parents, educators and other advocates of gifted education, the 1997 annual conference set a new national record. With the financially successful annual conference, TAGT is even more prepared to continue its strong statewide advocacy for Texas' gifted and talented students.

For the past two decades, association leaders have worked hard to make TAGT a member-focused organization, achieving its mission on behalf of gifted and talented learners by working to improve member services. Our accomplishments during the past year—with the legislature, Texas Education Agency and the State Board of Education, in the business community through alliances forged with other professional groups—all support this claim. TAGT continues to be a dynamic, proactive, visionary organization, thanks to the TAGT Executive Board, member volunteers, and the state headquarters office staff. These outstanding individuals are dedicated to providing improved services while working to enhance the public's perception of gifted education.

1997 Annual Committee Report

I recommend for your reading the committee activities section of TAGT's 1997 Annual Report which brings to life myriad accomplishments in 1997 among the varied components of the volunteer sector. Committee reports also chart future directions which association leaders and staff will pursue for gifted and talented students. Like any other successful business, the TAGT leadership will continue its effort to manage the Association with the right balance of fiscal prudence and visionary planning. To this end, I believe we have made notable progress.

Professional Development Initiatives

As part of its vision, a TAGT priority goal is to continue strengthening the Association's commitment to education and training for educators of gifted and talented learners through numerous approaches: by establishing research-based standards for the field of gifted education, by initiating a series of 6-hour regional workshops for administrators, counselors, and school board members whose districts are working to achieve exemplary status for their gifted and talented programs, and by establishing Professional Development Summer Institutes for teachers of gifted and talented students beginning in July, 1998. Funds to establish the new Professional Development Summer Institutes have been provided through a $90,000 grant from the Houston Endowment, Inc., and a $20,000 from Southwestern Bell Foundation to include a technology component in the institute curriculum. These important new funds are the result of the Capital Campaign launched by the TAGT Executive Board in April, 1996. The 1998 Summer Institute will be held on the campus of Southwestern University in Georgetown. Look for more information about this important undertaking in the February newsletter.

TAGT to Offer Bimonthly Newsletter

The advent of a "new" *Tempo* also signals the beginning of an additional publication for TAGT members. Readers in search of "Spreadsheet," the news and information section of *Tempo*, will not find it in this or future issues of *Tempo*. After several years of trying to serve two masters—readers who wanted feature articles on specific themes, topics, and research of importance to gifted educators and parents of gifted children, and those who looked to the "Spreadsheet" section for news on issues impacting gifted education, conference news, scholarship opportunities, and other items of importance to the gifted education community—beginning with this issue, *Tempo* will become a quarterly journal devoted solely to scholarly, theme-focused articles and features which concentrate on practical and research-based curriculum development and instructional methodologies appropriate for gifted/talented learners.

For those of you wanting to know what's happening in the gifted education community in Austin and around the state and nation, TAGT conferences, scholarship information, legislative updates, calendar events, etc., we think you will like the new bimonthly newsletter which TAGT will begin publishing in February. Our goal for this publication is to bring information and news to the TAGT membership on a broader and more timely basis. The TAGT president's column and mine will continue as regular features in *Tempo*, which will continue to be published on a quarterly basis. With this issue of *Tempo*, TAGT members will receive not only four but ten publications annually. We hope you will be pleased with this new publication service.

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ACCELERATION AND GROUPING: PIECES IN THE ARRAY OF SERVICES PUZZLE

Betsy Carpenter
Guest Editor

Although identification remains important in educational programs for gifted and talented (G/T) students, the emphasis has shifted to providing appropriate educational services for G/T students. This shift in program emphasis may provide the long needed spectacles that will focus our educational vision with clarity on these students and their cognitive and affective needs. The Texas State Plan for Gifted/Talented Students provides the mechanism to evaluate the effectiveness of district's G/T educational services. In section 3, the plan requires that "Curriculum and instruction meet the needs of gifted students by modifying the depth, complexity, and pacing of the general school program" (p. 7). The basic requirements for acceptable programs include providing "an array of appropriately challenging learning experiences for gifted/talented students in grades 1 through 12 that emphasize content from the four (4) core academic areas and shall inform parents of the opportunities" (19 TAC §89.3, p. 7). Acceleration and grouping are two possible options within an array of educational services that a district could utilize in providing appropriately differentiated learning experiences for G/T students.

This issue of *Tempo* provides a forum for researchers, teachers, and parents to revisit the issue of acceleration and grouping. Through this format, the authors provide both quantitative and qualitative information, practical strategies for implementation, and anecdotal comments from their experiences with acceleration and grouping. Some of the authors discuss the integration of acceleration and grouping with Spanish speaking and learning disabled populations. Others address the use of these options in specific educational movements. The purpose of this article is to describe the integration of acceleration and grouping as a basic component in the curriculum and instruction of a new charter school.

Creating the educational plan for a new charter school has many challenges. This is particularly true when the curriculum aligns with the International Baccalaureate Middle Years Program (IBMYP) objectives. During the summer of 1997, the IB Coordinator and teachers of a charter school in Irving began to outline an educational program for students currently in grades 5 through 8. The school will add a grade level each year until the current eighth graders are high school seniors. One of their educational goals is to prepare these students for an effective and successful IB Diploma Program; therefore, these educators must be cognizant of the requirements for the school's application to both the IBMYP and the IB Diploma Programs. They began to structure a rigorous curriculum following the best educational practices described in the literature. Components of the program included the integration of thematic interdisciplinary curriculum opportunities, acceleration, a variety of grouping options, and authentic assessments.

The school is an open-enrollment charter school; therefore, it is a school of choice. Students and their parents select this school primarily for the rigorous curriculum and global perspective. The student population is diverse in its academic preparation. Students come from many different districts across the Dallas-Fort Worth metroplex and represent public, private, and home school backgrounds. In two of the grade levels, approximately half of the students have participated in G/T programs in other districts. The other two grade levels do not have as high a percentage of previously identified G/T students, but the percentage in those grade levels is greater than the G/T populations represented in nearby districts. The aptitude and skills of these students and the IBMYP objectives justified the appropriateness of a rigorous curriculum; however, the diversity in academic ability and background within the school population as a whole required the implementation of a variety of acceleration and grouping options.

Gallagher (1985) and Feldhusen (1989) reported that United States educational programs have used acceleration for many years; however, the term has numerous interpretations. VanTassel-Baska (1992) stated that many educators and parents perceive that the purpose of acceleration is to speed up the students' educational program in order to permit them to graduate earlier. She argued that,

> Acceleration should refer to the rapid rate of a child's cognitive development, not the educational intervention provided. What we provide in the name of acceleration is appropriate curriculum and services at a level commensurate with the gifted child's demonstrated readiness and need. (p. 68)

6 (See CARPENTER, page 35)

WELCOME FROM MICHAEL CANNON: NEW TAGT EDITOR

Michael Cannon
El Paso, TX

Long ago, on a farm in the empty plains of the Texas Panhandle, a boy grew up knowing that there must be more to life than cotton farming and fence mending. While it was, in some ways, a rich and exhilarating place to live, the whole world beckoned, and he knew that there was some great adventure waiting, a quest to fulfill. There were many wise guides along the way, teachers who made him dig deeper, excavate all the knowledge that lay deep beneath the surface of school. In junior high, Lester Carr gave him the wonders of natural world through his gifted teaching of science. When a high school English teacher, Alene Harris, insisted that Sophocles' *Antigone* was important and cast him as King Creon, new doors were opened and his quest branched off in a new direction.

And as he continued on, the quest becoming richer, more complex and fascinating, he became a teacher himself. Now it was his task to be the guide, to open the eyes of children to their own individual adventures. He learned two great truths about being a guide/teacher. First, it was an exciting and immensely rewarding role, and second, it wasn't easy! This was going to be the most difficult part of his adventure, guiding others while not losing sight of his own quest.

As he worked with children over the years, he found that while most of them could walk or at least creep along the way, some had the ability to soar above and ahead, making their own way. These soaring individuals also needed guidance in finding a path, and protection from those who would clip their wings. Once again he found help when it was most needed, other wise guides. TAGT provided help and direction, often through the pages of *Tempo*. The articles and columns provided ideas and inspiration not only for mentoring his charges, but also for his own still expanding adventure.

That "he" was me, and as I take over as editor of Tempo, I realize the great responsibility I have accepted. I look forward to the challenge of continuing the tradition of excellence for which *Tempo* is known. I am somewhat daunted by the editorial shoes I have to fill. It is not easy to follow Mary Seay, Bob Seney, and Michael Sayler. But with the help of my colleagues, I am confident we can continue the tradition.

And so the adventure takes a new turn, opening again to unknown destinations, and I am ready, because, as a wise hobbit once said, "Roads go ever, ever on."

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ROBINSON, from page 1

Markers of the differentiated classroom include the use of many and varied materials rather than single texts, tiered assignments, graduated rubrics, flexible grouping, variable pacing and pretesting out of material for which proficiency can be documented.

Add to the mix of classroom instructional issues represented above, the complex classroom grouping strategy of cooperative learning. In inclusive classrooms, teachers are increasingly asked to implement this grouping strategy as a means of managing heterogeneity. The use of cooperative learning with academically talented has generated debate (Robinson, 1990 a & b; Slavin, 1990 a & b) and has assisted educators in understanding where the points of agreement and departure lie (Mills & Durden, 1992; Nelson, Coleman & Gallagher, 1993).

What *are* the issues related to cooperative learning and talented students ? In what ways are these issues relevant to acceleration for academically talented learners ? How might educators select or adapt popular cooperative learning models to best suit the needs of the talented students in their classrooms ?

What are the Issues Related to Cooperative Learning and Talented Students ?

First, a clear understanding of what constitutes cooperative learning is necessary. Second, cooperative learning models differ from one another and some of these differences are important for talented learners. Third, there are features educators should look for in cooperative learning models which make some of them less restrictive than others for academically talented learners.

Cooperative Learning Definitions Revisited

Over the last few years, the definition of cooperative learning have been blurred to refer to almost any type of small group activity in which students converse with one another about a common task. Both cooperative learning advocates and critics should decry the creeping imprecision; it clouds our understanding of how, why and in what ways cooperative learning operates. The crucial features of cooperative learning are:

1. small teams of students (usually grouped heterogeneously)
2. recognition and/or rewards based on group performance
3. student interdependence to complete a common task (usually through face-to face interaction).

Characteristics of Cooperative Learning Models

Eleven different cooperative learning models have been reviewed for their applicability to talented students (Robinson, 1991). Most of them are characterized by the three key features listed above. However, the models differ in complexity, subject matter application, and duration. Understanding these differences help teachers make the best choices for talented students in classrooms where cooperative learning is common.

For example, some models are brief and generic. The early Jigsaw model assigns students to two types of groups in order to read and comprehend textbook passages or other reading material. Students are placed in an expert group to discuss a section of assigned material read by each member of the group. Then, experts disband and students regroup to teach their expert knowledge to home teams. An important characteristic of Jigsaw and several other cooperative learning models such as Teams-Games-Tournament and Student Teams Achievement Divisions is the use of common curriculum materials. All students are usually assigned the same readings, sections of the same readings, similar problems, or worksheet activities. Thus, the markers of the differentiated classroom—variety of materials at different levels of complexity, leveled assignments, qualitative, graduated assessment rubrics and variable pacing are not likely with these models.

Other models are more complex, longer in duration and more closely tied to specific subject matter areas. In the previous review of cooperative learning models (Robinson, 1991), Group Investigation proposed by Sharan and Sharan (1976) and initially used in history and geography instruction provides the greatest resonance for educators of talented learners. As initially described by the Sharans, Group Investigation topics are proposed by the teacher, and subtopics are selected by small groups of students who develop and carry out a learning plan and prepare a small group presentation for the entire class. Although students work on group products, give group presentations and receive group evaluations, individual achievement is assessed through examinations. Two features of Group Investigation are student choice and the availability of a variety of curriculum materials. Because students can select the subtopic of interest to them and presumably can access a rich array of materials to support their subtopic investigation, some of the markers of differentiated instruction are possible with this cooperative learning model. Combined with subject matter acceleration techniques like curriculum compacting, Group Investigation is more likely to meet the needs of gifted students for curriculum access and variable pacing.

How Should Teachers Make Decisions About Cooperative Learning for Talented Students ?

Educators who wish to choose the least restrictive cooperative learning models or activities for academically talented students, should ask themselves four questions.

Question # 1: Does the cooperative learning model permit multiple curriculum materials at various levels of complexity ?

Several forms of cooperative learning require students to read common textual materials or engage in common worksheet activities. Avoid these models (unless instruction is being delivered in homogeneously grouped, accelerative settings) and select models which permit adaptations to the kinds and reading levels of the curriculum materials offered to students. If the materials can be differentiated for learners of differing readiness, teachers are more likely to pitch curriculum content slightly above what students, especially talented students, currently know.

Question # 2: Does the cooperative learning model allow for variability in pacing ?

For several cooperative learning models, the time allotted to complete the task or activity is the same for every learner. Students complete common reading assignments together or receive instruction for a specified and standard period of time in the classroom. Avoid these models and select or adapt models which permit variable pacing. If pacing can be varied, talented students can go on to material which is new to them when they are ready to do so. Appropriate pacing is a key feature of subject matter acceleration; adapt cooperative learning instruction to permit academically advanced students to accelerate their learning.

Question # 3: Does the cooperative learning model allow student choice ?

Some cooperative learning models are quite explicit about group heterogeneity in terms of achievement level and about the curriculum materials to which students will have access in order to complete the cooperative task. Avoid these models and select those models which permit students to choose of small group partners. Avoid models which rely on grade level textual materials only and select those models which free students to choose reference materials and resources beyond the basic assignment.

Question # 4: Does the cooperative learning model minimize group products which encourage free rider and sucker effects ?

Cooperative learning advocates are aware of two types of learning disengagement which can occur in group settings. Free rider effects occur when a student in a cooperative learning group perceives that someone else in the group can and will provide what is necessary. In other words, the learner may not contribute to the group because he or she does not believe there is a need to do so. Slavin (1992) suggests that filling out one copy of a worksheet or turning in one group product are examples of cooperative learning practices which invite free-riding. His concern is that a low-performing student in a group is most likely to be the free rider. By "giving up" active engagement in the task, the free rider loses the benefit of learning the material. The second kind of disengagement is the sucker effect proposed by Orbell and Dawes (1981). They suggested that people find it so aversive to be played for a sucker they reduce their contribution to the group in order to avoid exploitation. In other words, the learner may not work on a task or contribute to the group in other ways because he or she is frustrated by the lack of productivity from team mates. To minimize the negative free rider and sucker effects, avoid cooperative learning models which emphasize group products and group grades.

Academically advanced learners are best served in classrooms which concentrate on complex learning experiences, differentiate a rigorous curriculum, communicate a climate of high expectations, accept the needs of students for personal choice and free students to "move on" to something new.

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Is There a Social or Emotional Price When Gifted Children are Accelerated?

Karen Rogers
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For the purposes of this article, academic acceleration will be defined as an array of *program adaptations* which either *shorten the length of time* a student must remain in a grade-progressive education setting or *advance the level of curriculum* beyond a student's age or grade level. The former type of acceleration will be described as grade-based acceleration. Figure 1 defines more specifically the variety of grade-based and subject-based forms of academic acceleration can take.

Now that definitions are out of the way, it is important to understand how we can use research to describe the effects of an accelerative strategy. In 1991, I conducted a meta-analysis of all the research that dealt with the 11 forms of research included in Figure 1. In all, I found 312 research studies from 1878 to 1991, that had systematically, comprehensively, and objectively collected data on the outcomes of this practice with gifted children. For each of the quantitative studies, I calculated the *effect size* of the outcomes reported and then averaged together all effect sizes for each type of acceleration.

Effect size can be defined as the metric used to provide an estimate of outcome direction and size for an instructional strategy or practice. The metric becomes the "common denominator" that allows study results that use different measures to be "added" together and averaged. There must be comparative groups in order to use this metric.

The general formula for effect size (with many variations) is $M_t - M_c / Sd_p$ where t = treatment group, c = comparison group, M = mean score on standardized measures (in this study achievement, social maturity, self-esteem), and p = pooled average standard deviation. The resultant number can be interpreted in "classroom terms" based on the standard deviation unit of the test. Because most tests of achievement are built upon one standard deviation unit for each school year, a simplified interpretation of an effect size of +.33 is the treatment group outperformed the control group by 1/3 of one school year, or approximately 3 grade-equivalent school months of additional achievement. Such a performance is considered the "minimum" impact educators should look for when considering the academic effects of a practice. If this performance were to continue for three years, then the treatment group would be one full year ahead of the control group--a substantial difference indeed!

The Effects of Acceleration

As shown in Table 1, the grade-based acceleration options are uniformly positive for both elementary (grades 1-6) and secondary (grades 7-12) students academically. Socialization is greatly enhanced for gifted children in grades 3-6 who are grade skipped, but the effects are only small positives for students in other building levels. Self-esteem remains essentially stable across all grade levels regardless of the form of grade-based acceleration considered.

Figure 1. **Forms of Acceleration**

Grade-Based	Definition	Subject-Based	Definition
Grade Skipping	Double promotion; bypassing 1 or more years K-12	***Compacting Curriculum***	Streamlining regular curriculum so that learner bypasses what is mastered
Nongraded Classrooms	Proceeding through curriculum undifferentiated by grade levels	***Early Entrance to School***	Proceeding to kindergarten or first grade earlier than "usual" age
Grade Telescoping	Shortening the time spent at one building level (3 year's work in 2 years, no curriculum skipped)	***Concurrent Enrollment***	Attending classes at more than one building level (e.g., h.s. and college classes)
Early Admission to College	Entering college full-time without completion of a h.s. diploma	***Subject Acceleration***	Working with specific subject curriculum beyond expected grade level
		Mentorship	Placement with subject expert for advanced specific subject proficiency
		Credit by Examination	Testing out of coursework with credit given for course completion
		Advanced Placement	Studying advanced curriculum, testing out of college coursework in that area

Table 1

Grade-Based Acceleration Effects

Option	Elementary			Secondary		
	Academic	Social	Self-Concept	Academic	Social	Self-Concept
Grades K-2	.40	.04	.05	--	--	--
Grades 3-6	.42	.36	.10	--	--	--
Grades 7-9	--	--	--	.45	0	0
Grades 10-12	--	--	--	.38	.13	.13
Grade Skipping	.46	.31	.10	.42	.18	.10
Nongraded Classroom	.43	--	.05	--	--	--
Grade Telescoping	.35	--	--	.45	-.05	--
Early College Admission	--	--	--	.30	-.05	.16

Table 2

Subject-Based Acceleration Effects

Option	Elementary			Secondary		
	Academic	Social	Self-Concept	Academic	Social	Self-Concept
Grade K-2	.64	.20	.16	--	--	--
Grades 3-6	.59	.20	.16	--	--	--
Grades 7-9	--	--	--	.40	.07	.14
Grades 10-12	--	--	--	.44	.23	.37
Early Entrance	.49	.20	.16	.49	.20	.16
Compacted Curriculum	.83/.22	--	--	--	--	--
Subject Acceleration	.55	--	--	.59	--	-.19
Concurrent Enrollment	--	--	--	.22	.07	.47
Mentorship	--	--	--	.47	.40	.57
Advanced Placement	--	--	--	.27	.24	.07
Credit by Examination	--	--	--	.59	--	--

Table 2 also shows that most forms of subject-based acceleration are substantially positive academically for elementary and secondary students. At the secondary level, however, concurrent enrollment and Advanced Placement courses do not make the .30 effect size level accepted as "substantial classroom impact." It is felt that the studies in these two categories have tended to be less well-designed and are based on faulty suppositions about how achievement should be measured. It is imperative that the studies be replicated using better measures of academic achievement before further conclusions are drawn about impact.

What is of interest is the power of subject-based acceleration in the elementary years of schooling. It is probable that a snowball effect takes place when younger children are exposed to content beyond their expected age or grade level. Because they know more earlier, they are able to process and use this foundational knowledge in more intricate and complex ways

Figure 2.

Conclusions Drawn From a Best-Evidence Synthesis of Acceleration Studies

Acceleration Option	Social	Emotional
Early Entrance	No effect	Small positive effect
Grade Skipping	Moderate positive effect	Small positive effect
Nongraded, Continuous Progress	Can not be determined	No effect
Curriculum Compacting	Can not be determined	Can not be determined
Grade Telescoping	No effect	Can not be determined
Concurrent Enrollment	No effect	Moderate positive effect (flawed research)
Subject Acceleration	No effect	Can not be determined
Advanced Placement	Small positive effect	Can not be determined
Mentorship	Can not be determined	Moderate positive effect
Credit by Examination	Can not be determined	Can not be determined
Early College Admission	No effect	No effect
Radical Acceleration*	Moderate positive effect	Small positive effect

*** Radical Acceleration refers to combination of three or more forms of acceleration during the course of a student's K-12 school years.**

earlier, which in turn paves the way for readiness for more advanced content in the later years of schooling. The social and self-esteem effects of subject-based acceleration appear generally to be small and positive. Of particular interest, however, is the substantial impact of metorships on social development and self-esteem improvement. Although based on 10 studies at this point, more current research is needed to try to explain why there are such extraordinary effects.

One of the concerns researchers have had with meta-analysis is that often poorly designed studies get averaged in with well-designed ones, perhaps skewing the actual effects of a strategy. To counter this concern, I conducted a best-evidence synthesis of the studies, both quantitative and qualitative, on these 11 forms of acceleration, using only the best-designed studies to determine the overall effect of each acceleration option. Figure 2 displays my final conclusions about the specific social and emotional effects of academic acceleration on gifted learners. As can be seen, either the social or emotional impact of eight accelerative options, most of them subject-based forms, cannot be fully determined. We have a lot of work to do in this field before the issue of acceleration has been fully explored.

Conclusions About Academic Acceleration

Based on the findings of my meta-analysis and best-evidence synthesis, the following conclusions may be drawn about the various forms of academic acceleration:

1. More is unknown than known about the psychological adjustment and socialization effects of most forms of academic acceleration.

2. A paradox exists in the rejection by practitioners of accelerative options on social and emotional grounds, when in fact, such outcomes have been scantily researched.

3. Small positive and zero effects for socialization and psychological adjustment should encourage us to consider the variety of accelerative options for more bright children on a more frequent basis than at present.

4. Decisions about whether to accelerate or not accelerate a child must be separated from school, community, cultural, and national priorities.

5. Educational decision-makers have a fairly well research-supported menu of accelerative options that will not negatively change the socialization or psychological adjustment of children with gifts or talents. T

Could Gifted English-Language Learners Save Gifted and Talented Programs in an Age of Reform and Inclusion?

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Educators of the gifted and talented have often lamented their exclusion from the professional conversations on educational reform. Indeed, one of these conversations—the emerging philosophy of the Regular Education Initiative (REI) (Kauffman, 1989), or "inclusionism"—would seem to have left the G/T educators out altogether, to the extent that some leaders in the field (e.g., Delisle, 1995) fear that the best interests of gifted children may be compromised in the rush to "regularize" all students and to train all teachers to work with the several dimensions of diversity that school children represent.

In a sense, reform developments have swept past G/T education. The image of the Little Red Schoolhouse and the average voters' mythical sense about regular education would seem to have taken away G/T educators' initiative. Advocates of special programs for G/T children may feel themselves to be on the outside of what is happening in education. Their position, in short, may be not unlike that of the non-dominant ethnic groups who have tried for years to get G/T programs to recognize, select, and educate the "best and brightest" from their own ranks (Bernal, 1974; Bruch, 1970; Frasier, 1980; Torrance, 1973, 1985). G/T education has not found a way to join the reform conversation on its own terms.

Greater percentages of so-called minority children now participate in G/T programs throughout Texas than ever before (Bernal, 1997). It is also true that the philosophy of inclusion has found merit in the instructional methods long cultivated by G/T educators, methods that helped to define the *differentiated* curriculum for G/T students (Delisle, 1995). In this I agree with the reformers of regular education: critical thinking skills are good for all students! But as a person who has worked in gifted education as a teacher, school administrator, program developer, program evaluator, and researcher for 36 years, I cannot agree that merely adding Higher-Order Thinking Skills to the regular educational curriculum and providing some differentiated instruction to the one (on average) G/T student in every self-contained, regular classroom will satisfy the academic and personal needs of G/T students, on the whole.

How different is our G/T curriculum in 1997 than it was in 1982, when *A Nation at Risk* was released? Can we even say that we now better address the affective dimensions (Delisle, 1992) of G/T students than we did 20 years ago? Or that their needs for mentoring and better vocational counseling (Silverman, 1993) are now being met? While we may have made some gains in serving G/T underachievers, G/T females, and G/T students with special needs, it is also possible that we may have only succeeded in getting people to talk about these fairly pervasive shortcomings in our G/T programs. I have seen no documented evidence of curricular change in G/T education to actually accommodate these populations, although I have noted that there are many workshops on these topics offered through professional organizations and state agencies. Without reform in how we collect data and conduct evaluations of G/T programs (Bernal, 1986), or without a special research effort on the part of the National Research Center on the Gifted and Talented or of the Javits program, we may never have the opportunity to document and review the new developments that are actually being institutionalized in the field.

My point, however, still stands: G/T education is not identified with any particular reform, has not publicly or professionally committed itself to achieve particular goals, whereas regular education has.

My reading of the announcements of recent G/T training workshops indicates that several notable educators of the gifted seem to believe that the answer is to find ways to accommodate G/T children into inclusionary, regular classrooms. In short, G/T educators have simply not yet found the key to upscale the G/T program and have resolved the challenge of reform by compromising the field's traditional interest in a *fully differentiated curriculum.*

A New Departure

I propose a different solution, the conversion of the G/T curriculum to a multicultural format with a bilingual option for those students whose parents wish for them to develop high levels of proficiency in two languages. Thus gifted students who enter school as English-language learners and gifted students who enter school as English monolinguals could both participate. Such a reform would not only include a greater diversity of students in the G/T classroom, but do so in a way that would enrich the educational experiences of traditionally selected G/T students as well.

I have seen what happens to very able learners who have essentially been left to fend for themselves in regular classes, for I have witnessed what has happened to bright Hispanic, Hmong, African-American, and American Indian children who have been excluded from traditionally established G/T programs. The only salvation for these "minority" children was the occasional teacher or counselor who recognized their abilities and took a personal interest in them. But many went unrecognized, some did not even finish high school, and those who went to college mostly attended second and third rate universities. A few even managed to achieve eminence, but one is still left to wonder, "What if...?" Will the education of gifted White students, who cannot afford a private prep school education, take a similar turn?

Do not, please, misunderstand my meaning. We *do* have such dedicated teachers and counselors in our public schools, men and women from every ethnic group who not only care about individual students but are also skillful and resourceful in meeting their needs. But even these professionals on their own cannot usually arrange for continuity of services. I have been in the field long enough to remember old mottoes that never worked, such as "Every teacher a teacher of the gifted!" And I have come to believe that not every teacher—not even every good teacher—can be a successful teacher of the gifted, for teachers of gifted children have to have certain predispositions (such as the willingness to serve in a facilitative role on a frequent basis), skills (such as the abililty to educe creative work), sensitivities (such as the appreciation of diversity in thought and belief), and personal commitment to really *develop* (not just teach) the gifted youngsters in their charge (see Bernal, 1994).

What I do believe is that the best hope for G/T education to involve itself as a player in the educational reform movement lies in the changes and accommodations that would flow from an unambiguous commitment to find, select, and educate *all* of the very able learners in our public schools. First, such a commitment would cause us to re-examine our selection processes. For example, it would allow success in a G/T program to guide selection-placement decisions.

Figure 1 illustrates such a process by the use of talent pools. Portfolios and commercially available materials (see Kingore, 1993) to document authentic levels of G/T performance as an alternative to IQ tests could also be used in this and similar settings. There should be several avenues for selection, and each avenue must be open to all students, irrespective of their ethnicity or gender. In this sense, at least, inclusionism can work.

Second, every G/T program would perforce become multicultural in nature, since elitist programs—racially and ethnically exclusionary programs—are neither attractive to gifted students who identify with their non-dominant cultures nor are they likely to retain such students without placing their mental health at risk (Gordon, 1972). The methods to achieve a multicultural program are well documented in the literature (e.g., Banks, 1977, 1994; Baytops, 1992). What does need to be emphasized is the recent work of Ford, Grantham, and Harris (1996), whose "wake-up call" to G/T educators to take the lead in multicultural education should not go unheeded, since this would establish social justice as a goal of gifted education, remove the stigma of bigotry and elitism from the G/T program, and teach the G/T children from all walks of life to respect each other's diversity and work together. It would also give G/T advocates a chance to be creative, something worthwhile to work for, and the opportunity to join the reform conversation on their own terms.

The process illustrated in Figure 1 postulates a multicultural G/T program, one that is receptive to "including" fluently English proficient bilingual students who are exiting a *bilingual* G/T program without their having first to be placed into an all-English regular educational setting.

Third, G/T programs that commit to serving all able learners will come to offer bilingual G/T curricula to bright children who are of limited English proficiency (LEP).

Figure 2 adumbrates ways to recruit, train, and certify bilingual program faculty to staff and design a parallel G/T program for LEP children, so that their education at a developmentally appropriate level and pace may begin right away. The program depicted in Figure 2 goes beyond that in Figure 1; however, in that it offers the possibility of extending the bilingual G/T program into a parallel program in which the bilingual G/T children may continue for awhile.

Figure 3 extends the parallel program in Figure 2 by offering an option for parents of native English speakers to send their children into a second language program for the expressed purpose of having them eventually integrated with formerly LEP, now fluently bilingual G/T children to develop a second language to a very high level of proficiency. An important variation of this model would be the establishment of a two-way bilingual program that integrates these very able English-language learners (ELLs) and Spanish-language learners (SLLs) from the beginning to master one another's languages in a rigorous immersion program in the childrens' second language.

Figure 4 illustrates one version of this model, one that may be particularly relevant for a bilingual G/T program that has limited numbers of modern language teachers, since it can be effectively implemented to

Figure 1.

Use of Multicultural Talent Pools

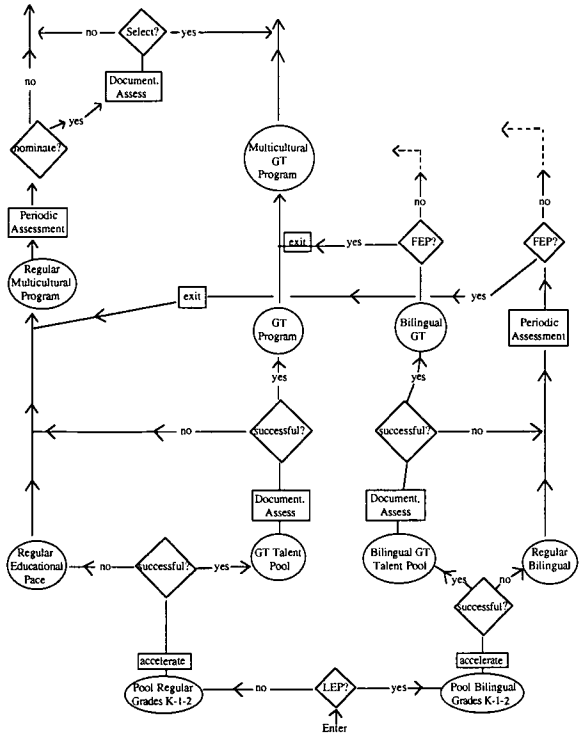
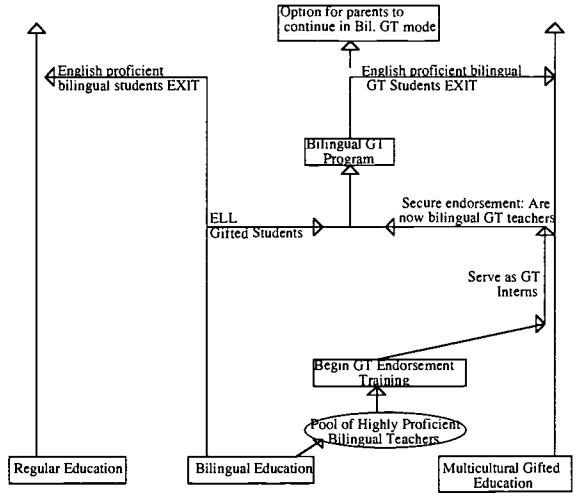


Figure 2.

Recruiting, Training, & Certifying Teachers



produce bilingual students by the use of two essentially monolingual teachers per grade level, each prepared to use second language methods, one monolingual English and one in the other modern language (Spanish in the example). (See Lessow-Hurley, 1990, for a discussion of methods and social issues.) Either way, the ethnically and linguistically integrated program for the the gifted would teach academic content in two languages, so that the children become fully proficient and, hopefully, multiculturally sensitive and competent bilinguals in the process. Would not such a program be a step above a classical education?

Fourth, I believe that G/T programs that are responsive to children from all ethnic groups—even those from the dominant ethnic group—will help refocus the *mission* or *purpose* of G/T education and thereby qualify to join the professional conversation on educational reform. For too long too many G/T programs have been *status* programs (Bernal, 1996), where labeling and exclusivity are at least as important as the intervention, indeed where the "identified" trait makes the intervention both necessary and possible. Such has been the tradition of special education, for instance, a tradition that is being renegotiated as a result of the Regular Education Initiative.

Conclusion

While I am not in favor of relegating our G/T children to every regular classroom and thereby dissipating the pedagogical advantage of a critical mass of *numbers* of students, I do believe that a commitment to reach and teach all the very able learners will get us to change the goal of G/T education from "educating the identified G/T children" to the more *dynamic* notion of *"finding and educating all the able learners for the purpose of enhancing the number of gifted adults."* Such a mission, I believe, gives a true social purpose to the G/T enterprise, forces us to see G/T education as a process not just of schooling but also of personal growth and development, and causes us to see giftedness not as something as static as IQ but as intelligence guided by habit, virtue, and—yes—passion to do things that may turn out to be splendid. Without a lot of such efforts *in school,* intelligent students do not come easily into their own, and society is the poorer for losing their creative initiatives.

Finally, the commitment to find and educate all the very able learners *together* may bring about something that our society badly needs to achieve: the preparation of our diverse peoples to work and live effectively, prosperously, and responsibly with one another in the 21st century. I personally would like to see our gifted graduates lead the way. For this to occur, how-

Figure 3.

Parent Option

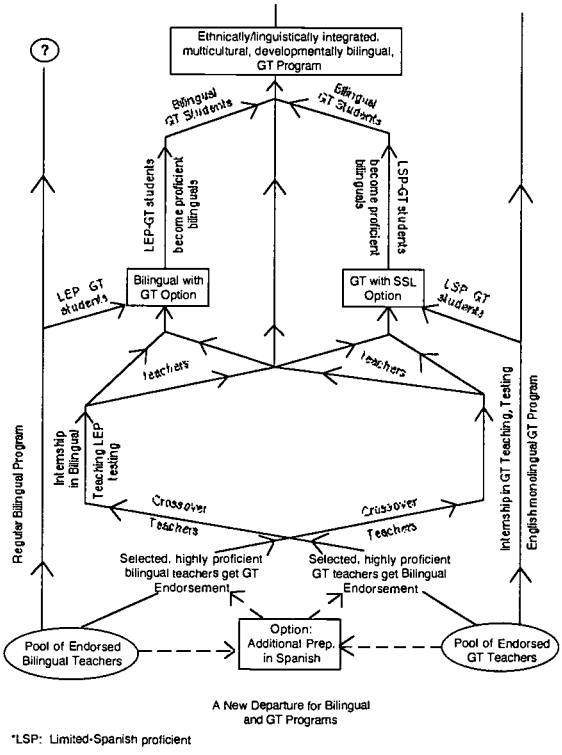
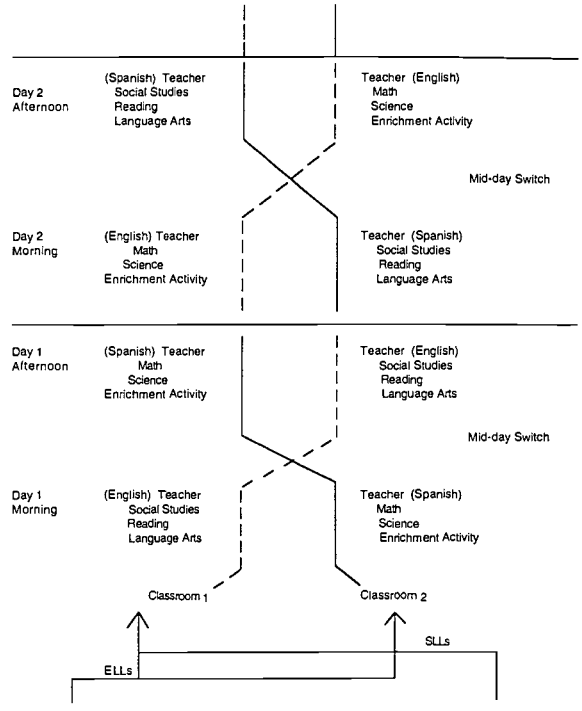


Figure 4.

Bilingual G/T Model with Limited Teachers



ever, there must be an empowered and empowering G/T program in place, one that brings to the educational conversation a pervasive reform of its own making.

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Progress and Problems: Creating a New Gifted Science Curriculum, The El Paso Model

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Progress has it's drawbacks and they are great and serious.

-Sir James Stephens 1829-1894

During the summer of 1996, a new curriculum for gifted science students in the middle school was developed by a group of Science teachers, English teachers, and administrators for use in the El Paso Independent School District's (EPISD) "Science and Technology" program. The new curriculum was developed in response to parental concerns, as well as teacher and student input. After the program was placed into the schools, parents and teachers began to complain about the content and the format. What started out as an effort to improve a program for gifted students became a battle between those that thought the program should have "returned to the good old days" and those that were for making not just another accelerated science program for gifted students but a program for truly gifted students.

Science and Technology: A Brief History

Science and Technology was originally developed during the summer of 1988 by the EPISD for it's new Gifted and Talented Department. The original concept of the Science and Technology program was to provide middle school-aged gifted students with a curriculum that was both integrated and differentiated, that not only focused on the basics of science but also on emerging technologies. The program had to be innovative and also multi-year, lasting all three years of middle school. Unfortunately, not many teachers were versed in what "integrated" was (integrated was a new concept in science education at the time), and fewer still could agree on what they should differentiate. The resulting product became a hodgepodge of an older program, old regular education science standbys, and "new wave' science programs. Because of the disarray in which the program got off the ground the first year, teachers, students and administrators never felt entirely comfortable with the curriculum. It wasn't all science, it wasn't all gifted, and it certainly wasn't well organized. However, it was all that was there.

The program remained in place much as it was originally designed in 1988, warts and all, except for an occasional summer revision which included, it seemed, random additions and deletions. A frog dissection was added here, a unit on solar energy was deleted there. The revisions were never based on any concrete data or analysis of the effectiveness of the curriculum. Teachers were asked what they liked and what they disliked. If enough teachers disliked a particular section of the curriculum, it was eliminated. Teachers in the program were pretty much left on their own to make sense of the curriculum. Teachers that were with the program at it's inception could pretty much figure out how it was supposed to be presented to students. However, new teachers to the program were hopelessly lost, many teaching their own version of the curriculum, many going off into tangents that had little or nothing to do with the program. (One teacher saw the computers that were in place for the program and decided to throw out the entire year's curriculum and teach the students how to use the Internet. Most teachers in the program did not understand the concepts of digital electronics, a major component in seventh and eighth grade, and simply chose to not teach it.) Despite, or maybe because of, the numerous revisions applied over the summers, teachers and students remained confused. (Interestingly enough, very few parents expressed concern over the curriculum during this time.)

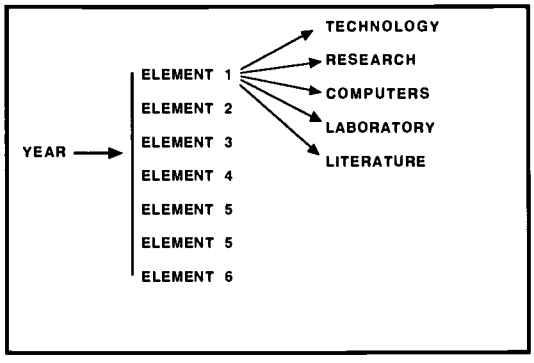
Because of teacher's continued confusion, and students concerns administrators at the EPISD gave the go ahead in the Fall of 1995 to begin rewriting the Science Technology curriculum. Curricula written expressly for the gifted science student was purchased and evaluated to be used as models for the new curriculum, books were purchased and read, research on integrated curriculum was evaluated. Teachers, students, as well as parents were informally questioned on what aspects of the program they liked and disliked. By the summer of 1996, the rewrite was ready to begin.

Science Technology: 1996 Edition

Learning from previous mistakes, teachers were not asked to devise an entire three year curriculum in one summer. By the time teachers were ready to begin work on the curricula, the backbone of the program had already been developed: Each year would be broken down into six six-week long units called "Elements." Each element would focus on only one topic, such as "Water," and contain a similar structure that students would see throughout the three years of the program. Each element would contain five essential components: technology, research, computer, laboratory and literature. These components would be repeated in each element, each year. (See Figure 1) Teachers had to write

their curricula based on the theme of the element, and had to incorporate the five components into each element. (The themes of each element were selected before the teachers actually began writing. Teachers were allowed to pick the Element that they thought they would do the best job writing.) Teachers were asked to be innovative, use multiple intelligences approaches, and challenged to find new approaches or use ones that they may have read about in journals or education magazines.

Figure 1. **The Science Technology Year**



Many innovative techniques that were already in place in the old curriculum were modified to meet the needs of the new curriculum. Eighth graders, who in the past were expected to write a college level research paper, now were asked to create an independent study project as a prelude to the one expected of them to achieve a seal of academic excellence in high school. Seventh graders were expected to create multimedia science fair projects, throwing the old cardboard backboard out the window and replacing it with a Hyperstudio version using the Macintosh computers that were already in the classrooms. The confusing robotics programs of the past were replaced with a curriculum from a company that produced industrial arts curricula for districts throughout the United States. Cutting-edge multimedia group activities were purchased and placed into appropriate elements, such as "Minds on Science: Impact on Discovery" in the Brainworks Element in eighth grade. Computer programs that were not meant originally for gifted programs were written into the course, such as the genetics simulation Sim Life that became part of the Simply Life element. Literary works were incorporated into many elements as a way to get students to see alternative viewpoints, compare and contrast real versus fictitious settings, and to stimulate debate about current events in science. The final product, a series of 18 Elements, was topical and unique (Table 1). It was also controversial.

It's a Great Curriculum But...

Complaints about the new curriculum began almost immediately. The most often voiced complaint was about the inclusion of "regular books" into the curriculum. Parents could not understand why students had no "real science text" but rather a series of books that appeared to have no relationship to true science. (Table 2) An effort was made to include books that students and teachers alike could use as springboards for discussion and debate. Many parents complained about the reading level of *20,000 Leagues Under the Sea*. Why read this book when studying a unit on water in Sixth Grade? Members of the district's Gifted and Talented Department responded to many queries about the literature connection in science. One parent asked why the science course become a literature course? One parent filed a complaint with the local school board over the use of Ray Bradbury's classic work *The Martian Chronicles*. The book, the parent explained, taught students racist ideas because it contained the word "nigger" in one of the stories. It was also vulgar, she claimed. The local president of the NAACP came before the school board and read the offensive passages during a public forum.

Students told teachers that the book was great and responded better to its inclusion than the parents. (One sixth grade class, as a group, went to the local Barnes and Noble and purchased their own copies of the book.) A review panel was established by the school district to see if the book should be removed from the curriculum, and they determined that the book should stay.

Table 1

Science Technology Three-Year Course of Study

Element	Topic
Grade 6	
Waters the Matter	The water planet and the limitations of water in the desert community of El Paso
Great Debates	Controversies in science and public speaking skills
Fair's Fare (6)	Construction of a traditional science fair project: The scientific method
Star Trekkin' Through the Solar System	The solar system/problem solving
Eclectic Electric	Basics of electricity and how it affects our lives and community
Return of the Automatic Man (6)	Introduction to robotics/problem solving computer programming
Grade 7	
Toxic Ranger	Introduction to chemistry/technological impact on society
Nuclear Days and Atomic Nights	Technology and its problems, nuclear energy
Fair's Fare (7)	Scientific method, science fair project, multimedia presentations on computer
Simple Life	Introduction to life science/genetics
Return of the Automatic Man (7)	Basic CAD and control, basic robotics
Computers and Your Life (7)	Introduction to digital electronics impact on computers and society
Grade 8	
Brainworks	Basics of the human nervous system
Pollution Solution	Chemical change and the impact of man and the environment
Independent Study	Creation of a science related independent study project
Simply Earth	Basics of earth science and the impact of man on the environment
Return of the Automatic Man (8)	More robotics, more difficult technological challenges
Computers and Your Life	Complex challenges in constructing digital electronic devices, impact of computers on society

Table 2

Books Used in Science Technology

Sixth Grade	Seventh Grade	Eighth Grade
Water Science	*Toxic Waste*	*The Brain Book*
Eva	*Z is for Zachariah*	*Pollution*
Martian Chronicles	*Andromedia Strain*	*Journey to the Center of the Earth*
Star Wars	*I Robot*	*Robotics*
	Star Trek Guide to 20th Century Computers	

Other complaints have included:

- The course is too challenging for gifted students.
- There was not enough "real science" in the course.
- The students do not receive the basics of science in the course.
- The course taught "new age" religions.
- Students shouldn't be taught about controversies in science.
- The Independent Study portion was not conventional.
- Not enough "hands on" labs.

Surprisingly, when the curriculum was explained to a group of parents, they said that it was a "great curriculum" and that they were happy that their children were in it. However, they felt that it wasn't "real science", and that the students were missing the basics. If the district could just make it "feel" a little more like a traditional science course. . .

Response to Complaints

The most difficult idea of the new Science Technology curricula for parents to accept was that students would be required to actually read books that were not traditional science texts. (Indeed, there are no gifted science textbooks that we were aware of on the market. Most districts simply accelerate the regular curriculum or move gifted students to the next grade level. A truly differentiated curriculum is not a readily available option unless a district actually creates their own, as the EPISD did in this case.) We explained that the books were in place in order to compliment what the children were learning in class, and in no way had our intentions been that the book become the focal point of the course. Several studies have shown that including literature into science is an effective way to elicit class discussion, and to demonstrate to students the real world applications of what they are learning in class. (Dybdahl & Shaw, 1993)

To be fair to many parents, some of the teachers had misunderstood the intention of the books as well, and were in fact teaching only to the literature, not the other parts of the Elements. In subsequent inservices, teachers were instructed how to keep the literature connection to a minimum, not to exceed five percent of a student's overall six week grade. Inservices had also been scheduled to demonstrate to science teachers how to introduce a novel into a unit. Many universities use literature in science classes as well. One parent believed that since the course asked students to read a book that had aliens in it, that the course was trying to spread some type of new-age religious doctrine. The book, *Martian Chronicles* by Bradbury, was used during the solar system element to have students compare and contrast the real Mars that they learned about to the mythical Mars that Bradbury envisioned back in 1949.

"There is not enough real science in the program" was a gripe often heard about the curriculum. One of the major reasons for the rewrite was to include more basic science. However, a recent survey of the teacher's guide to the program showed fully that 50% of the course is hands-on labs. Science Technology considers "labs" any activity where students design, test, record results, and report findings. Computer simulations in Science Technology cover the "lab" definition as well as the six weeks spent creating a science fair project is considered a lab. However, many parents did not see any type of computer simulation as a lab. "I don't remember doing labs like that when I was in middle school," one parent said at a meeting. The implication seemed to be that since the labs were not in his realm of experience, then they were not true science.

The independent study portion was written into Science Technology to augment the new Seal of Academic Excellence, placed into the EPISD high school curriculum in 1996. It was also an attempt to make research a bit more interesting and real to the students.(Swami, et. al., 1979) (One of the hallmarks of earning the seal was that students must complete some type of independent study project.) It was also designed as a cure for complaints that the research paper was "too much work." The majority of these complaints about the research paper came from a few schools with large gifted populations. In response, the teachers at those sites were asked to develop the independent study element. After the implementation of the new element, not one complaint was received from students or parents, a marked improvement from previous years. The independent study project allowed students to work in groups on a project of they wished, and gave them the ability to choose the product they wished to create. The first year of the new program produced a wide range of projects, from a collapsible crutch to a multimedia demonstration on why cats survive a fall to land on their feet.

Traditionally, parents have said that Science Technology students do not receive enough "basic science."

(See HOLT, page 38)

A Lost World Explored: A Dinosaur with a '90's Roar: Pull-Out Block-Scheduled Program

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Northwest ISD

"The true creator is necessity, which is the mother of our invention." Plato's *Republic* reminds us of this wisdom when we are reaching for new answers to old questions. One of those recurrent quandaries surfaces with regularity: Can the needs of gifted students be met best in regular classes or in pull-out programs? Ageless is the debate, and endless are the arguments both pro and con.

On our rural Title One campus of 500 students, the pull-out support programs for special needs students had become the tails wagging the dog of regular instruction. These programs include, not only gifted services, but also Alphabetic Phonics, ESL, Content Mastery's Stevenson program, speech therapy, and the HOST Learning Lab. Regular classroom teachers were at wit's end in their effort to design cohesiveness into their daily schedule with this growing carrousel of kids in and out of their rooms.

At Seven Hills Elementary, we focused on the question, "What is best for these specific kids at this point in time?" Keeping this adage in mind; and after prolific brainstorming, teachers, parents, and administrators gave birth to the concept of an elementary modified block schedule. All kids served by support programs would leave regular classes during this 45-minute block time thereby alleviating the growing merry-go-round problem of students' going and coming to and from support programs throughout the day. Students remaining in the regular class during the block time would receive enrichment and/or acceleration activities. As of this writing, no student was in need of the service of two programs which met during the block time; however, a contingency plan is being developed by a committee to address this possible conflict. As soon as morning beginning activities were completed each day, the first 45-minute block began. First grade students identified for service through a support program would leave their class and report to the room of the needed program; i.e., speech therapy, dyslexia assistance, gifted and talented services, ESL, for the allotted period of time. Second grade students would begin their 45-minute block during the second rotation. This plan was followed at 45-minute intervals through five periods of the day to service grades one through five.

This concept for Seven Hills opened a Pandora's box of questions for the gifted program. What type of content would our gifted students study? Would they feel isolated emotionally and socially from regular kids? How would their program be integrated with regular classes as well as the mission statement of our school? These questions represent those ageless inquiries that always surface at the onset of something new. Pandora's problems illuminated a second necessity, and invention glowed in response — design, implement, and evaluate a new learning opportunity for the Seven Hills gifted population.

The Design

Creation of a new program design necessitated the consideration of two facets—the guidelines for providing comprehensive services to gifted learners as set forth in the *Texas State Plan for the Education of Gifted / Talented Students* (1997), as well as the explosion of information readily available on brain-based learning. The new state plan mandates services in the four content areas of language arts, mathematics, science, and social studies. Brain-based learning theory calls for the immersion of children in enriched environments with complex experiences. The former side of the two-edged sword would be relatively easier to sharpen than the latter — providing brain food in new ways. We are a rural, predominantly lower socio-economic community. We did not have the necessary exposure to new research findings. Nevertheless, the design sparked a beginning, and it was kindled by Joyce Armstrong Carroll's assertions in *Acts of Teaching*,

> "The point for educators is not to lament prior environment over which they have no control; the point is not to abdicate responsibility because of some prior lack of enrichment. Rather, the point, indeed the challenge, is to *provide* enriched environments for all children. That is the function of the brain — to create meaning" (1993, p. 395).

Effective programs must have grass-roots support and the buy-in of teachers, administrators, and students. Therefore, three additional criteria were added to the "This curriculum must have the following" list. It must be of interest to the students served, it must be relevant and include current important events that would occur during the course of the school year, and it must be differentiated and in support of grade level content areas. Wow, no short order here! This new program design's growing complexity and the enormity of this new task brought back memories of college-

day's Greek mythology. The story flashed through my mind of the Gorgon monster Medusa whose gaze turned to stone anyone who looked at her and who was eventually slain by Perseus. The new design became a rearing Medusa's head gazing in my direction. Where was my hero to slay Medusa? Where was Perseus? As the thought of becoming a stone effigy did not interest me with overwhelming desire at this time in my life, Plato's reminder that necessity is the mother of invention gave me courage to forge on with the program design and slay Medusa myself.

The Implementation

"Relevancy with inclusion of current important events" was our guide in the formulation of the year-long plan that is now presented in its comprehensive and sequential summary form.

Connections 1996-1997

First Six Weeks	Connections with Thinking; Metacognition and the Five Caps for Thinking
Second Six Weeks	Connections with Literature and Social Studies Newberry and Caldecott Award Winners; The Presidential Election
Third Six Weeks	Connections with Social Studies, Science, and Math Images of Greatness; Night of the Notables Interactive Electronic Field Trip; "Live From Mars;" Mathematical Olympiad Kick-Off
Fourth Six Weeks	Connections with Science;The Invention Convention
Fifth Six Weeks	Connections with Science; Adopt-An-Acre Bolivian Rain Forest Project
Sixth Six Weeks	Connections with all disciplines—North west I.S.D.; Now and the Future with NASCAR

Acknowledging the state plan's mandate to address the four content areas, the social studies component allowed us to immerse our kids in the complex experience of organizing and implementing a school and community-wide registration and mock election. Herein, our brain-based learning emerged as the kids studied the necessary facts and embedded them in experiences that relate to real life — the big picture.

A science correlation was with NASA's interactive electronic field trip "Live from Mars." This provided excellent state plan adherence and brain-based learning compatibility. Our social brain devours collaborative interactions that the ongoing communications with NASA, analysis of incoming data, and interaction with the science experts provided.

The building of Texas Motor Speedway had a major impact on the day-to-day functioning of our Northwest I.S.D. This event, from groundbreaking through the inaugural race, provided opportunities for integration of all four content areas as well as brain-based relaxed alertness, orchestrated immersion, and active processing. This study culminated in a field trip to the speedway as a highlight of active involvement.

"Must be of interest to the students served" was a criteria for the Adopt-An-Acre Bolivian Rain Forest endeavor. This grew from a gifted activity to a community-wide project. This study was initiated by the students and ultimately incorporated all content areas with generous downpours of brain learning strategies. This uniquely interdisciplinary study stretched the students to higher levels of thinking and problem solving as they analyzed information, synthesized solutions, and evaluated current conditions of our earth's environment in light of rain forest destruction. Having direct contact and interaction with representatives of Earth Foundation, the Adopt-An-Acre sponsor, and being sent a video of actual acreage saved by the Seven Hills students were high points of the year.

"Must be differentiated and in support of grade-level content areas" loomed initially as our arena of greatest challenge. Heeding two caveats that possibly could plague a pull-out design, resistance of others and articulation across grades, we included stakeholders from various areas to add their expertise toward this contingency. Parents, teachers, and administrators communicated possible concerns and suggestions in the language arts, math, and science disciplines by suggesting, among other things, the inclusion of TAAS targets.

Their recommendations provided a foundation for the selection of literary pieces from Caldecott and Newberry Award winners to analyze, compare, synthesize into product presentations, evaluate by students, and be accepted by the community's culture. This advisory group also assisted in the creation of the science strand by delineating grade level and teacher emphasis with respective time lines. Their assistance proved invaluable in the mathematics curriculum. We dedicated ourselves to the task of accelerating each student through enriched mathematical environments. Serving as a resource, The Mathematical Olympiad competitions provided an incentive for our efforts to encourage neural branching. Utilizing hypothetical thinking, inquiry questioning strategies, and problem solving tasks, students found themselves immersed in a brain-food environment, thereby achieving the desired outcome.

While the four content areas enumerated in the state plan received expansive attention, care was directed to the find arts and leadership theaters of giftedness.

Students created products and designed performances at the culmination of each unit of study.

Perseus had arrived, Madusa lay decapitated, the program flourished.

The Evaluation

Barbara Clark reminds us that "at birth nearly everyone is programmed to be phenomenal" (1992, p. 25). Did our curriculum meet the needs of kids programmed to be phenomenal? Results from an end-of-year survey suggested we had met the needs. However, each component of the design was held to a close scrutiny from the eye of the Cyclops: i.e., teachers, students, and administrators.

From an academic rubric perspective, all identified gifted students attained Academic Recognition on the TAAS assessment that, outwardly, spells success. Nevertheless, all facets incorporated into the creation of this new design will be evaluated in an ongoing manner. We planned the work, worked the plan, and will continue to re-work the plan to meet the changing needs of our kids.

As Odysseus encountered and subdued the Cyclops on his adventure into the unknown, we, as educators of the gifted, must encounter the Cyclops on our adventure into providing programs of quality and excellence for our students. At Seven Hills Elementary during the 1996-97 school year and for the specific population served, the modified pull-out block-scheduled program worked.

Plato's words once again resound throughout the ages, "You can't step into the same river twice." An innovative concept in program design for one year and one group of students probably would not meet with the same degree of success for a second time around. As the end-of-year survey of the pull-out block scheduled program indicated positive feedback from teachers, students, and parents, the blocked time structure will remain. Topics to be addressed will be modified to focus more on problem-based learning relative to the events of the new school year. As burgeoning brain research sheds light on our amazing "Cathedral of Complexity" (Coveney & Highfield, 1995), we educators will flow with the grain of the brain in responding to the challenge of designing fluid, enriched environments for our ever-changing students.

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Fast Forward and Rewind: Strategies for Gifted Students with Learning Disabilities

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Enrichment and remediation together may seem as paradoxical as using fast forward and rewind concurrently on your video recorder. Yet gifted students with learning difficulties are paradoxical learners with exceptional abilities that need to be developed and severe weaknesses that call for remediation. Because academic and social weaknesses cause the most difficulty in school, remediation is often the primary goal in the classroom. As a result, the exceptional abilities of gifted students with learning disabilities may never be addressed. If strengths are addressed, it may be only after all other assignments are completed. Udall (1991) calls this the "contingency plan." In effect, we are telling students that "we care most about what you cannot do." The focus of this article is to explore strategies that provide acceleration and/or enrichment (fast forward) and remediation (rewind) simultaneously.

Rewind

Basic school skills such as reading, writing, spelling, sequencing, and paying attention pose difficulties for some gifted children because of a neurological processing disorder, most often referred to as a "learning disability." It may be necessary to "rewind and play back" instruction in some of these areas in order for children with learning difficulties to achieve mastery of the skills.

Ironically, gifted children with learning difficulties may speak disparagingly of schoolwork that they have not mastered, calling it "boring" or "stupid" (Betts & Neihart, 1988). They may vehemently deny that they are having difficulty. Like their gifted peers, gifted/ld children have a high internal standard of success. Routine, simple tasks needed to remediate a disability may not be seen as an accomplishment by the child who regularly masters complex tasks outside of school (Baum, 1988). These children are perceptive of the fact that they should be able to perform, and may be perplexed and visibly upset when they cannot (Gunderson, Maesch, & Rees, 1987; Rosner & Seymour, 1983).

Fast Forward

How can a child needing "rewind" possibly be able to "fast forward" at the same time? Silverman's (1989) research illuminates this paradox. She found that the harder the task, the better gifted/ld children perform. On intelligence tests that progress from simple to complex, gifted/ld children will often fail simple items while passing the difficult items. Outside the classroom, gifted children with learning difficulties demonstrate superior abilities in creativity (Lovecky, 1994; Webb & Latimer, 1993; LaFrance, 1995), problem solving (Barton & Starnes, 1989; Tannenbaum & Baldwin, 1983, Silverman, 1989), and task commitment (Baum, Emerick, Herman, & Dixon, 1989; Weinstein, 1994; Reis, Neu, & McGuire, 1995).

Classroom Strategies

The paradox of superior abilities and extreme weaknesses presents a challenge. Ignoring superior abilities results not only in a loss to the child, but to society as well if the gifts are never nurtured and channeled into authentic products. Ignoring severe weaknesses handicaps the child in the expression of his or her gifts. It is important for educators to employ classroom strategies which will create what Rawson (1992) calls a "therapeutic climate." In a therapeutic climate, expectations are high and clearly stated, but support is always available. Following are strategies for teaching gifted students with learning differences.

Implement Curriculum Compacting

Curriculum compacting calls for assessment before instruction in order to credit the student with knowledge or skills already mastered. Curriculum compacting also involves acceleration when a student is capable of quick mastery of new material. For the gifted student with learning difficulties, curriculum compacting validates and values the stores of information he possesses and acknowledges his potential for learning. The gifted/ld child can then work ahead and develop in areas of strength.

Allow Higher Level Activities to be Done Before Basic Skills are Mastered

Gifted/ld children may be capable of complex thinking in an area before the basics are in place (Silverman, 1989). For example, a child may be fascinated with complex math concepts such as infinity or negative numbers before all math facts have been memorized. You may have to feed the passions while laying the groundwork.

Vary Methods of Remediation

Because they share characteristics with other gifted children, gifted/ld students are easily bored and frustrated with rote and repetition. Be familiar with strat-

egies used to build skills in children with learning difficulties and adapt as needed. Investigate sequential reading programs based on phonics for children with visual-motor integration difficulties such as dyslexia (Brown-Mizuno, 1990). Present directions in a variety of ways and use attention directing techniques (Dix & Schafer, 1996). Be aware that gifted/ld children often have an auditory sequencing component to their disability (Silverman, 1989) and may need to have directions repeated.

Use Strengths to Demonstrate Mastery

Students having difficulty with written output may shine orally. Allow these students to take tests or give reports orally when possible. Word processing is a valuable tool for the child with complex, creative ideas but who has weak handwriting and spelling skills. Like most gifted children, gifted/ld students have area of interest in which they are passionate and are an "expert." Use student selected topics as vehicles to teach basics of reading comprehension, research skills, study skills, and mechanical skills such as spelling, capitalization, and punctuation (Clements, Lundell, & Hishinuma, 1994).

Bypass Disabilities

It is crucial that educators realize when to stop remediating and when to begin teaching adaptive techniques in order to bypass a disability. Technology (computers, calculators, tape recorders, and electronic spellers) can help students compensate for weaknesses. Other strategies include using earphones to block out noise, making lists to help remember things, using books on tape and documentaries for poor readers, and utilizing a note-taker in class (Silverman, 1989; Dix & Schafer, 1996).

Encourage Success

Gifted/ld children need success everyday. Do not make participation in areas of strength or interest (art class, science fair, or the gifted program) contingent on success in another area. Timed tasks and voluminous writing assignments may frustrate and impede a child on an assignment in which she might otherwise be successful. Build self image by allowing gifted/ld children to "shine" in front of their classmates. Provide biographies of successful individuals who achieved in spite of a learning difficulty (Udall, 1991; Williams, 1988; Silverman, 1989).

Strategies for Parents

When the school day is over, it is parents who are first-hand witnesses to the distress and frustration of the high ability child with learning difficulties. It is also parents who witness a pure, authentic display of talent, thinking, and creativity by their child in a natural setting. Perhaps parents are the most bewildered by this child who seems to need both fast-forward and rewind. Following are strategies that parents can use to support a gifted child with learning difficulties.

Equip Yourself

Learn all you can about your child's learning disability. Think of the school as a resource center and learn all about the services it can or cannot provide. Schools may or may not give comprehensive, individual aptitude or achievement tests, especially if a child is "getting by." A comprehensive battery of tests done outside school can give an accurate picture of a child's strengths and weaknesses.

Homework Assistance

Make special tools (spelling dictionaries, electronic spellers, tape recorders, word processors) available for homework. If reading is difficult, read books, texts, and assignments to him. Seek outside support, such as tutoring or counseling for your child (Nielsen, 1996).

Be Active

Get to know your child's teacher. Make friends, volunteer, participate, have coffee with him or her. Do all you can to maintain a positive relationship (Nielsen, 1996; Hallowell, 1996). Ask for an Individual Education Plan (IEP) for your child and consistently check to see if it is being carried out (Nielsen, 1996). Work to get your child into special programs he or she needs, whether it is the gifted program, accelerated classes, special education, or all of these.

Examine the Fit

Thoughtfully evaluate the fit between your child and the school (Hallowell, 1996). Find out if the teacher or school accommodates learning styles. Will reasonable modifications be made to accommodate the needs of a high ability child with learning difficulties? Are educators aware of the unique emotional needs of gifted/ld children? Ask about policies concerning double identification--gifted and learning disabled. Investigate whether children with learning disabilities are being served in the gifted program. If accommodations cannot be made, you may need to consider a change in teacher or school.

Dual Directions

We study, investigate, differentiate, and advocate for gifted students because they learn differently than their peers. We do the same for students with learning difficulties because *they* learn differently, also. As we look to the future of education for the gifted, let us not overlook the fact that some children have both superior abilities and extreme weaknesses. When teachers and parents employ strategies that nurture strengths and provide support for weaknesses, we can fast forward and rewind— at the same time!

(See RAY, page 38)

Exceptional Opportunities For Exceptional High School Students At the Advanced Academy of Georgia

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Stewart Jenkins is a very personable young man who is a second-year student in the Advanced Academy of Georgia at the State University of West Georgia. The Advanced Academy (1996, 1997) is a unique program for gifted high school juniors and seniors, in which they become full-time students in residence at the University, taking college courses to complete their high school requirements. This enables them to graduate with their high school class, but when they do so, they typically have sufficient college credits to be a college junior. Stewart is one of these students — he turned eighteen in the middle of his second year in the Academy and has already accumulated enough credits to be a college junior before he has graduated from high school.

Stewart's high school GPA of 96.587, and his PSAT/SAT scores (re-centered) provide compelling evidence of his exceptional abilities:

PSAT, 1993, ninth grade: 48 verbal, 67 math
SAT, Dec.,'94: 560 verbal, 700 math
SAT, May, '95: 630 verbal, 750 math
SAT, Dec., '95: 680 verbal, 760 math
SAT, May, '96: 620 verbal, 740 math (large type institutional).
SAT II, Math 800; Physics 800; Writing 710.

Stewart is visually impaired; he has ocular albinism, a secondary condition of the albinism. He describes the aids that he has used thus:

> Over the years, I obtained several different visual aids. At first, I used simple magnifying glasses which made it possible for me to perform many of my tasks, provided I was reading large print. Then, about five years ago, I discovered a new type of visual aid that took full advantage of the developments in the field of optics. This device, named the Ocutech, consisted of a miniaturized six-power telescope mounted on the top of a pair of glasses. The Ocutech greatly increased my ability to perform many tasks: images from overhead projectors became visible, and it became easier for me to recognize people. The most helpful of scientific creations was released about a year and a half ago. It integrates the knowledge of modern electronics and optics that science has given us over the last couple hundred years or so. The Low Vision Enhancement System (LVES) has allowed me to see things I had never noticed before, such as a person's facial features, a flock of birds flying south for the winter, and many other marvels of nature. LVES (he calls it 'Elvis') is an electrical device that fits over my head, takes in images through the cameras, and sends the image to a small computer I wear around my waist. This computer enhances the contrast of the image, and allows me to adjust the magnification. This enhanced image is then sent to two screens in front of my eyes.

LVES was developed at Johns Hopkins, and Stewart goes back there in the Summer to learn of upgrades and new features. According to his mother, Stewart did not obtain LVES from Hopkins until June 1995, just before he came to The Academy. Prior to the trip to Hopkins and the new equipment, they were afraid that Stewart would not be able to read the blackboard in his college classes. However, LVES intensifies the contrast, and Stewart can accomplish this task.

Earlier, before Stewart and his teachers had a full appreciation of his disability, he sometimes got grades lower than expected, to his surprise. Teachers did reduce his assignment pressure (e.g., giving him every alternate problem to do rather than every problem).

In the fourth grade, Stewart was identified as a candidate for the Gifted Program. He was given the qualifying test usually administered — it was in large print for him, but no special accommodation was made in terms of time. As a result, he did not complete the test in time, and did not qualify for the Gifted Program. In the sixth grade, he took the test again and, this time, was accepted for the Gifted Program.

Stewart considered himself just going along with everyone else in the Gifted Program, until the Duke Talent Identification Program (TIP) in the seventh grade. He earned SAT scores of 590 (Math) and 450 (Verbal) as a seventh grader, was recognized in the TIP Program, and received an invitation to go to Duke for the Summer. That seemed like a wonderful opportunity, and he attended the Duke program for three summers, studying Math and Physics. That was the time he began to think of himself as being exceptional.

By the time he was in the eighth or ninth grade, Stewart had adapted better to the disability and did not need time accommodations. He was doing very well in high school, but was beginning to find that there were not many more courses that he could take there.

For example, as he says, "The high school had only one Physics course, and I had taken it!"

When the opportunity to join the Advanced Academy of Georgia came along, Stewart and his parents very wisely recognized this as being well suited to meet his needs. He joined the Academy in the Fall of 1995 and is enjoying this opportunity to expand his horizons.

At the end of Winter Quarter 1997, Stewart has earned 109 quarter credit hours with a 4.0, including 25 hours credit by examination. He is enrolled in 16 hours Spring Quarter, including a senior level physics course. He has been active in the University Honors Program, was named the Outstanding Freshman Honors Student at last year's Convocation, and has participated in the annual honors field trip to Washington, D.C. Attesting to his high level of motivation to achieve academically, during the summer, he completed an independent study of calculus-based PHY 256 and PHY 257 — simply for the pleasure of doing so.

Stewart is known by his professors as an ideal student, always prepared, inquisitive, intelligent, hard-working, and exceptionally polite. The Coordinator of the Academy, Ms. Pat Hughes, says, "I can't say enough about Stewart's cooperative spirit, dry wit and great sense of humor, and his strong and caring friendship with the other Academy scholars."

Stewart particularly regards Physics and Math as being "fun." One of the more interesting stories of his success in the Academy concerns his work in Math. He took a competency test in the first Math course, College Algebra. Based on his score of 5 on the AP Calculus test taken as a tenth-grader and on his own assessment of Stewart's abilities, the Department Chair, Dr. Chatty Pittman, placed him directly into Calculus III. Then, based on early evaluations in the course and further appraisal by Dr. Pittman, he was moved up to Calculus IV, in which he earned the highest grade in the class. Not only did Dr. Pittman say that Stewart was the most gifted student in math ever to come through the University, he authorized Stewart's advisor to register him for any math or physics course he desired to take, regardless of the level or the published prerequisites. This confidence has not been misplaced—Stewart has made A's in MAT 420 and 421, senior level mathematical statistics, MAT 300, Discrete Structures, and Physics 332, Electric and Magnetic Fields.

In addition to math and science courses, Stewart has successfully completed honors sections of U.S. History I and II, English Literature, Computer Science, and Philosophy, and regular sections of World Literature, American Literature, Physical Education, and Latin.

Stewart's own characterization of how the faculty of the Academy have helped him is so well put, no further amplification is necessary. He says, "In school, help was a 'helping me get by' thing; in the Academy, help is a 'helping me get ahead' thing."

Get ahead, he certainly has. As we look at the list of very impressive courses in the preceding two paragraphs, we have to keep reminding ourselves that Stewart is eighteen and, were it not for the Academy, would have been a high school senior. Today, though he has yet to receive his high school diploma, he has sufficient credits to be classified as a college junior.

Even in the area of social interactions, the Academy has helped Stewart obtain "broader access to socialization." To understand this, one has to look to Stewart's childhood days. When Stewart was much younger, before he had come to understand his disability, when other children met him and said, "Hi, Stewart," he had no idea who they were and that tended to hinder socialization. In early elementary school, he played with neighborhood youngsters, and his best friend lived across the street. In the third grade, his family moved away into a less densely populated area, and his best friend was a mile away. In fact, there was a significant distance from other children. Now that Stewart is in the Academy, his friends live in the same residence hall, some right next door. Many take the same classes; others study together, others come to Stewart for help in math and physics. On Thursday nights, all Academy students eat together, and participate in leadership development activities and programs. These activities certainly enhance social interactions.

Stewart wants to major in physics or computer engineering, or perhaps a combination of both—he certainly expects to complete graduate studies after his undergraduate program. He sees himself working in a field that involves computers, because "computers are neat." He wants to make his share of contributions to society. With the dry wit that has made him famous at the Academy, he says, "Given my interests, I suspect that my contribution is more likely to be by way of a new technological development to improve some process, but it may very well end up in the creation of a new philosophy that makes everyone happy and leads to world peace."

Stewart works in the computer lab of the College of Arts and Sciences and in the Math Lab; he also helps his colleagues in physics and math.

Stewart has received acceptances to many fine Universities for his bachelor's program, including Duke

(See BOOTHE & SETHNA, page 37)

MEETING THE NEEDS OF THE GIFTED STUDENT

Christine Harmon
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The Self-Contained Classroom

Districts across the state are beginning to implement a variety of programs to address the needs of gifted students. As with any newly created program, districts are faced with a multitude of approaches that range from pullout options, a school-within-a-school, to self-contained classrooms. During the 1996-1997 school year, the unique opportunity to teach a self-contained gifted class of 21 fourth and fifth graders during the district's first year of implementing a newly designed gifted program became available. The uniqueness of a self-contained classroom was not initially apparent until the instructor later faced a group of mixed ability students that included gifted students.

There is often a misconception that gifted students will be gifted in all subjects (Borland 1989) which was not the case even in this self-contained classroom. As was evident in this situation, an instructional approach was needed that would be flexible yet meet the needs of all students. The instructor used a specialized curriculum for math and for the language arts and an interdisciplinary approach to incorporate the other subjects from the district's curriculum. The utilization of the interdisciplinary approach allowed the instructor the opportunity to accelerate the students as needed or to readdress certain academic areas if necessary. The district's curriculum needed to be viewed as a constantly evolving and changing palette that meets the nature and the needs of the learners (VanTassel-Baska, 1988). Therefore, the instructor was faced with the necessity of extending and bringing depth to the regular curriculum in order to meet the variety of gifted learners within the classroom. Acceleration of the materials was often necessary for the more advanced students, and the opportunity for independent studies was given to all, regardless of age or grade level.

Despite the disparity in ages and grade levels, the majority of the students worked as a class and as a group of friends. Work was often jointly done in regards to writing activities, the humanities, and creative group projects. The students interacted voraciously during classroom discussions and critical thinking activities, while becoming competitive in nature. Students enjoyed learning opportunities more when they study with peers of similar abilities, developing positive attitudes about themselves and about school (Clark, 1992). With the constant creativity and application of critical thinking, the academic record and use of thinking skills by the lower qualifying student noticeably improved as the year went on. These students became risk-takers and developed the emotional stability that was necessary for true learning to take place. It was apparent that these students felt less isolated and benefited from having full day contact with stimulating students much like themselves. It was obvious that the emotional, affective realm of the self-contained classroom did much to support the students' learning. According to VanTassel-Baska (1988), "affective development plays a unique role in the curriculum. By utilizing a flexible curriculum, the instructor was able to create a context for focusing on the affective concerns of the students (VanTassel-Bask, 1988). Therefore, an interdisciplinary approach in a self-contained gifted classroom gave the students a forum of like players with whom they interacted academically and socially which enabled them to voice their concerns and doubts. Consequently, the students grew as individuals and as learners.

One prime concern of parents and educators when faced with the concept of a self-contained classroom for gifted students is the lost opportunity to interact within a heterogeneous grouping. The very nature of their needs in regards to curriculum, the acceleration of materials, and possible scheduling difficulties separate both the teacher and the students from the main flow of the school. One cannot deny that a heterogeneous grouping affords students with the opportunity to develop certain social skills; however, a school's goal should be to provide experiences for students to progress in their education and to learn from others. The gifted student should have the opportunity to develop the ability to understand the needs of others and the skills of working with others (Clark, 1992). In this particular case, the self-contained class was separated from their peers through scheduling difficulties. Broken into small groups of 5 to 6, the gifted students participated in physical education, music, and art with other classes. For the fourth graders, these classes were outside of their grade level and comfort zone. At no time did the self-contained class participate in these outside classes together, as a group. Oddly enough, during recess and lunch, two important times for peer interaction, the class remained as a homogeneous group and interacted only with each other. There was little desire on their part to interact with others outside of their class, even when given the opportunity to do so.

Certainly, the gifted child has a need to be with, and to enjoy the benefits of their intellectual peer groups (Clark, 1992), yet it is hard to support this premise when in the real world, we are not always afforded that luxury.

Inclusion within the Regular Classroom

Depending upon the school district, teachers may face having gifted students within their regular classroom. Frequently these students' needs are met from a variety of methods, such as a pullout program, a resource room, or other provisions that are made within the regular classroom. There is a new charter school, located in Dallas County, which is serving grades 5 through 8. This school has geared its curriculum towards the International Baccalaureate Middle Years Program and by the very merits of the curriculum, the school has attracted a large number of gifted students from the surrounding districts. The teachers are now faced with meeting the needs of the gifted students within a regular classroom setting where many students are not recognized as being gifted.

There is a wide diversity of students that can be found in a particular fifth grade class at The North Hills School. Out of 21 students in this class nine students have been identified as gifted by their previous school and/or district. Consequently, this particular teacher must rely upon her ability to challenge these students while maintaining a supportive learning environment for the other students. According to the *Texas State plan for the Education of Gifted / Talented Students,* (Texas State Plan, 1996), part of a district's program design should incorporate many specific learning opportunities for the gifted student There should be flexible grouping patterns and independent investigations that are offered to these students, allowing them to learn at a pace and level that is appropriate for their skills and abilities. In keeping with this understanding, the students in this particular group have been put into clusters within certain classrooms.

With clustering, students work with their cognitive peers within a curriculum that is accelerated and flexible enough to meet their academic needs. Yet, as Clark (1992) pointed out, whereas clustering might provide an appropriate learning environment for the gifted student, it might not provide the appropriately differentiated curriculum unless the teacher is aware of and tries to meet this need. Therefore, the curriculum is constantly undergoing development and expansion as the teacher tries to address the special needs of these students. The curriculum and delivery of instruction should provide the students with options in intellectual, creative, or artistic areas, with flexible pacing and modifications implemented in order to meet their needs (Texas State Plan, 1996) Therefore, the use of independent activities, an interdisciplinary approach to the curriculum's materials, and the acceleration of students are utilized within this classroom. One student leaves for her accelerated algebra class where for 90 minutes she interacts with her intellectual peers while in the regular classrooms students are grouped according to their abilities in math with the opportunity to move vertically within the program. Within this same classroom, another group is working with their cognitive peers researching particular culture while others are independently researching their own interests with specific guidelines and supervision of the teacher.

The success of this delivery of services is directly dependent upon the teacher. If the teacher does not have the management skills for such a complex structure of a classroom environment, there is only a small chance for success (Clark, 1992). As for the other students who have not been identified as being gifted, they too must function within this classroom and have their needs met. Much like the self-contained classroom where the ability levels of the gifted students varied greatly, these students range from special needs students working on a modification plan for success to those who strive for perfection. The clustering of such a large group of gifted students has not inhibited these students in their academic work or products. In actuality, these students seem to benefit from the modifications that are being made for the gifted students, taking part in their own independent studies. When teachers learn how to provide services for the gifted students, there are opportunities that naturally arise for the entire class, thereby raising the level of learning for all (Winebrenner, 1994). That is readily apparent in this classroom as all students enter into learning with an eagerness and an anticipation that is not often seen except in classrooms where all needs are met and the regular students receive an enrichment that is often missing within the regular classroom.

While the self-contained classroom is seen as an ideal situation, clustering within an inclusive classroom with a knowledgeable teacher can provide a program option for the gifted student when none might seem available. One noticeable difference between the self-contained classroom and this particular program, is the limited or lack of opportunities for full class discussions and verbal activities that transcend the expected norm. The conversations and verbal activities are constrained by the levels of the students' abilities, and while the teacher continues to engage in them, it is quickly apparent that there is a lack of motivation and ability among the unidentified students. This makes things very difficult for the teacher as she strives to meet the needs of the gifted students without losing

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GIFTED EDUCATION: ARGUMENTS AND ANSWERS WRITTEN BY A PARENT . . . FOR PARENTS

Colleen Elam
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Scoring the touchdown, the quarterback spikes the ball. The crowds rejoice thunderously as their team wins the Super Bowl!! Meanwhile . . . who won the Nobel Prize in physics?

Perhaps the problem with gifted education is the term "gifted." Who among us easily digests that word? Consider the success of the gifted program for athletics. The gifted who display their talents, who project a positive attitude, who work persistently, are awarded a place on the "team." "Team" is a term concept our society has evolved to embrace. From T-ball to pro-ball, people cheer on those gifted, the "team." The search is continual for the best of teachers/coaches. The gifted are given every opportunity to reach their highest potential. They push on with unflagging support from society. People extol those physically gifted. They honor them with fame and fortune.

Imagine our world if everyone strove for an academic team. Imagine children competing for Little League Academians. Imagine high school students attending the Friday night current event debates to support their school team. Imagine televised broadcasts of engineering feats, newspaper accounts of mathematical progress.

TEAM — Together Everyone Achieves More! Together let us root for the team! Together let us open every opportunity for the gifted. Athletics or academics, what's the difference? Body vs. mind, physical vs. mental capacity. In our U.S. cultural mindset, providing gifted programs in athletics is universally endorsed whereas providing gifted programs in academics is met with antagonism. Why?

The United States competes with Japan in baseball just for fun. We enjoy the competition. We send over our All Stars, our most gifted, our most nurtured, and we win — most of the time.

The United States competes with Japan in technology, in business for GNP. They enjoy the competition. They send over their stars, their most gifted, their most nurtured, and they win — most of the time.

Why do the gifted of mind have to plead for every crumb of instruction and coaching in our country? Why do those in charge proclaim that everyone is of equal ability in this sport? Why are teams/classes for academically gifted discouraged politically, socially, psychologically? If the gifted minds that have the potential to handle the great challenges of tomorrow are not nurtured today, all of us in our country will lose.

What is the focus of our schools? Our forefathers' respect for education and emphasis on hard work and enduring attitude led them to envelop their harsh agricultural schedule with school for their children. For years, school was just the 3R's — reading, writing, and arithmetic. Today in our technology era we still conduct school on an agricultural schedule. Today in our technological and medical crisis we put money into athletics and pay lip service to academics. Perhaps the problem with gifted education is not the term "gifted" but the attitude with which we treat the *academically* gifted.

Consider the following most common arguments against gifted education in academics.

"Those G/T parents want their kids segregated. Who do they think they are?"

"Segregation" conjures nightmarish visions. "Segregation" is a volatile word. No child of the 50's, 60's, or beyond wishes any association with its connotations.

"Segregate" as defined by the American Heritage Dictionary of the English Language, Third Edition, means:

1. *To separate or isolate from others or from the main body or group. See synonyms under isolate.*
2. *To impose the separation of (a race or class) from the rest of society.*

The parents of gifted children do not want their children isolated from society or from other children. The act of enrolling their children in public schools is an acceptance and endorsement of society.

"Who do they think they are?" They know they are parents. Like other responsible parents, they want what is best for their children. They are citizens. They feel a responsibility to the community, to the country, to the world. Enabling these gifted children to learn as much as they wish enables these children to better our community, our country, our world. Enabling every child to learn as much as he/she wishes about what he/she wishes enables these children to better our com-

munity, our country, our world. However, sacrificing any of these children for the benefit of others is unacceptable. This is not the goal of gifted education. Nor should it be the goal of any educational program.

What is the overall goal in education? To produce responsible citizens? To enable each child to develop into a contributing partner in society? To allow each individual to develop to their potential? Or to teach every one the same thing regardless of his or her unique individual capabilities, talents, and wishes? In the endeavor to give each individual an equal amount of instruction in school, we are treating all individuals unequally.

There is infinite knowledge to be acquired. Our insistence that all students be taught the same subject matter at the same pace is counter productive. Give each one all that each one can assimilate. Do not push any one too fast or too hard; do not hold any one back to wait. We are mortal. We do not have infinite time.

"Why should THEY get special privileges? There are only one or two gifted kids in the school. The rest aren't any smarter than . . . "

How many gifted are there? Quoting Dr. James Webb (Webb, 1992), "How dark blue does navy have to be before it is navy?" Based on a U.S. population of 226,000,000 the IQ distribution would be:

- 904,000 people or .4% are exceptionally gifted/genius with IQ's of 140 or above.
- 4, 520,000 people or 2% are gifted to highly gifted with IQ's of 130-139.
- 16,362,000 people or 7.24% are superior to gifted with IQ's of 120-129.
- 36,708,000 people or 15.8% are high average or fast learner with IQ's of 110-119.

Figure 1 and 2 show the normal curve and population range (Webb, Meckstroth, and Tolan, 1982).

Figure 1. **Distribution of Intelligence Quotients**

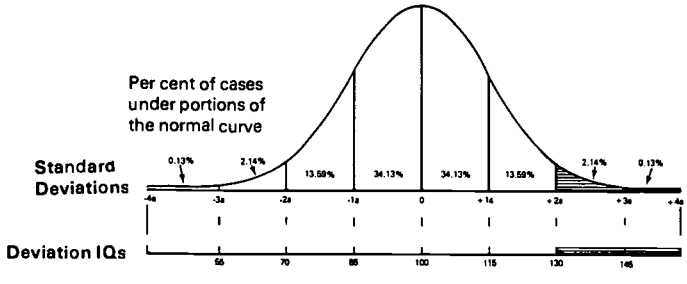
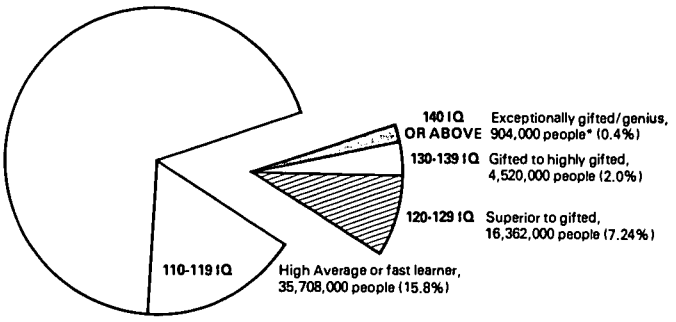


Figure 2. **How Many Gifted Are There? (Based on a U.S. Population of 226,000,000**



Does one size fit all? Do we line all these individuals up, place them randomly into classrooms, rubber stamp our curriculum to be sure all receive exactly the same, and mass produce millions of little citizens equipped to... equipped to what? Equipped to take over the responsibilities of the country? Or are we going to evaluate and meet the needs of all on this curve? Do we demand that the students with IQ's of 70 and below be given the same instruction at the same pace in the same classroom as the majority of students? Do we insist daily that they hurry to keep up with the rest of the class? Why do we demand that the students with IQ's of 140 and above be given the same instruction at the same pace in the same classroom as the majority of students? Why do we insist that they slow down to wait for the rest of the class? Or do we recognize that both groups have different needs and different capabilities? And do we respect those individuals with different needs and capabilities as such? Or do we exclaim, "Why should THEY get special privileges?" No one is asking for special privileges. Public schools are governed to serve the majority. The minority need education also. What works for most does not work for all. Let us all respect each other. We are all worthwhile human beings.

"G/T students must be in heterogeneous classes because they are needed to be role models! This will help with our discipline problems."

Is being a role model the reason any child goes to school? Is it the job/responsibility of gifted children to be role models? Are they the "perfect" children? No. No. And no, there are no "perfect" children. Adults are role models — parents, teachers, and community success figures.

A classroom of gifted students *is* a heterogeneous class. What a diverse group the "gifted" are! These children are not all equal and the same. They have different backgrounds, interests, abilities, personalities, goals. How are they the same? They are intensely intense, super sensitive, and critically critical. They are extremes of extremes. They possess an in-

trinsic energy that is either in full speed or at full stop. There is no middle ground. They have an incredible memory and a maximal attention span. They set high high standards of performance for themselves and for others. Compromise is difficult. Judgment lags behind intellect. Are these the perfect role models? Truly, the job/responsibility of role model belongs to adults.

Is it the responsibility/function of our gifted children to handle our discipline problem children? No. We adults — parents and teachers and administrators — need to enforce the discipline codes unilaterally on every campus in every classroom. We will not pass this buck to any children.

In fact, many children with discipline problems are gifted. Why? Several reasons. They are under stimulated therefore underachievers in school. Often they are two to three grade levels behind where they could have been if they had received the same degree of stimulation the great majority of students enjoy in the regular classroom. Gifted in heterogeneous classrooms spend 1/4 to 1/2 of their time waiting for others. When material is not challenging enough or paced quickly enough, their brains have time to wander, to be distracted, to pull them off task. Academically gifted have such high self-expectations that they usually can not fill them. They become dissatisfied with themselves and at times respond to this frustration with unacceptable behavior. They are ultrasensitive to problems — personal, community, world. They see the world with panoramic vision. They feel paralyzed by these problems and the unscalable obstacles preventing them from solving them. They are prone to existential depression and peer relation problems due to their characteristic intensity. They think differently, envision differently, respond differently. They can not understand why everyone else is different from them! When they become frustrated how do they cope? Some immerse themselves in numerous activities. Some withdraw. Some lash out in anger—our jails house a disproportionate rate of gifted. Finally, some commit suicide.

Let us not add adult responsibilities to the load these children inherently carry. Let us help them so they may help us all.

"G/T students are the leaders. They are needed in the regular classrooms to balance the groups."

Are the G/T students the leaders? Do all the other students look up to the G/T students and aspire to be like them? Are theirs the lunch tables that are crowded with kids? Have you heard of a nerd? *Some* of the academically gifted are also gifted in leadership abilities. Many who are gifted with leadership abilities are *not* academically gifted. If we truly want to disperse the "leaders" throughout the classrooms, we must first identify them, then train them, then offer them the opportunity and charge them with the accompanying responsibilities. Leaders are respected by their peers; G/T students are often taunted.

How would gifted students "balance" the groups? One of the most often voiced complaints by the parents of high achieving gifted students is in relation to group projects. When placed in groups and assigned a project, many members of the group do little or nothing. The project is often done by one or two in the group, usually by those high achievers. Yet, all the students are given the same grade. Why is this scenario repeated year after year through our lives and our children's? First, some students, at all ranges of academic ability, are not motivated. If they are not self-motivated or parent-motivated or teacher-motivated to perform academically, can we expect that academically gifted students can motivate them? If this is an attempt at peer motivation we must remember all classmates are not considered motivators; friends are. Second, gifted students set such high standards for themselves and for others. They feel intensely that they must do a comprehensive job. Thus, when one group member does nothing and another scribbles a quick response and another hands over a crumbled page, then those three joke and jive, what does that gifted achiever do? The whole project. Begrudgingly. The gifted achievers are not willing to compromise their personal standards. Do we want them to? They do not want to jeopardize their grades. Do we want them to? Instead of learning tolerance and respect and team spirit, they are learning intolerance, betrayal, and self reliance. Did we expect otherwise?

"Gifted students should peer tutor to help all the kids in the class understand/ keep up/ learn faster. Besides, everyone knows that the best way to learn something is to teach it to someone else."

Every student deserves the right to learn to the limits of his or her abilities and desires. Students are not teachers. Peer tutoring has a role in education but it is not fair to gifted students to place them in a class of mixed ability students, teach a lesson that they understand the first time, then ask them to reteach it repeatedly and to wait repeatedly. Their job is to learn not to teach. Their nature is to forge ahead at full speed. Every time they wait, they lose momentum and interest. Every time they wait, the world loses potential.

It is not true that all students can learn the same material given enough time. Some students will never learn calculus regardless of how much time you give them. The students who will consume calculus need the opportunity to reach that subject matter quickly enough so they can reach beyond. Time is of the es-

sence! How many years of study are required to be a brain surgeon?

Every student has the right to learn to his or her potential—even if that student is gifted. Gifted students are a whole group of underachievers. They are capable of so much more than we offer them. Why are we not concerned about the gifted underachieving when we are concerned about any student who are is not achieving national norms? Each individual has individual capabilities. Because gifted students are scoring in the 99th percentile in national norm referenced tests, does not mean they are learning to the extent of their capabilities.

Let us allow students to learn and teachers to teach. Let us encourage every student to reach his/her potential but not at the expense of others.

"Special Ed is mainstreamed. Why isn't G/T? If you put G/T in special classes all the other heterogeneous classes will be pulled to the low end/ unbalanced. That's not fair!"

What is best for the goose is not always best for the gander. What *is* best for the goose? What *is* best for the gander? What is best for the future of the flock? What is fair? What is fair to each individual student? Should we sacrifice some students? Who? Should we seek alternative solutions?

Recent law specifies that special education students must be taught in the "least restrictive environment." For some of the special ed students, the least restrictive environment is determined by the parents and/or learning disability specialists to be the general classroom. The result is "inclusion." For each student identified with a learning disability and placed under the heading of special ed, the school is required to write an Individualized Educational Plan (IEP) that details the modifications the teacher or school must make so the special ed student can succeed in the general classroom or wherever the least restrictive environment is determined to be. For instance, some special ed students placed in general education classrooms must have a teacher's aide sitting with them throughout the school day to modify each lesson. The current law is a sizable tax investment in giving special ed students every opportunity to maximize their individual abilities.

Perhaps we should consider expanding the scope of the law to apply to all students so that all students would be taught in the least restrictive environment and all students would have annual IEPs. Each and every student has the right to learn to his or her individual potential. The success of each and every child is an investment in our future. Let us smooth the path for every student, not erect obstacles. Let us encourage every student to reach his or her potential but not at the expense of others. The more variations in student abilities we place in a classroom, the less time the teacher has to devote to any child. Is this the optimal learning environment for any child?

The TAGT Position Statement on Grouping states, "The Texas Association for the Gifted and Talented believes that the most effective way to serve gifted students is to group gifted learners with their intellectual peers and to provide appropriately designed curriculum that addresses the learning and affective needs of this unique population" (TAGT, 1993). Dr. Karen Rogers states in her research synthesis, "The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner," that "students who are academically or intellectually gifted and talented should spend the majority of their school day with others of similar abilities and interests." (Rogers, 1991). Why do we resist placing gifted children in classes with similarly gifted children headed by a teacher trained in gifted education?

An investment in educating gifted students to their individual abilities would offer a substantial return on our tax dollars. Our investment in education is an investment in our country's future and therefore has a direct bearing on our personal futures. We must determine how to reap the best return on our tax investment. We must maximize the opportunities for each and every child to reach potential. It can be done. It must be done. Only by working positively with educational professionals to provide an appropriately paced and challenging education for each and every child will it be done.

"They already have English and math G/T classes. Now they want science and social studies too!"

Are there no students gifted in science or social studies? Or is it the world has no science or social problems to which gifted could apply themselves?

"The gifted have to learn to live in the real world. In the real world everyone is mixed together."

Does everyone mixed together in the real world work on the same problems? Or do some work independently? The gifted are living in the real world now. In the real world, U.S.A. athletically gifted are showered with accolades. Academically gifted are not. In the real world, there is disease and hunger and poverty and oppression and torture. Gifted kids see this, know this, are consumed by this. They are passionate in their desire to improve the world, to solve these human problems. Is our response to them to be, "Wait!" "Stop!" "Do it our way!" "Slow down!" "You must do

(See ELAM, page 37)

ACCEPTING AN ABILITY GROUPED ENVIRONMENT

Katherine Georges
Houston, TX

I am parenting an exceptionally gifted child, and I would like to share my views regarding the concept of grouping. "Grouping means placing students in educational settings that have curriculum specifically designed to challenge them and meet their needs" (Sayler, 1994). The decision to educate my child within a grouped environment was primarily based on necessity, a necessity to fill a void in my child's life that could not be filled otherwise.

When my son was three and a half years old, we placed him in a traditional classroom at a school bent on the philosophy of instilling conflict resolution techniques. The teachers did not accept my son's abilities which were on a first grade level in most areas accentuated by an exceptional understanding of physical science. The atmosphere was teacher centered and not developmentally appropriate for my son. Being unable to identify with his teacher and peers but still feeling a need to be accepted, my son adapted in order to cope with the stress in this environment. As a result, he regressed in his behavior, academic level, and social development. Attempts to work within the school to satisfy my son's needs led us to a myriad of alternative educational facilities ranging from a Montessori school, private tutoring by Rice University graduates, commercial learning centers, and homeschooling.

By the age of five-and-a-half, my son was in great need of relationships and acceptance by his age and intellectual peers. He was also in need of mentorship and reassurance of his individuality outside of his family. Academically, he was moving at an incredible pace yet lacking the emotional connections that only friends can provide and schools can offer. He was dyssynchonous on many levels. Instinctively, he wanted to bridge the gaps that existed in his emotional, social, and intellectual development. The dilemma was to select a learning environment that could meet the needs of an exceptionally gifted six year old child (who academically was between fourth and seventh grade).

After researching the literature regarding the highly gifted, investigating the local private and public schools, and using my experience in developing curriculum and programs, I considered a gradeless environment where advancement is based on a child's ability. Before enrolling my son, I had to develop an understanding of what ability grouping is within the educational setting. Ability differs from the word aptitude, in that aptitude refers to natural talent and suitability. In my assessment, ability could be seen as having the skills necessary to handle oneself in a specific environment. These skills are not only academic but emotional and social. To then define a group based on ability, certain similarities and variables among children had to be identified.

Kazemi and Goldstein (1993) define ability grouping as "the practice of identifying students of varying academic achievement or aptitude and separating them into. . . groups". Whereas, Sayler (1994) suggests, "Grouping is defined as the regrouping of students for instruction that has been specifically designed (e.g. differentiated) for that particular group. Effective grouping supports the moving of students in and out of these groups as their needs and performance change."

Ability grouping is not curriculum centered. It is learner centered where the child, the adult facilitator, and the curriculum form a triangle permitting the child to be at the top. The program is driven by the child's developmental level at any given time allowing for times when the child is out of synchrony. (being dyssychronous in development is a characteristic of highly gifted children and possibly exists in every child's development). Recognizing similarities in students' abilities would allow for a group to materialize, linking a common bond among learners.

In reviewing how educational systems have used grouping during this century, a framework developed. In the 1920's, *Stone's Silent Reading* suggested that "experimental use of the material in this volume indicates that it is of the right level of difficulty for average fourth grade groups. It may be used to advantage with superior third grade groups and with inferior fifth grade groups" (Stone, 1926). Single classrooms and country school houses provided education for different aged children within one room. "Leta Hollingworth's descriptions of classrooms of the 20's and 30's makes it clear that...slow children were held back in grade and bright children were skipped ahead" (Tolan 1991, 1992). Grouping was based on ability and acceleration was common. This was ability grouping in its purist form.

By the 1940's, the language referring to different groups began to change. DeGrout and Young (1940) reflect this change in the introduction to *Iroquois New Standard Arithmetics* stating, "To Teachers of Arith-

metic: recognizing the important fact that individual abilities vary, these books give challenging and enriching work to the talented pupil while providing for all the needs of the average and the slow pupil." As society and education moved from a rural setting where all the students fit in one room to a larger urban setting, age was chosen as the criteria for appropriate grouping in order to accommodate the larger student population. At each school's discretion, the practice of ability grouping was used only for reading and mathematics. The talented pupil became motionless, locked into a system that did not value him for his abilities.

As society changed over the following decades, terms for defining groups gave rise to labeling practices. In the 50's, the educational system was influenced by mass production in industry. This led to defining and maintaining standards. Though testing was often rudimentary in the classroom, grouping was becoming definitive: "the superior student . . . the better student . . . *and* the slower student" (Smith and Ulrich, 1956). Small rural schools began to consolidate and curricula was beginning to address different learning needs. By 1961 through 1972, the terms remedial, regular, advanced, and honors identified different group levels. Although labels were designed to define and address varying individual needs, the perceived use of labels gave rise to elitism and prejudices.

Today, textbooks refer to limited English proficiency students and at-risk students; as well as high-ability students, average students, and advanced learners (Ray, 1997). A student may also follow a career track (Miller and Levine 1998). Even instruction is labeled as core, standard and enrichment courses or for the gifted and talented (DeSpezio, 1997). Researchers in the education of the gifted use labels to refer to levels of giftedness based on IQ scores for the exceptionally, profoundly, and significantly gifted children (Gross, 1995).

The shift in language for labeling learners and the varying teaching methods coincides with the changes in society's view of diversity and learning modalities. Such diversity in defining groups is driven by the need to suit all groups; yet, in defining diversity, do we move further away from society's ultimate goal to be united in the acceptance of our differences? By understanding each individual's needs, everyone expects their own needs to be met. Thus, standards, traditional cultures, values and morality meld together until the significance for an individual *can* disappear.

In the educational setting, does a child placed in a traditional classroom, designed to meet the needs of each individual, meet the needs of anyone? Does the child lose his identity, his value, his significance? On the other hand, does the child who is placed in an ability grouped classroom of varying ages with similar intellects and backgrounds find significance? Significance is a word I use to describe a child's ability to understand, assimilate, and to find value in an environment (in this case, the environment is the classroom). The experiences of the child in the child's indigenous environment (the home and surrounding community) determine what and how a child will respond in a new environment. Significance happens and becomes part of the child when he can process new information in a familiar way. Then learning truly has taken place, it is relevant to his life. By using a variety of grouping arrangements (e.g. multi-age, by subject, cluster) a child would have a greater chance of having his intellectual needs met. When a child is unable to assimilate or find value within the classroom environment, the child is incapable of accepting the new experience. DeLong (1997) describes this learning experience as "without the cultural understanding that makes the book something worthy of reverence or even desire". To assess the process of learning, a teacher or facilitator must have an intimate understanding of the child that is more intuitive than detached.

After evaluating an ability grouped environment and its appropriateness for my child, I believed significance would take place. I now had clearly defined goals in placing my son in an ability grouped environment. Immediate and direct communication with his teachers remained necessary on a daily basis. His acceptance of the new environment would determine the success of this decision.

Placing my child in an ability grouped environment now allows him to develop his esteem and sense of self worth. Knowing that he has something to offer to others, which was diminished in his previous school experiences, gives him a sense of achievement that goes well beyond academic knowledge. The teachers at his school design the curriculum for each child. Acceleration, between-class grouping, cross-grade grouping, and student cooperative teaching are all taking place at his school. This flexibility allows the teachers to continually adapt to each child's changing needs.

It is my experience that ability grouping meets the needs of a gifted child when the environment and philosophy of teaching are particularly appropriate for that child. Yet, the decision to place a child in an ability grouped environment remains a very intuitive one for the educator and the parent.

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(See GEORGES, page 20)

JEFFREY'S LEGACY: THE ACCELERATED OPTIONS REPRESENTATIVE IN OUR G/T PARENTS SUPPORT GROUP

Leslie Davis
Katy, TX

I was in the bathroom one morning, and Jeffrey, ten months old, was in the room with me. He tried to open the cabinet door, which had a childproof latch on it. He closed the door, opened it again, and then disengaged the latch. I had to laugh at the expense and caution that had just gone down the drain. As the years passed, I became more aware of Jeffrey's talents, abilities, and knowledge. Because his brother, Philip, was two grades ahead of him, I was fortunate enough to be able to preview Jeffrey's future curriculum. I realized that the curriculum would not adequately meet Jeffrey's needs. The action that I took I now know is called accelerating and grouping. All I knew then was that Jeffrey needed to be educated on his level, at his pace.

At the very beginning of his education, Jeffrey complained that the half-day that he spent in kindergarten was not long enough for him to learn anything. During kindergarten, the teacher observations and G/T screening test scores confirmed that Jeffrey was working well beyond his age level. The principal obtained permission for Jeffrey to go immediately to the first grade Challenge class, a one day a week pullout program, instead of waiting until first grade. He loved it.

That same year, Philip was in second grade. As I would drill and practice math with Philip, Jeffrey did the same work on his own, only quicker and without instruction. I questioned that if Jeffrey was easily able to do second grade math while in kindergarten, what would he do in first grade?

I spoke with the principal about my concern. She agreed to test Jeffrey and place him accordingly. Jeffrey took that test the first two days of first grade. The principal advised me that the only questions he missed were over material he would learn the first six weeks of third grade math. Each day, Jeffrey left his first grade class and went to the third grade class for math. He loved it and thrived. We had both accelerated and grouped him according to his ability. The next year was even better, as he was placed with other high achieving fourth grade math students.

As first grade was progressing, it became more obvious that accelerating Jeffrey in math and placing him in Challenge class were not enough. He needed to attempt to skip the second grade. In fact, it was the principal who first broached the subject of his skipping second grade. I am deeply appreciative of how involved she was through the entire process, even the difficult and trying times.

As expected, Jeffrey tested out of second grade very easily. Jeffrey fit right into third grade, quickly made friends, and has never looked back. In fact, I periodically ask him if he ever wishes that I had left him alone, and he always responds emphatically, "NO!!" Jeffrey began to love school that year, and he began to blossom.

Through the years, I have always been involved in the Katy Parents of Gifted and Talented Students. Sometimes I hear sad stories from parents of how their child hates school. Often, parents feel the heterogeneous grouping in the classroom is "holding their child back". Repeatedly, I have shared my story of guiding Jeffrey's education through these tricky waters. This year, I decided it was not enough to sporadically share the lessons I had learned. I suggested that we add another position to our Katy Parents of the Gifted and Talented Board. The Accelerated Options position was created to provide specific information to parents of gifted children about credit by examination opportunities and other methods of meeting the educational needs of advanced learners.

As I work with parents, I am careful to utilize the proper chain of command; and I try to keep up to date with school district policy. I have spoken with parents who have been extremely frustrated with the attempts to educate their student. The problem, frequently, is a lack of encouragement to pursue nontraditional avenues. Too often people downplay the "plight of the gifted child." We have administrators and teachers in our district who work with the gifted students, but they are limited in what advice they can give. As a parent, I do not have those limitations.

In my volunteer capacity as Accelerated Options Representative, I listen to the parents' stories and ask questions about the options they have explored. I try to debunk myths that have been spread. I offer advice on choices of words to use when speaking with educators and administrators. It is very critical that everyone is on the same wavelength. I follow up with the

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WE KARE: LEARNING THROUGH SHARING

Peggy Malone
Paris ISD

"Service Learning", a unique form of community service that combines meaningful work with training and regular on-going reflection, has been found to be a valuable school experience for today's students. A new direction is necessary to meet the challenge of developing a curriculum that provides for planned community service experiences. Success for all is the foundation for these activities.

Beverely Fortner, the talented and gifted teacher for grades three through five in the Paris Independent School District realized this need and organized the We Kare Team in 1995. Students participating in the existing elementary Socrates program focus on diverse aspects of giving individual time and creativity to make their schools and community a better place to live and learn. The themes of the grade level units are on-going throughout the year and allow for volunteer opportunities in a familiar environment. We Kids Are Responsible for the Elderly concentrate on providing cheer to area nursing home residents. Approximately 500 cards, letters, and mobiles have been created by fifth graders at each holiday season for this project.

We Kids Are Responsible for the Environment is spearheaded by the third grade classes and focuses on ecological needs. Aluminum cans are collected and recycled, and the money from the sale of these cans is used to purchase classroom extras and fund the projects of other We Kare Teams.

Fourth grade students organize and present puppet skits on bike safety for every classroom on two elementary campuses. Appropriately named We Kids Are Responsible for Each Other provides fun informative sessions on bike safety rules for 1,500 students in grades one through five. Coloring books are also available to reinforce this learning activity.

Two activities have recently been added to Service Learning. New student welcome bags are being made and distributed by third grade We Kare members. Fourth grade students are coordinating the Accelerated Reader Book distribution through the school's libraries for our English as a Second Language students, learning disabled students, and visually-impaired students. We Kids Are Responsible for Empathy and We Kids Are Responsible for Education are the names chosen for these activities.

Students helping other students and community members is a positive way for Paris I.S.D. students to connect to their peers and share their talents. Students participating in these Service Learning experiences best describe the We Kare Teams in the following ways. "I like helping others because it makes me feel better about myself." "I have a good feeling in my heart. A small act of kindness could turn out to be something really big for someone." These simple truths are the heart of the We KARE program.

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(DAVIS, from page 33)

parents after they have met or spoken with an educator. I feel this is important because speaking about our children's education can be very emotional; however, we must be rational. I help parents determine the options that are available. I have investigated such programs as the Texas Academy of Mathematics and Science and the EGPY program (Educational Programs for Gifted Youth) offered by Stanford University in addition to nontraditional options within the district; therefore, I feel that I can help parents evaluate the options that are available. Sometimes, I just provide an ear to listen to what they have to say.

I have undertaken this endeavor selfishly. I feel that if I can help one person, one child, then I will have repaid all of the people who helped me with Jeffrey's education. I strongly believe that every child deserves the opportunity to reach his or her full potential. It is easy to allow the system to determine the direction and "education" our children receive, but it is not the right way. We must have the strength and courage to change those things we can. When it comes to our children's education, there is so much we can do if only we know where to begin. Offering to help other parents and students find their way through these tricky waters is my way of ensuring that we do not lose any of our bright stars. The schools have an obligation to teach each and every student and sometimes a parent has to choose to take the tough road to make sure that the student learns. These are not easy choices, but when a parent calls back to say that a principal has agreed to advance her child, it is worth all of the tears that were shed. Through accelerating or grouping, one more child has avoided becoming a gifted and talented underachiever. One more child has avoided unhappiness; thereby, society has gained a more brilliant and productive person for the good of mankind.

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CARPENTER, from page 4

Accepting this paradigm, the charter school educators created an administrative process that utilized content or discipline acceleration, combined classes, curriculum compacting, and credit by examination.

Using both national and local normed instruments as well as qualitative information to determine the students' mathematical ability and skill performance levels, the educators assessed the 5th through 7th grade students. As a result of the assessment, some of the 6th and 7th grade students qualified for the regular or accelerated Algebra I course. In fact, one of the 5th graders qualified for the accelerated algebra class. Algebra I is the specified math course for the 8th grade students. Two students (one 7th and one 8th grade) accelerated to Geometry based on credit for Algebra I at their previous school. Grade level distinction for 6th through 8th grades dissolved as the math program became more learner-centered. The educators determined ability and skill groups for the remaining 5th grade students. These students move out of their inclusive, self-contained classrooms to attend these ability grouped math classes. The fluid nature of these groups permit students to progress to a more challenging class with demonstration of concepts and skills mastery. This educational decision making reflected the views of researchers who have reviewed controlled studies and reached favorable conclusions concerning the effects of acceleration (Benbow, 1991; Braggett, 1992; Kulik & Kulik, 1992). Robinson (1983) advocated the use of acceleration to pace educational programs in response to the competencies and knowledge of individual children. The intent of this program is to challenge mathematically gifted students, to increase the efficiency and effectiveness of learning, and to increase student productivity.

These charter school educators also used the IB Diploma Program requirements and standards to design other areas of the educational program; therefore, each grade level has its global focus for the language arts, social studies, and science curriculum. The 5th and 6th grade levels focus on the world. Their studies integrate Language Arts and World Literature I & II, World History, World Geography, Science and Technology, and Earth Science. The 7th graders study Language Arts with Texas Literature and Folklore, Texas History, and Life Science. The 8th graders' curriculum consist of several high school credit courses including English I, Physical Science, and Health. The 8th and future 9th graders integrate their American History social studies curriculum with their American Literature focus in English I and II. The plan for the 10th grade is to return to the world emphasis in preparation for the IB Diploma Program. Teachers use flexible, cluster, and cooperative groupings as well as independent study options to provide opportunities for the G/T students to work with their cognitive peers, with students of varying abilities, and by themselves as required by the state G/T plan.

This charter school requires that every student take a foreign language each year. The 5th graders take Exploratory Languages that consists of nine weeks each of French, Spanish, Latin, and an independent investigation of a language of choice. Currently, Spanish and French are offered to 6th through 8th graders. The 8th graders must study Latin as well. Beginning in 9th grade, the students select a specific language to study for four years. The foreign language teachers instruct in a total immersion environment using the total physical response technique. The school's philosophy concerning foreign language courses reflects brain based learning research as well as best language acquisition practices. The foreign language classes are not distinguished by grade level. This foreign language program provides opportunities for linguistically gifted students to telescope their curriculum and progress at their own pace. The educational program is designed to provide increased options for academic exploration, to expose students to new peer groups, and to recognize abilities and accomplishments. These are some of the benefits of curriculum acceleration as advocated by leading researchers in the field of gifted education (Feldhusen, Proctor, & Black, 1986; Clark, 1988; Davis & Rimm, 1988).

Although charter schools are new to the educational scene in Texas, their purpose is to offer an option or a choice to traditional school environments. During their infancy, charter schools are much like children-- open to exploration of ideas and unfettered by certain restrictions or regulations inhibiting older, established institutions. They can explore and implement innovative programs for target populations, but the charter schools are still accountable to their stakeholders and to the state. The charter school described in this paper has integrated acceleration and grouping as two options in its array of educational services. When the effectiveness of this charter school is determined, perhaps its curriculum and educational plan will demonstrate how appropriately the acceleration and grouping puzzle pieces fit into the educational picture in Texas.

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(HICKERSON, from page 2)

ongoing for some time, the Public Relations Campaign. Through this campaign, we shall inform the general public of the existence of gifted children and adults, of what makes them unique and why their special needs must be addresses, and why doing so is in the best interest of all children across the state. This may be one of the most significant initiatives ever undertaken by TAGT. This is the means by which we will make our purpose clear to the public consciousness.

The third point of our foundation is another major undertaking this year and for some time to come. In keeping with the TAGT Professional Development Plan, we will be developing a series of regional workshops and Summer Professional Development Institutes. These will be funded by the generous contributions and support of the Houston Endowment and Bell Telephone, and other supporters who will no doubt be lining up to participate. It is through these means that we shall provide training to those who are--and those who should be--interested in the needs, characteristics, and opportunities and challenges of the gifted, and how to identify and appropriately provide for the development of their potential talents and abilities to the fullest possible extent. It is through education concerning the gifted and talented that our vision will be realized. This project may have the most far-reaching impact of any initiative ever undertaken by TAGT.

As I anticipated assuming the Presidency of TAGT this year and all that we are undertaking, specifically the importance of these projects to the success of our vision, an analogy came to mind. This is a metaphor that I applied to my daily life frequently in the last two years, especially since becoming an assistant principal in a junior high school and moving out of my nice, comfortable situation at the central office into the never-ending rushing mad river of campus activity. This same metaphor might apply to what is necessary for us, as the leadership and membership of TAGT, to successfully negotiate our adventure.

For the past two summer, I have had opportunities to experience whitewater rafting on the Snake River in the Grand Canyon of the Snake River in Wyoming, just out of Jackson Hole. This is a serious river, with about 12 rough rapids in a short, 15-mile stretch, some of which are rated IV, or even V (VI is extremely dangerous, maybe Niagara Falls). Such an adventure is not undertaken lightly, without preparation or planning.

First, you must have a guide, someone with some knowledge of the river, someone who has been on that stretch of dangerous water many times before and who knows to anticipate, who knows where the hazards are likely to be and how best to negotiate them and survive. We have such a guide: our Executive Director, with her staff, has been through many years of previous alerts and alarms; she knows the Legislature and Austin and TEA and can help us avoid the most treacherous threats, or at least she can prepare us in advance to meet them and be successful. A successful river adventurer knows how to seek the advice of the guide and to listen to the guide.

Second, you must go with the gear you need for the trip. The river is cold, 45 degrees, so you wouldn't go without a wet suit, slicker pants and jacket, proper covering for your feet, and a lifejacket. You expect to get wet, soaked, perhaps even thrown into the river. So you learn first how to sit balanced on the edge of the raft with your feet well tucked under the edge, how to grip the rope if you fall out, how to rescue each other should the need arise. You go on the river ready to enjoy the adventure, but armed with knowledge of what you are about to do. You go with confidence in your own competence, and with trust in that of your fellow adventurers. This is no place for foolish ego or self-importance. You pay attention to the guide as she instructs you in how to respond instantly, how to work together to move the raft forward, backward, left or right as a team, without hitting each other or falling out of the raft or flipping over or losing that very important item, your oar. You learn to trust strangers, because you may depend on them to save your life.

And then you are on the river, and the water is rushing and whirling and spray is flying and the adventure is exciting and thrilling and stimulating, and you see enormous white water rapids ahead and think, Oh help. How did I get myself into this, and will I make it through? Suddenly you are in the swirling, bouncing rapids, and you concentrate with all your effort, focused on the singular goal of keeping the oar in the water, working together and responding as one, and SUCCESS! You are through that rapids, you are exhila-

rated and soaked and thrilled and laughing and gasping--and ready to take on the next one, along with your new best friends.

In our TAGT adventure, we are prepared. We have years of experience, of education, of negotiation, of working with students and parents and administrators and the public in our concern for the gifted child. We are competent, and we are confident in our competence and that of our peers. We know there is no place here for foolish ego or self-importance. Our job is too important; it requires the best of all of us. Even though we come from different places and different experiences, we have the most important element in common--our advocacy for the gifted. We must work together, trust each other, support each other, and keep our oars in the water and the raft facing forward, and we shall not only survive the adventure, but emerge exhilarated and laughing and ready to take on the next challenge--along with our new best friends.

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(BOOTHE & SETHNA, from page 24)

University, Williams, Georgia Tech, and the State University of West Georgia. Because of his strong interest in engineering, he is likely to go to Georgia Tech, where he will receive full credit for all his courses taken at West Georgia. Thus, the Academy experience has been a "win-win-win-win-win-win-win" situation (1) for Stewart who has given his career an excellent start, (2) for his parents who have saved two years of education costs, (3) for his high school which received the benefit of his scores without the cost of having to teach the advanced science and math courses, (4) for the State University of West Georgia which has benefitted from his presence and participation, (5) for Georgia Tech which will admit an excellent student, (6) for the University System of Georgia and (7) the State of Georgia which have retained a truly exceptional student, and (8) for the taxpayers of the State who will have saved two years of the cost of education and will get the benefit of Stewart's productivity two years before they would have done otherwise. Naturally, these eight "wins" apply to all Academy students.

Certainly, much of the credit for Stewart's success goes to his supportive family. His mother, who works for the U. S. Post Office, is always on the lookout for exciting opportunities for Stewart. His father, a technical writer for a medical technology company, used to spend his entire lunch break at the library looking for information on visual aids to help amplify his son's visual abilities. His brother is a tenth grader in high school.

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(ELAM, from page 30)

this before you do that." "You must practice this skill 20 times before you move on to the next." "Relax! Why are you so serious? Lighten up!" "Chill!" "You know you can't do anything about that!" "Hello! Earth to Mars!" "Who do you think you are? You need to learn to get along with everyone. Why do you want to be different?" "You know that can't be done!" "What makes you think you can do that when no one else has?" "You're too young to do anything about that!" "Why don't you watch some television? All that reading is getting to you."

Why?

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(HOLT, from page 17)

difficult for even gifted sixth grade students. (It was replaced with a non fiction book entitled *Water Science.*) Students and parents will be given a choice on two versions of Bradbury's *Martian Chronicles*, one with the offending passages, and a later edition with the offending words omitted.

It is interesting to note that most teacher, parent and even student complaints come from the idea that "the old way was the better way." One must keep in mind that once the "old ways" were the new ways. Perhaps, when the dust settles, Science Technology, the El Paso model will be a model for all districts to emulate, and not a model for controversy.

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(HARMON, from page 26)

the regular students in the classroom. The classroom teacher knows she is responsible for conveying a body of basic skills and knowledge to this heterogeneous group of students. Even the most competent teacher soon realizes that they cannot meet the full needs of all of their students and they end up trying to meet the greatest needs of the greatest body of students (Borland, 1989). Despite this, the clustering of these students allows the teacher to give the gifted student the opportunities to work with their intellectual peers while developing the social skills necessitated from the heterogeneous grouping. The success of this class of students will be directly related to the teacher's knowledge and skills, the teacher's attitudes conveyed to the students, and the teacher's acceptance of the students and their work. When the self-contained classroom is not available for the gifted student, a classroom where differentiation, clustering, and acceleration is the norm is conceivably the next best thing.

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(RAY, from page 23)

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SUMMER 1998
GIFTEDNESS IN THE FOUR CORE CONTENT AREAS

Parents and educators have long known that gifted children manifest their abilities in a variety of ways. With the state mandate to offer services in the four core content areas, Texas schools have a unique opportunity to enhance services to gifted students. The summer issue of *Tempo* will deal with giftedness in language arts, social studies, science, and mathematics. What outstanding programs currently exist to meet these needs? How can the regular classroom teacher successfully serve these students? How can parents nurture talent in these areas?

The deadline for submission of articles is **March 1, 1998**.

FALL 1998
GIFTEDNESS: A TEXAS TRADITION

The Fall *Tempo* features articles related to the upcoming Conference theme, *Giftedness: A Texas Tradition*. This theme encourages us to look to the best of gifted education in Texas and in each of our families and schools. It also suggests writing about new and exciting future experiences for gifted education. *Tempo* seeks articles related to these areas for our fall issue. Additionally, individuals who are presenting sessions at the Fall conference in Dallas are encouraged to submit manuscripts related to their conference presentation.

The deadline for submission of articles is **June 1, 1998**

Guidelines for Article Submissions

***Tempo* needs your manuscripts. We can only print what we receive. Other schools and parents should hear the about the good things you or your schools have done. We are not harsh critics, but work with all of our authors to develop and polish their manuscripts.**

When submitting manuscripts:
1. Write about 1000-2500 words on an upcoming issue theme (see list above).
2. Double space your manuscript and use 1 1/2 inch margins on all sides.
3. Use APA style if you know it; if not we will help you once we receive your manuscript.
4. Include a cover sheet with your name, address, daytime telephone and FAX number or E-mail address if available.
5. You do not need to send a copy on disk at the time of initial submission.

Send all submissions or requests for more information to:
Michael Cannon, TAGT Editorial Office, 5521 Martin Lane, El Paso, TX 79903
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Tempo
TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED
Member, National Association for Gifted Children (NAGC)
Volume XVIII Issue 2

Positive Ripple Effects of Professional Development for Gifted Programs

by Peggy Dettmer
Kansas State University

Several years ago a cartoon showed two children walking by the school one Saturday morning.

They were observing several people whom they knew go into the building with books, note pads, and lunch bags. Then one said to the other in amazement, " Gosh, teachers never get out, do they?"

The cartoon was funny, and it was also true. Educators are lifelong learners who continue studying their content areas and honing their instructional skills long after they complete the teacher preparation program. Lifelong learning in this information age is important for everyone, but absolutely essential for educators. Furthermore, learning is enjoyable and teachers like to model that pleasure for their students.

Purposes of Professional Development

Professional development activity for continuous learning serves one or more of five purposes for educators—role renewal for certification or relicensure; role reassignment to earn additional or expanded credentials; professional growth to acquire new methods or make curricular changes; personal growth to improve skills and have enriching experiences; and inspiration (Dettmer & Landrum, 1997). Professional development directed toward education of gifted and talented contributes in a sixth way by activating positive ripple effects that influence curriculum, instructional methods, teaching techniques, resource materials, and support services.

Obstacles to Gifted Program Professional Development

In spite of the importance of professional development, mandated inservice and staff development activities are not always accepted with enthusiasm by overworked teachers and overscheduled school administrators. Much inservice and staff development (ISD) is scorned as being dull, irrelevant, patronizing, and ineffective. Research by McBride, Reed, and Dollar (1994) indicates that attitudes toward inservice are mixed at best. Most often it is the practices, not the principle,

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Spring 1998 Issue

Professional Development

From the President

Benny Hickerson

If asked to name the single most important factor in the success of educational programming to meet the needs of gifted and talented students, probably most of us would say it is the teacher. Teachers are critical in helping with identification of gifted students through classroom observation, through anticipating and recognizing behaviors and performance that suggest special abilities and needs, and through advocating for students as part of the identification committee on a campus. Teachers are critical, too, in developing curriculum that is differentiated to accommodate these students' special needs, and in planning and implementing instructional strategies to promote and nurture talents and exceptional abilities. The ways in which teachers design and orchestrate classroom activities, including management and grouping arrangements within a classroom, either encourage or inhibit individual growth and independence in learning, and support or interfere with the potential for self-directed learning.

Teachers who are aware of and concerned about the unique needs of their gifted students become advocates for these students among their colleagues in the profession, working to educate others about the needs and rights of gifted learners, and sharing ideas and strategies that have proved effective for these students. Teachers who know and understand gifted child development communicate effectively with parents, providing information and supporting parent concerns about their child's educational and affective development. And teachers who believe passionately that gifted learners have special needs that must be met, work beyond their classrooms to promote this awareness throughout the school district, the community, and through networking with others in the Texas Association for the Gifted and Talented.

Regardless of the validity and credibility of identification criteria and procedures that a district may have adopted, regardless of the excellence of a curriculum document or plan, or of the flexibility and forward-looking design of programs for gifted students within a district, or of the strength of the parent affiliate support group, or commitment of informed and sympathetic administrators, in the final analysis the quality of services provided to gifted students depends on the teacher providing those services. Clearly, one of the most important goals of TAGT must continue to be

(See HICKERSON, on page 24)

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The Texas Association for the Gifted and Talented (TAGT) is a nonprofit organization of parents and professionals promoting appropriate education for gifted and talented students in the state of Texas.

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Testimony to Senate Interim Committee on Funding Issues in Education

Connie McLendon

On February 19, I was invited to speak to the Senate Interim Committee on Funding Issues in Education about the Gifted and Talented Allotment. This committee is co-chaired by Senators Teel Bivins (Amarillo) and Bill Ratliff (Mount Pleasant). Other members of the committee are Senators Judith Zaffirini (Laredo), Gregory Luna (San Antonio), David Sibley (Waco), Royce West (Dallas), Eliot Shapleigh (El Paso), and Robert Duncan (Lubbock).

The hearing began with testimony from Legislative Budget Board (LBB) staff who, among other things, reviewed the 1997 LBB staff report to the Seventy-fifth Legislature on Foundation School Program Funding Elements.

My testimony, which followed that of the LBB staff, addressed the section of the report which recommended eliminating the current add-on weight for gifted and talented education and incorporating those funds into the Tier 2 of the Foundation School Program. I also spoke to the report's misrepresentation of the purpose of the Javits legislation and the work of the National Research Center on the Gifted and Talented. In summary, the 1997 LBB staff report indicated that these programs were "working at a national level to break down the separation between gifted programs and programs for regular and disadvantaged students." The report also said that the work of the NRC/G/T reinforced the idea that gifted and talented programs should be directed at all students and incorporated into the regular curriculum, rather than segregating students who are identified as "gifted."

A call to the Office of Educational Research and Improvement, U.S. Department of Education, and to the National Research Center at the University of Connecticut provided me with the kind of helpful information which I needed to respond to the report. For the record, the purpose of the Javits legislation is "to build a nationwide capability in elementary and secondary schools to meet the special educational needs of gifted and talented students and to encourage the development of rich and challenging curricula for all students through the appropriate application and adaptation of materials and instructional methods developed for gifted and talented students."

To clarify the report's reference to the NRC/G/T work, Joe Renzulli, author of the monograph *The Relationship Between Gifted Programs and Total School Improvement,* says that the Schoolwide Enrichment Model described in the monograph "focuses on applying the know-how of gifted education to a systematic plan for total school improvement." Renzulli's "Author's Notes" to the monograph says emphatically that the model "is *not* intended to replace existing services to students who are identified as gifted according to various state or local criteria."

Because state funding for gifted programs is so anchored to the mandate, it is critically important to correct information such as that presented in the 1997 LBB staff report as it may influence policy decisions and educational priorities impacting programs for gifted and talented students.

My recommendations to the Senate Interim Committee on the G/T allotment was to retain the current add-on weight. Unlike funding for other special populations, the G/T allotment is not a supplement. Inadequate as it may be, it represents the only funding that districts receive for gifted education.

I also recommended that the state conduct a study to determine an appropriate methodology to reflect the achievement of gifted and talented students in the statewide accountability system. This recommendation echoed Rider 55 which Representative Scott Hochberg attached to the House Appropriations Bill during the last legislative session but unfortunately was pulled down in the Appropriations Conference Committee. In response to this recommendation, Senator Bivins asked if the association would submit suggestions of indicators which might be included in the statewide Academic Excellence Indicator System. This challenge is one which the TAGT leadership cannot afford to ignore.

The Interim Committee is still in a fact-finding mode and will probably meet at least one more time before preparing a final report, due in early April to Lieutenant Governor Bob Bullock. Any further action by the Senate Interim Committee affecting funding of programs for gifted and talented students will be reported in the *TAGT Newsletter.*

(See DETTMER, page 1)

with which participants take issue. Some objections apply to all ISD, while others are more specific to gifted programs. For example:

1. *Teachers do not appreciate abuse of that most precious and nonrenewable resource-time.* Weekend events such as the Saturday workshop mentioned earlier tend to be least preferred. Sessions before school or after school are problematic, too. The least objectionable time seems to be during the school day, but even then teachers feel pressured in preparing for a substitute, worrying about their class(es) during their absence, and dealing with what they might find on their return. Providing release time economically and ensuring that student learning takes place will be necessary to overcome this obstacle.

2. *Teachers resent pedagogical approaches that treat them like children.* Teachers want activities that acknowledge them as self-directed adult learners who are very time-conscious, have specific concerns about immediate issues, and bring rich stores of experiences with which to process new information (Knowles, 1990). They need ISD choices and alternatives because all are not at the same stage of readiness, experience, or interest.

3. *Teachers feel threatened by inferences that they are incompetent.* This is particularly cogent in reference to professional development experiences for the gifted and talented program. Neither the novice teacher nor the veteran teacher likes be considered incapable of teaching the brightest students.

4. *Some teachers believe gifted programs are unfair to students not identified as gifted.* In spite of the special instruction and resources that activities like varsity sports receive, programs that help "varsity intellectuals" excel tend to be less well accepted. This possibility requires careful attention from gifted program staff developers. While this attitude is nothing new, overcoming the concern should be approached in ways that increase opportunities for positive ripple effects. For example, professional development that emphasizes thinking skills, interest-based independent and collaborative study, creativity, leadership, and artistic or technological talent does not belong exclusively to gifted education programs. It is just that facilitators for gifted education have provided strong leadership in these areas through their work with gifted and talented students. However, the methods are useful for students not included in the typical 2-5% pool of formally identified gifted students. They can be applied to the diverse needs and abilities of up to one fourth or even one third or more of the students *without* compromising or diluting the benefits for identified gifted students. In doing so, more students will be encouraged to achieve at high levels. As teachers become comfortable with the structures and strategies, they will incorporate more gifted education concepts into general classrooms and curriculum where gifted students, along with many other very capable learners, spend most of their school day.

PLANNING AND IMPLEMENTING PROFESSIONAL DEVELOPMENT

How can gifted program ISD be delivered so that it is most effective? Not many texts for education of gifted develop this topic thoroughly (Dettmer, 1986). Neither is it a common practice for syllabi of gifted education courses to emphasize planning and implementation of staff development. Although a good number of gifted education staff conduct awareness sessions now and then for their local schools, time and cost demands can short-circuit vital ISD processes of needs assessment, preparation, evaluation, and follow-up and follow-through that are so important for initiating long-term change. Furthermore, awareness sessions often are presented for one's own colleagues, and as Smith-Westberry and Job (1986) pointed out, being an ISD prophet in one's own professional land can be difficult.

Guskey (1985) sets aside the traditional staff development concept of seeking change in teacher attitudes, then modifying teaching behaviors, and finally expecting progress in student outcomes, to take a different approach. He recommends that staff developers first prepare teachers to use strategies that will work in their classrooms. As students succeed, schools look good and teachers feel good about what they are doing. Then and only then will teachers alter their attitudes and beliefs. This simple but practical approach can be an extremely important prototype for gifted education personnel, resulting in significant positive ripple effects from the program. A flow chart description of the model would be (Guskey, 1985, p. 58), with bracketed parts added: "[Gifted Program] Staff Development—> Change in Teachers' Classroom Practices—> Change in Student Learning Outcomes [for gifted *and* others not formally identified as gifted]—> Change in Teachers' Beliefs and Attitudes [toward very able students and gifted program practices]." Reis and Westberg (1994) promote Guskey's plan for teacher change in their research on the impact of staff development upon teacher ability to modify curriculum for gifted and talented students.

ISD for gifted programs should target novice, experienced, and veteran teachers. Novice teachers spend several years preparing for their profession, but few receive much exposure to gifted and talented education in the preservice program. Research by Tomlinson and associates (1994) indicates that novices believe they should adjust instruction to challenge learners, but prior experiences have molded their views on education and distorted their attitudes toward learning needs of gifted children. So with initial certificate in hand they walk into their first classroom, close the door, and begin to teach. They are virtually alone in a complex setting that very

likely includes one or more gifted students along with students who have learning and behavioral disabilities, but they have had little or no preparation for serving the very able and their learning needs.

Experienced teachers can also be underequipped for challenging very bright students. Some veteran teachers are shackled by curriculum and conventions of ". . . the way we've always done it," or ". . . what works best for me," along with occasional baggage of bias concerning gifted and talented individuals in general.

Teachers are responsible for teaching special needs students in special ways, but they are supposed to receive help. One component of this help is professional development. School administrators must carve out time for the ISD and monitor its success. However, in many cases school administrators are among the least informed about nature and needs of gifted students, and some may be only marginally supportive of significant curriculum differentiation for gifted and talented needs. It is not unusual for building administrators to have had only a brief lecture in one exceptional child course, at most, on gifted and talented individuals. To exacerbate the situation, too many administrators do not take an active role as participants in gifted program staff development where they could become more attuned to the needs and possibilities.

Professional development personnel should monitor college and university certification programs for teachers, counselors, and school administrators, and press for coursework on gifted and talented education in those areas. Until this happens, ISD activities will have to fill in the gaps. ISD planners also need to find out about successes and shortcomings of current teachers with gifted students, and address any gaps there.

The place to begin planning professional development is with needs sensing (Dettmer, Dyck, & Thurston, 1996; Dettmer & Landrum, 1997). Needs sensing is a radar-type scan of existing conditions and potential directions that will be used to frame the needs assessment. Needs sensing could take the form of inquiry such as "Have we ever . . .?" or "I wish . . ." or "It would be good if . . . ," in informal settings such as interviews, observations, and staff brainstorming sessions. Then the needs assessment would focus on specific areas of need and possibility by asking "How should we . . .?" and "Our students must have . . ." and " In order to . . . we need to . . .". Needs assessments are best conducted formally so the information gathered can be grouped in a database and used to develop ISD goals. Professional development can be structured, as in scheduled presentations, visitations to successful programs, workshops, guided study, demonstration teaching, exchange programs between rural/urban or special school/inclusive school, videotape series, university courses, specialized programs such as Advanced Placement training, packets for targeted groups that include administrators and school boards, and more. Other professional development experiences may be rather informal, such as bulletin board and materials displays, impromptu discussions, observations of others teaching, newsletters and handouts, sharing experiences with other professionals, and reading about relevant topics.

Conferences and conventions on educating gifted and talented are rich sources of professional development opportunity. The November '97 TAGT conference in Austin that hosted over six thousand registrants was a huge inservice and staff development vehicle. Participants in such events would benefit from preparing an Individual Conference Plan (ICP) that approximates the IEPs they develop for individualizing education of exceptional students. A statement of one's current performance level (in this case awareness of gifted and talented issues), and justification for attendance (the need to become more knowledgeable about a topic concerning giftedness and talents) would help frame individual goals for the conference. As just one example, a goal and accompanying objectives might be:

1. At the conference I will acquire information on developing strong home-school partnerships for the benefit of gifted students.
   - 1.1 Attend a session that focuses on developing collaboration among school, family, and community educators for the benefit of gifted students.
   - 1.2 Network at a luncheon or have dinner with individuals from districts that have active parent groups supporting education of gifted and talented.

The ICP could be helpful in several ways—to convince school administrators that release time and perhaps assistance with registration fees are justified; to help focus on purposes for participation so convention time is most productive; and to prepare a follow-up report about the conference for sharing with colleagues who could not attend.

Models for gifted program professional development are appearing more frequently in the professional literature. Some are presented in topical issues of publications such as *Gifted Child Quarterly* and *Roeper Review.* Others are featured at national and regional conferences. One plan described by Ruckman and Feldhusen (1988) targets the need for more emphasis on administrator awareness. Another project requires that participation in ISD will consist of teams which include one school administrator, one classroom teacher, and one facilitator for gifted programs. The staff development component of the Schoolwide Enrichment Model is well known and researched (Reis and Westberg, 1994). Schlichter's Talents Unlimited Inservice Model for Teaching Thinking Skills (1986) is an example of

generating positive ripple effects that reach students with varying backgrounds and diverse abilities. Models for distance learning and networking through telecommunications (Clasen and Clasen, 1989) and the Vermont Portfolio networks (Pennell and Firestone, 1998) are promising for districts where attendance centers and personnel are far removed from each other geographically. However, more examples of professional development structures and outcomes are needed. Hansen and Feldhusen (1994) point out the need for research and evaluation on effects of training models for instructional programs intended to serve gifted students.

Numerous resources are available for developing effective ISD techniques. *The Journal of Staff Development* focuses on designs and strategies for professional growth, with each quarterly issue providing suggestions for planning and implementing high quality activities. Books such as the one by Garmston and Wellman (1992) on making better presentations are both ISD tools and resources for classroom teaching techniques. The service publication provided by the Professional Development Division of NAGC (Dettmer and Landrum, 1997) focuses specifically on staff development for gifted programs. Of course, any model or method should be constructed around the needs sensing/assessment information for the particular school context. As Wineburg & Grossman (1998) put it, a presentation that tries to speak equally to the interests of calculus, gym, French, and physics teachers, is virtually certain to only tinker at the margins of the application.

No professional development experience is complete without analyzing the effect on school personnel and student achievement outcomes. An evaluation of ISD should determine whether the content was meaningful and relevant to each participant. It also should ascertain strengths and shortcomings of the experience, and most of all discover which ideas participants plan to use. Responses could be solicited for what participants would like to know more about. Follow-up to ISD after a certain period of time determines what aspects of the material participants have used and their perceived success level. It also could ask about positive ripple effects created by adopting the ideas. Follow-through activities on a regular basis would provide encouragement and opportunities for coaching in use of the new strategies.

MULTIPLIER BENEFITS

Schools that modify school curriculum not only for identified gifted and talented but for marginally gifted students as well can expect multiple benefits from the efforts. Positive effects of professional development to help all teachers and administrators learn about high ability and differentiated learning options can include:

1. Challenging all students with great expectations and strong encouragement to do their best. Many more students than just the highest achieving 2-5% can be functioning at the level now labeled gifted if teachers are prepared for addressing diverse needs of their students, developing stimulating lessons and materials, exposing and deflating peer pressure *not* to succeed, conducting appropriate assessment, and cultivating home-school partnerships.

2. Making schools and teachers look good. Striving for the highest possible achievement by a broadened pool of bright, talented students will enhance the curriculum, textbooks, resources, teaching methods, student and teacher productivity, school and district test scores and recognitions, and public relations for schools. It may also generate more interest by bright, capable people in becoming future educators. Many teachers participate in gifted education coursework or workshops to learn skills that will help all students maximize their potential. Such teachers are instrumental in enhancing student achievement and upgrading the school's image. Neglect of such golden opportunities in favor of a pseudo-egalitarian approach where teachers insist on teaching "to the middle," because it isn't "fair" to do otherwise, will bog students and teachers down in a pool of unfulfilling mediocrity.

3. Pleasing parents and satisfying communities. One parent, on being informed of the movement toward fully inclusionary schools, asked, "If the classroom is the appropriate setting for those with serious learning problems or behavior disorders, does this mean my gifted child will get worse?" This candid question must be addressed. Professional development that connects with homes and communities can clear up misunderstandings such as this and link home and school educators in ways that multiply the impact of education on students' lives and community values toward life-long learning.

4. Optimizing opportunities for collaboration and networking. Adults still have much to learn about valuing individual differences among adults and using those differences constructively in collaborative professional arenas. Interaction among teachers, content and talent experts and mentors, counselors and advisors, community leaders, curriculum and textbook developers, policy-makers, community leaders, and families through carefully designed and well-prepared professional development will compound the multiplier effects far beyond the typical ISD outcomes.

5. Encouraging action research. Individual, collaborative, and/or schoolwide action research helps educators seek solutions for their concerns (Calhoun, 1994). In action research the researchers target an area of interest, and collect and interpret on-site data to determine actions and make decisions.

PROFESSIONAL DEVELOPMENT AREA OF THE TEXAS STATE PLAN

A plan for Texas schools is in place that can create

(See DETTMER, page 23)

Making Sense of Chaos

Staff Development for Teachers of the Gifted

Kathy Hargrove

Conventional wisdom holds that some professionals are simply better at their work than others. Some engineers design better than others. Some lawyers move beyond legal knowledge to skills of negotiation, mediation, or litigation. Some managers make better sense of confusion. Similarly, some teachers instruct better than others. Outstanding practitioners in any field don't necessarily have more professional knowledge than others, but they are frequently thought to have wisdom, talent, intuitive ability, or artistry. Unfortunately, such approbation tends to shut off inquiry into outstanding teaching practice, for wisdom, intuition, and artistry name mysterious, indefinable abilities. Instead of bringing teachers closer to quality performances, these terms actually distance professionals from the ways of doing and being that they most need to understand.

I like this thing about responsibility. You take the daily chaos and make some sense of things.

(A beginning teacher of gifted students)

In *The Reflective Practitioner* (1983), D. A. Schon examines how quality professionals actually employ those mysterious qualities of wisdom, talent, intuition, and artistry. For him, the key is the process of reflection, particularly in situations of uncertainty, uniqueness, and value conflict. He is interested in the ways that competent professionals, including teachers, become aware of puzzling events that occur during practice as well as in their ability to analyze and explore these events. "Reflection-in-action" is his term for how these professionals operate in their work worlds; he believes that it is the entire process of reflection-in-action which is central to the art of their professionalism. He contrasts this making sense of experience with academic, theoretical knowledge learned in school. His theory of professional knowledge comes from concentrating on interactions in which more experienced practitioners try to help less experienced colleagues learn to do their work.

Schon's work has much to say both to planners of and participants in staff development efforts, whether these efforts are short after-school workshops, institutes lasting one or more days, reading discussion groups, or graduate courses. Effective staff development acknowledges the importance both of life experiences and of preservice teacher training. It allows for continued development of technical expertise while providing a formal support system designed to help teachers deal with experiences they describe as painful role overload, anxiety, difficult pupils, heavy time investment, close monitoring, and, perhaps most important, feelings of isolation. Even more, effective staff development should help teachers move beyond merely finding relief from their pain to developing their abilities to question, analyze, and reflect on the events outside the range of ordinary expectations (Schon, p. 68). Schon describes a project for experienced teachers at MIT which was organized around the concepts of reflection and experiment:

> The group of researchers have encouraged a small group of teachers to explore their own intuitive thinking about apparently simple tasks . . . The teachers have allowed themselves to become confused about subjects they are supposed to know; and as they have tried to work their way out of their confusions, they have also begun to think differently about teaching and learning. (pp. 6-7)

Effective staff development for teachers of the gifted should foster reflection-in-action and the development of knowledge-in-action.

What does such staff development actually do? By focusing on reflection-in-action, it helps teachers make sense of experience and gives value to the knowledge-in-action which they have already developed. As professionals reflect, they become researchers into their own practice. They move beyond practicing the basic skills of their profession, past solving particular defined problems by the application of specific remedies, and toward reflection and examination. They discover and reflect on the unique problems of working with gifted youth and develop in personal ways their art of

(See HARGROVE, page 27)

Sparks From the Heart
Conducting Successful Gifted and Talented Inservice Workshops

Keith Polette

I'm sure we've all attended a bad inservice workshop sometime in our lives. No doubt we can all recall a time when we sat through a workshop where the single-toned presenter, droning on and on, was as exciting and inspiring as a week-old cup of sludgy coffee. Or a time when we endured a presentation that was so disorganized that it made the Three Stooges look like the masters of design, clarity, and focus. Or even a time when we listened to the presenter spend an entire workshop spouting (or reading!) some erudite, philosophically-oriented educational theory like "The Ontological Basis of the Construction of a Postmodern Dialectic to Serve as a Malleable Discourse Site for Ascertaining and Differentiating the Intertextual Foundations of Giftedness," without once bringing it into the world of practical application. Such workshops as these are certainly ones where no "sparks" are flying "out of the mouths" of the presenters; rather they are ones where the presenters' words and methods are little more than dead (and deadening) embers.

When the heart is afire, some sparks will fly out of the mouth.

Thomas Fuller, Gnomologia

During such workshops, teachers usually turn off and tune out—and rightly so!—and do other things to pass the time: they balance checkbooks, read newspapers, work on lesson plans, chat with other teachers, or even fall asleep—behaviors that the presenters in these dull workshops most likely neither expected nor planned for. Indeed, even if the presenters don't know the difference between a spark-filled and a dead-ember workshop, teachers do, and they act accordingly.

What if, however, you are asked to present an inservice workshop? What steps can you take to ensure that your workshop is so spark- filled that it keeps teachers actively engaged in your presentation from start to finish? Here are some ideas that can help turn any workshop into one where the sparks are flying. Specifically, in my years of giving inservice presentations throughout the United States and Canada (I began in 1986), I have discovered that there are three basic "rules" to follow for giving effective presentations.

Rule # 1: BE INFORMED

• Know Your Audience

Before you begin a presentation, it is important to know who your audience is and what they will most likely want from your workshop. Since your audience will most likely be comprised of teachers, it is a good idea to remember that teachers are not the same as children in a classroom; teachers have different backgrounds, opinions, needs, and concerns. They also have a good deal of previous experience with, and prior knowledge about, teaching and learning. As such, teachers will gauge your workshop presentation against their own internal "touchstones" of what they already know about effective teaching and against those techniques they have previously used in the classroom. Consequently, teachers will be looking for teaching techniques and ideas that are, at the very least, as good as, if not better than, their own.

Teachers are also busy people. They have lessons to plan, assignments to grade, and problems to solve—and they have a limited amount of time to do these things. As such, teachers are generally looking for ideas and techniques that will help them manage their time and duties and solve their problems more efficiently and effectively. They are not looking for ideas and techniques that they already know. For instance, I recently attended a literacy workshop at a national meeting where the presenters spent the entire time—an hour and thirty minutes—attempting to "prove" that "many students have reading difficulties." They outlined some of the problems that they had observed among students and then showed a thirty minute video tape of a few students who clearly had the kinds of problems they had outlined reading aloud. Finally, at the end of the workshop, one audience member asked this question: "Okay, you've shown us that kids have reading problems, which is something we already know, but what do we do about it? Do you have any solutions?" One of the presenters answered: "Oh, if you'll look in the handout, you'll see a few ideas that I sketched. They might help." With this, the workshop ended, and the audience left shaking their heads. Suffice it to say, the presenters didn't know their audience very well. If they had, they would have restructured the workshop to meet the audience's needs. To that end, they probably should have spent ten minutes defining the kinds of

reading problems that students have and an hour and twenty minutes sharing strategies for helping teachers help students solve those problems.

Additionally, teachers, in general, have developed "pedagogical filters" and tend to be suspicious about—and resistant to—any idea or technique that appears to be too radical, too risky, or overly intellectual. That means that titles (and topics) like, "Throw Out Your Lessons Plans and 'Wing It' With Kids," "Make the Psychic Connection Come Alive in Your Classroom," and "Become the 'Nintendo Teacher' You've Always Wanted to Be," are more the stuff of tabloid journalism than they are for inservice workshops. Remember: if your workshop doesn't present ideas and strategies that can be fitted easily and immediately into a teacher's existing curriculum, it probably won't fly.

• Know Your Purpose

You should be able to state your purpose—that is, your objectives—in one sentence. Your purpose, moreover, should be specific and clear. If it is not, or if you can't state it in one sentence, then you probably need to spend more time thinking about what you want to accomplish in your workshop before you present it. For instance, a statement of purpose that reads, "This workshop will show ways to get gifted students to be better thinkers," is too vague. A better statement might be, "This workshop will present five practical strategies which are grounded in Bogdan's 'constructivist theory' for helping gifted elementary students develop stronger analytical reading skills."

• Know Your Topic

As a presenter, it is essential that you know what you are talking about. This may seem obvious, but the importance of solid topic knowledge can't be stressed enough. Whatever topic you are presenting—whether it is literature-based instruction pedagogy, approaches to critical reading, strategies for developing higher order thinking skill, process writing activities, a model for differentiating gifted and talented thinking processes, collaborative learning, alternative evaluation techniques, or problem solving strategies—be sure that you know your material backwards and forwards and that you have really thought about what you know. Remember: since you have been asked to present a workshop, you are going to be thought of as the expert.

One thing that distinguishes a sparkling inservice presentation from a lukewarm one is that in the former the presenter has made him or herself, if not an expert, at least someone who is very well informed about his or her topic; in the latter the presenter's knowledge of the topic usually does not extend very far beyond the way he or she has used it in the classroom or what he or she has read in a book or article. For example, let's say that you're going to present a workshop on the topic of "Using Guided Imagery as a Prewriting Technique with Gifted Middle School Students." It will not be enough to simply demonstrate the technique and to tell your audience that you have used guided imagery with your students "many times" and "it has always been a success." Of course demonstration and anecdotal evidence are important, but successful workshops go beyond these two areas. Which is to say, in order to be a successful and professional presenter, you must have done sufficient research so that you will know something both about the history of guided imagery (that it is grounded in Platonic thinking) and how it enhances cognitive processes (C. G. Jung, Howard Gardner, Jane Healy, Jerome Bruner, and Dorothy and Jerome Singer effectively argue that it does). Additionally, it will serve you well to have examples written by students who have engaged in the guided imagery technique. In other words, even though a presenter may conduct a workshop on an interesting topic, if he or she doesn't know where the topic came from, doesn't know why it works, and doesn't have clear examples of its effectiveness, then the workshop runs a strong risk of falling flat.

• Know Yourself

Although the advice from Polonius to his son Laertes in *Hamlet* is generally considered by critics to be ironic, it does hold true for those of us who present inservice workshops: "To thine own self be true." Which is to say, it is important to know who you are as a presenter, what your educational values are, what theorists inform your thinking, and how these combine to define your approach. Remember: your approach is the ground-zero of your presentation; everything you do as a presenter stems from it. Thus, your approach must be well defined in your own mind; and you must be "true" to your approach.

For example, over the years, I have come to define myself, both as a teacher and a workshop presenter, as what I would call "a literature-based, dialectical structuralist" (please pardon the heavy handle). By that I mean, first, that I use literature as the basis for everything I teach and present: from reading to writing to researching to thinking. Second, because I place great value on the wedding of divergent and convergent thinking, I have spent many years devising efficacious strategies—structures—that assist students and teachers in finding ways to yoke these dialectical processes. These structures give students guidelines to follow and help keep them from getting lost in thought. The metaphor I use when working with students is this: the guidelines I'm giving you for thinking are like vases; even though they are clearly defined structures, you can fill them with anything-any thought-you want. Because students

(and teachers who attend the workshops I present) know exactly what they are being asked to do while simultaneously recognizing that the activities are allowing them the freedom to take risks within well-defined parameters, they usually end up surprising themselves by thinking thoughts they have never thought before.

Finally, I know that my own thinking and my approach to teaching and presenting are informed by a wide range of theorists, thinkers, and writers, such as C. G. Jung, James Hillman, Howard Gardner, Dorothy and Jerome Singer, Jerome Bruner, Jane Healy, Mihaly Csikszentmihalyi, Walter Ong, Deanne Bogdan, Kieran Egan, Octavio Paz, Jorge Luis Borges, Denise Levertov, Ralph Waldo Emerson, Jane Yolen, Maurice Sendak, and Anthony Browne (to name but a few). Consequently, I have tried (and continue to try!) to synthesize ideas from among them all in order to create my own "dialectical" approach.

Rule # 2: GET YOUR AUDIENCE INVOLVED.

Audience involvement is a crucial element of a successful inservice presentation. When audiences are fully involved in a presentation, the time for both the presenter and the audience flies by. If, however, you fail to get your audience thoroughly involved in your presentation, the presentation time will feel like an eternity; you might as well be talking to an empty room.

Two effective ways to get your audience thoroughly involved in your presentation are through the use of open-ended questions and clearly designed workshop activities.

Open-ended questions work very well at the beginning of the workshop to establish rapport and throughout the workshop as ways to maintain rapport and to introduce specific material that you are going to present. For example, at the opening of my workshops on differentiated gifted thinking processes, I display a large number of these processes on a screen (the audience also has the same material in their handout) and ask the following question: "Which of these thinking processes are the most important ones? There can be no wrong answers to this question." Because they know they cannot fail and that it is okay to take a risk, many (if not most) audience members will offer answers to the question. As a result, I have a much easier time establishing a deeper rapport with them, and I am then able to lead them effortlessly into the follow-up activity that reveals that all the thinking processes I display on the screen are important—although some are more important in some situations than others.

Open-ended questions also work well as a way to introduce various topics throughout the workshop and to maintain the rapport that was initially established with the first question. For instance, before introducing a writing strategy based on Janet and Allen Ahlberg's *The Jolly Postman* to teachers of elementary gifted and talented students, I ask this question: "How many purposes for letters can you name?" Because they know at this point that I will accept their answers, the audience offers a myriad number. And I can tell you that our interaction at this point is quite lively! Once I have written down the plethora of purposes they offer, I then share three of the letters from the book and ask the audience to identify the purposes that inform each letter. Through this kind of exchange of question-answer-application, the workshop audience discovers that they are sharing in the running of the workshop and that their ideas are just as important—if not more important!—than mine.

Besides open-ended questions, activities are essential for keeping the workshop audience focused and involved. I have found that for activities to be successful, they must exemplify a particular point you are presenting, they must be clear, they must not be too taxing or take too long to complete, and they must be structured to ensure success. For instance, before I present a persuasive writing technique to teachers of upper elementary gifted and talented students, I first make the point that to be effective persuaders, students must develop fluent, flexible, original, analytical, and evaluative thinking. I then ask the audience to engage in an activity that is designed to stimulate those very thinking processes. Because I am using Shel Silverstein's "Who Wants A Cheap Rhinoceros?" as the basis of the persuasive writing activity, I ask the audience members to think of as many practical uses as possible around the house for a rhinoceros. I also tell them to make a long list of ideas (fluency), that the ideas may be both convergent and divergent (flexibility and originality), and that every idea, as long as it adheres to the directions, will be correct. Once the audience members have generated their lists of ideas, I then ask them to share what they have written. This stage is important because they are not only sharing ideas with me, but with one another as well. In other words, their sense of audience for their thinking and writing has expanded beyond me to the other people in the room. Moreover, not only do the readers become involved, but the entire room does as well—through laughter and applause at the strange and outrageous uses of a rhinoceros around the house!

Once the audience members have finished sharing their ideas, I then tell them that we are going to assume the role of a child trying to persuade his/her parents to buy a "cheap rhinoceros." I direct the audience to choose the person they want to persuade (mother or father) and then choose three items from their list of rhino-uses that would most appeal to either mother or father. In choosing

(See POLETTE, page 28)

Here are a few other **ideas** that will help you create a **successful workshop.**

- If you are new to presenting, **practice** the presentation at least five times before you give it.
- Have a **brief** introduction about yourself written down—especially if someone else is going to introduce you.
- Begin the workshop with a **sure-fire opening.** Begin energetically; act like you can't wait to get going. If you need to, memorize the opening (but only the opening) so that you don't have to think about what you're going to say when you start. Remember: the audience is most likely going to make up their minds about you in the first two minutes.
- Begin the workshop by telling the audience **what** you will cover. Then offer a breakdown of your main points. Throughout the workshop touch upon your points again and again. In other words, tell the audience how each activity or idea exemplifies one of your main points.
- Be organized, but be **flexible.** Be prepared to shift gears if something you are presenting is not meeting the needs of your audience.
- Have **more** than enough material on hand. In other words, over prepare. One of the worst things that can happen to you is to run out of material.
- Use some kind of **visual aid**: transparencies, slides, or an LCD plate. I prefer to work with transparencies because they are immediately accessible. Because they are not prearranged in slots like slides or preprogrammed like a computer/LCD, I can change the direction of my workshop at a moment's notice (this kind of flexibility is essential!). I don't have to re-sort slides or reprogram a computer. If you use **transparencies**, however, make the print large enough (i.e. at least 24 point) so that no one in the audience has to strain to read them. Also, if you use an overhead projector, always turn it off when you are not using it (and make sure that you have an extra bulb on hand).
- Use **music** as background when you are reading aloud or telling stories.
- Give the audience a **handout** that corresponds to the visual aids you are using. One of the worst ways to break the "flow" of a workshop is when you must stop and allow the audience to write down what you have said or something on the screen.
- Avoid using **jargon.** Do not overuse a particular word or phrase; and do not use such fillers as "ahhh," "you know," "like . . . ," or "ummmm." Do, however, speak slowly, clearly, and enthusiastically.
- Use a **microphone** only when you have to (but do be sure your voice can be heard).
- Do not use a **lectern** or podium. Instead, move around the room. Don't be afraid to be animated and to let your body show it.
- If you are asked a **question** to which you don't know the answer, say so— especially if it is not in your area of expertise. If you are asked a question that seems hostile, stay cool. Take a breath and try to relax. Smile. Listen to the question and paraphrase it back to the questioner. If you have an answer, offer it calmly; but offer it to the entire audience, not just to the questioner. Don't get angry at, or enter into a debate with, the questioner. The one thing that will kill a workshop is when a presenter loses his or her cool. One response to a question of hostile intent that generally works is: "Thank you very much for your question. You raise an interesting issue, and I'd very much like to discuss it with you, but I'm afraid I don't have time right now, as I have many other things that I need to cover. Perhaps we could talk about this during the break." Chances are that the questioner will not seek you out during the break.
- When you **present a question**, allow at least fifteen to twenty seconds to pass before asking for an answer. People need time to process questions, especially if the questions are about topics they have not considered before.
- When talking to the audience, establish and maintain **eye contact.** Talk to the whole group, not just one section.
- Whenever possible, begin **on time.** And never go past the time you are supposed to stop. No matter what you have to say, it's never more important than stopping on time. In fact, it's always a good idea to end the workshop five or ten minutes early.
- **Enjoy your topic. Enjoy the audience. Enjoy yourself.**

Sharing the Wealth

Elizabeth Montes

All teachers can be trained to better identify and serve gifted and talented students. By providing all teachers with the awareness they need about the attributes of gifted children, they will be better prepared to recognize those students with special needs. By providing all teachers with the wealth of information on classroom strategies and instructional delivery for the gifted, all students will benefit and blossom. In the process, more students' talents will be tapped.

In May, 1992 TAGT published a position paper making just that point by recommending that all teachers gain a level of awareness in the areas vital to serving the needs of gifted students. The same position paper also states that school districts should provide professional development experiences in gifted education which are comprehensive, focused, and coordinated. How a large urban school district with 4,020 teachers and 64,493 students developed and continues to refine a staff development program that meets those goals is the purpose of this article.

The state requirement for 30 hours of staff development for teachers of the gifted has been in effect since 1990. In the beginning, districts did not have any definitive guidelines on what should comprise the components of that training. The result was a cafeteria style offering which was anything but comprehensive, focused, and coordinated. Participants could pick and choose what they liked and not necessarily what they needed for a well-balanced inservice diet.

In 1995, under the auspices of TAGT, a Texas panel of professionals in the field of gifted education developed a list of 17 competencies under the umbrella of the five core areas which included the following:

- nature and needs
- identification and assessment
- social and emotional needs
- creativity and instructional strategies
- differentiated curriculum

The intent was to provide districts with a structure for developing a high-quality staff development program.

BASIC TRAINING

The Core Areas and Teacher Competencies List proved a valuable resource in refining and enhancing the El Paso ISD staff development program in existence at the time. We had begun our staff development program by having professionals in the field develop a series of modules in the five core areas. Each module included a facilitator's script, transparencies, and a participant's packet. Consistency and uniformity in delivery was our goal. The authors of the modules were the original trainers of teachers, who in turn became part of a cadre of trainers in a trainer of trainers approach.

Training is coordinated centrally at the district level. A calendar of workshop offerings is distributed to campuses throughout the district. Teachers and administrators preregister using a standardized registration form. The district gifted and talented coordinator confirms their registration and makes arrangements for release days and/or stipends.

Teachers initiating their 30 hours of staff development are given a form on which to document the requisite training. When this training is completed, the forms are returned to the district gifted and talented coordinator for verification and processing. A certificate is issued by the district certification officer in Human Resources with a copy sent to the gifted and talented coordinator. A database of trained teachers is kept by both Human Resources and Gifted and Talented. Having coordinators in both departments keep duplicate records is a fail-safe method for accountability and verification purposes.

The above procedure has provided our district with a high-quality staff development program that is comprehensive, focused, and coordinated.

OVER AND BEYOND BASIC TRAINING

The TAGT Position Statement on Staff Development recommends additional staff training for teachers who have met the five core components. This recommendation is now a rule of the Texas Administratve Code which requires that teachers receive a minimum of six hours annually of professional development in gifted education (19 TAC 89.2 (2)).

This is the area in which districts can creatively design staff development tailored to their local needs. For example, districts should provide training in the unique

54 (See MONTES, page 25)

Planning for Staff Development and DEC Visits with the *Texas State Plan for the Education of Gifted/Talented Students*

Ross Sherman & Beth Fouse

The old adage is, "Plan to succeed or fail to plan." Appropriate staff development can provide a vital link between individual learning needs of gifted and talented students and implementation of appropriate educational practices. In the fall of 1996, the State Board of Education adopted the Texas State Plan for the Education of Gifted/Talented Students (TEA, 1996). The plan, mandated by the Texas Education Code, Chapter 29, is correlated with the State Board of Education's (SBOE) rules for gifted and talented. For the first time since the 1990 mandate for gifted and talented programs, public schools in Texas have an accountability system for gifted education.

This plan for gifted education identifies the level of services needed for a program to be considered acceptable, recognized, or exemplary. State plan standards are monitored by the Texas Education Agency through the District Effectiveness and Compliance (DEC, 1996) visits. School districts must only meet acceptable standards to comply with DEC visits. Recognized and exemplary criteria provide targets for school districts striving to implement quality programming for gifted and talented students.

Visits to school districts generally occur every five years and are driven by the special education program of the district. Gifted and talented programs will be monitored by TEA when other special population programs in the district are monitored. At that time, school districts will be required to produce documentation that the acceptable standards are being met. Although DEC visit evaluations will not affect the district's accountability ranking, school districts will be required to correct any discrepancies noted when acceptable standards are not met.

One item currently being checked by DEC Teams is the requirement for staff training. Districts must present documentation that teachers of the gifted have received the basic thirty hours of training. New requirements in the plan require that these same teachers receive an additional six hours annually. Administrators and counselors with authority for gifted program decisions must also participate in six hours of professional development that includes nature and needs of gifted/talented students and program options for gifted/talented students. The 1996 state plan for gifted education also requires program evaluation, evaluation of professional development activities, and inclusion of specific information about meeting the needs of gifted students on school district and local campus improvement plans.

One way to plan for professional development activities and evaluation of district and campus programs for gifted students is to use the Texas State Plan for the Education of Gifted/Talented Students as a needs assessment tool to identify strengths and developmental areas. This plan consists of five major components with specific items listed under the major areas of student assessment, program design, curriculum and instruction, professional development, and family/community involvement. The checklist in Table 1 corresponds to items in the state plan, allowing for measurement of the current program against standards established for an acceptable, recognized, and exemplary program. Many school districts' programs may have components that vary from acceptable to exemplary. However, to meet the requirements for acceptable, the district must meet or exceed every requirement under the acceptable column. To be rated as recognized, all items under acceptable and recognized must be met or exceeded. To be identified as having an exemplary program in the gifted and talented area, all items in the acceptable, recognized, and exemplary columns must be met.

Table 1 addressing "Professional Development" is an example of one of the five major components of the plan. In the complete document questions are grouped under each component according to acceptable, recognized, and exemplary standards. For program evaluation purposes, any time the rater indicates a "no" response to an item required for acceptable standards, the item should be identified as an area for correction. "No" responses under recognized or exemplary items could be used for additional information in the development of campus improvement plans. Although all areas of the plan can be used to identify needs for professional development, particular attention should be given to the fourth section on professional development when identifying staff development training needs.

Table 2, a Planning Guide for Staff Development, was also developed to facilitate the process of evaluation and planning. It can be used to summarize information from Table 1 as well as being used to document information collected within the school district. For each major area, stakeholders who are to be provided information and training are listed. The

guide also provides space to identify whether information is to be provided in written or oral format. If the information is to be presented through an oral presentation, the length of the presentation can be listed.

IMPLICATIONS

The Texas State Plan for the Education of Gifted/ Talented Students should be viewed as a tool for district and campus program planning and evaluation. School districts and local campuses must include a plan for gifted and talented in district and campus level improvement plans. Table 1 can be utilized to facilitate this planning and evaluation process. Site-based committees which are developed as a result of implementation of this plan should include major stakeholders in the gifted and talented community: administrators, counselors, classroom instructors of the gifted and talented, regular classroom teachers, parents of gifted students, and business and industry leaders from the community.

In completing a self-study, districts should address the question: "Does the basic curriculum provide a well balanced and appropriate education where students demonstrate exemplary performance in the reading and writing of the English language, and the understanding of mathematics, science and social studies?" (T.E.C.4.002). If it does, the program for gifted and talented students should differentiate and extend the curriculum.

With the current statewide emphasis on inclusion from a special education perspective, many districts have moved to full-time, inclusive settings for gifted students. This places the responsibility of education for all students on the general education classroom teacher. The classroom teacher then becomes responsible for modifying curriculum for special education students, providing well-balanced and appropriate instruction for "regular" students, and extending and differentiating curriculum for gifted and talented students in all four core areas.

When deciding on a fully inclusive setting, two criteria in the state plan should be considered. First, if the classroom teacher is truly the instructor for gifted students, as stated previously, all classroom teachers in the school district must receive the thirty hours of in-service training in gifted education. If students are clustered into one teacher's classroom at each grade level, only that one teacher per grade level would be required to have the thirty hours training.

Additionally, criterion 2.2A (19 TAC §89.3[1]) states "Program options enable gifted/talented students to work together as a group, work with other students, and work independently during the school day as well as the entire school year." The district and/or campus must determine how regular classroom teachers are going to provide for gifted students working together as a group and working independently during the school day and school year. If a classroom has only one gifted student, arrangements would have to made for that student to interact with some group of gifted students during each day.

CONCLUSIONS

Gifted education in the state of Texas is changing. It is more accountable. More training is required of all personnel who work with gifted programs. Stakeholders in gifted education should keep up with the mandated changes and assist local school districts in meeting the mandates. In doing that, gifted education in the state of Texas will continue to improve, and school districts will do a better job in meeting the needs of diverse gifted students in our communities. Remember, "failing to plan is planning to fail."

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Table 1. QUESTIONS FOR EVALUATION OF CAMPUS AND DISTRICT GIFTED AND TALENTED PROGRAMS

PROFESSIONAL DEVELOPMENT: This program component addresses training and knowledge of personnel involved in gifted/talented programs.

YES	NO	ACCEPTABLE DESCRIPTORS
____	____	Do teachers who provide instruction for gifted and talented students have a minimum of 30 hours of staff development in gifted education that includes nature and needs of gifted/talented students, assessing student needs, and curriculum and instruction for gifted students? (4.1A)
____	____	Do teachers who provide instruction and services for gifted/talented students receive a minimum of six hours of annual staff development in gifted education? (4.2A)
____	____	Do administrators and counselors who have authority for program decisions for the gifted/talented program have a minimum of six hours of professional development that includes the nature and needs of gifted/talented students and program options for gifted/talented students? (4.3A)
____	____	Is evaluation of professional development activities for gifted/talented education ongoing with the results of the evaluation used in future decision making and staff development plans? (4.4A)

YES	NO	RECOGNIZED DESCRIPTORS
____	____	Are all teachers encouraged to pursue advanced degrees or advanced professional development in their teaching discipline? (4.1.1R)
____	____	Are teachers provided release time to visit other campuses or districts with model programs? (4.1.2R)
____	____	Is a written plan for professional growth developed, implemented and evaluated annually? (4.1.3R)
____	____	Do all teachers receive training in the nature and needs of the gifted and an orientation to the district/or campus program for gifted/talented students? (4.2.1R)
____	____	Do new teachers receive an overview of the district's program for gifted/talented students? (4.2.2R)
____	____	Is the local board of trustees encouraged to pursue professional development on the Texas State Plan for the Education of Gifted/Talented Students? (4.3R)
____	____	Are opportunities for professional development in the area of gifted education published and provided on a regular basis and disseminated to professionals in the district? (4.4R)

YES	NO	EXEMPLARY DESCRIPTORS
____	____	Are teachers who provide direct services to the gifted provided release time and/or tuition assistance to pursue an endorsement in gifted education? (4.1E)
____	____	Are mentors provided training in the nature and needs of gifted/talented and the district goals for the program? (4.2E)
____	____	Do administrators and counselors who have authority for program decisions for the gifted/talented program have a minimum of six hours annually of professional development in gifted education? (4.3E)
____	____	Are the majority of teachers providing advanced level services for gifted/talented students certified? (4.4.1E)
____	____	Is the staff development for the gifted program planned and implemented with involvement of district gifted/talented teachers? (4.4.2E)

Note: Numbers in parentheses correlate with items from the Texas State Plan for the Education of Gifted and Talented.

(The complete document will be distributed at the TAGT Coordinators Conference in April, 1998. Single copies can be secured by sending a self addressed stamped envelope with $0.64 postage to The University of Texas at Tyler, Learning Development Center, 3900 University Boulevard, Tyler, Texas 75799 .)

Table 2. PLANNING GUIDE FOR STAFF DEVELOPMENT

Area	Stakeholders	Format		Length
		Oral	Written	(Hours)
Student Assessment				
Policies - Student Identification (1.1A)				
Policies - Furloughs, Reassignment, etc. (1.2)				
Policies - Appeals (1.2A)				
Nominations and Screening - Annual (1.3A)				
Assessment Sources - Quantitative/Qualitative (1.5.1A;1.5.4A)				
Assessment - Language (1.5.2A)				
Assessment - Kindergarten (1.5.3A)				
Assessment - Leadership, Artistic and Creativity (1.5.5A)				
Assessment - Committee (1.7A)				
Program Design				
Learning Opportunities - Four Major Areas (2.1A)				
Learning Opportunities - Parental Notification (2.1A)				
Instructional Arrangements - Varied (2.2A)				
Out-of-School Experiences - Relevant (2.3A)				
Policies - Credit by Examination and Early High School Graduation (2.4A)				
Funds - Distribution (2.5A)				
Curriculum and Instruction				
Learning Experiences - Four Academic Areas (3.1A)				
Learning Experiences - Advanced Level Products (3.2A)				
Accelerated Instruction - Areas of Strength (3.3A)				
District and Campus Improvement Plan - G/T Addressed (3.4A)				
Professional Development				
Staff Development - Teachers' Initial (4.1A)				
Staff Development - Teachers' Annual (4.2A)				
Staff Development - Counselors and Administrators (4.3A)				
Staff Development - Evaluation (4.4A)				
Family and Community Involvement				
Student Identification Policies - Disseminated (5.1A)				
Services Available - Disseminated (5.2A)				
Evaluation of Services - Parental Feedback (5.3A)				
District and Campus Improvement Plan - Parental Input				

KEY:

Stakeholders

T	Regular Classroom Teachers	G	Instructors of Gifted Students
A	Administrators	B	Business and Industry Leaders
C	Counselors	O	Other
P	Parents		

The number of specific stakeholders needing staff development may also be entered. For example, 15T would indicate that 15 regular classroom teachers needed staff development. 6A would indicate that 6 administrators needed appropriate training.

Oral/Written: Place a √ in the blank indicating whether information is to be delivered in an oral or written format.

Length: For oral presentations, indicate the length of the presentation in number of hours.

Teaching Teachers to Meet the Needs of the Gifted

Karen Kraft and Janis Laughlin

To serve the needs of the gifted in all four core areas is a great challenge for many districts as set forth by Senate Bill 1. Coppell I.S.D. met this challenge with enthusiasm. After all, the gifted program in Coppell is aptly named *Challenge*.

The Challenge Program presently identifies gifted and talented students in the area of General Intellectual Ability, Creativity, and Specific Subject - math/science or language arts/social studies. All active students are served in a homogeneously grouped language arts classroom with endorsed teachers. With the present state mandate, training is required for all middle school math, science, and history teachers (due to the teaming philosophy) and all high school math, science, and history Pre-AP and AP teachers.

The primary goal for this training was to design a thirty hour seminar which modeled curriculum compacting by incorporating the five required topic areas and utilized Bernice McCarthy's 4-MAT Lesson Wheel.

McCarthy's theory of learning rests on two principles. The first principle defines four types of learners:

- Type 1 learners are people oriented;
- Type 2 learners are analytical;
- Type 3 learners are practical common sense learners; and
- Type 4 learners continually ask, "What if?".

The 4-MAT Lesson Wheel progresses through four quadrants. Each quadrant draws upon a learner's strengths in a given area. The purpose of Quadrant 1 is to make a personal connection with the learner. Quadrant 2 focuses on knowledge acquisition. Quadrant 3 activities allow learners hands-on manipulation of information. Quadrant 4 invites learners to take material and knowledge and use it in a different way and perhaps for a new purpose.

The second principle of McCarthy's theory is to alternate between right and left brain activities while progressing through the wheel quadrants. The ultimate concept of the 4-MAT theory is to better meet the needs of all learners by touching on each learner's area of strength, expanding upon each learner's weaknesses, and tapping the potential of each side of the brain.

By teaching the required content through the 4-MAT model, Coppell teachers experienced a positive training seminar which inspired them to meet the needs of gifted learners by modifying depth, complexity, and pace of curriculum and utilizing the 4-MAT Wheel to touch upon all learners' strengths.

When inner wisdom tells us it's time to change...like the hermit crab, we must find the courage to venture into the sea in search of a new and more spacious place to live.

Mary McNamara
Out of the Sea and Into the Skin

SEMINAR OUTLINE

Day 1: An Introduction to 4-MAT

Teachers participate in various activities that not only educate them on the theories of 4-MAT, but identify their learner type and brain mode dominance.

Day 2: The Unique Needs of the Gifted

The focus of this day is to highlight the gifted learner and how the gifted are different from other students in intellectual capabilities as well as emotional needs. Teachers also become familiar with screening procedures of the district.

Day 3: Meeting the Needs of Gifted Learners

The concept of depth, complexity, and pace is highlighted throughout the day's various activities. Teachers

become familiar with state requirements and mandates.

Day 4: Making 4-MAT User Friendly

Teachers learn the components of each 4-MAT Quadrant and brain mode in relation to classroom activities. Teachers also learn to link units of learning through concept connections. Finally, teachers take a previously taught lesson and rewrite it using the 4-MAT Wheel.

Day 5: 4-MAT...A Way of Life

On this last day of training teachers become familiar with George Betts' Autonomous Learner Model, Coppell's adopted model for gifted education. Then teachers continue placing lessons on the 4-MAT Wheel. The primary purpose of this day is to provide teachers support for rewriting curriculum to meet the needs of the gifted, as well as all learners.

HIGHLIGHTED ACTIVITIES

This seminar has been presented a total of four times since June 1997. The activities below tended to be favorites among the participants in each seminar group.

GT Selection Committee: To better understand the identification and selection process in the required topic area of assessment, teachers were provided nameless screening profiles and the criteria indicators for identifying gifted students in Coppell. Using the criteria indications, teachers had to determine if a student qualified for the Challenge Program. If the committee members identified a student as gifted, they then needed to determine if the student qualified as General Intellectual Ability, Creative, or Specific Subject - Math/Science or Language Arts/Social Studies. After teachers made their recommendations, groups reviewed the meaning of norms, standard deviations, standard error of measure, and regression toward the mean. Teachers also discovered the various reasons for testing inconsistencies.

Journal Review: In order to increase their awareness of the nature and the needs of gifted students, teachers were provided time to peruse a wide selection of gifted journals. Middle school teachers made great discoveries in *Oasis* and *Challenge*. The high school teachers generally gravitated towards *The Journal of Secondary Gifted Education* and selected issues of *Tempo*. One of the teachers commented, "I knew these journals were out there, but I have never had the time nor the opportunity to read any of these articles." This opportunity provided teachers time to see techniques and strategies used by other teachers of the gifted, share these discoveries with the seminar group, and adapt these ideas to their own purposes to better meet the needs of the gifted in their classrooms.

The Mission Statement: Teachers were asked to visually represent the mission statement of the Challenge Program in order to display their comprehension of the program's purpose. The mission statement reads:

The Mission of Challenge, the CISD Gifted and Talented Program, is to develop autonomous, life-long learners by maximizing student potential through appropriate curriculum and instruction which provides an array of learning experiences differentiated by depth, complexity and pace in a risk-free, productive, and creative environment.

One particular group of teachers created a visual entitled, "The Mission Statement Pool." On the lower depth of the pool, students could rest their feet on the bottom while keeping their heads above water. As the depth of the pool increased, life preservers were provided along the side, just in case students "got in over their heads." Help was always nearby. At the deep end of the pool there were two diving boards, a two meter and a ten meter board. Along one of the sides of the pool were two lap lanes so students could work on conditioning and endurance. Students could take risks in this pool as they deemed appropriate and/or necessary. The pool provided an array of opportunities to vary pace, depth, and complexity in a safe environment meant to maximize student potential.

A Closing Simile: As a concluding activity for Day 2 to highlight their learning about the nature of the gifted, teachers were asked to respond to the question: How is a gifted student like a cotton ball? Below are responses from Coppell teachers.

- No two cotton balls are the same.
- Cotton balls are very absorbent.
- Cotton balls come in many different shapes, sizes, colors, and densities.
- Cotton balls can be used for a variety of purposes.
- Cotton balls can be pulled in many different directions at one time.
  - ...but if you stretch them too thinly they will tear and rip.
  - ...and they cannot be put back in their original shape.
- Cotton balls come from prickly bushes. The end product is soft, but when you're picking cotton, sometimes you get 'stuck' by the shell around the bloom.

SEMINAR EVALUATION

Teachers exited the seminar with a positive concept of the needs of gifted learners, tools and strategies to use in their classrooms to meet the needs of the gifted, and an understanding of why certain students are served in the gifted program. Teachers felt their time had been used

(See KRAFT / LAUGHLIN, page 22)

The In-House Staff Development Model: *A Plan for Effective Change*

Joyce E. Juntune

"**Good people combined with** well-designed staff development programs will result in meaningful change, if the content is good . . ." (Joyce & Showers, 1995 p.15). Any educator who has spent time in the school setting is aware of the relationship between effective staff development and the increase of student learning. Though we do not question the validity of staff development, we wrestle with the vehicle for delivering the needed content to the faculty members on our school campuses in an efficient and effective manner.

I first experienced staff development training sessions as a young classroom teacher in California. Later, I was the outside consultant hired to "perform a miracle." Having witnessed the spectrum of staff development, I am grateful to an outstanding principal in Minnesota for designing and setting up an effective staff development model in the school where I was teaching. This model has been effective time and time again in both small and large school districts. The ongoing research on staff development also continues to support this design (Joyce & Showers, 1995); (Glickman, Gordon, & Ross-Gordon, 1995; Lieberman, 1995; Sparks & Hirsh, 1997).

THE MODEL

- **mini-sessions**
- **sharing sessions**
- **school-based trainers**
- **parent communication**

THE MODEL

The goal of this model was to combine the benefits of outside consultants, state and national educational conferences, and local teacher expertise delivered at an affordable cost. The model consists of the following four components: mini-sessions, sharing sessions, school-based trainers, and parent communication. Each of these components can be effective on its own, but together they provide a powerful vehicle for change within a school.

Mini-sessions

Early on, the decision was made to devote a portion of our faculty meetings to staff development activities. Once a month the meeting would begin with a 20 minute formal training session. The principal wanted the mini-sessions to have a single focus so any teacher in attendance could go back to the classroom, and without having taken notes, try the idea presented.

The concept of mini-sessions is supported in the research of Buzan (1993) and Anderson (1995). They remind us that more learning occurs when an individual is involved in short, single-purpose learning sessions. Anderson (1995) also found that as more items of information are introduced into the learning setting, people tend to forget a greater portion of the information presented. We observed that when teachers were faced with several ideas to try, they spent their time trying to decide which one to try, rather than on how to put the ideas into practice.

The practice of mini-sessions started out as a way to help all faculty members benefit from the conference attendance of a few. Any teacher attending a conference or out-of-school workshop was responsible for bringing that experience back to our faculty through the use of a mini-session. Our principal would meet with each person prior to the conference. Together, they would study the program and mark sessions which seemed to offer information our school needed. The principal would once again remind the teacher of his/her responsibility to the rest of the school: *For every day in attendance at a conference or workshop, each attendee had to conduct a fifteen to twenty minute staff development session at a faculty meeting*. During this session, the returning teacher was to do the following:

- focus on ideas gained at the conference that matched our school's mission and goals, and/or shed light on a problem we were trying to solve;
- clearly explain to the other teachers the chosen idea and match it to the appropriate goal or problem;
- provide copies of the handouts that illustrated the idea in action;
- conduct an activity that clearly illustrated the idea; and
- limit the session to only one or two workable ideas.

Sharing Sessions

Since teachers need opportunities to practice and try the ideas presented during staff development sessions

(Joyce & Showers, 1995), two weeks after a morning mini-session, an afternoon sharing meeting was scheduled. These meetings were held at the end of the school day and were only fifteen to twenty minutes in length. Teachers were put into groups of four. Sometimes teachers were grouped according to grade level or content area. At other times, they were mixed across a two year grade level span. Teachers had to bring an example of one way they had applied the idea presented during the morning training session. The sharing sessions also provided teachers with an opportunity to learn from each other and ask clarifying questions (Lieberman, 1995).

At the end of the sharing time, the lesson examples (and copies of any student responses) were gathered and placed into a file cabinet in the library/media center. Each grade level had a drawer. There were drawer dividers for each content area. Teachers were encouraged to browse through these lessons to find additional ways to apply the ideas which had been presented in the morning training sessions.

Mini-Session Format

1. Review previous concept.
2. Introduce new concept.
3. Conduct a group activity using the new concept.
4. Review the new concept.
5. Provide examples of classroom applications of the new concept.

Figure 1

School-based Trainers

The research on staff development points to the importance of teachers being involved in the training process (Glickman et al., 1995); (Sparks & Hirsh, 1997). Any teacher attending a conference or off-site workshop served as a mini-session leader. Over the course of two to three years, most of the teachers served as mini-session leaders. Rather than a few teachers being seen as authorities, all teachers were partners in the school learning process.

Though the beginnings of this model came about as a way to share information learned at conferences with the entire faculty, the model became the lifeline for formalized training of new teaching strategies, updates on legislation, and problem-solving sessions for new difficulties which arose within our district.

During the years when formalized training was needed, two to five teachers from each building were chosen to receive in-depth training with outside consultants during the summers. The building trainers were expected to conduct faculty training sessions in their respective buildings for the next two to three years. At the elementary level, one teacher was chosen from the lower grades and one from the upper grades. At the middle school and high school level, one teacher was chosen from each of the core content areas. These teachers took the material from their summer training and with the assistance of the district staff development person or the outside consultant conducting the training, organized the material into small, single entity units. **Figure 1** shows the outline the teachers followed for their mini-session presentations. **Figure 2** illustrates how basic creative thinking strategies look in the mini-session format.

This model provided a framework for formalized training of a variety of content with the faculty. It was used to learn instructional strategies such as higher order thinking and problem solving skills. It was the vehicle used to acquaint our faculty with the definitions for gifted students as well as a variety of learning disabilities. Through formalized training sessions teachers learned how to develop mini-programs (Juntune, 1988; Juntune, 1997) for meeting the needs of gifted students within the regular classroom.

The benefits of using trainers who were also teachers within the building was evident at many levels. These teachers were walking evidence of "practicing what you preach." Any idea presented during the mini-sessions had already been tried in their classrooms. A teacher could walk by one of these classrooms immediately after the session and view student work mounted on bulletin boards showing evidence of the idea in practice.

These teachers were also a part of team planning meetings where they were resources for the integration of the mini-session ideas into the regular curriculum. Other teachers felt comfortable sharing a success or asking a question during planning periods or after school.

They were also, as our principal put it, walking bulletin boards. Every time they walked up and down the halls, other teachers were reminded to give these ideas a try. No matter how the model was being used during any given year, its original use remained: any teacher attending a conference was expected to return home ready to SHARE.

Communication with Parents

Parent updates on our school staff development came through the school's monthly newsletter. Each newsletter provided a synopsis of what had been covered in the

monthly mini-session along with two examples of ways to apply the ideas within a home setting. The parents were invited to attend any of the monthly mini-sessions. Parents were also welcomed into our classrooms at any time. Twice a year, parents were invited to the school for teacher demonstrations of the ideas learned during the year. During this School for Parents Night, teachers worked in pairs to walk parents through a lesson they had taught during the previous week, which incorporated one of the ideas being learned that year. The parents worked in small groups. Their work was mounted on the classroom wall. Then the teachers uncovered the wall where the student's work on the same lesson had been mounted earlier during the week. The parents loved comparing their work to that of their children. The next morning the students rushed to their rooms to find out how their parents had done on the lesson from the night before. The openness with parents brought support instead of criticism. I remember the principal telling the parents at one of the early meetings, "We are not experts. We are just beginning to learn how to help our students become thinkers. We are going to share with you what we know at this time. As we learn more, we will share it with you." The parents responded enthusiastically. They were partners with us in the education of their children!

Evening parent classes were also held for parents who wanted more information. During these classes, the parents were given instruction similar to the mini-sessions the faculty experienced throughout the year. The activities in the parent session were all examples of how they would apply these ideas within the home setting.

The use of a common language and a common understanding increased parent interest and involvement in the education of their children. Several parents became volunteers in our classrooms and provided individual extension activities for our gifted students. They also were an integral part of the process of differentiating the curriculum for our gifted students.

Mini-sessions on Creative Thinking

Session 1: (Aug.)	• fluency • verbal fluency for unit review and pre-writing • idea flow guidelines • fluency used at the beginning of units
Session 2: (Sept.)	• flexibility • hitchhiking within a category • flexibility as a review tool for parts of speech and math concepts • flexibility as a tool for writing
Session 3: (Oct.)	• originality • the three *u's* of originality • originality as a unit review tool • originality in decision making
Session 4: (Nov.)	• elaboration • figural elaboration • semantic elaboration • graphic organizers and elaboration

Figure 2.

CONCLUSIONS

The success of this model can be attributed to the application of the principles of staff development which are again being emphasized in recent literature (Joyce and Showers, 1995; Sparks and Hirsh, 1997) and an understanding that learning for adults and learning for children is much the same (Lieberman, 1995).

Joyce and Showers (1995) emphasize the importance of all faculty members participating in staff development instead of a few volunteers. With the whole faculty involved, slow-moving teachers came on board faster. They could see the numbers of teachers around them who were participating and seeing changes in their classrooms. The critical mass usually won them over. The principal made the application of the training a part of his evaluation of teachers and classrooms. He participated in the training, as recommended by Joyce and Showers (1995), and therefore knew exactly what the teachers had heard and experienced. He knew the language and could discuss the monthly focus with students in the hallways.

The staff development of our school moved from fragments and piecemeal to a clear systematic plan (Sparks & Hirsh, 1997). The teachers knew staff development was an ongoing process. It was viewed for the long term instead of "the fad of the moment." The teachers had become accustomed to thinking that if they just avoided listening during workshops, "this too would pass." Next year there would be another "new" idea and they would not be required to do anything except attend another series of workshops.

Guskey (1986) reminds us that teachers change their attitudes when they put ideas into practice and see evidence of the change in their students. Staying with a focus for two to three years gave teachers this opportunity.

This model proved to be both intensive and systematic for the teachers involved. As a result, over half of the teachers trained using the original model demanded opportunities for more in-depth work. Related book study groups and graduate level courses were arranged for teachers who wanted to study the ideas of the mini-sessions in greater depth (Juntune, 1979). These opportunities allowed teachers to chose a level of staff development which matched their individual interest.

This opportunity to individualize learning is a necessary part of a successful staff development program (Glickman et al., 1995; Sparks & Hirsh, 1997). It takes the lid off of the learning process for teachers. Putting the lid on teacher development is just as inappropriate as putting the lid on a student's learning level.

Why the need for a strong staff development program? As Rosie O'Brien Vojtek, the principal of Forest Grove School District in Oregon put it (Sparks & Hirsh, 1997), "Staff development is the most important thing we can offer teachers or anyone. The day we stop learning is the day we become a dead society" (p. 100).

If schools are about learning, then learning for teachers should be valued and practiced as diligently as learning for students. Some staff development programs seem designed to slow or halt the learning process. This model not only invited learning within our school, it accelerated it.

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(From KRAFT / LAUGHLIN, page 18)

appropriately and that their knowledge base had been broadened in a purposeful manner.

One suggestion by seminar participants was to attend the training with team members. Middle school teachers most often felt they wanted and needed the support of their team members before vastly changing the central focus of a curriculum unit.

The final component presently missing from this training seminar is the follow-up support. One three-hour session has been provided for those teachers who wanted to review the applications of the 4-MAT theory, revisit the needs of the gifted learner, and evaluate strategies implemented in classrooms since teachers' initial training. Other follow-up sessions are planned throughout the spring and summer to enable participants to obtain their TAGT Awareness Certificate.

Like the hermit crab alluded to earlier, the Challenge program will venture courageously to meet its next goal, providing the annual six-hour up date training sessions.

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(DETTMER, from page 6)

positive ripple effects throughout schools with the five performance areas outlined for education of gifted and talented. Three of the performance areas address key facets of gifted and talented education—nature, needs, and nurture. The first area, **Student Assessment,** stresses characteristics, interests, and abilities of gifted and talented. The second, **Program Design**, highlights special needs of the very able and curricular implications of those needs. The third, **Curriculum and Instruction**, presents ways of serving the needs through a variety of appropriately differentiated learning programs. But it is the fourth performance area, **Professional Development**, which will drive the first three. This component, along with support from the fifth one, **Family-Community Involvement**, catalyzes the state plan into a workable instrument for educating students "to their maximum capabilities" (Moses, 1996, p. 11).

Several exemplary practices are outlined in the plan, including orientation for new teachers entering the district, development of awareness in administrators and counselors, and recommended participation of local district boards of trustees, mentors, and other related services and support personnel in gifted program professional development. Release time and tuition assistance are emphasized. Perhaps the most immediate and exponential gain can be realized from the goal of involving *all* teachers in preparation for gifted program instruction.

REVIEW AND SUMMARY

Gifted program professional development for any one or all of the six purposes identified earlier should include:

1. Needs sensing and needs assessment activities
2. Purposes and goals developed from the needs assessment data
3. Framing and inclusion of ISD activities within the local school context
4. Interest-based content, with choices and alternatives for adult learners
5. Procedures that adhere to adult learning methods
6. Action research to guide professional development, document outcomes, and disseminate results
7. Active participation by school administrators, counselors, school psychologists, curriculum supervisors, and ancillary services personnel
8. Involvement by family and community members, including mentors, special service and talent personnel, and representatives from pertinent community groups, in planning and implementation, and also in evaluation and follow-up
9. Evaluation of activities and their impact on educator practices and student outcomes
10. Follow-up and follow-through on outcomes of the activities, ripple effects, and next steps to take.

These ten areas should be planned and monitored by a collaborative group representing school, home, and community.

Even the planning of professional development is a sophisticated form of professional development. Staff development personnel must be the visionaries of education, setting high goals for staff and students and helping all to attain them. Each aspect of professional development is an opportunity with the potential, like a well-placed pebble cast into the water, for creating positive ripple effects far beyond the original point of impact.

In a summary of the Richardson study of the 1980s assessing promising practices in U.S. gifted programs, researchers Cox, Daniel, and Boston (1986) reflected on the failure of school reformers to be opportunistic and link the need for academic excellence in schools with the provision of special learning programs for those with greatest potential. The researchers had determined that needs of students with high ability and exceptional talent tend to be set aside in favor of the less easily ignored needs of struggling or troubled students. The irony is that by seeking to understand learning characteristics of students who achieve easily at high levels, identifying them as "curriculum disabled" in undifferentiated learning environments, addressing their needs for differentiation of curricular modifications and alternatives, and providing teacher training for such approaches, educators can apply methods that help *all* students maximize their potential.

Professional development for gifted and talented programs is an ocean of opportunity for educators spreading far beyond their own certification and recertification programs. With the tide of inclusion washing across the land, and gifted/talented students in danger of drowning while teachers struggle to keep all students afloat, the time is at hand for activating gifted program concepts that will create positive ripple effects throughout the educational system. Professional development experiences that expose student needs and structure ways of serving those needs can make a difference. It is a tremendous task, but the potential benefits are infinite.

So this is the challenge: to live up to the ideals set forth in the *Texas State Plan for the Education of Gifted and Talented Students*, including exemplary professional development philosophy and practices. Here we might recall the words of the astute person who said that ideals, *unlike* diamonds, tend to shine most *before* they are chiseled, cut, and placed into rigid settings. Mindful of this, educators must ensure that the luster of the lofty ideal showcased in the Texas State Plan, "educating all Texas students to the maximum of their capabilities," will be preserved and promoted through professional development for all educators that benefits every student, *including and not in any way neglecting those with*

exceptional gifts and talents, throughout every school and community.

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(HICKERSON, from page 2)

to ensure quality professional development, educating and supporting teachers and others who work directly with our gifted children.

TAGT has always been aware of the importance of the teacher to the success and quality of gifted instruction. That is why we, as an organization, offer scholarships, recognition awards, and grants to teachers to encourage and support continuing education, research, and innovative practices. The newest issue of *Insights*, which members recently received, includes applications and information for Laura Allard Grants for Excellence, "Rising Star" Teacher Award, and Outstanding Teacher of the Year Award, along with parent / student / educator scholarships. Over the past several years, TAGT has awarded thousands of dollars to teachers in grants, scholarships, and recognition awards. Don't overlook these opportunities — consult *Insights* and send your nominations and applications in before the deadline, the first of which is March 1 for Educator Scholarships; March 15 for Laura Allard Grants for Excellence Award; April 1 for TAGT Advocate, Parent, and Teacher of the Year Award; and May 1 for "Rising Star" Teacher of the Gifted Award.

This summer marks the first year of the TAGT Professional Development Summer Institute. Teachers selected to attend the first institute will have the benefit of exceptional instructors and presenters and the option of receiving 45 clock hours of gifted / talented inservice credit hours and TAGT level I Awareness Certificate or of receiving three hours of graduate level college credit toward the G/T endorsement through one of several participating universities. Look for details about this exceptional opportunity in the *TAGT Newsletter* and nominate teachers to participate that you feel qualify for and will benefit from this opportunity — including yourself!

Of course, one of the most significant opportunities for professional development each year is the TAGT

annual conference, to be held this year in Dallas, December 9-12. Last year, more than 6,000 persons attended this conference and participated in sessions with some of the most outstanding educators, researchers, and speakers in the field of gifted education. We expect similar attendance and excellence in sessions offered this year, with attendees including parents, counselors, school board members, administrators, university faculty and students, and, of course, classroom teachers.

The greatest compliment I ever received from a student came from one of my gifted high school students, who told me (in some frustration, I think, after I continued to answer his questions with more questions): "You aren't a teacher at all. You're a catalyst!" What a wonderful statement. I hope that it is true. All of us should strive to be just that for our students, particularly when we work with gifted learners — to be a catalyst! As administrators, parents, educators, or in whatever roles we may function, let's be catalysts for gifted education.

(MONTES, from page 12)

needs of their student populations, taking into account those with learning disabilities, the at-risk, the economically disadvantaged, and minority students. These populations are often overlooked in the nomination and identification process because teachers and administrators are relying on traditional assessment measures. Training on portfolio assessment and other non-traditional assessments would open the door to these equally talented students. Certainly, the TAC rule requiring administrators and counselors to have six hours of staff development in nature and needs and program options has resulted in more knowledgeable placement decisions (19 TAC 89.2(2)).

As district programs evolve to meet changing needs, the repertoire of training programs must increase. The El Paso ISD has a 76.6% Hispanic student enrollment. Our particular challenge is to ensure that these students have access to assessment and, if identified as gifted, to services that meet their needs. One way to do this is to provide the 30 hours of staff development in gifted education to teachers who already have the bilingual endorsement. That way students can have their needs met as LEP students while simultaneously having their needs met as gifted students. In our district's Gifted/Talented Two-Way Bilingual program, both English and Spanish dominant students receive instruction in both languages. Program teachers are certified in bilingual education and have 30 hours of staff development in gifted education. In addition, they receive other specialized training unique to the program model, such as two way dual language immersion and schoolwide enrichment.

Another example of designing training correlated to an evolving need is in the area of Advanced Placement. The Texas Education Agency, in its recent Question and Answers document on the *Texas State Plan for the Education of Gifted/Talented Students*, permits districts to count part of the College Board's summer institute training toward the curriculum and instruction component of the 30 hour training in gifted education. Districts must provide additional training in nature and needs and assessing student needs. Care must be taken not to merely replicate training geared to an elementary audience, but to interpreting student needs at the secondary level and then linking these to appropriate program options.

Encouraging quality professional development for all teachers and not just teachers of gifted students should be our goal. In that way we can spread the wealth and ensure that all teachers coming into contact with our students will have the knowledge to recognize their talents, understand their needs, and provide them with the challenging curriculum they deserve.

Elizabeth Montes, Director of Advanced Academic Services for El Paso ISD, has served on the Commissioner's Advisory Council for the Education of Gifted Children and the Texas Education Agency task force that developed the Texas State Plan for the Education of Gifted/Talented Students.

Gifted and Talented Professional Development Cooperative Serves Houston Area School Districts

Karen Fitzgerald

In the fall of 1979, gifted leaders from four suburban Houston school districts decided to combine their gifted and talented money, talents, and strength to provide quality staff development opportunities for educators of the gifted. These four ambitious leaders in the field of gifted education, Joan Whitten Bossin, Spring Branch ISD; Beth Sheridan, Humble ISD; Mary Tallent, Cypress-Fairbanks ISD; and R.D. Thomas, Aldine ISD, met together with an idea that has blossomed into eighteen years of top quality gifted and talented staff development for Houston-area educators.

These large suburban school districts, Aldine ISD, Cypress-Fairbanks ISD, Humble ISD, and Spring Branch ISD, joined together to form the *Northwest Area Cooperative on the Education of the Gifted and Talented* which began as a way to solve the problem of limited gifted and talented funding. Because the state of Texas capped gifted and talented funding for speakers at $350 per day, per district, cooperation was a necessity.

In the early years, Cypress-Fairbanks ISD submitted the funding request plan to the state; Aldine ISD acted as the financial officer and fiscal agent. All workshops were held in Cypress-Fairbanks ISD in the beginning. Each district contributed to the Cooperative at the end of the school year on a sliding scale based on the number of gifted and talented students who had been identified in their local school district's gifted programs.

The four school districts invited major speakers in the area of gifted and talented education to offer all-day workshops in Houston throughout the school year, usually on Saturdays, and divided the costs between all members so that many more educators could become trained in gifted and talented education. Soon G/T professional development for administrators, counselors, and parents of the gifted was also included in the Northwest Cooperative course offerings every year.

Fourteen years ago, the Northwest Area Cooperative on the Education of the Gifted and Talented began to grow under the leadership of the late Adelle McClendon, the Coordinator for Gifted and Talented Programs in Cypress-Fairbanks ISD. In the fall of 1983, Adelle's school district took over the requests for funding, and she acted as the fiscal manager for the Cooperative for the next ten years. Soon Klein ISD joined the group. The Cooperative began to build strength as word spread that these gifted and talented staff development sessions were offering major national speakers at no cost to the individual teachers, administrators, counselors, and parents who wished to attend from these five school districts. Last year in our school district, Spring Branch ISD, the amount we paid for each teacher to attend was just $4 per session. With nine or ten sessions offered every year, usually one a month, the gifted and talented staff development costs through attendance at Cooperative sessions are very low.

Each year the largest school districts in the Cooperative are responsible for planning one staff development session to host in their area. Host districts must provide a place to meet, arrange for the speaker's accommodations and travel, serve coffee and juice in the morning to the participants, and duplicate the speaker's handout (which is limited to 25 pages.) Early spring meetings for the participating G/T coordinators are held to offer possible speakers' names, topics of interest, and to discuss the planning calendar for the next school year.

Major speakers who have presented all-day gifted and talented staff development sessions in the past include Sandra Kaplan, Irving Sato, Jim Delisle, Joseph Renzulli, Sally Reis, Felice Kaufman, Linda Silverman, Joyce Juntune, and Karen Rogers. The sessions which are offered this school year feature Joyce Van Tassel-Baska on "Problem-based Learning," John Samara on "Independent Study," Terry Brandt on the "Nature and Needs of Gifted Students," Donna Enersen on "Understanding You and Your Gifted Child," Nancy Polette on "Creativity," Bertie Kingore on "Language Arts Strategies," Felice Kaufman on "Underachievement," and Kay Law on "Differentiating the Curriculum."

During the 1997-98 speakers' series, nine gifted and talented staff development sessions are offered throughout the school year to gifted and talented teachers, administrators, counselors, and parents. What might have been an impossible task is not, because leading gifted and talented educators with foresight worked together to share their resources and vision.

What began as an idea in 1979 has turned into a wonderful reality which has endured for almost twenty years. We owe the continued success of our Cooperative to the G/T Coordinators in the Houston area who have participated in this effort and supported us with their volunteered time and outstanding professional effort. No gifted and talented staff development cooperative could

run successfully year after year without the dedication and support of many G/T coordinators behind the scenes; they work continuously to improve the quality of the G/T staff development sessions.

As the Houston Area Cooperative on the Education of the Gifted and Talented plans for next year's G/T professional development workshops, we will consider the new State Plan and continue to expand on the vast array of major speakers and important topics offered. If you would like more information about how to begin a staff development cooperative in your area, feel free to give us a call. We would be happy to share our successful information with you. Good luck!

Karen Fitzgerald is Coordinator of Gifted and Talented Programs at Spring Branch ISD. Mrs. Fitzgerald has been involved in gifted education for more than 25 years as a parent, teacher, and administrator.

(from HARGROVE, page 7)

resolving these problems. They learn both in practice and from practice. Reflection-in-action connects what practitioners think and what they do.

If planners and participants accept this view, several important implications result. Perhaps most significant is the importance of follow-up. Staff development moves from a one-shot program to an ongoing effort. Intelligent practice becomes something teachers do in action rather than by the mere application of rules learned outside the context of action. This belief lends weight to concepts such as ongoing staff development in the basics of the field as well as to instruction, practice, discussion, reflection-in-action, and internalization over time that is possible through meaningful graduate studies leading to endorsement. Ongoing staff development builds on the basic skills and competencies needed by teachers of the gifted while acknowledging that these are not enough. Teachers also need knowledge derived from meaningful experience.

Further, we know that a crucial factor in making experience meaningful is adequate support at the beginning of each stage of one's career. Schon carried out case studies of skilled practitioners, including an architect, a musician, a psychoanalyst, and a business consultant. He focused on situations where experts interacted with learners, such as the architect in the design studio and the musician in a workshop for budding conductors. He concluded from his case studies that the commonly held belief that theory is superior to practice is misleading and thus inappropriate. In his view, competent practitioners do not merely possess certain skills; they are not merely problem solvers; they are also problem setters, practitioners who allow themselves to be surprised and puzzled by unexpected events of practice. They are willing to test their practices in terms of their own knowledge and experience. For such practitioners, training in the technology of a profession is not all there is, since professionals think in action and develop knowledge based on intelligent action.

What a challenge for staff development! What an opportunity for teachers to become reflective practitioners who learn every day, not just in workshops, lectures, and graduate courses! With the vision of the teacher as learner as the centerpiece, effective staff development can be challenging and meaningful.

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Dr. Hargrove is Director of the Gifted Students Institute and Pre-College Programs at Southern Methodist Univeristy. She is former president of TAGT.

(POLETTE, from page 10)

items that would most appeal to the person they are trying to persuade, the audience members are using the thinking processes of analysis and evaluation. I then present a mini-lesson on a persuasive paragraph format; and the audience constructs and shares their persuasive paragraphs. I then read excerpts from Silverstein's book and ask the audience to compare their ideas to his. I conclude the activity by displaying examples of persuasive "rhino" paragraphs written by students.

This kind of activity is always a success because the audience knows exactly what they are being asked to do at each step. They also know how the activity fits into the overall focus of the workshop (a literature-based approach to developing higher order thinking skills). The activity is not too long (from start to finish the activity takes between twenty and thirty minutes) or taxing (if anything, the activity actually energizes the audience). And the activity ensures success because not only do the audience members have self-generated, original persuasive paragraphs, but they also have a practical strategy that they can use immediately with their classes.

While involvement through the use of open-ended questions and activities is extremely important, let me offer a word about your role as presenter. Which is to say, that you are a presenter and not a teacher. Your primary responsibility is to be in a position to celebrate and support small successes, not to offer admonitions or corrections. Give positive feedback whenever you can, and especially at those times when audience members accomplish the various tasks during each of the workshop activities you have designed.

Rule # 3 BE SOMETHING OF AN ENTERTAINER

As a presenter, you must carefully and deliberately choose a presentation style. And the one style that always seems to be the least effective is the one that is somber, formal, and lecture-driven. Lectures may be fine for other occasions (though I have yet to find one), but for inservice workshops, lecture-presentations are the verbal equivalents of lead-filled balloons: they never get off the ground.

Now I'm not suggesting that you attempt to turn yourself into Mel Gibson or Meryl Streep, but I am suggesting that you offer more than one "face" to your audience. Of course, teachers want new ideas and practical things they can use in the classroom, but they also want to be entertained a little. More importantly, when your audience is smiling or laughing, they are relaxed. And when your audience is relaxed, your job is appreciably easier.

Although it is important to impart serious information during the workshop, keep such seriousness brief. A good rule of thumb is: if you find yourself talking to the audience and using a very serious tone for more than fifteen minutes, stop and switch gears. Move to an open-ended question or an activity. Offer a personal anecdote that supports a point you are making. Ask someone in the audience to read something you brought. Tell a story or a joke. Sing a song. Dance. Do a quick puppet show. Read a poem. But do something different (as long, of course, as it pertains to the workshop).

Also, while presenting, speak with feeling, sincerity, and passion. When you do, you'll show that you are convinced that what you are presenting is important. Moreover, the kind of energy you display will set the tone for the entire workshop. If you're serious, you can expect your audience to be also. If you're enthusiastic, however, then the audience will be more inclined to open up and allow themselves to become enthusiastic too.

Also, don't be reluctant to use some drama or a little silliness in the workshop. It is my experience that even though I may offer "pearls of wisdom" (at least I think they are!) in some sagacious remarks that I make, teachers invariably remember three things: the activities they engaged in, the discoveries they made, and the dramatic or funny moments that I created in the workshop.

Remember: if you're not enjoying yourself while you're presenting, it's almost certain that the audience members aren't enjoying themselves, or your presentation, either.

A FINAL THOUGHT

Even though it is important to remember "to inform," "to engage," and "to entertain" when you present, it is just as important to remember the epigraph at the head of this article: "When the heart is afire, some sparks will fly out of the mouth." It is my hope that the next inservice presentation you give will be one full of "sparks" born in your heart and that fly out of your mouth.

Keith Polette is an Assistant Professor of English and the Director of The West Texas Writing Project at the University of Texas at El Paso.

What Does the Research Say?
Staff Development for Gifted Education

Susan Johnsen

Within the gifted education literature, empirically-based articles about staff development are extremely limited. Authors primarily report participant opinions and/or perceptions of the staff developer planner(s). Given these limitations, a few themes do emerge from this review. First, staff developers should not mandate attendance and should consider individual differences and "real" needs among adults when planning activities. Second, participants tend to view hands-on and experiential learning more positively than lecture or strategies that do not involve the participants. Third, one-shot inservice activities are less effective than those that target participants over time. Fourth, a clearly defined vision is important to implementing any desired classroom instructional practices. Fifth, strong leadership and follow up is significant in the change process. Finally, change is facilitated when teachers are involved in mentoring, coaching, and providing feedback.

Dettmer, P. (1986). Characteristics and needs of adult learners in gifted program inservice and staff development. *Gifted Child Quarterly*, 30 (1), 131-134. Staff development planners should consider individual differences among adults such as needs, styles, and interests. Recommended techniques include involving adults in planning their own learning, using high-quality videotapes of exemplary teaching practices, live demonstrations of innovative teaching strategies, and sharing alternative resources.

Feldhusen, J. F., & Huffman, L. E . (1988). Practicum experiences in an educational program for teachers of the gifted. *Journal for the Education of the Gifted*, 12 (1), 34-45. The authors identify a program for delivering practicum experiences to teachers of gifted students. Ratings were made in the following areas: subject matter coverage, clarity of teaching, motivational techniques, pace of instruction, student choice of activities and involvement in a variety of experiences, use of teaching and learning aids, emphasis on higher-level thinking skills, opportunity for student follow-through of activities outside of class, and interactions among teachers and students. Most of the participating teachers achieved a high level of competence in teaching gifted and talented students. The majority of the teachers viewed the practicum as a positive and productive experience.

Ford, R. F. (1996). *A study of the effects of training on teacher attitudes and classroom instructional practices.* Unpublished doctoral dissertation, Baylor University, Waco, TX.
This study of teachers in six school districts describes the effects of training on changing teachers' attitudes toward serving gifted students and classroom practices in the regular classroom. This study was part of the research efforts of a federal grant from the Jacob K. Javits Gifted and Talented Students Education Program of the U. S. Department of Education. Internal factors that contributed to teacher changes toward a more individualized classroom environment included a shared vision and positive attitudes of principals and teachers toward the change. External factors that contributed to the changes included quality staff development that described specific ways to make changes and support and follow-up by peers, mentors, principals, and project staff.

Griffin, G. L. (1997). *The phenomenon of teachers mentoring teachers in the midst of change.* Unpublished doctoral dissertation, Texas A & M University, College Station, TX.
This research project explored the phenomenon of teachers mentoring peer teachers as they attempted to make curricular adaptations for gifted students in the regular classroom in six school districts. Results suggest that mentoring programs in elementary schools do not always operate in mentor-as-expert/protégé-as-novice formats. Inexperienced teachers and those lacking confidence in teaching abilities may find mentor-experts to guide, model, instruct, and facilitate development; while confident, experienced protégés form equal partner teams to work collaboratively to improve instructional practices. Mentors can help facilitate instructional changes in protégés. Factors which affect mentoring relationships include personal characteristics, types and frequencies of interactions, administrative policies, and supportive elements.

Hansen, J. B., & Feldhusen, J. T. (1994). Comparison of trained and untrained teachers of gifted students. *Gifted Child Quarterly*, 21 (2), 204-206. The abilities of trained and untrained teachers in gifted education are examined in this article. Trained observers and students collected data on the teachers' abilities in the classroom. Teachers of the gifted with three to five graduate courses were significantly more effective in instruction and in creating a positive classroom environment than those without advanced training. The authors conclude that specialized coursework in gifted education provided teachers with the means to deliver appropriate instruction to gifted students.

Kaplan, S. N. (1986). Alternatives for the design of gifted program inservice and staff development. *Gifted Child Quarterly*, 30 (1), 138-139. Alternative staff development activities should emphasize teacher-to-teacher or peer interaction as opposed to consultant-to-group; focus on specific objectives that are reinforced by a series of inservice activities over time as opposed to one-time-only workshops; and encourage the selective involvement of teachers as opposed to mandated attendance.

Karnes, F. A., & Lewis, J. D. (1996). Staff development through videotapes in gifted education. *Roeper Review*, 19(2), 106-110. The authors believe that staff development in gifted education can be enhanced by using videotapes which target the gifted population. Approximately 89 videos are available on a wide spectrum of topics including characteristics, creativity, critical issues, curriculum, identification, internal perspectives, and programming. This article provides an annotated listing of videotapes in gifted education along with an address list of distributors.

Robert, J. L., & Roberts, R. A. (1986). Differentiating inservice through teacher concerns about education for the gifted. *Gifted Child Quarterly*, 30 (1), 107-109. This article provides information about the Concerns-Based Adoption Model. The model provides a practical means for matching inservice opportunities to the needs of teachers. An individual's concerns will determine his/her readiness for various types of inservice activities. Inservice should be differentiated according to attitudes toward the innovation.

Rogers, K. B. (1989). Training teachers of the gifted: What do they need to know? *Roeper Review*, 11(3), 145-150. Three levels of training are proposed in this teacher training model. Each level meets the needs of one of three groups: the classroom teacher, the cluster/resource teacher of the gifted; and the gifted program administrator. The knowledge and understandings are identified for each level along with the number of inservice or course hours needed to assure mastery.

Schlichter, C. (1986). Talents unlimited: An inservice education model for teaching thinking skills. *Gifted Child Quarterly*, 30 (1), 119- 123. This manuscript describes an inservice model that includes the five major components described by Joyce and Showers that are needed for successful inservice. They include a presentation of theory or description of the skill or strategy; modeling or demonstration of skills or models of teaching; practice in simulated and classroom settings; structured and open-ended feedback about performance; and coaching for application or transfer of skills to the classroom.

Tomlinson, S. (1986). A survey of participant expectations for inservice in education of the gifted. *Gifted Child Quarterly*, 30 (1), 110- 113. A survey was distributed to 336 educators from Arkansas, Indiana, New York, and Texas. The researchers asked the educators to identify inservice needs in gifted education and the most and least beneficial techniques for meeting those needs. Teachers are most interested in obtaining information concerning methods and techniques for use with gifted students and that the information be focused on their particular grade level and/or subject content area. The most beneficial techniques were those that included involvement on the part of the participants as well as those providing materials that could be put to immediate use in the classroom. The least beneficial technique used lecture only.

Treffinger, D. J. (1995). School improvement, talent development, and creativity. *Roeper Review*, 18(2), 93-97. The author provides ten steps to a richer framework for school improvement. One of the steps focuses primarily on professional development. These learning activities should be for all participants, on-going, and goal-directed. They arise from the vision and needs set by the group and draw upon the leadership and expertise of many within and outside the system. The activities integrate theory, research, and practice and replace one-shot, large-group conference days that are primarily entertainment or devoid of substance.

VanTassel-Baska, J. (1986). Lessons from the history of teacher inservice in Illinois: Effective staff development in the education of gifted students. ***Gifted Child Quarterly*****, 30 (1), 124-126.** After examining the area service centers in Illinois, VanTassel-Baska makes these recommendations for an inservice structure for gifted education. First, real needs must guide staff development as well as perceived needs. Second, inservice activities must be driven by a well-conceived developmental model. Third, training efforts should target specific outcomes. Fourth, balance inservice with classroom follow-up observation and monitoring. Finally, use peer feedback to identify new ideas and techniques that might further teacher renewal.

Weiss, P., & Gallagher, J. J. (1986). Project TARGET: A needs assessment approach to gifted education inservice. ***Gifted Child Quarterly*****, 30 (1), 114-118.** This article describes a gifted program inservice model that is based on a needs assessment approach. The project developed a needs assessment instrument, administered the instrument, analyzed resulting data, developed training modules that responded to assessed needs, and evaluated the results. Evaluation data indicated that the teachers found the training modules helpful and did use the techniques that were covered in the inservice.

Westberg, K. L., & Archambault, Jr., F. X. (1997). A multi-site case study of successful classroom practices for high ability students. ***Gifted Child Quarterly*****, 41(1), 42-55.** This article describes ten elementary schools and classrooms that have successfully implemented differentiated practices. The following themes emerged as contributing factors: the majority of the teachers had graduate degrees and had been involved in a variety of professional staff development activities; teachers were willing to make changes in their practices and experiment with new strategies; teachers had time to collaborate with one another and specialists; teachers viewed students as individuals; schools had strong leaders and a school and community culture that supported teacher autonomy.

Susan Johhnsen is an associate professor and Director of Programs for Gifted and Talented at Baylor University. Editor of Gifted Child Today, *she was the principal investigator of Project Mustard Seed. She is author of four tests that are used in identifying gifted students: Test of Nonverbal Intelligence (TONI-2), Screening Assessment for Gifted Students (SAGES), Screening Assessment for Gifted Students—Primary Version (SAGES-P), and Test of Mathematical Abilities for Gifted Students. She is Immediate Past-President of the Texas Association for Gifted and Talented.*

TAGT Mission Statement

To promote awareness of the unique social, emotional, and intellectual needs of gifted and talented students and to impact the development of appropriate educational services to meet these needs.

BOOK REVIEWS

Gifted Children: Myths and Realities by Ellen Winner. Basic Books, New York, 1996. 449 pages.

Ellen Winner, professor of psychology at Boston College, begins this fascinating book with nine misconceptions about the nature of giftedness. Throughout the book she closely examines all nine myths and concludes by sorting the myths about gifted children from current realities. Winner begins by clarifying that when she refers to *gifted children*, she refers "to children with three atypical characteristics: 1) precocity, 2) an insistence on marching to their own drummer, and 3) a rage to master."

Winner suggests that "The more formal and rule-governed the domain, the more likely it is to yield gifted children." She focused her study on two academic areas of giftedness: language and mathematics; and two artistic areas: visual arts and music. "It is in these four areas that childhood giftedness has most often been noted and studied," Winner says.

The first myth discussed is that children are globally gifted, an assumption that children may be gifted "across the board." All children are predisposed toward particular areas of study but may exhibit strengths in language or mathematics, the two major areas valued in schools.

Myth 2 addresses whether children are gifted *or* talented and why we would use two different labels to suggest two different classes of children. Winner says, "...there is no justification for such a distinction." She offers the idea that gifted and talented should be interchangeable terms rather than classifying some children as gifted and others as talented.

Myth 3 questions whether giftedness in any domain depends on having a high IQ. Winner states that "musically gifted children tend to perform better in scholastic areas than do artistically gifted children." "Children can be extremely gifted in music or art without having exceptional overall IQs."

Myths 4 and 5 ask, "Where does giftedness come from?" Is it biology which produces gifted children or the environment's powerful influence on the development of gifts? Winner says, "There is considerable evidence in favor of the position that gifted children and savants are born with atypical brains, and that gifts are to some extent a product of one's genes and of hormonal influences during gestation."

The "Driving Parent" is discussed in Myth 6. Are gifted children created by pushy, over-ambitious parents? Winners suggests that "the children are usually pushing the parents, sending out clear signals of their need for a stimulating environment." But she also tells us that parents can destroy a gift too.

Myth 7 suggests that "gifted children are better adjusted, more popular, and happier than average children." Winner's position is that "unless they can find others like themselves who share their passion for mastery and learning, they become isolated, lonely, and discouraged." Contrary to popular opinion, gifted children are not always "glowing with psychological health," the author states.

In Myth 8, Winner addresses the popular belief that "all children are gifted, and thus there is no special group of children that needs enriched or accelerated education in our schools." She strongly states, "The belief that all children are gifted and thus that no child is gifted enough to need special education leads to discrimination against the gifted."

Readers may agree or disagree with the author when she claims, "We are wasting what few resources we have for gifted education on the moderately (IQs of 130-145) academically gifted. We would do far better if we elevated the level of instruction for all students and concentrated our gifted resources only on the extreme children, the kinds described in this book." Those of us who work daily with gifted children know that many "highly gifted" children do not stay in the public school system, so we serve the moderately gifted children who frequently are there.

Do gifted children become eminent adults? Myth 9 asks us if giftedness is synonymous with creativity. Winner says, "Only a very few of the gifted become eminent adult creators." She suggests that we cannot assume a strong link between early giftedness and adult eminence because of the many factors involved in child development.

"When gifted children are surrounded by children who lack their interests and abilities, they are likely to devalue their abilities and conform to the crowd," says Winner. She concludes her book with information about how schools are failing gifted students and how schools can help.

This book has eleven chapters packed with interesting data about gifted and highly gifted youngsters. Extensive, annotated notes regarding each chapter and all cited research studies are found at the end of the book. The author also includes a fifty-three (53) page bibliography to assist the reader in finding further areas for study and research on gifted children.

Winner has examined the latest scientific evidence and shares interesting extraordinary real-life cases with her readers. While you may not agree with everything she says, you will find this a challenging and readable book, and you will gain new insights and perspectives as you share Ellen Winner's wisdom. This well-documented book is a must-read for any educator of the gifted!

Review by Karen Fitzgerald, Spring Branch ISD

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BOOK REVIEWS

***Academic Competitions for Gifted Students: A Resource Book for Parents and Teachers* by Mary K. Tallent-Runnels and Ann C. Candler-Lotven. Corwin Press Inc., Thousand Oaks, CA 1996.**

***Gopher It! An Internet Resource Guide for K-12 Educators* by Gail Cooper and Garry Cooper. Libraries Unlimited, Inc., Englewood, CO 1997.**

Both of these books are very useful resources that provide a wealth of information for anyone interested in challenging students, gifted or otherwise. They will simplify the life of those who work with highly motivated students. While both books state in their titles that they are geared for adults, they would each be a useful resource for gifted students to browse through, as they are well-organized and accessible for students aged ten and older.

Academic Competitions for Gifted Students is a first-class compendium of 80 different competitions for students of all ages, although the majority are for junior high and high school students. Organized alphabetically, from Academic Decathlon to Young Playwrights Festival, each listing is thoroughly detailed by the authors. This includes not only basic information such as a description, cost, age/grade level, etc., but also comments concerning the time commitment and other resources needed to successfully participate in each competition. Unless you know someone who has led or coached each specific activity before, this type of information is not always easy to come by, and it is greatly appreciated by this reader.

The authors have also included two very useful introductory chapters covering characteristics of good competitions, characteristics of gifted and talented students, and how to best blend the two in order to maximize the benefits from competitions. While I cannot vouch for the accuracy of information about all 80 competitions, I am familiar with about 20 of them; I would say the authors have done a tremendous job in gathering and presenting this information in an accurate and user-friendly manner. This is a book that I will return to regularly.

Gopher It! An Internet Resource Guide for K-12 Educators is a valuable resource that will be kept handy at my computer. Perhaps many of you are like me; I am computer-literate and have become relatively comfortable using the Internet and the Web. However, I have neither the time nor the inclination to spend many hours on the Internet outside of work hours searching for suitable resources and sites that can be sources of information. If you are, then this book will be extremely helpful. As the authors state, "Think of *Gopher It!* as a Yellow Pages directory for educators." This is a most accurate assessment. There are over 125 different categories, organized alphabetically, from "African and African-American Studies" to "Youth At Risk," each containing Internet sites of interest, along with cross-referenced topics. Each listing within a category gives a capsule description of what you are likely to find there. There is also an appendix containing four special sites (such as ERIC) which contain numerous links into multiple categories.

To me the revelation in this book is the fact that none of the sites listed are found on the World Wide Web (the increasingly ubiquitous www). They have chosen Gopher, with which I was only vaguely familiar, as their primary Internet "neighborhood." They do so because it is, as they say, easier to navigate (they give very detailed paths to each site listed); faster, because it is primarily text-driven; and less commercially oriented, since many of the sites are administered by educational institutions and government agencies. Their analogy is that the Web is a state fair and Gopher a library or museum. After having spent some time browsing the Internet using their listings, I would tend to agree. If you are looking for graphics and visuals, Gopher may not be of much help. However if you seek access to research and documents, it will be a most valuable tool. The press release for the book also notes a companion book by Elizabeth Miller, *An Internet Resource Directory for K-12 Educators*, which focuses on Web sites. Combined, these two books would keep anyone researching via computer busy for weeks on end.

Many teachers and parents wear many hats and fill many roles and are often too busy to keep abreast of all the opportunities and resources that exist for gifted and highly motivated students. These two books will provide a good starting point for teachers, parents, and students to explore for themselves.

— Review by Tracy Weinberg, San Marcos ISD

75

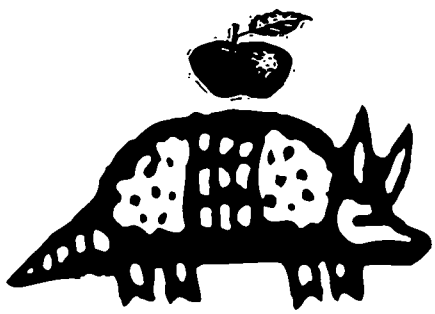
A FINAL WORD

Michael Cannon

A man once won a contest, and for his prize was told he could have all the money he could grab in thirty seconds. He was placed in a glass booth with money ankle deep. Just as he was about to bend over and start filling his pockets, fans began to whir and the money flew through the air, spiraling around him as he snatched wildly for the cash. All too soon the time was up and he had to leave the booth. While he certainly had more money than when he entered, he left unsatisfied, knowing that if he had grabbed faster, concentrated more, and been more focused, he would have been able to gather even more.

A good professional development experience is much like that of the man in the glass booth. Wonderful ideas fill the air, appear on overheads, and then whirl away. We can't grab them fast enough, we can't write them all down; we can only marvel at the wealth that surrounds us. Excited and exhilarated, we leave enriched, but knowing that there was so much more. . .

As you read through the articles in this issue, you may have had a similar feeling of being surrounded by a whirlwind of knowledge and wisdom. But unlike either the man in the glass booth or the participant in an inservice, you have the luxury of all the time you need to capture, examine, and consider the wealth of ideas presented here. Whether your interest lies in a theoretical perspective, specific programs, district examples, or advice on how to design and present training, it is all here, all waiting for you.



Fall 1998
Giftedness: A Texas Tradition

Texas schools have a long and distinguished tradition of supporting and nurturing gifted individuals. In this Conference issue, *Tempo* will celebrate those traditions and individuals. Describe a program, campus, or individual that exemplifies this tradition. Chart a course for new directions in supporting gifted education. In addition, individuals who are presenting at the conference are encouraged to submit articles related to their conference presentation.

The deadline for submission of articles is **June 1, 1998.**

Winter 1999
Distinguished Achievement Programs

The winter issue of *Tempo* will explore and celebrate the many excellent programs that exist in Texas secondary schools. Articles may also examine how Advanced Placement, Pre-AP, International Baccalaureate, and other local options serve the needs of gifted students. Middle school programs that support and prepare for high school programs will also be included. Describe other possibilities for exemplary high school programs.

Deadline for submission of articles is **September 1, 1998.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are referred to members of the editorial board.**

Please keep the following in mind when submitting manuscripts:

1. Manuscripts should be between 1000 and 2500 words on an upcoming topic (see topics above).
2. Use APA style for references and documentation.
3. Submit three copies of your typed, double-spaced manuscript. Use a 1 1/2 inch margin on all sides.
4. Include a cover sheet with your name, address, telephone and FAX number and/or e-mail address.

Send all submissions or requests for more information to:
Michael Cannon, TAGT Editorial Office, 5521 Martin Lane, El Paso, TX 79903.

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Tempo

TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED
Member, National Association for Gifted Children (NAGC)

Volume XVIII Issue 3

What Higher Standards Really Mean

Evelyn L. Hiatt
Texas Education Agency

Almost everyone, it seems, believes public schools should be raising standards. Although that means different things to different people, parents of gifted children often feel that, particularly in recent years, public education has lowered its standards, failed to challenge advanced level students, and produced students who don't know now what we knew then. Recent studies, such as the Third International Mathematics and Science Study (TIMSS), reinforce this belief. TIMSS results suggest that advanced level students in the United States fare poorly against their international colleagues, placing last in both mathematics and science at the 12th grade level.

The Texas Education Agency and the local school districts have responded to this public concern. In recent years, performance of Texas students, on both their own state assessment and national ones such as the National Assessment of Educational Progress (NAEP), show that the performance of Texas children seems to be rapidly increasing. This is good news for everybody, but it also means something else—Texas is ready to raise the bar again.

The new *Texas State Plan for the Education of Gifted Students* states that districts should develop services that modify the general school program "in depth, complexity, and pacing." It states that high school students who participate in advanced level services should be creating products that are of collegiate or professional quality. That means that, in Texas, advanced level students should earn that designation by doing advanced level work. But that will change things in our schools, and particularly in middle and high schools, where the grade a child gets in a course has, or at least appears to have, extremely high importance.

Raising the level of our curriculum, as the Texas Essential Knowledge and Skills do, and of the advanced level services that build off of the general curriculum, will mean more of our students are appropriately challenged. And more challenge means more work. Students who used to bring home A's without ever doing homework, will bring home B's if they don't start putting out more effort. Students who took

(See HIATT, page 29)

Summer 1998 Issue
Core Content Areas

From the President

Impacting Lives and Fulfilling Potential

Benny Hickerson

Have you sent in your early-bird registration for the annual TAGT Professional Development Conference in Dallas in December? Every year this conference is so good, with so many people in attendance and exceptional speakers and sessions, we always wonder: Can we do it again? And then every conference seems to be better than the last. This year's program features Jim DeLisle, Sandra Kaplan, Joyce VanTassel-Baska, Susan Winebrenner, Ernesto Bernal, and Gail Ryser in all-day preconference sessions on Wednesday, December 9, and again throughout the conference (Dec. 10-12) in featured sessions. Other noted speakers include Sally Reis, Bertie Kingore, Best Children's Book Award winner Naomi Shihab Nye, Nancy Johnson, Jennifer James, and Nancy Polette. Saturday's parent luncheon speaker is Chrys Dougherty. Special events include the very popular Creativity Potpourri on Thursday evening and the Friday evening film (*Good Will Hunting*) and discussion . Visitors to Dallas this year can expect to work in some Christmas shopping at Northpark and the Galleria and activities and visits to the Dallas West End Marketplace, museums, and other attractions. TAGT's conference has been approved for counselor and school board member training credit, also, so encourage their attendance and enhance their role in gifted education. By registering before the August 15 early-bird registration deadline, you get discounted registration for both conference and preconference sessions. You know you want to attend — so don't delay!

Those of us who attended the April Coordinator's Division Conference in Houston were privileged to enjoy some excellent sessions in a variety of areas of particular interest to G/T program administrators, along with a lively, funny, and moving luncheon speaker, Riney Jordan. He told us of several students, one of whom was himself, who were influenced and enabled by particular teachers and administrators to overcome obstacles that might have prevented the development of their talents and gifts. In an era of increasing social and demographic changes in Texas, it is well for those of us who are concerned with the maximizing of potential in high ability and gifted learners to remember that while adversity can sometimes spur and stimulate original thought, creative thinking, and determination to succeed in spite of all, adversity

(See HICKERSON, page 30)

Tempo
Volume XVIII Issue III Summer 1998

The Texas Association for the Gifted and Talented (TAGT) is a nonprofit organization of parents and professionals promoting appropriate education for gifted and talented students in the state of Texas.

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Opportunities for Advocacy

Connie McLendon

As parents and educators of gifted/talented students, it is important for us to be on the alert for courses of action by policymakers which may impact gifted education programs and services. In order to remain effective advocates, we need not only to be aware of such actions, but also to view them as opportunities to advocate support for gifted education. Following are highlights of recent actions by the State Board of Education and future proceedings where your voice can make a difference for gifted/talented students.

BOARD AMENDS ADVANCED MEASURES FOR DAP

At its May meeting, the State Board of Education (SBOE) adopted Amendments to 19 TAC Chapter 74, Curriculum Requirements. Implementation will begin with 1998-99 ninth graders and will apply thereafter. Changes which relate specifically to advanced learners now limit original research/projects to not more than two of the advanced measures required for the Distinguished Achievement Program (DAP). (The issue about licenses as an advanced measure for the DAP was not resolved and will be brought back at a later date for board consideration.) Students who wish to complete the DAP are encouraged to study each of the foundation curriculum areas (English language arts, mathematics, science, and social studies) every year in high school as provided in Option I. College Board Advanced Placement and International Baccalaureate courses may be substituted for requirements in appropriate areas. Students completing the DAP are encouraged to take Biology, Chemistry, and Physics to fulfill the 3-credit science requirement.

ADVANCED ACADEMIC COURSE INDICATORS ADDED TO AEIS

Also in May the SBOE approved additional indicators which will be reported through the Academic Excellence Indicator System (AEIS). Those impacting advanced students include adding the percent of students completing advanced academic courses and the participation and performance in the Advanced Placement (AP) and International Baccalaureate (IB) examination programs. Beginning with the 1998-99 school year, information about students who receive dual credit (both high school and college credit) for course completion, which is collected through the Public Education Information Management System (PEIMS), will now be reported through the AEIS as part of the "advanced academic courses" indicator.

OPEN-ENROLLMENT CHARTER SCHOOLS

Parents and educators of gifted/talented children need to know about educational options available through open-enrollment charter schools. The 75th Texas Legislature authorized the creation of 100 additional charter schools. On March 6, 1998, the SBOE approved 41 new Open-Enrollment Charter Schools from the 89 applications submitted. The State Board may approve additional charter applications in September.

CHOICE, YES! VOUCHERS, NO!

"Choice" within the current public school system is an option g/t parents should seriously consider. Unlike the voucher system we are hearing so much about these days, an open-enrollment charter school is part of the state's public school system; it is subject to federal and state laws and rules governing public schools; and is entitled to state and local funding. A charter school may not charge tuition to an eligible student and is required to provide student transportation to the same extent as required by law of other school districts. Section 12.lll. of the Texas Education Code contains programmatic provisions and, in my opinion, opens an exciting window of opportunity for advocates of gifted education. Among other requirements, each open-enrollment charter must prohibit discrimination in admission policy on the basis of sex, national origin, ethnicity, religion, disability, academic or athletic ability; ergo, open-enrollment. Each charter granted must establish grade levels to be served; describe the educational program to be offered, including the required curriculum; each must establish an acceptable level of student performance and be able to document compliance with other accountability provisions specified by the charter; establish the qualifications to be met by professional employees of the program; and specify any type of enrollment criteria to be used. For an interesting and informative program, TAGT Parent Affiliates should consider inviting Brooks Flemister, Charter School Division Director, Texas Education Agency, to speak to their group. Mr. Flemister will present a session on charter schools at the TAGT annual conference in Dallas, December 9-12, 1998.

(See McLendon, Page 33)

MATHEMATICS

Adding Depth and Complexity to the Mathematics Curricula for Mathematically Promising Students

Linda Jensen Sheffield

In 1989, the National Council of Teachers of Mathematics published the *Curriculum and Evaluation Standards for School Mathematics*. This was followed in 1991 by the *Professional Standards for Teaching Mathematics* and in 1994 by the *Assessment Standards for School Mathematics*. All three documents were developed to describe what all students should know and be able to do mathematically, and there was very little discussion of differentiating curriculum, instruction, or assessment for gifted, talented, or high-performing students. In 1994, Sheffield wrote *The Development of Gifted and Talented Mathematics Students and the National Council of Teachers of Mathematics Standards* for the National Research Center on Gifted and Talented, addressing some of the needs of mathematics students who were performing at a gifted or talented level. In 1995, recognizing the concerns related to teaching top mathematics students, the National Council of Teachers of Mathematics appointed a Task Force on Promising Students. The Report of this Task Force addressed concerns and questions raised in areas such as defining and identifying mathematically promising students; curriculum, instruction, and assessment appropriate for promising students; opportunities for promising mathematics students in the regular classroom and in special classes/programs; opportunities outside of school; cultural influences on promising students; and teacher preparation and enhancement (Sheffield, et al, 1995). These documents raise several issues that should be addressed by Texas teachers and administrators as they develop criteria that would assist educators in adding depth and complexity to curriculum used with students with advanced interest, motivation, and/or ability in the area of mathematics. Several of these issues are addressed here including:

- Definition and Identification of Mathematically Promising Students
- Instructional Methods and Alternative Services for Challenging and Developing Mathematically Promising Students
- Assessment of Mathematically Promising Students

DEFINITION AND IDENTIFICATION OF MATHEMATICALLY PROMISING STUDENTS

In the National Council of Teachers of Mathematics Task Force Report on the Mathematically Promising (Sheffield, et al, 1995), mathematical promise is described as a function of ability, motivation, belief, and experience or opportunity. None of the variables are considered to be fixed, but rather are areas that need to be developed so mathematical success might be maximized for an increased number of promising students. This description recognizes that abilities can be enhanced and developed, and it acknowledges recent brain-functioning research that documents changes in the brain due to experiences. It also concedes that students are not always motivated to achieve at their highest possible levels and that the popular culture in the United States may even encourage students to disguise their mathematical abilities in order to avoid negative labels such as "nerd" or "geek." Belief in the importance of mathematical success by the students themselves, teachers, peers, and parents and also belief in one's ability to succeed are also recognized as important; lack of such beliefs, especially by females, students of color, students from lower socioeconomic groups, and students for whom English is a second language, are acknowledged as a significant barrier to learning for many students. The importance of the variable, experience or opportunity to learn is especially evident in international comparisons of mathematics students, where research frequently finds that students in the United States are not exposed to the same high level of curriculum as students in several other countries. Thus, any teacher concerned with the development of mathematically promising students must address not only mathematical ability, but also

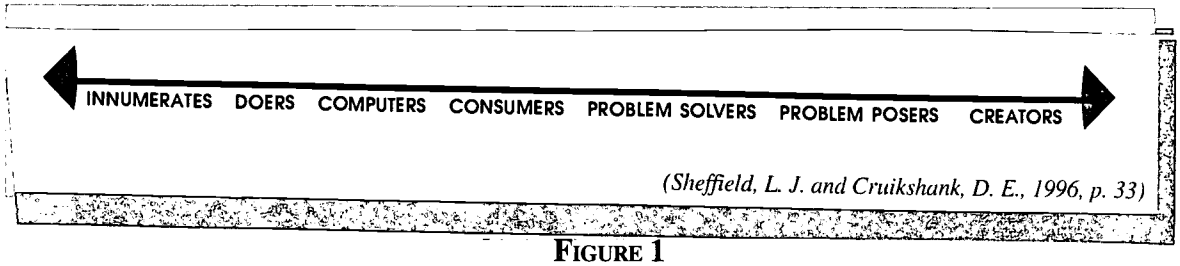


FIGURE 1

motivation, beliefs, and opportunity to learn.

If we believe that all students can learn at high levels and that mathematical promise is a function of ability, motivation, beliefs, and opportunity or experience, then we must believe that there is much that we as teachers can do to help students develop their abilities to a far greater extent than is currently the case. We need to help all our students move along the continuum shown in figure 1. At one end of the continuum, we have students who are dysfunctional in their mathematical understandings and applications. We move to students who can do some mathematics and may even be good at computation, but who are unable to apply their knowledge to everyday consumer problems. At one time, we were content if our students were intelligent consumers and good problem solvers. Now we realize that is not enough. Students need to be able to pose new problems and to create original solutions to those problems. This is especially true of our most promising students.

Given the number of variables that should be considered in the development of mathematically promising students, no single measure should be used to identify them. The methods of identifying mathematically promising students should be related to the services to be provided with a goal of maximizing the number and level of top students. In many instances, students should be able to self-select enriching and challenging mathematical experiences from a variety of easily available and enticing offerings. In any case, no measure of mathematical ability such as a general IQ test or a score on a mathematics achievement test should be used to exclude students from services that would help them develop their mathematical promise. Identification should be used to increase the numbers of students who can benefit from high-level services. This also implies that several opportunities should be available that require no formal identification process such as investigating challenging, open-ended problems during mathematics classes, joining mathematics clubs, entering mathematics contests, and using technology to find and discuss engaging problems or to meet mentors or peers with similar interests.

INSTRUCTIONAL METHODS AND ALTERNATIVE SERVICES FOR CHALLENGING AND DEVELOPING MATHEMATICALLY PROMISING STUDENTS

Traditionally, discussions of serving the needs of mathematically promising students have centered on a debate whether to accelerate or enrich the mathematics curriculum. We need to look at a program that is at least three-dimensional (see Figure 2).

This model is an attempt to illustrate that services for our most talented students should not only look at changing the rate of presentation or the number of mathematical topics, but must also look at changing the depth or complexities of the mathematical investigations. Promising students should be encouraged to take time to explore the depth and complexities of problems: their patterns, and connections among them. As defined in the *Texas State Plan for the Education of Gifted/Talented Students*, depth is the "exploration of content within a discipline; analyzing from the concrete to the abstract, familiar to the unfamiliar, known to the unknown; exploring the discipline by going past facts and concepts into generalizations, principles, theories, laws; investigating the layers of experience within a discipline through details, patterns, trends, unanswered questions, ethical considerations"; and complexity is defined as "extending content in, between, and across disciplines through the study of themes, problems, and issues; seeing relationships between and among ideas in/within the topic, discipline, and/or disciplines; examining relationships in, between, and across disciplines over time, and from multiple points of view" (1996 November, p. 13).

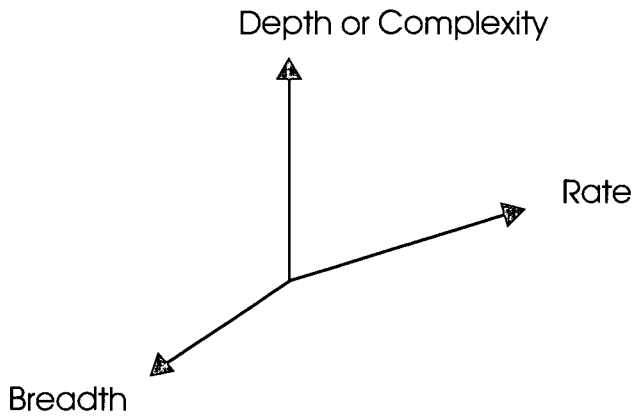


FIGURE 2

Frequently, students have had to choose between a regular mathematics class where they memorized facts and algorithms presented by the teacher and the book, an acceleration program that was very similar to the traditional program only faster (and perhaps placed the student in isolation to learn independently), or an enrichment program that treated mathematics as the "puzzle of the week." Enrichment books abound that have "fun" mathematics activities designed to expand students' mathematical horizons, but they frequently do not ask students to think deeply about mathematics, to connect the new topics to earlier knowledge, or to investigate new problems creatively. Of course, mathematics should be enjoyable, but the enjoyment should come from constructing new mathematical knowledge, not from playing mindless games. As enrichment activities are planned, care should be taken to ensure that they enhance the goals and objectives of

(See SHEFFIELD, page 31)

SOCIAL STUDIES

A Long and Winding Road

James Collett

In the opening words of *Finnegans Wake* (1939), James Joyce claims "riverrun . . . brings us by a commodius vicus of recirculation back." Among the meanings hidden in that bit of convoluted prose lies a reference to the philosopher Giambattista Vico. Vico proposed that history passes through a recurring cycle of four great phases: theocratic, aristocratic, democratic, and chaotic. Joyce's choice of the word "vicus" further enriches the passages. While *vicus* is the Latin form of the Italian Vico, it also means street or highway. In a few short words, Joyce reminds us that winding roads can carry us back to the same broad rivers from which we began while they, in similar fashion, return to the sea.

Yet, even though we return, like all heroes, to the place from which we began our quest, we are not the same. Our journey has transformed us. The river to which we return is no longer the same river. Both we and the landscape are different. In considering gifted instruction in social studies, I find a long and winding road has carried me back to the same river. The view across the water, however, holds a hauntingly familiar difference.

In a time of new state plans, new TEKS, new appraisals, on the rim of a new century, I offer a highly personal account of the curriculum journey that brought me here. I trust it will provide some measure of insight into gifted instruction at the secondary level. I hope it will produce ideas for new directions and departures. At the least, I think it will prove a familiar tale. I begin with an old story and end with new thoughts on that same narrative.

A number of years ago, before gifted instruction was mandated for high school, I sought a more challenging social studies course for the academically advanced students in our district. With my principal's consent, I created Advanced American History. This elective course was open to seniors who had completed their required American History course the previous year. Over the next few years, I had between six and ten students in the class each year. My goal was to carry them into a greater comprehension of history than the regular class provided (greater depth and complexity in today's parlance). I based my approach upon several basic premises.

I believed any advanced study of history required an investigation of the nature of history itself and an awareness of the controversies within the discipline. Students needed to understand the methods by which historians work, as well as the philosophy behind the examination of the past. Central to this approach was the understanding that history is not what happened in the past, but "the act of selecting, analyzing, and writing about the past." James West Davidson and Mark Hamilton Lytle elaborate upon that definition in the book *After The Fact* (1982). I used *After The Fact* as the basic text for the course. Davidson and Lytle modeled their book on the apprenticeship approach. The reader must grapple with "the challenge of doing history." The authors also wanted to provide the reader with good stories, the beginning point for all great histories.

In fourteen interesting tales, spread across the span of American history, Davidson and Lytle involve the reader in murders of double agents, the visible and invisible worlds of old Salem, grand theories of the frontier, psychohistory, social history, and the research style of Bob Woodward and Carl Bernstein.

I expected a higher level of performance than usual from the students. I assumed a certain level of expertise in the facts of American history. I assumed a more sophisticated reading level. I assumed the ability to critically discuss the contents of each chapter and to extend the ideas beyond the chapter boundaries. I assumed a higher level of essay and analytical writing.

The course also provided for the development of certain advanced skills. Students learned to produce creative products, from modern facsimiles of writing in anthropological style to reinterpreting course ideas in unique forms. The students constantly worked with the skill of developing better questions with which to approach the past. Research-based writing was a regular feature. Outside readings brought in contrasting views. Extended answers in discussion were the rule.

I learned along with the students. I built and rebuilt the course over the years it was offered. While *After The Fact* remained the central text, I experimented with other supplemental works. I wanted multiple, contrasting viewpoints on past events and issues. I tried various "readings" books. Most, I found too bipolar in their approach—Yes or No, two readings, one often a straw man. Still, I believe I and they learned something about the nature of historical writing and study.

When the gifted class was added to high school, I sought other creative avenues of instruction. As we are a small, rural school, I wanted an alternative to scattering

the identified students across the social studies and having classes of only one or two. Accordingly, with the support of a new principal, I began a four-year process of creating a multi-level class of cross-disciplinary courses, grounded in social studies and language arts.

Again, I began with certain premises. The courses must require students to read and think at more advanced levels. The texts would be non-traditional. The assignments would range from standard activities and assessments to highly creative ones. Students would be expected to discuss critically and function in large and small groups.

The first elective course was Anthropology. I chose a textbook used in the introductory Anthropology course in several colleges. This was supplemented with additional handouts and a simpler secondary text. Students kept an anthropological journal, containing their reflections on course work and various projects in the school and community (observing student behavior for example).

The spring semester became a course in Archeology. Again, I used a college text—Brian Fagan's *In The Beginning* (1988). The course included a high degree of field work, visiting and recording prehistoric Native American sites. Ancillary skills included surveying, mapping, excavation, artifact analysis, and site recording. The final assessment involved proper study of an actual archeological site, including the filing of official state reports.

Over the next few years, I developed several other courses. The Biohistory course, for example, examined the interaction of disease and humans throughout history and prehistory at the levels of species, societies, and single individuals. Three texts drove this course, supplemented by a number of short readings. Along with nonfiction texts, students read and analyzed several key pieces of fiction: Giovanni Bocaccio's work, *The Decameron*, Edgar Allan Poe's "The Masque of the Red Death," and Albert Camus' *The Plague*.

Ultimately, I linked the different courses together under the thematic framework of "Systems." The core generalizations were:

1. Everything is part of one or more systems. There are no separate parts or structures.
2. Every system is made up of processes and the nature of these processes directly affects the nature of the products of the system.
3. Systems are organic.
4. Elements in a system vary and operate in various ways.
5. The most important variances cannot be quantified.
6. Systems must be understood in relation to other systems.

These generalizations provided the core around which each separate course revolved. Students remaining in the program for all four years, emerged with a complex understanding of systems from a multi-disciplinary

(See COLLETT, page 24)

A BAKER'S DOZEN RECOMMENDATIONS

The following list in no manner pretends to be definitive of anything more than making an impression upon me. I do believe these works will enrich your reading, provide new perspectives, and fuel thoughts toward depth and complexity in the social studies.

- Boorstin, Daniel. *The Creators.* Random House. 1992.
- Carse, James. *Finite and Infinite Games.* Free Press. 1986.
- Davidson, James and Mark Lytle. *After the Fact.* Knopf. 1982.
- Fraser, George M. *The Hollywood History of the World.* Fawcett. 1988.
- Gelb, Michael and Tony Buzan. *Lessons from the Art of Juggling.* Harmony Books. 1994.
- Leone, Mark and Neil Silberman. *Invisible America.* Henry Holt. 1995.
- McNeill, William. *Plagues and People.* Anchor. 1989.
- Plato. *The Republic.*
- Schneider, Michael. *A Beginner's Guide to Constructing the Universe.* Harper Perennial. 1995.
- Senge, Peter. *The Fifth Discipline.* Doubleday. 1990.
- Strauss, William and Neil Howe. *Generations.* Quill. 1991.
- Wood, Denis. *The Power of Maps (Mappings: Society/Theory/Space).* Guilford. 1992

Performance Tasks: *Encouraging Excellence in Mixed Ability Classrooms*

Bertie Kingore

Problem solving performance assignments integrate content from the four core academic areas in an active learning format appropriate for kindergarten through high school students. Because of the open-ended nature, these problems encourage students' diversity in learning styles and talents. All students in mixed-ability classrooms can complete these performance tasks, but their solutions will demonstrate very different degrees of complexity and sophistication. Teachers' observations document that students greatly enjoy these enticing experiences and are highly motivated to excel.

Well-planned performance tasks can be incorporated in any unit of study and challenge students to demonstrate mastery of multiple concepts, skills, and even TAAS objectives. The following list is intended to suggest possible tasks that can incorporate language arts, math, science, and social studies content appropriate at various grade levels.

PRIMARY GRADES

1. Use only recyclable materials to create an environmentally appropriate habitat for an endangered species or classroom pet.

2. Use paper and toothpicks to build a house for each of the three little pigs. Specify sizes for each completed construction and use a hair dryer to test the strength of each house.

INTERMEDIATE GRADES

1. Create a floating device that can carry a certain quantity and weight of cargo across a pan of water and onto a dry surface without human contact.

2. Develop inexpensive packaging that prevents a cookie from crumbling when subjected to increasing amounts of weight.

Secondary Grades

1. Use paper clips and paper of different sizes and weights to create airplanes that demonstrate specific physics concepts.

2. Use the drawing feature of an integrated computer software package to replicate the geometric features and patterns found in a historical architectural structure.

One abbreviated example (Golf Course Construction) of these tasks is included as an illustration and to serve as a model for developing problem-solving performance tasks with your students. More developed examples may be found in the sources listed at the end of this article.

Rather than only emphasize creativity, select tasks that accent content, ease of preparation, and low cost. The following guidelines increase the educational value of performance tasks.

GUIDELINES

1. Problem solving performance tasks need to be content-driven and incorporate significant learning opportunities. Avoid using or developing problems that may be fun and entertaining but do not result in significant learning. Instead, think about specific contents, concepts, and skills that could be applied through a performance task and plan problems which incorporate several learning proficiencies.

It is important to carefully analyze your rationale and objectives for the tasks and to communicate those learning objectives to students in advance of the project. "This is why we are going to . . ." Also, consider corresponding with parents to inform them of the learning potential.

2. Problem solving performance tasks provide successful and valid learning experiences when they incorporate the following components:

• *Higher-level thinking is promoted.* Open-ended problems take the top off tasks so participants can operate at higher levels. Students continually analyze and synthesize as they work toward solutions.

• *Multiple learning styles and multiple intelligences are incorporated.* The subparts and open-ended nature of each task provides many ways for different styles and intelligences to be validated.

• *Complexity and challenge are encouraged.* The tasks involve varying levels of difficulty and incorporate appropriate levels of challenge to account for individual learning abilities.

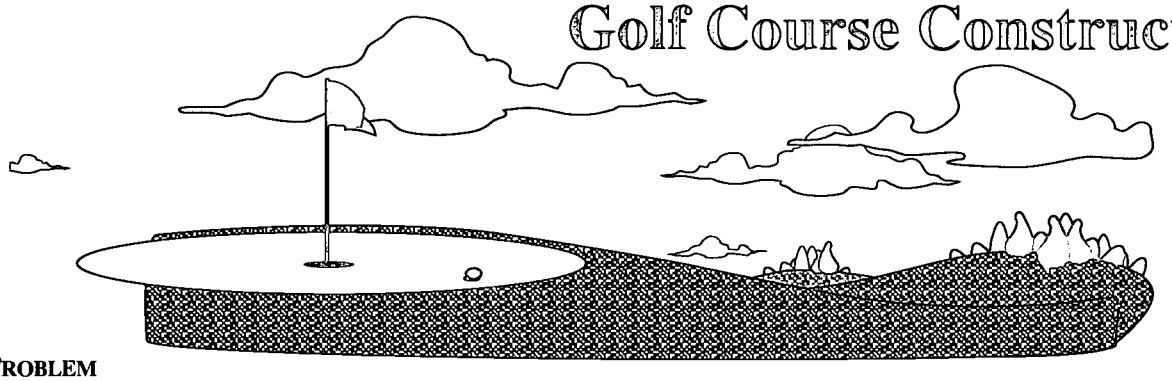
• *Students are encouraged to become producers, not just consumers.* Since more than one correct answer is possible, students construct their own solutions rather than simply reinvent ours. Students literally produce that which did not exist before they completed the task.

• *Student choice is supported.* Students choose which roles to assume in each task and select from an array of different extensions to enhance their learning. Both process and products invite student choice.

• *Content integration is promoted.* The learning experiences allow students to connect prior knowledge

(See KINGORE, page 25)

Golf Course Construction



PROBLEM

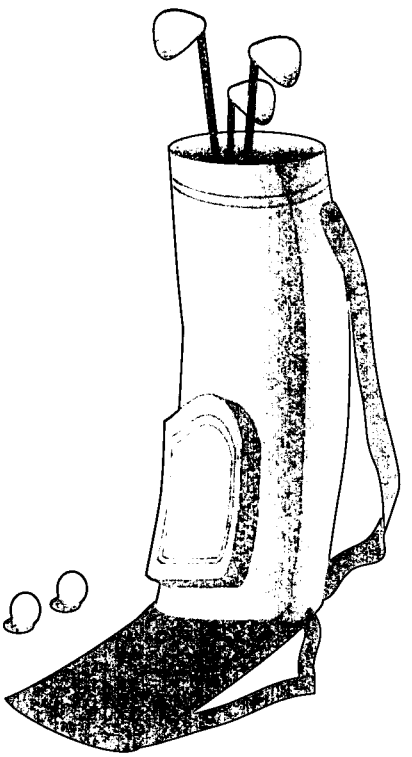
Construct an operational miniature golf course using trash and recyclable materials.

MATERIALS

1. Masking tape—one roll for each team
2. Scissors—one for each student
3. Recyclable trash for construction materials, e.g., aluminum cans, boxes, cardboard, plastic containers, and newspapers.
4. One golf ball for each student.
5. Students bring dowel rods or yardsticks to use with recyclable materials to construct golf clubs.

CRITERIA

1. Each hole, from tee to fairway, green, and cup, must be designed within a space of 3 feet by 3 feet. (Variation for older students: Design within an area of 9-10 square feet.)
2. The hole must be constructed from recyclable or reusable items.
3. Each hole must have barriers to keep the ball contained while in play.
4. The ball must change elevation while in play. (Variation for older students: The ball must change direction while in play.)
5. Each team devises a cup on the green that will stop and contain the ball.
6. The total construction cost of each hole must not exceed 69¢. Document your cost by completing a budget sheet listing the fair market value of each item used in construction, e.g., 5¢ for an aluminum can.



CONCEPTS AND SKILLS

Language Arts: Listening, oral communication, reading and following directions

Math: Measurement, budget or spread sheet, calculating area

Science: Classify objects from environment, ecology, force, friction, gravity, inertia, reflection

Social Studies: Accept responsibility, consensus building, group cooperation, task commitment

Thinking Skills: Planning, organizing, comparing and contrasting, analytical thinking, evaluation,and synthesis

LANGUAGE ARTS

The Power of Fairy Tales and Fantasy

Nancy Polette

Editor's Note: With the current focus on the core content areas, it is important not to forget the place of imagination. In this article, Nancy Polette reminds us of the importance of creativity and intuition in literature.

No literature is more suited to the stimulation of every part of the child's brain than fairy tales and fantasy. It is significant that so many outstanding thinkers of our day tell of a childhood rich with fairy tales and fantasy. Indeed, when Albert Einstein was asked what children should be exposed to which would best help them to become scientists, his response was "fairy tales!"

As Marjorie Hamlin says in *Reading Guidance in a Media Age,* "Those of us who have gone down a rabbit hole, climbed the mast of a plunging schooner with a pirate hot on our tails, learned to breathe under water on a Martian moon, saved the life of a princess in distress, or have gone far back in time on the back of a cat . . . those of us who have done these things realize how narrow and bleak our lives would have been if untouched by these mind-stretching adventures. Beyond the mere techniques and skills of learning to read lies a land of vision and enchantment. A child who is never pointed in that direction, who is never read to, may grow to adulthood literate in only the 'letters' sense of the word, and with a sadly undernourished spirit. Every child deserves to be exposed to the very best creative and imaginative experiences.

> "... *The future belongs to those who do not rein in their imaginations.*"

Imagination can illumine the real world and make sense out of reality. The world we know ordinarily is limited because it is finite and we mortal. But we have no need to rein in our imaginations! Contemplate the infinity of ideas available and not yet captured between the pages of a book.

Again, Einstein has written, "The fairest thing we can experience is the mysterious. It is the fundamental emotion which stands at the cradle of true art and true science. He who knows it not, who can no longer wonder, can no longer feel amazement, is as good as dead, a snuffed out candle."

In our highly technical world, children are introduced to computers in infancy. They are taken to fire houses, supermarkets, shopping malls, factories, and offices. Is equal attention being paid to helping the child grasp the unseen, the intangible?

Kornei Chukovsky, the great Russian writer of children's books, has said about early childhood: "The young child uses fantasy as a means of learning, and adjusts it to reality in the exact amounts his need demands. The present belongs to the sober, the cautious, the routine-prone, but the future belongs to those who do not rein in their imaginations."

Fairy tales and fantasy do, indeed, provide stimulation of the whole brain. An excellent example is the beautiful edition of Hans Christian Andersen's *The Tinder Box*, illustrated by Warwick Hutton and published by Margaret K. McElderry Books. As a master teller of tales, Andersen's rich use of language stimulates the left brain language center. The logical, sequential ordering of events stimulates the lower left quadrant of the brain as do the problems that occur throughout the story and their resolution. The touch of fear when the soldier first meets the witch, the apprehension as he approaches the gallows, the joy of his rescue — all touch the lower right affective quadrant. The beautiful illustrations, and the creation of the fantasy dogs like no dogs ever before seen are those creative elements that stimulate reaction in the upper right quadrant. While this is only one example of the effect of fairy tales and fantasy on thought, almost every other well-written tale in this genre can do the same!

There is no question that exposure to fairy tales and fantasy can stimulate the creative brain. In his definition of creativity, Ned Herrmann states that "Creativity must in the final analysis be whole brained. The elements of the process . . . require all four quadrants of the brain. If any one of the quadrants is unavailable, then the process

(see POLETTE, page 27)

Young Adult Literature: *A Viable Foundation of Language Arts for the Gifted*

Bob Seney

LANGUAGE ARTS

One of the basics in providing an appropriately differentiated curriculum for gifted learners is to work from their interests and their strengths. One way to make the job of teaching language arts easier is to use literature as the basis of instruction. Most gifted learners are avid and motivated readers and for many of us the greatest joy in working with gifted learners is in sharing their enthusiasm for reading. So we must take this joy in reading and turn it toward the other language arts skills. We must use this built-in motivator as the foundation of our language arts curriculum.

As we build our curriculum, our first task is to identify the right books for the right student and this becomes a bit more complicated when we are considering the gifted reader. Judith Halsted (1994) has listed several characteristics of books that are important for gifted readers. These are:

1. The language should be on a high level, thus making strong demands on the reader's vocabulary.
2. The language should reflect and enhance the plot. The language should do more than present the story; it should become an essential part of the reading experience.
3. Pronunciation guides are especially helpful for gifted readers.
4. The use of masterfully chosen descriptive words that stimulate strong visual imagery is important.
5. Books should be selected that are written by authors who delight in language and who skillfully express nuances of thought and feeling.
6. Language patterns and vocabularies from other times and places encourage the reader to glean the meaning from the context.
7. Books for gifted readers should display the full use of literary devices.
8. Books should present problems that are unresolved, even at the end of the book.
9. We should select books that have different levels of meaning.
10. The structure of the plot should put the mind to work.
11. The settings should allow the reader to experience vicariously lifestyles that are not their own (1994, p. 164-166).

I have found that the growing genre of young adult literature provides the gifted reader and the teacher of the gifted with a rich literary resource. Many teachers overlook this genre because of past experience and because they have not kept up with contemporary offerings. Chances are that these are the books that your gifted readers are already reading and you will find them excellent examples of well-crafted and often highly sensitive pieces of literature. Virginia Monseau (1992) has reminded us that "Young adult novels have come of age because they have demonstrated the same skillful craftsmanship employed in all good literature and because they have translated to the world of the young adult the same conflicts and issues with which all humans struggle" (p. xi). She and her co-author Gary Salvner have listed the elements displayed by YA lit today:

1. Complex characters who seek to resolve conflicts of tremendous consequence to themselves and the world;
2. Vividly drawn minor characters who not only create texture but also advance the actions of the stories and serve as meaningful foils and allies for protagonists;
3. Vivid settings - both real and imaginary;
4. Plots that hold the reader through deft pacing, skillful use of suspense, and the use of flashbacks and other manipulations of time sequence;
5. Experimentation with various points of view from which the stories are told;
6. Treatment of thematic issues that matter not only to teens but to all of us: the quest for justice; the savagery of war; and hatred and the struggles for love, acceptance, and understanding (p. xi).

In short, we find in current young adult literature "the same elements of all masterfully crafted works of fiction" (p. xi). Surely, you have already noticed the interesting parallel between the two lists cited above. They are virtually identical! Therefore, we can safely assume that if we select appropriate YA lit for our gifted readers, we are providing literature that meets their academic needs as well as their reading interests. They will be reading about issues that matter to them and with which they are dealing in their own lives. They will be dealing with concerns, characters, and situations that are a part of their real life.

The next question, then, is how do we build YA lit

novels into our language arts curriculum? One obvious answer is the use of thematic units based upon YA lit. One of the many advantages of using thematic units is the opportunity that it gives teachers to provide learning opportunities which cross disciplines. We do not need to labor under the unnatural divisions that content-centered classes create. With thematic units, our students find that they are "doing" language arts in math, science in language arts and both in social studies! Finally, we can not only stress the interrelationship of various content knowledge and skills, but we can practice it in our classrooms. Students realize that to truly understand a subject, they must investigate it from every point of view.

The strategy of using thematic units beautifully bridges the disciplines. In this approach, the theme is the key to all instruction. Literature and all other instructional materials are deliberately chosen because of their direct relationship to the selected theme. Discussions and writing assignments promote student expressions of their ideas about the theme. All learning activities involve hearing, reading, talking, and writing about the theme.

What we find, then, is that thematic units integrate the demands of the curriculum and the needs and interests of the students. In addition we have the opportunity to increase the complexity of content (very important for gifted learners); allow students to examine the interrelationships between and among facts, details, rules, and concepts; and students are able to study the inter-relatedness of different areas of study. Sounds like differentiated to me!

Now for our next step: designing the thematic unit. Actually the steps for building a thematic unit are fairly simple:

1. Select a theme.
2. Determine a focus for the unit: (Your generalization, the "big truth").
3. Write your objectives.
4. Select appropriate materials.
5. Design or select activities.
6. Design the culmination activity.
7. Determine the evaluation.
8. Compile a reference list of related literature.

A similar procedure is illustrated in Figure 1.

Now that we have an idea of where we want to go with our thematic unit, we must put the "gifted test" to it. We must insure that it is appropriately differentiated for gifted learners. While there are several "formulas" for differentiating curriculum, Joe Renzulli's list will certainly serve our purposes well here. Renzulli talks of "qualitative differences." These are differences that are marked by providing experiences that

1. Are above and beyond the regular curriculum;
2. Take into account students' specific content interests;
3. Take into account students' preferred styles of learning;
4. Allow students the opportunity to pursue topic areas to unlimited levels of inquiry (Renzulli, 1977).

If our thematic unit is able to meet these criteria, then we can pretty well assume that we have succeeded in differentiating this learning experience. Renzulli has also provided us another quick checklist in Figure 2. This chart was presented in a 1995 workshop and is, as far

THE GAME PLAN
OR
HOW TO CREATE A THEMATIC UNIT

A. Develop the rationale:
   1. Brainstorm the known interests of your students.
   2. Consider your students' developmental characteristics.
   3. What curricular requirements do you wish to address?
B. Design your objectives:
   1. What are the school or district curricular objectives?
   2. What individual objectives are to be included?
   3. What over-arching objectives (critical thinking, reading and writing, etc.) are important?
C. Organize your plan:
   1. Focus on concepts: Web
   2. Focus on content: Web
      a. Brainstorm activities.
      b. Organize activities within content areas.
   3. Select your materials: Create a bibliography.
      a. List potential resources from each content area.
      b. Materials should include representation from fiction, nonfiction, and non-print media.

Developed by Dr. Teri Lesesne, Sam Houston University and Dr. Bob Seney, Mississippi University for Women.

FIGURE 1

WHAT IS THIS THING CALLED DIFFERENTIATION: A QUIZ

	yes	no
1. Did every student do it?		√
2. Should every student do it?		√
3. Would every student want to do it?		√
4. Could every student do it?		√
5. Did the student do it willingly and zestfully?	√	
6. Did the student use authentic resources and methodology?	√	
7. Was it done for an audience other than (or in addition to) the teacher?	√	

(Renzulli 1995, unpublished)

FIGURE 2

as I know, unpublished. If we can check off the questions as shown, then we have moved toward appropriately differentiating the learning experience for the gifted learner.

The checklist which I have developed for my students to use in designing differentiated thematic units includes these questions:

1. Are most of the objectives at the analysis, synthesis, and evaluation level?
2. Is there a direct relationship to the characteristics of the gifted learner?
3. Does the unit reflect no less that three or four (an arbitrary number listed for undergraduate students) of the N/SLTIGT's Principles of Differentiation? (Kaplan, 1979) (See Figure 3)
4. Is curriculum modification for the gifted reflected by changes in:
   - Content
   - Process
   - Products
   - Environment

   (Are these modifications documented?)
5. Are opportunities for student input in the design of the unit written into the unit plan?

Now that we have insured that our thematic units are appropriate for the gifted learner, just what might a possible unit look like? Following is a first of the year unit that I developed to be used with gifted sixth graders in a designated language arts class for gifted learners. I taught this unit for three basic reasons: 1) it gave me the opportunity to deal affectively on what "being gifted" is all about; 2) it introduced thematic units and the type of learning that they would be experiencing in our classroom for the rest of the year; and 3) it got them started reading young adult literature right off the bat! The three "R's" for my class were reading (young adult literature), 'riting (about and in response to young adult literature), and research (using young adult literature - for example: a vote count analysis of how an issue was treated in YA literature.

PRINCIPLES OF A DIFFERENTIATED CURRICULUM FOR THE GIFTED/TALENTED

- Present content that is related to broad-based issues, themes, or problems.
- Integrate multiple disciplines into the area of study.
- Present comprehensive, related, and mutually reinforcing experiences within an area of study.
- Allow for the in-depth learning of a self-selected topic within the area of study.
- Develop independent or self-directed study skills.
- Develop productive, complex, abstract, and/or higher level thinking skills.
- Focus on open-ended tasks.
- Develop research skills and methods.
- Integrate basic skills and higher level thinking skills into the curriculum.
- Encourage the development of products that challenge existing ideas and produce "new" ideas.
- Encourage the development of products that use new techniques, materials, and forms.
- Encourage the development of self-understanding, i.e., recognizing and using one's abilities, becoming self-directed, appreciating likenesses and differences between oneself and others.
- Evaluate student outcomes by using appropriate and specific criteria through self-appraisal, criterion referenced and/or standardized instruments.

National/State Leadership Training Institute on the Gifted and the Talented (Kaplan, 1979)

FIGURE 3

(See SENEY, page 26)

Characteristics of and Educational Services for Children and Youth Who Are Talented in Mathematics

Gail R. Ryser & James L. Schaller

MATHEMATICS

Matthew was five years old with an IQ of 158, and while he was fascinated by everything, he gravitated toward mathematics. When he was ready for kindergarten, his parents placed him in a private school with the hopes that the school could provide him with individualized and differentiated instruction. Within a few weeks, he was accelerated to grade one, but was never able to "fit in." Matthew was required to cover the grade one curriculum even though he was cognitively capable of more, and was given enrichment only when he completed his other grade one work. Soon, Matthew developed nervous habits, demanded attention from his teacher and peers, and rushed through his work. His behavior became a problem. After numerous conferences with the school, the decision was made to home school Matthew. Among other things, Matthew is currently working his way through the Education Program for Gifted Youth curriculum, a program from Stanford University, and he loves it. His mother is trying to keep up with him and fears that before too long he will exceed her capabilities. Meanwhile his parents are searching for a school that will accommodate his exceptional talent. So far, they have been unsuccessful.

Students like Matthew present a challenge to educators. They need special placement, but what is one to do with students like him? The purpose of our article is to provide insight into characteristics of mathematically talented students and educational services for them.

In 1971 Julian C. Stanley started the Study of Mathematically Precocious Youth (SMPY) at John Hopkins University (Stanley, 1991). SMPY identified boys and girls in grades seven and eight who were in the top five percent of mathematical ability as measured by the *Scholastic Abilities Test-Mathematics* [The College Board (SAT-M), 1989] and enrolled them in a summer mathematics class during which instruction was greatly accelerated. During the 1970's SMPY continued to identify and serve an ever-widening age and geographic circle of students. The issuance of the *Marland Report* in 1972 (Marland, 1972) also focused attention on gifted and talented education. This report provided the first national definition of gifted and talented and urged schools to develop learning experiences that went beyond those normally provided in general education settings. As a result of this report, schools began offering services to students who were gifted, generally in separate settings for short periods of time.

In 1993, the Department of Education issued the report: *National Excellence: A Case for Developing America's Talent* (U.S. Department of Education, 1993). This report differs from the *Marland Report* by emphasizing the importance of providing all students with appropriately challenging curriculum. In addition, the report changes the focus of the definition of gifted and talented to "talent potential and development."

Currently, all 50 states have formulated policies, regulations, rules, or guidelines for supporting the education of talented children and youth (Passow & Rudnitski, 1994). Some states have mandated services; others permit discretionary programs. Texas has mandated services and requires school districts to serve students who are gifted and talented in four core academic subjects of language arts, mathematics, science, and social studies. This article focuses on mathematics.

CHARACTERISTICS OF CHILDREN AND YOUTH WHO ARE TALENTED IN MATHEMATICS

Children and youth who are mathematically talented have many common characteristics. These include:

- the ability to recognize and spontaneously formulate problems, questions, and problem-solving steps *(Greenes,1981; Sternberg & Powell, 1983);*
- the ability to see mathematical patterns and relationships *(Cruikshank & Sheffield, 1992; Miller, 1990)*;
- the ability to reason at a higher level of abstraction than age-mates *(Ablard & Tissot, 1998; Cruikshank & Sheffield, 1992; Miller, 1990)*;
- flexibility in handling and organizing data *(Cruikshank & Sheffield, 1992; Greenes, 1981; Miller, 1990)*;
- the ability to generalize ideas and principles from one mathematical situation to another *(Cruikshank & Sheffield, 1992; Greenes, 1981; Miller, 1990)*;
- intense curiosity about numeric information (Dover & Shore, 1991; Miller, 1990); and
- persistence in finding the solution to problems (Ashley, 1973; House, 1987).

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Mathematically talented children and youth may have some, but not all of the above characteristics. Miller (1990) further clarifies characteristics of mathematically talented children and youth. He states that mathematical talent "refers to an unusually high ability to understand mathematical ideas and to reason mathematically, rather than just a high ability to do arithmetic computations" (p. 2). This definition of mathematical talent has important implications for provision of educational services to children and youth as mathematics classes often focus on computational accuracy rather than problem-solving and reasoning ability (Lupkowski & Assouline, 1997). In fact, most elementary mathematics curricula emphasize skill development (i.e., memorizing facts), while secondary mathematics curricula seldom go beyond calculus.

SUGGESTIONS FOR TEACHING THE MATHEMATICALLY GIFTED

- Match challenging tasks to cognitive ability.
- Accelerate students using diagnostic/prescriptive model.
- Focus on problem solving.
- Emphasize concepts in addition to computation.
- Go beyond the classroom for additional experiences.

EDUCATIONAL SERVICES FOR MATHEMATICALLY TALENTED CHILDREN AND YOUTH

In 1989, the National Council of Teachers of Mathematics published the *Curriculum and Evaluation Standards for School Mathematics* (CESSM) [National Council of Teachers of Mathematics (NCTM), 1989], which was an attempt to specify national, professional standards for school curricula in mathematics. The CESSM standards can be used to judge the quality of mathematics curriculum and are based on the following five goals:

1. Learning to value mathematics
2. Becoming confident in one's own ability
3. Becoming a mathematical problem solver
4. Learning to communicate mathematically
5. Learning to reason mathematically (pp. 5-6).

These goals were developed with the intent that students become mathematically literate and develop the ability to explore, conjecture, and reason mathematically. Combining these standards with what we know about the characteristics of mathematically talented children and youth is a starting point for educators. Five suggestions for the delivery of education services to students who are mathematically talented follow.

One particularly important factor that contributes to students' use of high-level mathematical thinking and reasoning is matching challenging mathematical tasks to the cognitive ability of students. Therefore, proper placement in mathematics for students based on their cognitive development rather than their age is critical. This was readily apparent in the case of Matthew who quickly developed sloppy habits and became a behavior problem when required to follow an age-appropriate curriculum rather than a cognitive-appropriate curriculum. Continuing this practice into secondary school places mathematically talented students at risk for failure and dropout.

The next suggestion is to accelerate students using the diagnostic/prescriptive model. This model uses beyond-level testing to determine what aspects of a topic a student has not mastered. The student is then provided prescriptive instruction based on an analysis of testing results. Finally, the student is post-tested and if the material is mastered, moves on to the next level. The key is to pre- and post-test and use the results to move the student through the curriculum at an accelerated pace. Using this model allows mathematically talented elementary students to take advanced courses. Recent research has shown that some mathematically talented students have the necessary reasoning skills to succeed in advanced courses in pre-algebra and algebra as young as grade four (Ablard & Tissot, 1998; Mills, Ablard, & Gustin, 1994). In addition, this model provides mathematically talented secondary students an opportunity to study advanced mathematical topics such as number theory and probability

Third, mathematics curricula should focus on problem solving. Mathematics teachers can encourage students to record and verbalize their thought processes and to develop multiple strategies and solutions to problems. In addition, educators should actively involve students in the construction of mathematics. In fact, Wheately (1983) states that 20 percent of time in the mathematics classroom should be devoted to problem solving. Younger students should engage in problem solving that comes from everyday experience. For example, students can

(See RYSER, page 28)

SOCIAL STUDIES

Approaching Citizenship Through A Community-Based Model

Eric Groce

In self-contained elementary classrooms social studies and science have perennially been the curriculum stepchildren, playing second fiddle to mathematics and language arts, especially reading. This discipline hierarchy can be attributed to several factors.

First, middle school educators expect that incoming students will have the requisite reading, math, and writing foundations to successfully begin coursework at that level. Second, many elementary teachers have specializations in reading and math, while fewer have social studies or science as a primary teaching field. Third, the TAAS test has also raised expectations in reading and math to the point that occasionally science and social studies (the focus of this article) are collapsed or taught primarily as reading comprehension passages to prepare students for the test.

> *"The predominant theme of social studies education . . . is the preparation of learners for citizenship."*

With these limitations, teachers must treat instructional time in these neglected areas as a precious commodity. In my tenure as an elementary school teacher, I utilized several classroom techniques that allow teachers to fulfill their commitment to social studies without neglecting the previously mentioned responsibilities. These techniques include integrated instructional units that feature several content areas taught through a central theme, the use of innovative scheduling and time management techniques, as well as the condensing and prioritizing of curriculum or "curriculum compacting" as described by Renzulli, Smith, and Reis (1982). But regardless of how time is acquired, the important question is, "How will you use it?"

District curriculum guides and student textbooks are filled with concepts to be covered at each grade level. However, with limited time teachers must prioritize and present the most significant ideas to their classes. Textbooks have become better resources with enhanced illustrations and interesting vignettes to support concepts, but they still lack the insights, guidance, and personal touches that a teacher can add to a lesson. Therefore, the shortcomings of a text are magnified if the teacher fails to complement it with additional resources (Shermis & Clinkenbeard, 1981).

School districts often include a responsibility to community and citizenship as desired outcomes for their graduates but fail to address this goal formally until civics class in the senior year. However, citizenship must be addressed throughout students' academic careers to convey its importance and secure its successful internalization. Gifted students are often hailed as our future and the leaders of tomorrow. How can we expect them to fulfill their great promise without detailed direction and experience in this area? Classic literature and advanced math courses are of course vital, but they may not prepare gifted learners for the challenges of societal responsibility, and the predominant theme of social studies education as identified by Barr, Barth, and Shermis (1977) is the preparation of learners for citizenship.

Teachers must instill in their students the capacity and motivation for community involvement through careful mentoring in a real world setting. I will share a few projects completed with my classes in an effort to facilitate their development as contributing members of their community.

PROJECT ORIENTATION

In recent years I had the privilege of teaching fourth grade at a neighborhood school near the campus of a university. When I asked the class what ideas they had about community involvement, they continually focused on the importance of education, a popular theme in a university town. Specifically, they wanted to help a graduating high school student ease the burden of financing a college education. In order to do this, they decided to raise money for a scholarship.

We brainstormed ideas and had frank discussions during several lunch sessions before settling on an initial direction. The students called themselves the "Young Minds at Work" and began to assemble a plan that would allow them to reach their goals. Teams of students brainstormed possible revenue-generating endeavors. For several reasons, the class voted to make miniature pillows for their project. The pillows were easy to make, provided a good profit margin, and served as a much-needed buffer between their fellow students and the plastic chairs

in which they toiled for hours daily, a selling point that the class utilized in marketing their product.

After buying the materials, we began to use our social studies time to make pillows, plan the sale, and discuss the process involved in granting a scholarship. Student teams began to design an application on the computer, formulate interview questions, and develop a marketing strategy to deliver our product to the consumers. These activities allowed students to refine their composing, editing, and keyboarding skills in a realistic application. When the large group convened, a consensus was reached and the plan was set into motion.

PROJECT IMPLEMENTATION

We informed the high school counselor of our intentions and the scholarship applications were sent to him for distribution. Meanwhile, the stockpile of pillows was rising along with the anticipation of the fourth graders. To our surprise, over twenty seniors applied for the scholarship.

The students pared down the application pool to eight seniors on the basis of their own predetermined criteria which included school and/or community involvement, grades and academic accomplishments, and answers to the essay question "How do you intend to make the world a better place to live?"

We set aside two afternoons in which to interview finalists. Schedules were made, interview protocol was discussed in class, and interview questions were proposed. The students responded marvelously. On interview days every student was dressed in a professional manner. Students made each applicant feel comfortable and conducted themselves as polished young ladies and gentlemen.

I kept my involvement in the interviews to a minimum in order to instill confidence in the students and to convey to them that they were to make the tough decisions ahead because it was their project. I viewed my role as a facilitator who would guide the students toward completing tasks on time, accepting responsibilities, and assuming leadership positions in the project.

After totaling the pillow money and adding a successful bake sale, the class had raised seven hundred dollars, exceeding their own goal of five hundred dollars for the scholarship. With the extra two hundred dollars, they chose to award an additional, smaller scholarship. The winner of the larger award was notified when the high school choir presented a concert at our campus.

The students surrounded the winner after the performance and shouted, "You won!" Tears flowed from the deserving young lady as she stared at a group of young people who had matured, and with this maturity had begun to understand the immeasurable lesson of giving to others. Our next assignment was to prepare for the presentation at the high school. When the evening arrived the fourth graders sat proudly among the scholarship benefactors which included large corporations, service academies, officers from various universities, and local dignitaries. The presentation mirrored the same professionalism exhibited by the class throughout the project.

The next day at school I asked students to tell what they had learned from this experience. Teamwork, perseverance, and craftsmanship were noted along with interpersonal communication skills, planning, and responsibility. Everyone agreed the most significant lesson learned was that as members of our community, we each have the responsibility to build and maintain our little piece of the world with the gifts bestowed upon us. Many students told me that their high level of excitement and participation was due to their correspondingly high level of responsibility and leadership in the project.

This experience would not have taken place without the support of parents and a building principal who recognized that learning does not always originate from conventional means.A good relationship with parents and building and district adminstrators was essential to the success of this project. They were able to serve as valuable resources for me and the class, as well as witnessing the passion and determination of the students as they drew closer to their goals.

OTHER COMMUNITY-BASED ACTIVITIES

While some projects demand intensive time and energy for completion, there are alternatives that require smaller investments in these areas but will still provide benefits to the class and the community. Integrating community personnel and resources will allow schools to participate as an active entity instead of an island of learning (Newmann, 1975).

Throughout the course of a school year, I invited community leaders to visit our classroom for an hour on Friday afternoons. I asked each guest to bring a book or an excerpt from a book to share with the class. After reading the chosen selection he/she fielded questions from the class about what it was like to be a police officer, engineer, mayor, pediatrician, etc. From my observations, I feel the "Reader of the Week" program gave students an opportunity to informally investigate issues relevant to their community while recognizing the leaders whose decisions affected everyone in the room. It also demonstrated the importance of literacy and thinking skills that were modeled by our guests.

This activity was also an excellent chance to dissolve stereotypes regarding occupations and leadership by showing students that race and/or gender should never become a factor in reaching their dreams. It also provided for some career awareness that eventually led to further career exploration.

Every town or city exhibits a different personality

(see GROCE, page 33)

Walking On the Wild Side

Mary Nied Phillips & C. Janet Wallace

SCIENCE

Do you know any children who are "nature smart"—children who enjoy picking up rocks, plants, and animals, listening to the sounds of spring songbirds, and spending time outdoors in a tree or near a brook? More likely than not, you know many children like this, such as the young naturalists who bring you a garter snake in a mayonnaise jar, or the excited observers who race across the playground to tell you about the ant trails they've discovered near the fence line, or the budding paleontologist who can correctly pronounce the names of every dinosaur. Children with this interest are so typical of elementary learners that Howard Gardner recently added "naturalist" to his famous list of multiple intelligences, referring to the child who likes to spend time outdoors and is intrinsically curious about the natural world.

> *"The object of education is to prepare the young to educate themselves throughout their lives."*
>
> *—Robert Maynard Hutchins*

With the full implementation of the TEKS September 1, 1998, teachers will have a greater obligation to emphasize science as one of the four core academic areas in their classrooms. One of the advantages of the TEKS science section is that it encourages cooperation with other disciplines, especially math and language arts. According to TEA Director of Instructional Services, Carol Lane, ". . . it is a learner-centered classroom that we're after. And we want the students to demonstrate the knowledge, skills, and strategies that are listed in the TEKS" (p.1, 1998).

In comparing the Essential Elements to the TEKS, the differences are obvious: the Essential Elements stated what students should be given the opportunity to learn; theTEKS state what students should know and be able to do. In addition, the EE's were all instructionally based; TEKS will provide both foundation and enrichment areas. The EE's were general statements while the TEKS are detailed and more rigorous, itemizing student expectations. For example, the category scientific processes crosses all grade levels from kindergarten through grade 12, but each level lists more specifically the expectations for student knowledge and skills, including the exact tools students should use. In grade three, students will be collecting and analyzing information using simple tools such as calculators, microscopes, and cameras. By grade six, students should be using more complex tools including graduated cylinders, weather instruments, and computers. Jean Kelly, TEA Secondary Math/Science Specialist, reassures teachers that they will be getting a specific guide as to what their students are expected to be doing after a certain period of time or at the end of a grade level and that training will be offered to clarify recommended activities.

For gifted and talented students, their parents, and teachers, the new science TEKS should be welcome news, for these standards will help them refocus on the importance of the scientific process. And by defining science as "a way of learning about the natural world," TEKS opens the door wider to outdoor experiences where every child can smell, hear, touch, and explore the rich and varied sensations of nature through hands-on research. In addition, by developing children's familiarity with and an appreciation and respect for the natural world, the TEKS help students learn what the planet Earth needs to survive as well as the extent to which we are dependent on its survival as we move into the 21st century.

According to TEKS, the kindergarten student should participate in classroom and field investigations and develop the abilities necessary to use inquiry in both settings. These abilities include:

- asking questions;
- planning and conducting simple descriptive investigations;
- gathering information using simple equipment and tools that extend the senses;
- constructing reasonable explanations with the gathered information; and
- communicating findings.

Critical thinking and problem solving are listed as the third student expectation, followed by criteria for tools and technology, systems, properties and patterns, types of change, living and nonliving characteristics, an

organism's basic needs, and finally, knowledge of the natural world. Grades one through five of elementary science TEKS build upon this kindergarten foundation, gradually adding areas like adaptations, forces and change, heredity, past events, and energy.

The abundance of available curriculum materials that parents and teachers can use for promoting the development of the naturalist is one of the most extensive resource areas in education today. Materials are available in almost all topics that appeal to children, an A to Z smorgasbord from Antarctica to zoology. Technology, in the form of CD-ROMs or internet web sites, multiplies the resources exponentially and gives students the opportunity to share information about their scientific interests and passions with students across the country, as well as around the world.

NATURAL SCIENCE CURRICULUM RESOURCES

• **Botanical Research Institute of Texas (BRIT)** provides materials that stimulate an interest in plants and strengthen the understanding of the value they bring to life. The integrated curriculum materials for grades 1-7 include: Pumpkins . . . more than a Jack-o-lantern; Grasses. . . The Staff o' Life; Texas Prairies; Looking at Leaves; Beans, Peas, and Bluebonnets; and Cattails and Horsetails. . . Life in a Wet Environment. Discovery workshops for school groups use both the National Science Standards and Texas Essential Knowledge and Skills as development guidelines. Topics include: Flower's Guests, The Plant Collector, Amazing Plants, Budding Botanists, Looking at Leaves, and Plants that Outlived the Dinosaurs. For further information on teacher curriculum workshops or to schedule a tour, contact BRIT at (817)332-4441 or at www.brit.org.

• **National Wildlife Federation (NWF)** has curriculum materials available including a National Wildlife Educator Kit based on a yearly theme (Spring 1998 - Nature's Web: Caring for the Land). The *Ranger Rick NatureScope* materials cover topics on insects, endangered animals, dinosaurs, rain forests, reptiles and amphibians, birds, mammals, pollution and wetlands. Animal Tracks is a classroom education program with classroom resources called Animal Tracks Water and Habitats Action Packs which are currently available FREE and ready to download at: www.nwf.org/attacks. The four-page quarterly newsletter, *Earthsavers*, is written for a student audience with topical stories and activities about the environment; these are distributed through Target stores nationwide, and this resource also encourages students to send in articles about their research and projects for publication. Contact NWF at (703)790- 4000 or its home page at www.nwf.org.

• **The National Gardening Association (NGA)** provides curriculum materials to educators through its quarterly publication, *Growing Ideas, A Journal of Garden-Based Learning*. In its Winter 1998 volume on the theme of schoolyard wildlife habitats, Mary Nied Phillips notes: "There is such a push to teach kids (today) about biodiversity and interdependence through studying rain forests that are thousands of miles away, but it's much more powerful and effective to first explore these same concepts up close in our own backyards" (p.1, 1998). This thematic issue along with other back copies is available by contacting NGA. The NGA's *Guide to Kids Gardening* is the bible of schoolyard gardening and contains comprehensive information for planning and sustaining student garden projects. Its curriculum, the Growing Classroom, is a focused program which promotes cooperation among students with lessons that encourage inquiry. Grants for establishing an outdoor garden project are also available from NGA, and applications for these should be requested in the spring. NGA can be reached by e-mail at eddept@garden.org or contact their web site at www.garden.org.

• **The Texas Natural Resource Conservation Commission** provides curriculum materials for grades K-6 called Visit the Triple R Ranch: Reduce/ Reuse/ Recycle, designed for use with Keep America Beautiful's Waste in Place Program. The TNRCC also provides funds for establishing outdoor classrooms through local Councils of Government (COGs).

• **The National Audubon Society** sponsors Audubon Adventures, an environmental education program for students in grades 4 - 6. The program incorporates the science standards set forth by the National Research Council of the National Academy of Sciences and fosters both authentic learning and attitudes of responsibility and stewardship. Each year materials cover different topic areas and include all the disciplines. This year's topics included: Wetlands at the Water's Edge; Amphibians: A Hopping Success in Two Worlds; and Animals on the Move: Migration. The complete program is sent to teachers in the fall so that the thematic newsletters can be used whenever they are timely; an outstanding teacher's manual with lessons and copycat pages is included. This outstanding material can be used over the years as part of the classroom resource library. Contact: National Audubon Society, Box 51005, Boulder, Colorado, 80323-1005.

• **Master Gardener and Master Composter** classes are provided through County Extension Agents or City Recycling Departments. These programs have volunteers who will advise students and teachers in developing garden projects. The Master Youth Composter Project developed by Earthworks is based in Grapevine, TX; Call or write Larry Wilhelm at P.O. Box 95194, Grapevine, TX

• **The National Wildflower Research Center** in Austin has been renamed after its founder, Lady Bird Johnson, and is committed to providing educational opportunities based on native plants. Curriculum materials are available to teachers who attend a day-long Saturday Field Study Trip workshop prior to bringing their students to the Center for a two-hour field study trip. The Pre-K through 6 curriculum, Exploring the Native Plant World, is aligned with the National Benchmarks for Science Literacy, Math TAAS objectives, and TEKS. In addition, one hour guided tours enable students and adults to explore the grounds of the Wildflower Center. The Wildflower Center can be reached by writing them at 4801 LaCrosse Avenue, Austin, Texas, 78739 or calling (512) 292-4200.

• **Project Wild, Project Aquatic Wild,** and **Project Learning Tree** are interdisciplinary, supplementary conservation and environmental education programs emphasizing wildlife. The programs emphasize the intrinsic ecological values of wildlife and their habitats and serve as a basis for understanding the fragile balance upon which all life rests. Daylong workshops are sponsored by the Western Association of Fish and Wildlife Agencies and the Western Regional Environmental Education Council, Inc. and can be organized for a local group of parents and educators. Contact Project Wild at 5430 Grosvenor Lane, Bethesda, MD 20814; phone (301) 493-5447 or e-mail: natpwild@igc.apc.org.

• **The National Tree Trust** has another hands-on learning experience for young environmentalists called Growing Together which provides K-6 resources. New materials include an activity guide featuring the Treetures as the official volunteers of the USDA Forest Service. These humorous characters introduce the children to the importance of tree planting and care. Call 1-800-846-8733 for more information.

• **Classroom FeederWatch (CFW)** has the goal to develop students into citizen-scientists. Sponsored by the Cornell Lab of Ornithology and piloted over the past two years by nearly 200 teachers nationwide, Classroom FeederWatch is now inviting teachers to register for next year's project. Student ornithologists learn about birds through 15 explorations while collecting data about birds visiting their schoolyard feeders and submitting the data via the internet. Contact Meredith Kusch at (607) 254-2403 or e-mail: mkllr@cornell.edu for additional information about CFW and other projects.

• **Science magazines** to use with elementary students including the following: *Dragonfly*, a magazine for young investigators in grade 3-6, published by the National Science Teachers Association. It features research inquiries by classrooms, articles about and by famous scientists, and student artwork and activities, all developed around a bimonthly theme. Check out the *Dragonfly* website: www.muohio.edu/dragonfly/ or write to *Dragonfly*, Miami University, Oxford, OH 45056 (e-mail: myerslb@muohio. edu.) *Click — Opening Windows for Young Minds*, is most appropriate for the K-3 child and is published by The Cricket Magazine Group. Both magazines include either a teacher or parent guide. Call -800-82-0227 for *Click* ordering information.

• **Internet Resources** A "must" resource for parents and teachers for implementing the TEKS is the Internet and its evergrowing number of sites dedicated to science.

—Linda Lacy, an eighth grade physical science teacher at Aurora Junior High in Aurora, Illinois recommends several basic Internet resource sites that will give teachers and parents more insight into effective science teaching:

- National Science Teachers Association:www.nsta.org
- Science Learning Network: www.sln.org
- National Science Foundation: www.nsf.gov
- American Association for the Advancement of Science: www.aaas.org
- Eisenhower National Clearinghouse: www.enc.org
- Kathy Schrock's Guide for Educators: www.capecod.net/schrockguide/index.htm (*which Lacy calls the "Ultimate guide to links about everything you'll ever need to know"*).

—In its April, 1998, issue of *NSTA Reports!*, the National Science Teacher Association recommends the following science education web sites:

- Galileo:www~pcc.astro.washington.edu/sciedgalileo.html
- The Microbe Zoo: commtechlab.msu.edu/CTLProjects/dlc-me/zoo
- Network of Instructional Materials for Science Educators: www.ncsu.edu/imse
- PlanetK-12: www.planetk-12.com

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Mary Nied Phillips and C. Janet Wallace teach Gifted and Talented Education in the Waco ISD and integrate gifted education with outdoor laboratory investigations. Both are adjunct faculty in Baylor University's Creative Problem Solving Camp.

What Does the Research Say?
Developing Domain-Specific Talents

Susan Johnsen

This review focuses on research regarding domain-specific talents, primarily in math, science, social studies, and language arts. Articles published in *Gifted Child Quarterly, Journal for the Education of the Gifted*, and the *Roeper Review* during the past ten years were examined. Those that were empirical or data-based were included in this article.

For the most part, the literature appears to support the use of acceleration and problem-based learning. While problem-based learning appears to take more class time, it does not appear to restrict the amount of information that is learned. Curriculum that is presented using problems is also more likely to be remembered than lecture formats. Importantly, gifted learners seem to enjoy more challenging problems.

Students who are accelerated in different summer programs appear to perform well in subsequent courses in their regular schools. While elementary teachers are able to identify students who need curriculum compacting, unfortunately, few are able to design challenging alternative activities. Teachers are unable or appear reluctant to provide activities that incorporate complex subject matter matching their students' strengths, particularly in kindergarten. Teachers of gifted students do seem to be limited in the kind of quality curriculum that might address these research findings and meet the new national standards.

Dods, R. F. (1997). An action research study of the effectiveness of problem-based learning in promoting the acquisition and retention of knowledge. *Journal for the Education of the Gifted*, 20(4), 363-379.

This sample consisted of 30 high school students enrolled in a one-semester biochemistry course at the Illinois Mathematics and Science Academy. Problem-based learning and lecture formats were used for different contents. Students rated their understanding of content items before and after encountering them. Students increased their understanding regardless of pedagogy; although problem-based learning appears to be more effective in promoting in-depth understanding of important biochemical content. While retention appears to be better for items encountered by problem-based learning, more content is covered with the traditional lecture. The author concludes that a combination of approaches might be used in teaching gifted students.

Gallagher, S. A., & Stepien, W. (1996). Content acquisition in problem-based learning: Depth versus breadth in American studies. *Journal for the Education of the Gifted*, 19(3), 257-275.

One hundred sixty-seven high school students' scores on a multiple-choice standardized test were compared after traditional and experimental instruction. In the experimental curriculum students used data and varying perspectives to resolve problems related to a variety of dilemmas such as the Salem witch trials, the use of the nuclear bomb on Hiroshima, civil rights and so on. Results indicated that students in problem-based learning classes did not sacrifice content acquisition in American Studies when compared to students learning in more traditional settings.

Garofalo, J. (1993). Mathematical problem preferences of meaning-oriented and number-oriented problem solvers. *Journal for the Education of the Gifted*, 17(1), 26-40.

Using interviews, Garofalo examined the similarities and differences in strategic and metacognitive aspects of 11 middle school students' mathematical problem solving. Five of the students who were enrolled in a regular mathematics class were number-oriented while 6 who were enrolled in advanced or gifted classes were meaning-oriented. In graded situations, both groups preferred easier routine problems. However, in non-graded situations, the meaning-oriented group preferred multi-step and non-routine problems while the number-oriented students expressed preferences for simple routine problems. The author concludes that meaning-oriented students know that they can solve simple problems and do not have any sense of accomplishment without engaging in more complex multi-step problems.

Johnson, D. T., Boyce, L. N., VanTassel-Baska, J. (1995). Science curriculum review: Evaluating materials for high-ability learners. *Gifted Child Quarterly*, 39(1), 36-43.

This article describes the findings of a review of existing K-8 science curriculum materials. Twenty-seven sets of materials were reviewed using criteria based on the new standards in the teaching of science and the needs of gifted learners. This review suggests that many existing basal textbooks fail to meet new science curriculum

standards for high-ability learners particularly in the areas of discernible program goals and summative research on their effectiveness.

Lynch, S. J. (1992). Fast-paced high school science for the academically talented: A six-year perspective. *Gifted Child Quarterly*, 36(3), 147-154.

This is a follow-up study of academically talented students, 12 to 16 years old, who completed a one-year course in high school biology, chemistry, or physics in three weeks at a residential summer program. Their mean scores were higher than those of high school juniors and seniors on the College Entrance Examination Board. Students who are accelerated in science also perform well in subsequent science courses at their regular schools. The authors conclude that academically talented students can begin high school sciences earlier than is currently allowed in most schools.

Mills, C. J., Ablard, K. E., & Lynch, S. J. (1992). Academically talented students' preparation for advanced-level coursework after individually-paced precalculus class. *Journal for the Education of the Gifted*, 16(1), 3-17.

These researchers found that intensive summer precalculus mathematics courses which allow students to proceed at an individual pace provide greater challenge and the prerequisites necessary to succeed in subsequent mathematics courses. About 80% of the students reported having received a grade of A in their high school mathematics course despite the fact that many were one or more years younger than their classmates. The authors conclude that schools should not be concerned that fast-paced courses do not adequately prepare gifted students for more advanced courses.

Reis, S. M., & Purcell, J. H. (1993). An analysis of content elimination and strategies used by elementary classroom teachers in the curriculum compacting process. *Journal for the Education of the Gifted,* 16(2), 147- 170.

Approximately 470 teachers from 27 school districts participated in this study sponsored by the National Research Center on the Gifted and Talented. Ninety-five percent of all teachers were able to identify students who were eligible for curriculum compacting. When using the compactor, classroom teachers often used lists of alternative and challenging strategies that were unconnected to the students' needs and interests and less challenging assignments that were extensions of the regular curriculum. The replacement strategies did not reflect the types of advanced content that was suggested in the videotapes and compacting book. The researchers concluded that teachers need more help and staff development if they are to substitute challenging advanced work as alternative activities.

Olszewski-Kubilius, P., & Yasumoto, J. (1995). Factors affecting the academic choices of academically talented middle school students. *Journal for the Education of the Gifted*, 18(3), 298-318.

Using a sample of 656 middle school students who participated in a summer academic program, these researchers found that gender influences the selection of math and science courses over verbal courses. Parental attitudes, previous educational experiences, and race (in this study Asian-American) influenced the selection of a math and science courses over verbal courses. The importance that parents place on mathematics and science for their child's future may have the most powerful influence on a child's selection of mathematics and science courses.

Schack, G. D. (1988). Experts-in-a-book: Using how-to books to teach the methodologies of practicing professionals. *Roeper Review*, 10(3), 147-150.

This article identifies useful how-to books which contain information about the structure of the field, procedures for problem finding and focusing, specific methodological skills, suggestions for independent investigations and communication of results. Using these books, students may conduct independent studies using the methods of practicing professionals in a variety of fields.

Sheffield, L. J. (1994). The development of gifted and talented mathematics students and the national council of teachers of mathematics standards. Storrs, CT: The National Research Center on the Gifted and Talented.

This report summarizes characteristics of gifted and talented mathematical students, methods for identification, national and international comparisons, and NCTM standards. They conclude with recommendations in the following areas: mathematical talent, identification, curriculum, teaching, and assessment.

Sowell, E. J. (1993). Programs for mathematically gifted students: A review of empirical research. *Gifted Child Quarterly*, 37(3), 124-132.

This article summarizes and critiques the empirical research on programs for mathematically gifted students. The research indicates that accelerating the mathematics curriculum is desirable for the precocious student who reasons well. Precocious students enjoy working with others who are precocious and find the fast pace "invigorating." Since definitions of mathematical enrichment are unclear, the author found it impossible to draw conclusions about its efficacy.

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VanTassel-Baska, J., Johnson, D. T., Hughes, C. E., Boyce, L. N. (1996). A study of language arts curriculum effectiveness with gifted learners. *Journal for the Education of the Gifted*, 19(4), 461-480.

A sample of seven experimental and three control classes of gifted students in grades four through six were included in this study. The experimental groups used one of the new language arts curriculum units from the National Language Arts Dissemination Project. The experimental groups improved significantly over the comparison groups in three areas: literary analysis and interpretation, persuasive writing, and linguistic competence. This improvement resulted from three strategies: using targeted short reading passages linked to prestructured high-level questions; the teaching of persuasive writing; and the teaching of grammar as a system of language.

Wadlington, E., & Burns, J. M. (1993). Math instructional practices within preschool/kindergarten gifted programs, *Journal for the Education of the Gifted*, 17(1), 41-52.

In their survey of 25 teachers/administrators in 22 different preschool/kindergarten gifted programs in ten states, these researchers found that most used unstructured activities in small groups when providing math instruction. Although the teachers exposed the gifted children to concepts generally introduced to older students, they most frequently taught concepts found in traditional early childhood programs. Children were infrequently exposed to concepts/materials pertaining to time and measurement although research indicates that young gifted children often possess strengths in these areas.

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(from COLLETT, page 7)

perspective.

Not all students did, however. These courses were electives. A small school schedule contains many "singletons"—one time course offerings. As curriculum requirements toughened, more students had to "drop out" to take required courses. With the removal of honors classes, this designation for my elective classes was gone.

Under the new TEKS, gifted educational programs will fit within the regular curriculum. The TEKS contain enough rigor and scope within which to find the "depth and complexity" expected under the new State Plan for the Gifted. Thus, by a circuitous vicus, I find myself at the river where I began.

The logical direction, even in our small school, appears to be a return to gifted classes within the required curriculum. The best course at present seems offering elective courses on a two-year rotating basis, with students taking these course in either order. For example, ninth graders would take World Geography one year, along with current tenth graders. The following year, as tenth graders, they would take World History, along with the new ninth graders. Upper level social studies courses could also be rotated on a similar basis.

Some measure of multi-level class would remain. Classes would still contain enough students for small group and class interaction and discussion. Yet students would not be forced to give up elective spaces or compete with other required courses. Weights could remain for local class rank to encourage students to remain in the more challenging classes.

As I return to an Advanced American History or Advanced World History, I hope I bring a greater wisdom for teaching the gifted. I hope I have learned better strategies and philosophies for achieving depth and complexity. I know I have many more sources to aid me in my quest for quality social studies programs.

In closing, let me offer a few hard-won insights regarding depth and complexity in social studies. I offer them as food for thought, to either digest or reject. If they do no more than fuel disagreement, they will still add to the discussion.

- Central to any social studies course must be an ongoing examination of bias, of this discipline as "the tale agreed upon." Students should see beyond the corpus of hard facts to the larger forests of interpretation.
- Students should encounter the diversity of "tales" within each course. In fact, they must realize and analyze the struggle over having the right to "tell" the tale. They should have repeated opportunities to test Orwell's premise: "Who controls the past controls the future: who controls the present controls the past." (1949).
- Any social studies course must contain two supplements to any basic text:
  —Students must regularly deal with the "raw material" of the course (such as documents, photos, tables of information, newspapers, etc.). They must do the work of the course—work as the sociologist, as the historian. They should learn the tools for dissecting these materials. Then, they should regularly examine these materials individually and as collections supporting varying interpretations.
  — A second supplement should consist of great (or, at least, quality) professional work from the field of study—good geographic writings, quality anthropology, etc. Beware of most college "readings" as they tend to do too much of the work for the students. While more difficult, I strongly recommend the teacher build his or her own collection. That challenge opens the door for the instructor to become a scholar in the subjects being taught. Unless one is well versed in the materials of the social studies courses they teach, they cannot provide true depth and complexity as an integral part of the course.
- Another constant technique and theme must be the formulation and pursuit of difficult questions. Students must learn how to formulate better questions, for the answers arrived at are only as good as the questions asked. Students must learn to critically ask and examine, in written, verbal, and technological formats, both key questions of their own composition and those that are central to social studies.
- Finally, quality social studies instructors must act as buccaneers, pirating materials from the other disciplines. They must fuel their studies with literature (*1984*, *Lonesome Dove*, *The Republic*), with fine arts (Picasso's *Guernica*, The Band's "The Night They Drove Old Dixie Down," the Vietnam Memorial), and with fine "technical" writing (de Tocqueville's *Democracy In America*, Heilbroner's *The Worldly Philosophers*, Boorstin's *The Creators*).

Those are my few small thoughts on a late night in West Texas. I haven't mapped my course (or courses) too clearly, but I will. Like Huck and Jim, I'll light out on a raft cobbled together from the materials at hand. I'll carry with me all I know. I'll steer as best I can, but the river (of TEKS) will provide the current.

I believe I can make the journey worth the ride, filled with depth and complexity. I know I have no choice. That's not so bad. A true scholar always seeks the next challenge. I hope most of the students will come with me.

Together, we can have an adventure-filled ride through turbulent eddies, swift waters, and quiet reflec-

tive drifts downstream. So, like Finnegan, I set out (and invite you along):

"A way a lone a last a loved a long the"

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(from KINGORE, page 8)

and new information rather than stress isolated skills. These performance tasks are designed to encourage the application of skills across the curriculum.

- *Active involvement is required.* Students' minds and bodies are actively engaged in each task.
- *Criteria for success are shared.* Clearly established criteria are communicated to the students in advance of the task and used for self or collaborative evaluation. The following are examples of criteria incorporated in problems: complexity of solution, quality, group cooperation, evidence of understanding, appearance, originality, integration of skills, organization, time management, construction, technology, and presentation.

IMPLEMENTING PERFORMANCE TASKS

1. Emphasize student responsibility and minimize teacher preparation time. Constantly analyze what students should be doing for themselves. For example, students typically should plan, collect and prepare most of the needed materials
2. Accent tasks that minimize the cost of materials. It takes more problem solving to adapt and manage with less than to simply buy more. Involve students in brainstorming alternatives to materials that are costly or difficult to acquire.
3. Avoid a "one-way" attitude. Performance tasks should encourage may different approaches and solutions. Expect to see and hear ideas that vary substantially from what you anticipated.
4. Develop lists of concepts and skills in multiple content areas that may be incorporated as students work toward solutions. Then, organize the performance tasks to maximize those learning opportunities.
5. Laminate and post a list of concepts, skills, and/or TAAS objectives for each specific performance task for visitors to read. That list helps others understand the educational value of what otherwise may seem to be frivolous.
6. Discuss the learning objectives and skills with students so they understand the intent of the task.
7. Use performance tasks as center activities. The group of students working at the center collaborates to complete the problem.
8. Require students to self-evaluate at the completion of a task and assess their levels of achievement. Self-evaluations may be completed through discussions or written responses.

Sources of Additional Examples

Kingore, Bertie. (1998). *Engaging creative thinking: Activities to integrate problem solving.* Professional Associates Publishing. Phone/fax: 915-690-1377.

Interact Learning through Involvement materials— particularly the simulations. Phone: 800-359-0961. FAX: 800-700-5093.

Odyssey of the Mind materials. Contact Micky Mayer, Texas OM Director, for more information. Phone: 972-231-6301.

Dr. Bertie Kingore is a national consultant and the author of numerous articles and seven books. She has worked with gifted students for over 25 years. The graphics are created by Jeff Kingore, who is 19 and a senior at the University of North Texas.

(from SENEY, page 13)

AN EXAMPLE OF A THEMATIC UNIT

Goal: To discover how the gifted individual is treated in literature.

Generalization: (Student developed. Example: "The gifted individual is often portrayed as a student with problems.")

Objectives:

1. TLW define the treatment of gifted individuals in YA literature
2. TLW analyze a minimum of two YA novels that deal with gifted individuals.
3. TLW identify and describe the nature of the uniqueness of two characters (one from each book) in a written composition.

Activities:

1. Identify and read a minimum of two YA novels that deal with gifted individuals.
2. Write a book card for each of the books.
3. Select a character from each book and write a character analysis on each emphasizing the uniqueness (giftedness) of the character.
4. Write a composition defining your reactions to the author's treatment, understanding, attitudes, etc. of the gifted individual.

Evaluation:

1. Written compositions will be evaluated in terms of class rubrics.
2. Class rubrics will be designed with student input. Focus is on the writing process, clarity of thesis statement, mechanics, and support of thesis.

You will note that I have not identified the books which the students should read. Part of their task is to find and identify YA novels that deal with gifted individuals. However, it is a good idea for you to have a list in mind to assist those who may be a little slow in getting started. While this list is certainly not complete, it does provide a good start:

Brooks, Bruce. *Moves Make the Man* (1987) and *Midnight Hour Encores* (1986)

Corcoran, Barbara. *I Am The Universe* (1986)

Garden, Jane. *Bilgewater* (1977)

Konigsburg, E.L. *(George)* (1970) and *The View From Saturday* (1997)

LeGuin, Ursula. *Very Far Away From Anywhere Else* (1976)

Oneal, Zibby. *The Language of Gold Fish* (1980

Paterson, Katherine. *Jacob, Have I Loved* (1980)

Plummer, Louise. *My Name is Sus5an Smith, The 5 is Silent* (1991)

Thesman, Jean. *The Rain Catchers* (1991)

Thomas, Joyce C. *Water Girl* (1986)

Tolan, Stephanie. *Welcome to the Ark* (1996)

Voight, Cynthia. All of "The Tillerman Series," Dicey, James, Mina, and Jeff all exhibit characteristics of gifted individuals. *Jackaroo* (1985)

Wersba, Barbara. *Crazy Vanilla* (1986)

If a student reads a book and decides that it does not meet the criteria, then s/he simply writes a book card, turns it in, and gets bonus points! A book card is a simple writing task that emphasizes "economy" of writing (they have a limited space - two sides of a 5x8 file card) and effective and persuasive use of language. The book cards are made available (published) in the classroom to guide other students in selecting books which they would like to read. Elements on the book card are: bibliographic entry, short plot summary, theme of the book, strengths of the book, weaknesses of the book, and tie-ins to other similar novels ("If you liked these books, you will like this one"). As my students became more technologically efficient, book cards became book sheets which were filed alphabetically by book authors in a notebook. Writing was limited to one side.

As you can see, writing is an important element in this unit. This is important because reading and writing are so connected. (For more on this you might want to check out the new edition of Nancie Atwell's *In the Middle: New Understanding About Writing, Reading, and Learning.*) Writing is also important because this was my primary assessment tool to see what skills needed to be worked on by the class or by individuals. By reading their written responses, I could tell if we needed to work on sentence construction, the use of more descriptive language, paragraph construction - flow and unity, and/or any other written communication skill. I also used the strategy of reading and writing conferences in which individual students and I were able to talk about their reading or writing.

Those of us who have kept up with current young adult literature are well aware of what an important resource this genre is. Not only does YA lit match the characteristics of books for gifted readers and meet their reading interests, but it also can provide the basis of the language arts curriculum. Again, we need to remember that we need to work from our gifted students' strengths and interests. If their interests are not already in YA lit, I can assure you that if you introduce them to this genre, they soon will become devoted fans.

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(from POLETTE, page 10)

tends to fall apart . . . if for example, someone denies their feelings then that kind of feedback is unavailable to let them know they are on the right track. The individual who refuses to engage in logical thought or analysis loses the value of that needed activity when an idea needs to be thought through. The individual who has never been able to visualize or who feels that fantasy is childish denies him or herself the kind of mental usefulness that Einstein rated at the top of his list of mental priorities."

Every fairy tale is a problem-solving experience. In Tony Ross's humorous version of *The Boy Who Cried Wolf,* Willie cries, " Wolf! Wolf!" when he doesn't want to do something like take a bath or have his violin lesson. Soon no one pays any attention to him. To the young child, this may seem an ideal way to solve the problem of getting out of something you don't want to do. However, as in the original fable,Willie's plan backfires. He meets a real wolf and is in real danger. He runs home to find his grandmother in the yard hanging clothes. "Wolf, wolf!" Willie cries. "Tell me another one," Grandmother replies. How can Willie be saved now? The only items available are the clothesline, clothespins, a clothes basket and a sheet.

Even the very youngest can explore problem-solving situations in fairy tales. Faced with the challenge of adding something to the pig's house so that the wolf could not blow it down, one five year old drew a fan in the door. When asked what the fan would do, the youngster replied that "When the wolf blows, it will blow his blow right back!"

Fairy tales can create a startling new environment for the mind. Once a child has ventured beyond earthly restrictions, he or she can never crawl back into old mental modes of thought. While the setting of the tale may be in a fantasy world, the tales themselves are very real indeed. The fairy tale describes the basic human condition and shows how through the effort of the hero or heroine (rather than the magic sword or invisible cloak) adversity can be overcome and truth can triumph. What child, like Cinderella, has not at times felt alone or unloved? What child, like Goldilocks, has not explored forbidden areas and received the consequences? What child, like Red Riding Hood, has failed to heed advice from an adult and ended up in trouble? Some critics say that a child of today cannot comprehend a dragon. That is not true. Many children can and do. But shouldn't all children be given the opportunity to develop the elasticity of mind to make the attempt? What better skill sharpener than exposure to meaningful tales, for all great books, especially fairy tales and fantasies, teach us about life.

Choices of these mind-stretchers to share with children in the fairy tale realm are almost endless. The Grimm Brothers, Hans Christian Andersen, Charles Perrault, Peter Asbjornsen, Joseph Jacobs, Kenneth Grahame, L. Frank Baum, Lewis Carroll, and A. A. Milne are all writers or collectors of these classics of children's literature.

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(from RYSER, page 15)

estimate how many books are in the school library. As students get older, problems should involve real-world settings and long term mathematical investigations such as playing the stock market.

Fourth, mathematical concepts should be emphasized in addition to mathematical computation. The NCTM (1989) advocates teaching computation concurrently with higher level mathematical concepts. Most mathematically talented students have higher scores on mathematical concept and problem solving subtests of achievement tests than on the computation subtest (Lupkowski & Assouline, 1997) For example, students might readily grasp the mathematical concept of regrouping, but do so poorly on their first attempt at the computational part of the task as it relates to subtraction.

Finally, it is important to go beyond the classroom to provide additional experiences in mathematics. These experiences might include providing a mathematical mentor, participating in mathematical contests, attending a talent search or summer program. As students advance through mathematics, the range of experiences in which they can participate becomes more diverse. Several resources are listed in Ann Lupkowski and Susan Assouline's book found in the reverence list of this article. The National Council of Mathematics is another source for outside experiences. The web address for this organization is http://www.nctm.org.

Mathematics classes frequently focus on computational accuracy rather than problem solving. When talented children and youth are not provided challenging and motivating instruction, they develop negative attitudes toward school and are at risk for underachievement (Rimm & Lovelace, 1992). Therefore, it is critical to combine quality instruction with the characteristics of these students to provide challenging educational services for children and youth who are mathematically talented.

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(from HIATT, page 1)

honors courses, worked after school, and participated in multiple teams and clubs, may be forced to either reduce the number of challenging courses they take or reduce their number of outside activities.

Parents may have a difficult time persuading their children that the increased competencies of academic work is worth the extra effort. It may mean having to cut into valuable family time so studies can be completed to satisfaction. Parents who previously complained that there were no advanced science classes in their schools may have to convince their children, and perhaps themselves, that a B in AP Physics is better than an A in a lower level course. And yes, parents will have to come up with more than one rationale for why a Saturday at the mall should be passed up for the library and the International Baccalaureate Extended Essay.

The raising of standards in Texas provides a good opportunity for us to share with our children a lesson we live with every day. Many of us are working far more than 40 hours a week because we have learned that there is a connection between extra effort and a quality product. By asking for higher expectations of our students, we are admitting the value of hard work and the need for sustained effort to produce excellence. But everywhere the nagging doubt plagues us—am I hurting my child's chances for valedictorian/UT Austin/Harvard or wherever—by encouraging my school to set higher standards than other schools across the state?

This is a hard question to address. One Harvard dean of admissions said, "First we look at what you take, then we look at what you make." If we take that statement at face value, it is better to have a B in AP Physics than an A in a first year science course. But what about the colleges that use class rank or GPA as their guide of student performance? Won't your child be hurt at those institutions? Not if the parent association of your high school decides as a group to stress the importance of high standards in all classes to all students. Give extra credit in courses requiring extra effort. Change the school motto to "No easy A's." You will find that if parents stand firmly behind challenging academic standards, teachers and administrators will be more than willing to implement them in their classes. And you also will find that the reputation of the high school's graduates quickly becomes known among competitive colleges both in Texas and the U.S.

Although it is popular to talk about grade inflation, or the overabundance of A's in our schools, we may have overlooked the real reason for the high grades. It isn't difficult to be excellent in a superficial program and maybe our students are getting the grades they deserve. As we increase the depth and complexity of the skills and knowledge taught, as we increase the pacing of our programs, the number of A's will probably decrease. More important, however, the level of our performance will increase. And that is the ultimate aim of a good educational system.

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(HICKERSON, from page 2)

may also completely extinguish those qualities.

With infants and very young children, we recognize the critical needs of sufficient food, shelter, safety, and loving, nurturing support from caregivers in order to maximize mental and physical development. With older children, especially adolescents, these needs remain critical, along with understanding and guidance, as they test their wings and begin to assume their adult status. It is disturbing to discover situations in which a young person, because of circumstances beyond his or her control, has had to assume adult responsibilities for which he or she is truly unprepared by maturity, experience, or age. The amazing thing is not that these students sometimes come to school unprepared for academic learning or with poor social skills, but that they manage to continue to come to school at all, and that they continue because they thirst for learning and are driven to know, to create, to Become Something or Somebody and to use their gifts and talents more fully. If we are not sensitive, we may overlook exceptional cognitive abilities, persistence in the face of incredible problems, and creative problem-solving skills some students demonstrate because they don't look or act gifted. We may fail to notice true creativity or leadership because it appears in unexpected areas, not always those measured by TAAS or SAT.

I have recently discovered, in several journal articles presented by some of my SMU students in a G/T class, that a more telling indicator of future success than grades, SAT scores, or even academic course work is extracurricular activity, or areas of personal interest pursued by a student, whether in elective courses such as fine arts and foreign languages, organizations and clubs, or out-of-school activities including community service or family-related activities. These areas of self-selected interest often reflect a long-held passion or talent, an area of personal interest pursued by the student since elementary school, frequently a subject of independent study or research. I recall a presentation to a TAGT parent affiliate group once by a Harvard admissions officer, who said that all applicants to prestigious colleges are generally equal in their academic high school transcripts, in the sense that only high-achieving students usually apply, but that it was "page 2" that provided insight into the student's real abilities and interests: the organizations and areas in which they are involved that reflect leadership and commitment, passion, talent, and community service. It is this section of the application that discriminates among students with leadership potential, the ability to make a difference in the world.

We want all of our students to have access to every opportunity to achieve at a level and pace that is appropriate according to their abilities. We must not underestimate their abilities, talents, or interests, nor their need to pursue them. We don't want them to waste precious time sitting in classes in which they are bored or uninspired. We want their teachers and others who work with them to be thoroughly knowledgeable, well-trained, creative, flexible, sensitive, and caring. We want them to push our children when they need it, to coach them, to guide them in discovering their gifts, and to enable them to use those gifts in becoming self-actualized. We want this for all children, regardless of their levels of social standing or the area of the state in which they may live, and whether they may come from rural, urban, suburban, rich or poor backgrounds. We are concerned about anything, including vouchers for private education funding, that threatens to erode programs in public schools, especially for our gifted minority and at-risk populations.

This summer will see the inauguration of TAGT's Professional Development Summer Institute. The first class of 35 teachers has been selected to participate this summer from approximately 60 applicants across the state. They will enjoy training with some of our most experienced, best-qualified instructors in the field of gifted education in Texas, while earning 45 clock hours in G/T training and the TAGT Level I Awareness Certificate, with the option of three hours of graduate level course credit from one of several participating Texas universities offering G/T endorsement. From this first summer institute, and from future summer programs, we hope to continue to train teachers of the gifted across the state who can fulfill our mission statement and impact the development of gifted learners.

Benjamin Bloom's case studies of talent development in precocious youth point to the vital significance of the role of a mentor, an individual who made all the difference in the development of genius or prodigy talent with each of his subjects. That person was a coach, teacher, parent, relative, or someone who intervened at a significant point with great interest and knowledge, who provided appropriate direction in the development of that talent or genius. If we are concerned with gifted learners, we may be that individual, or we may be responsible for identifying the appropriate person to serve in that role with our children and students. In order to reach our highest potential as a society and nation, we must be knowledgeable, sensitive, and alert to identify and meet the needs of all of our gifted students, To fail to do so will waste our most precious resource — our children's gifts, abilities, and talents.

(SHEFFIELD, from page 5)

the National Council of Teachers of Mathematics *Curriculum and Evaluation Standards* and the Texas Essential Knowledge and Skills and that they have a mathematical purpose beyond just being fun.

A program that helps students develop their mathematical abilities to the fullest may allow them to move at a rate that is faster than others in the class to avoid deadly repetition of material that they have already mastered, and may also introduce them to several topics in which others might not be interested. Most importantly, these topics would introduce students to the joys and frustrations of thinking deeply about a wide range of original, open-ended, and/or complex problems where they are encouraged to respond creatively in ways that are original, fluent, flexible, and elegant.

Frequently, teachers may use the same problem with a variety of students, encouraging all students to investigate the problem as deeply as possible. For example, a group of students may be exploring patterns in sequences of odd counting numbers. After working with Pascal's triangle, students might decide to investigate what happens when the odd counting numbers are listed in the same format as Pascal's triangle as shown in the following diagram:

1						
3	**5**					
7	**9**	**11**				
13	**15**	**17**	**19**			
21	**23**	**25**	**27**	**29**		
31	**33**	**35**	**37**	**39**	**41**	
43	**45**	**47**	**49**	**51**	**53**	**55**

A student might then ask where the number 289 would appear if this sequence continues. Different students could attack this in different ways, such as the following:

- One student might simply continue the pattern through the 17th row and notice that 289 is in the middle.
- Another student might figure that 289 would be the 145th number in the sequence. Then noting that Row 1 has one number, Row 2 has two numbers, Row 3 has three numbers, etc., and continuing this pattern, a student could discover the 145th number in the middle of Row 17.
- Another student might notice that the numbers going down the left side of the triangle increase by two more each time. That is, they increase by 2, then 4, then 6, then 8, etc. Continuing this pattern, the student could find the first number in Row 17 is 273 and the first number in Row 18 is 307.
- A fourth student might notice that the middle number in each odd numbered row is the square of that number. Knowing that 289 is 17^2, this student might immediately notice that 289 is the middle number of Row 17.

These are only a few examples of what students can do with interesting, open-ended problems. Students who have been taught to play with problems, patterns and connections approach mathematics very differently from students who have been taught that there is one right way to solve a problem, and the teachers and the textbooks know what it is, and it being the students' job to listen and find out. Our most promising students are angered and frustrated by the "one-right-method" approach, especially when they are told that their answers to the questions on the worksheet will all be counted wrong unless they show their work, and that work must include all the steps shown in the book or by the teacher. On the other hand, students flourish and blossom when they are asked to explore problems in depth using a variety of approaches, looking for patterns, making and verifying hypotheses and generalizations, and connecting new knowledge to earlier learning.

It is not always necessary for teachers to differentiate problems given to students if care is taken to select rich, open-ended problems. Then students can explore the depths and complexities of mathematics by asking themselves related questions, examining relationships, looking for and generalizing patterns, and developing convincing arguments and proofs.

In addition to exploring the depths and complexities of mathematics, mathematically promising students should be held responsible for the Texas Essential Knowledge and Skills for Mathematics appropriate to their grade levels or beyond. Pretests should be used at the beginning of the school year and at the beginning of each unit to determine which students have already mastered concepts in the planned units of study. Students who can demonstrate skill mastery should not be required to repeat low-level practice exercises, but should be encouraged to probe concepts more deeply. Good curricular ideas may be found in several new mathematics programs funded by the National Science Foundation that were designed to meet the National Council of Teachers of Mathematics *Curriculum and Evaluation Standards*.

Cooperative learning can be beneficial to students at all levels, but there should be times when top students work together to challenge and learn from each other. In exploring problems such as the one shown above, students can deepen their own mathematical understanding as they question and probe each other's thinking. In addition to regular mathematics classes and programs, students can find mathematical challenges on the internet, in correspondence courses, in a good mathematics library, in magazines such as *Quantum*, and through such experiences as participating in mathematics competitions and joining summer or after-school mathematics or science programs and clubs.

ASSESSMENT OF MATHEMATICALLY PROMISING STUDENTS

If we want students to learn to think more deeply about the mathematics they are learning, we must also assess their learning in such a way that they can demonstrate this higher-level reasoning. This means that we cannot use multiple-choice or fill-in-the-blank type testing as the sole means of assessing student learning. We need to use a variety of means of assessment, and at least one of the measures must be some type of portfolio where a student can display his or her best work, including in-depth investigation of some mathematical topic of interest. In developing a portfolio to best demonstrate learning, students need access to examples of best work from other students so they have something to strive for. Teachers should have samples of exemplary student work available so students know what is expected. Students might also share work and find examples by searching the internet. Students generally live up to and exceed high expectations, and teachers should be able to get better examples of outstanding work each time they collect student projects. (Of course, teachers should get student permission to keep samples of their work as examples for other students.)

In assessing work, students and teachers together should develop a scoring rubric that delineates what is important in the project. This rubric might include such things as depth of understanding of the Texas Essential Knowledge and Skills, patterns noted and generalized, predictions made and verified, and the traditional measures of creativity: fluency (the number of different solutions), flexibility (the variety of solutions), originality (the uniqueness of solutions), and elegance (the clarity of expression). In revising work for portfolios, students should use the rubrics to comment on the work of their peers and to improve their own work. Teachers should use the same rubric as the students in their evaluations. Portfolios might not be the only means of assessing student work, but other measures should encourage the same depth of understanding.

Schools might hold Mathematics Fairs or Family Mathematics Nights so students can display outstanding mathematics projects. At the high school level, students should be encouraged to develop projects that can be entered into competitions such as the Westinghouse Science Talent Search.

Other methods of assessment might include such things as teacher or peer observation of student work during group problem solving or response to on-demand tasks that require constructed responses to high-level questions. In any case, questions must be of sufficient interest and challenge to allow students to demonstrate their abilities.

CONCLUSION

In our efforts to provide the best services for our most promising mathematics students, we must continually seek to improve our own abilities as teachers, learners, and nurturers of talent. We must raise expectations not only for ourselves, but also for all our students.

(This article is an abbreviation of a paper, "Adding Depth and Complexity to the Mathematics Curricula for Students with Advanced Interest, Motivation, and/or Ability," presented at a TEA Symposium on Advanced Level Curriculum, September 3-4, 1997.)

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(McLendon, from page 3)

SUNSET REVIEW PLAN FOR STATE BOARD RULES FOR GIFTED EDUCATION

Here we go again! SBOE Rules with effective dates prior to September 1,1997, are up for sunset review. This includes Chapter 89, Adaptations for Special Populations, Subchapter A. Gifted/Talented Education. Current G/T rules, adopted in May, 1996, are scheduled for discussion in September, 1998, with first reading in November and second reading and adoption in January, 1999. Current rules provide the basis for the Texas State Plan for the Education of Gifted/Talented Students. I have discussed the rules issue with the TAGT executive board and Evelyn Hiatt, director of Advanced Academic Services. I am pleased to report there are no plans to amend the current rules. We know from experience, however, that any time rules for gifted education are received, we must closely monitor the process and, if necessary, be prepared to support our position before the appropriate state board committee. It is not too early to begin contacting state board members.

The June issue of the TAGT NEWSLETTER will report state and national legislative news on gifted education.

(from GROCE, page 17)

with a varied list of attributes to offer its citizens. I took advantage of this by taking students to events such as a presidential campaign kick-off and the running of the Olympic torch, and by arranging for them to collaborate with a college architecture class on the design of a children's hospital.

Whether the instructional input lasts for a semester or an afternoon, it is important for the teacher to establish relevance for their students with a discussion about the experience.

For example, if your school serves as a voting precinct in the next election, don't just show your class the scurrying adults casting their ballot for a candidate behind a curtain. Help them discover the historical and political ramifications of the election. If we as educators are partly responsible for facilitating the growth of the next generation of community leaders and contributors, then we should allow all children to recognize their value to a society and strengthen that connection as they mature.

SUMMARY

Teachers have many demands from a variety of sources for their allotted instructional time. In order to respond to these demands, they must be effective managers of the academic schedule. When teachers address the issue of social studies, they have the chance to go beyond the text and customize the curriculum through a number of resources. These tailor-made lessons are time-consuming investments, but they are sure to yield vast returns as the students lead our communities into the next century.

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A FINAL WORD

Michael Cannon

Looking for lost articles is an all too familiar activity. Whether it is a misplaced book, a lost ring, or a computer file that refuses to show itself, lost items worry and infuriate their owners. Unable to rest or get on with more important activities, people can be obsessed with finding what is missing and restoring order to their universe.

During the past year, many educators of the gifted have felt a loss with the new Texas State Plan for the Gifted and its focus on the core content areas. Gone is the comfortable feeling of knowing what is expected in programming and instruction for the gifted. While there has always been a keen eye for a new approach or promising technique, teachers and coordinators knew what was expected and where they were going. Rarely satisfied that they were reaching every student, teachers nonetheless knew where they wanted to go and had an idea about how to get there.

> "Where is the wisdom
> we have lost in knowledge?
> Where is the knowledge
> we have lost in information?"
>
> T. S. Eliot, *The Rock*

But with the new state plan come new parameters, guidelines, and goals. No longer are creativity-based pullout programs sufficient. The focus shifts to math, science, social studies, and language arts, and the differentiation of these core subjects for the able learner. The process of differentiation itself is also altered, for it must now include not only significant modifications in content, process, and product, but also demonstrate an increase in depth and complexity.

The changes in the state plan, however, are some of the most exciting things to happen to gifted education in Texas since the mandate became law. Gifted programing will gain respectability and seem much more serious when it is a part of the core content areas. The benefit to students will be tremendous as they can now move through these subjects at a faster pace and explore them in greater depth and complexity.

With the emphasis on content area differentiation, the question becomes how do we accomplish the good intended while not losing sight of the needs of the gifted learner. The Advanced Placement and International Baccalaureate are intensive, content-based programs that place serious demands on students. Pre-AP and IB programs are finding their way into the middle school, preparing the students for the rigors of the high school programs. Can a pre-K Pre-AP be far behind?

And while these highly-structured programs certainly demand content area knowledge and provide opportunities for inquiry calling for depth and complexity, we might take Eliot's quotation as a caveat. For while there is no doubt that these content-centered programs will increase the information and the knowledge of able learners in Texas schools, we do not want wisdom to be ignored. We cannot afford to lose the understanding of the needs of the gifted students that educators of the gifted have worked so diligently to meet.

For wisdom comes not only from learning information and acquiring in-depth knowledge, but is also developed when students have opportunities for creative exploration of topics, for independent research based on individual interests, for simulations, and seminars. And while some programs may have neglected the content areas when planning instruction for the able learner, others have developed excellent programs in math, science, and the humanities.

The challenge is to help our students use information and knowledge to arrive at wisdom, using all our own knowledge and wisdom to help them do so.

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Call for Articles

Winter 1999
Distinguished Achievement Programs

The winter issue of *Tempo* will explore and celebrate the many excellent programs that exist in Texas secondary schools. Articles may also examine how Advanced Placement, Pre-AP, International Baccalaureate, and other local options serve the needs of gifted students. Middle school programs that support and prepare for high school programs will also be included. Descriptions of other possibilities for exemplary high school programs are also solicited.

Deadline for submission of articles is **September 1, 1998.**

Spring 1999
Hispanic Issues in Gifted Education

Hispanics are the fastest growing minority group in the state, and students in this group have not always been fairly represented in gifted programs. This issue will focus on the special needs, interests, and concerns of gifted Hispanics students in the state. Identification strategies, specific program options, and parent involvement techniques could be the subject of articles, as well as theoretical and research studies. Personal essays are another possibility.

The deadline for submission of articles is **December 1, 1998.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are referred to members of the editorial board.**

Please keep the following in mind when submitting manuscripts:

1. Manuscripts should be between 1000 and 2500 words on an upcoming topic (see topics above).
2. Use APA style for references and documentation.
3. Submit three copies of your typed, double-spaced manuscript. Use a 1 1/2 inch margin on all sides.
4. Include a cover sheet with your name, address, telephone and FAX number and/or e-mail address.

Send all submissions or requests for more information to:
Michael Cannon, TAGT Editorial Office, 5521 Martin Lane, El Paso, TX 79903

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Mailing Address_____ City_____ State_____ Zip_____
School District & Campus Name/Business Affiliation_____ ESC Region_____
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PLEASE CHECK ONE: ❑ Teacher ❑ Administrator ❑ Parent ❑ School Board Member ❑ Other_____

Individual.....$25 ( ) Family.....$25 ( ) *Student.....$15 ( ) **Must include verification (campus, district, grade)*

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Tempo

TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED
Member, National Association for Gifted Children (NAGC)

Volume XVIII Issue 4

Fall 1998 Issue
Giftedness: A Texas Tradition

TAGT — A Texas Tradition for Twenty-one Years

The theme of this year's TAGT Annual Professional Development Conference, "Giftedness: A Texas Tradition," gives us the perfect opportunity to reflect upon this vibrant organization and how it has become the unified voice for gifted and talented students in our great state. While reviewing the archives at the TAGT headquarters in Austin, I came across a letter written in 1978 by Frank Elder III. This letter gave me pause as I reflected upon the frustration of so many parents who had no organized voice to speak up for the rights of gifted/talented students. I know it is hard for many TAGT members to remember those pre-TAGT days, but I reflect upon Mr. Elder's thoughts as he turned at the time to the only source of relief for his frustration.

"Dear Senator:

I have a daughter, fifteen, who showed signs of giftedness as a preschooler and elementary school student. I embraced the philosophy that as long as she made all A's, she was receiving a quality education that was meeting her intellectual needs: and that so long as she scored say within the 96th percentile on standardized tests, there was no need for educational opportunities in addition to the regular classroom curriculum and programs. In other words I was convinced that the myth that the 'gifted child will make it' was a truism.

I think I was also content then to accept the lack of a specific 'gifted' program because I did not want to be criticized for being a 'pushy' parent or being faced with a situation in which I would have to prove that my daughter was gifted. I have used the past tense in describing my daughter's giftedness deliberately because I have seen an erosion and a diminishing of that vital intellectual curiosity that I once observed and thought would continue to grow. I didn't know otherwise until I was confronted with research verifying that giftedness can wither and die unless appropriately nurtured.

(See CRAIGEN, page 30)

From the President
Giftedness — A Texas Tradition!

Benny Hickerson

This will be my final column as president and my chance to thank everyone for the opportunity to serve in this role. In Texas, we have two kinds of years: first, legislative years, when the legislature is in session and everything is up for grabs and subject to almost immediate change with little or no warning, when we maintain a semi-alert status for actions that impact gifted education and funding, and secondly, non-legislative years, during which we "stabilize" our positions and move forward on many fronts. This has been one of those "stabilizing" years, but it has also been a year of many changes, all of which mark major progress. As I write this,we are preparing for our October Legislative Workshop to prepare TAGT members and leaders for the upcoming legislative session. This is a good time to take stock of what we have done and where we are going.

We have initiated our Summer Professional Development Institutes and our Regional Professional Development Workshops, largely through the coordination efforts of Ann Wink, our assistant director whose position was created during the past year. Ann also coordinates the TAGT Awareness Certification applications and our annual Professional Development conference program. This has taken us a major step forward toward our goal of providing quality professional development in gifted education. We are now preparing to embark on a major public relations campaign as a means of raising public awareness and concern for gifted leaners and their educational needs.

What is giftedness? What does it mean to be a gifted person or to work with gifted students? How does one really identify gifted learners, and, once identified, then what? What are the significant factors that define giftedness, and how do we truly differentiate learning experiences to appropriately address their specific needs and encourage the fullest development of their unique talents and abilities?

If these questions and their answers were simple, someone would have written the cookbook long ago and the issues would have been resolved. Everyone would have the formula. While we still have far to go before that is true, we have made good progress toward that goal

(See HICKERSON, page 29)

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State Board of Education Reschedules Sunset Review of Gifted Education Rules

Connie McLendon

State law requires that program accountability for services for gifted and talented students be based on the *Texas State Plan for the Education of Gifted/Talented Students.* The state plan was approved by the State Board of Education (SBOE) in November, 1996. The 1997-98 school year was the first year the program rules were used for the District Effectiveness and Compliance (DEC) Monitoring System. TAGT has learned that the review process for SBOE rules for gifted education is being amended to allow another year of monitoring to continue under the same standards. Based on information reported from DEC monitoring visits made during the 1997-98 school year and on findings from visits during the 1998-99 school year, TAGT will propose amendments for State Board consideration when the review process for gifted education rules is scheduled in September, 1999.

BACKGROUND

In the interim before the 74th Legislative Session convened in January, 1995, TAGT met with legislators in virtually every legislative district throughout the state, providing information to individual representatives and senators of the need to improve the quality of services at the local level for gifted and talented students. Establishing legal accountability for services provided to gifted/talented students in Texas public schools was TAGT's priority initiative during the 74th Session of the Texas Legislature.

Our efforts were rewarded. The g/t mandate was amended to require the State Board of Education to develop a state plan for the education of gifted and talented students to guide school districts in establishing and improving programs for identified students. By law, the plan was established for accountability purposes to measure the performance of districts in providing services to identified g/t students.

In November, 1996, the State Board approved the plan, which was developed with broad and representative participation from TAGT and other leaders and practitioners in gifted education. Beginning in school year 1997-98, the Texas Education Agency, through its District Effective and Compliance (DEC) system, began monitoring and assessing services for gifted/talented students with scheduled DEC visits to local school districts.

IMPACT OF DEC VISITS

While services for g/t students assessed through the DEC system do not affect a district's accountability ranking, a number of districts were written up in the 1997-98 school year for services that did not comply with state requirements established by laws or rules. The state plan's "Acceptable" level of performance is the minimum expectation for all districts, but by no means reflects the quality of services needed for gifted/talented students. It is encouraging, however, to learn that reports from the field indicate that DEC visits conducted during the past school year have gotten the attention of decision makers and are beginning to make a positive difference in services provided for identified g/t students at the local level. Professional development appears to be an area of particular concern. The number of requests for teacher and administrator training to TAGT has increased significantly. Education Service Centers and universities that offer training in gifted education also report an increased demand for g/t training, especially in the areas of program options, and nature and needs of gifted learners. Such specific requests may be prompted by past year DEC visits or those scheduled in the 1998-99 school year.

If this heightened interest in services for gifted and talented students is due even in part to the DEC monitoring and assessment system — in place for only one school year — we applaud the progress. With some success, though minimal in some instances, it seems reasonable that the gifted education community would support the State Board's decision to continue testing DEC's effectiveness in determining the state plan's impact on establishing and improving services for identified gifted and talented students — at least for one more year.

MIXED MESSAGES ON THE INTERNET

For myriad reasons the Internet is awash these days with back and forth g/t-related communications between individuals who have subscribed to one or more e-mail list serves coming on line daily. By definition mail lists are a group of people connected via e-mail, interested usually in discussing certain topics — and in this case — gifted education. These are active people. In one day, we received more than fifty messages. On one hand, how exciting to have parents, educators and others actively engaged in the debate of substantive issues relating to gifted education. On the other hand, the contentious

(See MCLENDON, Page 33)

Myers-Briggs Type Indicator Scores of Dallas-Area Teachers of the Gifted and Talented

William R. Ogden

Who are the teachers of the gifted/talented? What types of individuals seek out, or are selected for, assignments involving these often challenging but never routine students? For the past eight years the author has taught a May "miniterm" class at the Texas A&M University-Commerce (TAMU-C) Metroplex Center serving the Dallas area. The course, "Instructional Strategies and the Gifted/Talented," was usually taught from 5:00 p.m. to 9:30 p.m. over a two-and-a-half week period between the university's spring semester and summer session to individuals from within a roughly sixty mile radius of the Center. Students were mainly working teachers or administrators associated with on-going elementary and secondary G/T programs or persons seeking similar positions. An early class activity involved the analysis of participant profiles as determined by Form G of the Myers-Briggs Type Indicator (Myers, 1977).

The Myers-Briggs Type Indicator (MBTI) is a paper and pencil test for the appraisement of personality type. Myers' model is based upon the work of the Swiss psychologist Carl Jung (1926) who identified two personality types, introvert and extravert, and four psychological functions—thinking, feeling, sensation, and intuition. Myers (1962) modified Jung's perceptions in viewing Introversion/Extraversion, Sensing/Intuition, and Thinking/Feeling as three distinct continua and added a fourth—Judging/Perceiving. The resulting test instrument assesses respondents with respect to each continuum and categorizes each into one of sixteen distinct types.

The real usefulness of information provided by the MBTI may not be contained in the nature of each of the sixteen types as much as it is in understanding the "temperamental" foundation of the types. According to Kiersey and Bates (1978), sensors and intuitors differ in the ways they process and accommodate new information; sensors utilize Judging/Perceiving (J/P) whereas intuitors utilize Thinking/Feeling (T/F). Jung (1926) viewed sensing and intuition as perceptive functions; the old cliché about the forest or the trees gets quickly to the crux of the difference. Sensors, firmly rooted in the real and practical, look inward (interpolate) to refine and magnify existing detail, whereas intuitors tend to see relationships (what Gestalt psychologists would call patterns or templates) and to extrapolate beyond the obvious. Sensors learn by first-hand experience, by doing—tasting, smelling, manipulating. Intuitors are less bound by experience and tend to focus upon possibilities rather than on facts. They may learn best by observing, reading, and/or reflecting.

How prevalent is each? While the relative proportion of the two types in the general population is open to speculation, statistics compiled by the Center for Applied Psychological Type (CAPT) in Gainesville, Florida relating to the Sensing/Intuiting dimension of the MBTI may furnish some guidelines. Whereas earlier estimates by Myers (1962) and Kiersey and Bates (1978) had stipulated 70-75 percent sensors and 25-30 percent intuitors, more recent assessments (Myers and McCaulley, 1985), based upon over five years of data collecting, place the percentage of intuitors as somewhere between 15 and 28 percent. Designating the percentage of intuitors as 25, and utilizing accepted percentages for Judging/Perceiving and Thinking/Feeling, the relative frequencies of the four resulting types in the general population appear to be Sensing/Judging (SJ) .75 x .45 = .3375 or 33.75 percent, Sensing/Perceiving (SP) .75 x .55 = .4125 or 41.25 percent, Intuiting/Thinking (NT) .25 x .50 = .125 or 12.5 percent, and Intuiting/Feeling (NF) also 12.5 percent. A brief description of the four types follows:

Sensing/Judging: SJs are hard-working, industrious, and strive to be responsible and dependable. According to Keirsey and Bates (1978) they are "the foundation, cornerstone, flywheel, and stabilizer of society."

MBTI Type Distribution of 234 Teachers of the Gifted and Talented: 1990-1997

Type	*Number*	*Percent*
SJ	84	35.9
SP	18	7.7
NT	50	21.4
NF	82	35.0
TOTAL	234	100

TABLE 1

The prodigal son's brother (the one who stayed home and tended the fields) must have been an SJ, as was the ant in the grasshopper and the ant fable. SJs seek responsibility, can be counted upon, and, as such, are desirable employees and managers. SJs seem to be attracted to teaching at about the same rate as their presence in the general population. Slightly over thirty-three percent of all teachers are SJs as are nearly thirty-seven percent of all administrators. SJs are most prevalent at the elementary level where they account for 43.26 percent of the total. If SJs had a theme song, it might be the "Colonel Bogey March" from the movie Bridge on the River Kwai or "Get in Line Brother" and if they had a motto it would be something like "Keep on Truckin'." If SJs had a favorite question it wouldn't be "How?" or "Why?", but it might be "What are all those other guys doing goofing off while I'm busting my chops?"

Percentage Comparison of 234 Teachers of the Gifted and Talented with CAPT Teachers*

Type	*G/T Teachers 1990-97*	*CAPT Teachers*
Sensing/Judging (SJ)	35.9	33.4
Sensing/Perceiving (SP)	7.7	17.5
Intuiting/Thinking (NT)	21.4	18.2
Intuiting/Feeling (NF)	35.0	30.9

** N = 16,678*

TABLE 2

Sensing/Perceiving: If the prodigal son's brother was an SJ, then the prodigal son himself was probably an SP (the grasshopper). SPs want to be free to experience the world, to "do their own thing," to "live"—the successful ones tend to be "self-made." SPs are comfortable with details but, unlike the SJs have no need to place a value judgement on them. For an SP "the play's the thing," and to be is to be free. SPs don't really need recognition, but employers, teachers, spouses, and supervisors would do well to recognize them for their uniqueness, their style, and their boldness. SPs do not seem to be attracted to teaching where, most frequent (19.31%) at the elementary level, they are the least prevalent of all MBTI types. Only 17.47 percent of all teachers are SPs and even fewer (15.97%) go into administration. If SPs had a song it would probably be "Today" or "Climb Every Mountain." Their favorite question might be "Where's the action?"

Intuition/Thinking: NTs are the true intellectuals of the world—they strive for competence above all else. For them understanding and mastery are most highly prized. They are analytical and quick to see logical relationships. NTs are apt to be impatient with incompetence and, although normally not outspoken, can be influential in quiet ways. NTs need to be recognized for their ideas—intelligent criticism is even more appreciated than superficial praise. In general NTs have little tolerance for unsubstantiated opinion—they want to hear from the "experts" (just the facts, ma'am) not the pretenders. NTs choose teaching at a rate slightly higher than their presence in the general population. Just under 18.2 percent of all teachers are NTs and a slightly higher percentage (20.12%) go into administration. NTs are much more frequent among university faculties (31.2%) than at the precollege level. Their favorite question is "How?" and if they had a song it would be something like "My Way."

Intuition/Feeling: NFs defy a precise definition. They are the restless searchers in the world, and sometimes the visionaries or charismatic leaders. Their goal is to understand the meaning of life and to contribute to that end. In short, they want to matter—to have (however small) an impact! They have a real talent for empathy and seek harmony in their lives, often looking more deeply into things and in finding hidden meanings in what most others would superficially accept. NFs need to be recognized for their uniqueness and their accomplishments—they thrive on praise and crumble under criticism. The presence in education of NFs, who comprise nearly thirty-one percent of all teachers and 26.95 percent of administrators, far surpasses their representation in the general population. They are most prevalent in Junior College (34.4%) and High School (34.21%) faculties. The favorite question of the NF is "Why?" and their song would be "The Quest" from *Man from La Mancha* ("To dream the impossible dream"). In any endeavor, they do best if they have a reason.

Table 1 presents the MBTI types for the 234 individuals enrolled in the metroplex G/T course over the 1990-1997 years. An examination of the prevalence of each type reveals SJs to account for 35.9 percent, SPs 7.7 percent, NTs 21.4 percent, and NFs 35.0 percent. Table 2 compares percentages for the 234 teachers to CAPT data (Myers and McCaulley, 1985) for 16,678 teachers, while Table 3 provides percentages of the Center for Applied Psychological Type group at various levels of education for the four MBTI types under consideration. Provided the Myers and McCaulley (CAPT) teacher group can be accepted as "representative" of the nation's elementary

and secondary educators, Table 2 reveals that

1. SPs are the only type less represented in the G/T teacher group than in the CAPT group,

2. SJs are represented in the G/T group at a slightly greater level, while NTs and NFs are present in even higher proportions.

Based upon the preceding observations, some logical conclusions can be drawn regarding the types of teachers who choose to teach Dallas area gifted and talented classes.

Percentage of MBTI Types Among CAPT Teachers at Various Levels of Teaching

	MBTI Type			
	SJ	*SP*	*NT*	*NF*
Elementary	43.26	19.31	10.32	27.11
Middle/Junior High	36.23	18.91	15.16	29 70
High School	33.94	15.67	16.18	34.21
Junior College	26.16	16.26	23.17	34.40
University	23.76	12.30	31.20	32.73
All Teachers	33.37	17.47	18.19	30.96
Administrators, Elementary/Secondary	36.96	15.97	20.12	26.95

TABLE 3

Slightly under 36 percent of the G/T teachers responding to the MBTI questions are classified as SJs. Given the respect for tradition and desire to be useful attributed to SJs, it seems only natural that these individuals elect to become involved in activities which are a part of the profession to which they are committed. SJs live by standards and beliefs not easily changed, and perhaps see involvement in G/T classes as an opportunity to impart those standards to future leaders. However, SJs prize tradition and consistency, attributes which often need to be suspended in the open climate of many G/T classes.

SPs don't seem to be attracted to teaching G/T classes—or, it appears, to teaching itself. Although accounting for the highest percentage of the population in general (41.25%), SPs comprise from between 12.3 percent (university) to 19.31 percent (elementary) of teachers at all levels. Garnering the smallest percentages in all classifications presented in Table 2, Dallas area SP teachers were the only type to be less represented among the G/T teachers than they were in the CAPT standard sample.

Dallas area NTs are slightly more prevalent in the G/T group than in the CAPT "representative" category. Starting from a low of 10.3 percent in the elementary grades (the least represented of the four types), the frequency of NTs increases at each subsequent level to a high of 31.2 percent in the university (second only to NFs).

That NF teachers flock to involvement with G/T programs also appears consistent. "To boldly go where no one has gone before" (Captain Kirk was probably an NF too!) seems perfectly appropriate for a G/T classroom. NFs seek meaning but often find the search to be more rewarding than the destination. If committed, they are excellent motivators and, as such, excellent teachers. Lawrence (1982) characterized NFs as "enthusiastic and insightful." As intuitors they grasp the big picture and as feelers they have a talent for empathizing.

So, who are the G/T teachers of the Dallas area? Mostly Sensing Judgers (SJ) and Intuiting Feelers (NF). Taken together, these two types combine to account for slightly more than 71 percent of the 234 teachers tested over the eight-year period. Although not documented in this study, supporting data suggest that SJs are more apt to be found at the elementary levels and NFs in the high schools.

SJs and NFs would probably have very different classrooms. SJs, whose strong point is systematizing, stress procedure and organization, would tend to be orderly, neat, and well prepared. NFs, with a talent for empathy, tend to be more concerned with morale building, class harmony, and other related "people" issues.

(See OGDEN, page 32)

What Do We Mean By Depth, Complexity, and Pacing?

Evelyn L. Hiatt

The *Texas State Plan for the Education of Gifted Students* informs districts that "Curriculum for gifted students should be modified in depth, complexity, and pacing." It would not be difficult to look up definitions of these words in the dictionary, but they are far more difficult to interpret in terms of the kind of curriculum one might expect in a program for gifted students. It is the purpose of this article to help clarify these terms so that teachers and parents can examine their school program to determine if it meets the standards for a quality curriculum for advanced level students.

It is best to begin by stating that enhanced depth and complexity are appropriate for all students at certain times. Most students sometimes need the pacing of their classes adjusted to specifically meet their needs. However, in the case of advanced level students, these needs are more consistent, and differentiated services are required for a greater proportion of the student's school career. These services must be planned, and educators need to develop a continuum that reinforces already existing student strengths.

Let's start with the easiest term—pacing. Obviously, modifications in pacing suggest that the curriculum is presented either more quickly or, and this is important, more slowly than it might be in the general classroom. Many of us are familiar with advanced students who frequently prove mastery of many of the basic skills of a particular unit through a pretest. In this case, the students' progress might be accelerated as in the case of those who take algebra in the seventh or eighth grade rather than taking the traditional mathematics courses taught at that grade level. However, we often forget that gifted students sometimes have very deep interests in certain areas and might need to spend more time exploring. This is where enrichment may be meaningfully employed. The term "enrichment" has been overused and misused very often. However, students frequently possess the basic skills in subjects in which they are interested. They can "buy" time—collapse the basic-skills part of the subject—which enables them to delve deeper into other areas of the subject that will use and develop those basic skills.

DEPTH

Discipline Exploration

- Language of the Discipline
- Details
- Rules
- Patterns
- Trends
- Big Ideas
- Ethical Issues
- Unanswered Questions

COMPLEXITY

Seeing Relationships

- Over Time
- Across Disciplines
- Multiple Perspectives

This is where depth and complexity come into play. As used by Dr. Sandra Kaplan, the term "depth" refers to exploration within a discipline. How do teachers and students dig deeper into the curriculum? There are a number of attributes that are critical, both for building academic awareness of a discipline and for assuring that the needs of motivated and advanced students are met. First, teachers can introduce students to the language of the discipline. What does it mean to hold "revisionist" views of history? What does it mean when a literary work is a "revision?" Many times, teachers and parents unwittingly talk down to students, thinking that is the best way to be understood. However, students with deep interest in a discipline want to know, and need to know, how professionals in that field talk to one another. This can start as early as elementary school, with the vocabulary building from one year to the next.

Another way of adding depth to a discipline is to emphasize its details—those things that make it unique from other subject areas. As an example, teachers can discuss the parts of a fairy tale with young children, the common characteristics of myths from various countries with elementary and middle school students, and the distinctions between legal systems with high school government students. It also is important for students to understand the rules that govern a specific discipline. This covers areas

(See HIATT, page 32)

On the Trail of a Gifted Texan: *A John Carter Update*

Belinda Carter

In the fall issue of *Tempo* 1993, I wrote an article about my youngest son, John. The closing paragraph began, "I realize that having an eleven-year-old who is a full-time college student is unusual, but . . ." A lot has happened since I wrote that article, not only in our lives but in the lives of those around us.

Most people want to know what our first clue was that John was above average. My husband jokes that he puts in his tape recorder and pushes play. Yes, John worked a 300 piece puzzle when he was 18 months old. Yes, he taught himself to read and write. Yes, he knew all the major bones and organs in the body, etc. But to be honest, this is really a hard question to answer. Everyone has a different opinion about what a gifted child is like. And so far, John hasn't fit into any of the neat little compact text book definitions. I guess that shows that all children are unique. One can no more lump all gifted children together and say they are the same than one can lump all average or below average learners together.

> "One can no more lump all gifted children together and say they are the same than one can lump all average or below average learners together."

Because we were told John was bright, we decided to have him take an IQ test when he was four. I was not allowed to stay during the test, but several hours later I was told the results: "Your son is going to have a very hard time in school. He may, with a lot of work, graduate from high school some day. You might want to start thinking about the possibility of his going to trade school."

I don't know what John said or did during the test. His only response was, "It was fun!"

We were fortunate that we lived in the state of Texas when John began his academic career. Or I should say, we were fortunate that in the part of Texas where we were living, educators looked at all the children as unique individuals who had unlimited capabilities and treated them accordingly. They were flexible and open-minded enough to accept the possibility that some children truly are capable of working beyond their grade level. But the most important thing was that the schools in Texas that he attended listened to us, his parents, when we talked to them about John.

John started public kindergarten right after his fifth birthday. He has an end of summer birthday so the administrators tried to encourage us to wait a year, but we felt he was ready to go. He had a lot of fun in kindergarten, and that was what we wanted; kindergarten was based on playing and socializing, not on academics, and John understood this. First grade was a different story however. John's teacher announced that they were going to learn how to read. John knew how to read. He became extremely depressed. The school was sending him to the counselor, but it was not helping. We took him to a professional psychologist and were told he was a petite, very bright, extremely sensitive, highly moral, shy child. Nothing we didn't already know. We were very grateful when that school year was over.

I was not looking forward to second grade, but it turned out to be one of John's best years and actually the beginning of his academic career. John was attending Libby Elementary school in Carthage, Texas. They had a program where children were rewarded for reading books — reading ten books earned a bookmark, while reading 800 books earned a trip to Six Flags in Dallas, Texas. Each

child had two years to read the 800 books.

This was a great program because it allowed each child to work at his/her own level and pace. It also encouraged the children to read books in subjects that they wouldn't normally pick. Beverly Cleary only wrote a certain number of books, so after those are read a child must find something else. During this time John discovered nonfiction books. His reading ability became stronger, but more important, his knowledge about history, famous people, science, electronics, medicine, religion, foreign languages, art, and even psychology began to grow more than anyone could have realized at the time. John became so excited about the program that he read 1,643 books in one school year. He was the only second grader on the Six Flag's trip, so the school said that he actually earned two trips, which enabled him to take Mom along.

John has always been fascinated with learning and is definitely self-motivated. We have never told John to study. In fact, one day I told John that he needed to take a break from studying. He was sitting in the middle of a room surrounded by 15 open books, paper, and pencils. He responded, "Oh, I'm not studying any more Mommy; this is playing."

We moved during John's third grade year so that year was spent getting adjusted to new faces and a new school. In fourth grade, however, John began to complain. He had asked his math teacher what *pi* was. She told him that he was too young to understand. He came home crying, so I told him that if it was that important to him that he should go look it up. Apparently it was that important, because he memorized the first 50 places of *pi*. He later learned over 100.

The next week he wanted an explanation of algebra. I worked a few simple problems for him thinking that would be the end of it. He wanted an algebra book. One week later he came and told me that he had learned algebra and wanted to know what came next. I didn't really believe my nine year old child had learned algebra in a week but didn't really know enough about the subject myself to argue with him. I called a childhood friend's father, who was a professor at East Texas Baptist University, and asked if he would be willing to talk to John. That was probably the best thing I have ever done for John.

The professor agreed to the meeting so I took John, his book, and all of his papers. Two hours later I was told that John actually had taught himself algebra and that he would like to show him how to do trigonometry. John was thrilled. He didn't actually teach John in the formal sense of the word. John would study what he was interested in and then the professor would answer his questions. John always had lots of questions! In this manner they discussed trigonometry, physics, calculus, relativity, German, kite flying, gardening, fishing, board games, etc. No, it wasn't all academics. John had a new friend.

The professor also started taking John to his physics night lab class. The students just thought he was bringing his son with him since he provided all the transportation. This worked out well because it gave John a chance to get to know what college was like without a lot of questions.

We went to the superintendent of the public schools to ask about the possibility of John skipping the fifth grade or going to the fifth grade and subject accelerating so that he could take algebra in high school. We were told that several things could possibly be done but the first thing they wanted to do was have John take an SAT test. The school was familiar with the idea of giving the PSAT to sixth graders and then the SAT to seventh graders because of the Duke Talent Search. They had never heard of a child John's age taking it before but felt sure it wouldn't be a problem. We were told that a child usually improves 50 points on the test for every year they are in school. Example: Theoretically if one scored 600 in tenth grade one would score 650 in eleventh grade and 700 in twelfth. In John's case we were told that a score of 400 on the math portion of the SAT would qualify John to skip fifth grade math (based on the old SAT).

John scored 680. I know that some kids younger than John have scored higher than 680, but it convinced the school he didn't need fifth grade math. Actually John didn't miss any questions on the math test, but was unable to answer all the questions in the time allowed.

John learned that a few teenagers who scored 600 on the math SAT were being allowed to try college classes. This was all he needed to hear. John never really liked the idea of subject acceleration. He was still very shy and was afraid the older high school students would make fun of him. I told him that college students were even older than high school students, but he replied, "Yes, but they're adults." John felt safe at the university. He had enjoyed the night lab class that he had attended and thought all college classes would be the same.

John went to fifth grade and spent his math time playing in the computer lab. I asked John recently if he ever regretted any of the decisions that were made. He said, "Only one." He told me that he felt very isolated in that computer lab and that he learned the computer language they gave him very quickly and had nothing to do the rest of the year. He was afraid to tell anyone that he had learned the material and needed a new book. He didn't want to cause trouble. I wish he had been brave enough to speak up because I know that the school would have been more than happy to give him another book. John academically was advanced but socially he was still a very shy, sensitive, ten year old boy. During the summer after fifth grade John enrolled in his first college class. He signed up for college algebra. He was asked countless questions: "Do you like dirt? Will you do my homework for

(See CARTER, page 23)

Essential Elements for Parent Advocacy Groups: *Establishing a Tradition of Excellence*

Nancy Lashaway-Bokina & Jane Robinson

Parents can be powerful advocates for gifted education programs. Recent research (Purcell, 1993) indicated that advocacy is the key to stability and expansion of programs for high ability students. Researchers have long wondered why some advocacy groups are effective and have longevity while others fold after a brief period. This essay focuses on the longevity and successful accomplishments of parental advocacy groups. How do advocacy groups achieve their goals? What are the special qualities of effective leaders and members of advocacy groups?

REVIEW OF LITERATURE

Gogel (1985) proposed that successful advocacy is an extension of good parenting (ERIC, 1985 Digest). Her statement was well-supported among the parents in our study. They listened to their child's needs and recognized their obligation to secure the most appropriate type of enrichment opportunity.

According to Parke (1989), appropriate educational opportunities should not be viewed as privileges to be earned, but as an integral part of every school. Within the parent advocacy groups examined in our study, fierce determination and perseverance for the cause of equal opportunities for high ability children were regarded as two of their greatest strengths. While politicians ponder after reading reports such as the U. S. Department of Education (1995), *Findings from the condition of education 1994. American teachers ten years after "A nation at risk,"* gifted parent advocates take action.

As parent advocates campaign and organize to promote political changes in educational policy at the state level, they also concentrate their efforts at the local level. Feldhusen and Hansen (1994) found that "teachers trained in gifted education demonstrated greater teaching skills and developed more positive class climates than did teachers who had no training in gifted education" (p. 115). At the time of Hansen and Feldhusen's study, teacher certification was required in only 21 states and was required before teachers were assigned to work with gifted students. Wiener and O'Shea (1968) reported that "trained teachers are supportive of gifted students and programs for the gifted students, whereas untrained teachers are apathetic and sometimes hostile" (in Hansen and Feldhusen, 1994, p. 116). Parent advocates who participated in this study frequently validated this hostile response from classroom teachers. They stated that teachers often seemed intimidated by their suggestions or offers of help.

Therefore, in states where teachers are not trained to identify gifted and talented students nor trained in how to differentiate curriculum to meet the needs of gifted students, parent advocates become extremely important allies of gifted students. Our study provides direction to parents who are in various stages of advocacy by examining what constructive steps advocacy groups have taken to help teachers, administrators, politicians, and most importantly, students reach their greatest potential.

SUBJECTS

Participants in this small study came from two specialized groups of individuals. The first 20 participants were individuals who were attending Confratute, a summer two-week institute of enrichment learning and teaching at the University of Connecticut. These 20 individuals were polled about effective parent advocacy programs that had effectively brought about change for gifted students. Drawn from Colorado, Massachusetts, New Jersey, Texas, Missouri, North Carolina, New York, Michigan, Connecticut, and Louisiana, these initial participants were administrators of gifted and talented programs, principals, directors of special education, or teachers working with gifted and talented students. Also included in the class and polling was a parent who was an organizer of an advocacy group from upstate New York.

Prior to discussing advocacy measures, the institute participants were asked to list the attributes and detriments of their local gifted advocacy program. After their initial thoughts were recorded, a discussion transpired which occasionally stimulated additional thoughts and participants were encouraged to add these to their list. Participants were next asked to identify the most effective parent advocacy group spokesperson they knew and to provide information about how these individuals could be reached. Participants' lists of comments were collected, and later examined and tallied.

Nominees from the institute participant's lists became the second set of subjects in this study. Surprisingly, the parent advocates who were recommended for this study were not necessarily from the institute participant's home state. But they shared one key feature, they were all recommended because they had contributed to the success

SURVEY RESULTS - QUESTION 1, SECTION A

The following statements are a compilation of the survey responses. On the first question, section a, participants were asked about advocacy group effectiveness. Parents offered the following comments:

- Educate yourself about the district's program, goals, philosophy, criteria used for selecting students for gifted programs, bureaucracy, budget restrictions, and the administrative chain of command.
- Educate yourself and others about the needs of gifted children by providing speakers, writing and sending newsletters, speaking to local groups, or attending state or national conferences.
- Lead by example. Many parents are intimidated by teachers and administrators because they think that they are less educated and less influential. Recognize the fact that a degree in education is not necessary to produce results. Be confident that your cause is worthy and that your influence is powerful
- Find a small group of parents who are willing to be involved. The scenario in the majority of successful advocacy groups is that a small percentage of the group does all of the work. Establish an administrative board, develop bylaws, form committees, and create recognition for your group as a viable organization. Be organized and have well-formulated long and short term goals and objectives. Make dues significant enough so that the group doesn't become bogged down in fund-raising activities. This time is better spent working on other worthwhile projects.
- Have a membership drive to recruit as many parents as possible, and become affiliated with the state gifted and talented advocacy organizations. Tap into larger resources such as state or national organizations. Campaign for conference, scholarship, and enrichment opportunities and information.
- Support the district's program and work with district personnel as team players. Be willing to listen to their views and needs.
- Become an extra set of legs for district personnel. Seek out information and present it with multiple solutions and options. By restricting the number of options, you also reduce your chances for change. Don't expect the school board or district personnel to have all the solutions.
- Be perceived as positive contributors to the community—sensitive and responsive to needs. Volunteer for service projects and fund-raising activities to help the community and enhance your group's visibility. Host or sponsor enrichment activities such as Super Saturdays, science fairs, festivals, or clubs.
- Become an active volunteer in classrooms. Work for all students in the school or district. Always be positive and polite in your approach toward all school representatives (from the janitor to the school board). Maintain professionalism and confidentiality.
- Host coffee meetings with board members or board candidates during election years to determine their philosophy toward gifted education.
- Get parent advocates on the school board or as representatives on key district committees.
- Take small steps. Don't expect to change the system overnight.

of a parent advocacy group in some significant manner. Before contacting these 24 parents, a 22 item survey was developed that included three key open-ended questions. By using a survey, we hoped to gain background information quickly and consistently. The three open-ended questions were added to provide participants with an opportunity to share personal or creative information that may have been unique to their parent advocacy efforts and not covered in our survey.

The survey was based on research reported in state and national gifted education publications (Dow, 1992; Elam, 1996; Gogel, 1985; Vestal, 1993; Renzulli, & Reis, 1991; Parke, 1989; and Johnsen, 1996) and on information shared by the knowledgeable institute participants. After our survey and questions were developed, 24 parent advocates were contacted and asked to reply to the survey. Happily, 21 parents responded to the survey and open-ended questions either in writing or over the telephone.

Because both the institute participants and the effective parent advocates responded to sections a and b of question one, "What makes a parent advocacy group effective?" and "What makes a parent advocacy group ineffective?" responses from both groups are reported in the first part of this study. However, beyond sections a and b of question one, the institute participant's comments were not reported. Members of the second group of 21 participants, the parent advocates, were from Iowa, Indiana, Michigan, Texas, Illinois. Mississippi, New York, and Colorado.

BACKGROUND INFORMATION

Parents of gifted children recognize their child's need for a differentiated curriculum. They educate themselves

about local, state, and national educational policies related to gifted education. All of the parents polled in the 22 item survey stated that they had read journals, purchased texts, or contacted a state agency to learn more about gifted and talented education opportunities in their region.

Our study describes measures that parent advocates took once they realized that their ambassador efforts could make a difference. Although some parents admitted that they first felt helpless, when they took action and change began to occur, they eliminated the defeatist attitude of "I can't change things" and began an intensive effort toward school, regional, and state support. In most instances, the first step that the 21 highly effective parents took was to quietly infiltrate their local school systems with volunteer efforts that improved the educational opportunities for all children. As they became known as concerned, knowledgeable, reliable public school allies, their suggestions began to carry more weight. Eventually, their endeavors resulted in bringing about change and enrichment opportunities for their child and for all children in their school district.

Our survey began with two open-ended questions. The first question had two parts, it asked parents about

SURVEY RESULTS - QUESTION 1, SECTION B

The second part of question one, section b, asked about ineffective advocacy. Parents in the process of organizing an advocacy group will want to pay special attention to the following detrimental aspects that the effective parents noted. They include:

- Negative advocacy which includes criticism, put-downs, demands for change, defensive and adversarial behavior, leads to breakdowns in communication.
- Unsuccessful advocates base demands on emotional issues rather than on solid facts and research. Their unrealistic expectations and lack of understanding of school budgets and policies result in frustration and defeat.
- Lack of organization, committee responsibilities, leadership, clear objectives, and follow-through are counterproductive. Too many leaders can produce the same counterproductive results.
- Disinterested and noncommitted parents and/or administration slow the progress of productive advocacy.
- Insensitivity to the needs of the community at large may obstruct the group's goals.
- Parent advocates who are unwilling to explore many options limit the possibilities for generating creative solutions.

SURVEY RESULTS - QUESTION 2

The second survey question sought suggestions for parent advocates who are just getting started. The parents suggested the following:

- Have meetings at a local restaurant. The atmosphere will be more relaxed and fun away from the school.
- The biggest excuse parents use for not attending meetings is the problem of what to do with their children while they are away from home. Have meetings at the school, but hire a teenager to baby-sit in the classroom next door. with a television and VCR from the school library and a suitable movie, along with popcorn, cookies, and drinks. With permission from the appropriate school officials, encourage parents to bring a covered dish to share for a dinner meeting.
- Invite board members, administrators, and legislators into the classroom to participate in critical thinking activities. Exhibiting successful projects by gifted students can highlight the need for a differentiated curriculum.
- Fund raising often promotes goodwill. Discover what the students and classroom teachers need, then raise the money to provide it. One advocacy group obtained a mini-grant that provided a library resource cart with books on gifted and talented issues for teachers and parents.
- Work with the school board, not against them. Educate them on an individual basis before they are approached and asked to make changes as a group. Focus on influential board members. Make certain that you have the facts and figures to support your proposal, and provide examples of how the changes can be implemented. As one parent stated, "Convince them that what you want is what they want too!"
- Realize that in some instances the school board is doing all that they can. Their hands may be tied due to budgetary, time, facility, and personnel constraints. In these situations, ask what you can do as a concerned parent to help.

• Look for opportunities in unfavorable situations. When the administrators of one large school district reopened an older school to accommodate student spillover from other overcrowded schools, gifted student parent advocates saw an opportunity to create a mini-magnet school setting for high-ability students. Parents volunteered to have their children leave their neighborhood school to take advantage of this enrichment opportunity. This eliminated the school board's problem of having to decide who would have to change schools. As a result of this policy, the administrators looked good, and the parents and students were happy.
• Get involved in school-wide activities and service projects. Take on projects that no one else wants or has time to do, such as sponsoring the homecoming dance or organizing coaches for the Odyssey of the Mind competition. Take advantage of the motivated dependable parents that want to help, and get a reputation for being organized, efficient and helpful. One group gave an award to the parent who had done the most volunteer work for that school year.
• Write to the superintendent of the school district thanking him or her for the opportunities presented to your child through the gifted and talented program.
• Have students write thank you letters to state representatives that describe their participation in a gifted and talented program, and enclose newspaper clippings about their accomplishments.
• Get involved at the local, regional, state, and national level. Designate a representative for the local and intermediate school district's gifted and talented committees. Join the state gifted and talented organization and the National Association for Gifted Education. Contact state legislators and testify at state hearings to get services, mandates, and funding for programs. As a parent advocate, be willing to share your expertise with other local and state groups.
• Publicize your group. Visibility and education are very important. Use newsletters to inform parents and educators of gifted children's needs. Make your group membership appear to be strong by keeping the group's name and positive accomplishments in the public eye.
• One group identified a handful of parents (10-13) who were motivated and committed and formed a strong executive board. The executive board met every month, but they only had one annual meeting with all of the membership. They attributed their strength to their successful accomplishment of having a strong parent gifted advocate elected to the school board.
• A strong bond is formed and commitment to the group increases when parent advocates work together to complete projects.
• Even within a well-established gifted and talented program, individual student's needs must still be addressed. For some highly gifted students, parents or university personnel may have to supplement the school program.
• Keep currently informed about legislation proposals that effect funding of gifted programs. Communicate information that threatens the integrity of the program. Encourage parents to write letters and make phone calls to their representatives. Remember to always be positive in these communications.
• Attend school board meetings to stay informed about district policies.
• Visit exemplary schools with gifted programs. Contact some of the parents whose children are involved in these programs for positive or negative feedback.
• Don't expect schools to be the sole providers of opportunities for your children. Seek outside sources of enrichment including leadership institutes, summer math or science programs, mentors, art or music lessons, sports camps, clubs, museum classes, or educational programs at the zoo or library. If you wait for the school to take action, your child will miss out on many opportunities.
• Form an alliance with classroom teachers and grant them an honorary membership in the advocacy group.

effective and then ineffective advocacy strategies. The second question elicited suggestions for parents who wished to advocate for their gifted child, but were not sure how to get started. The third section of the survey was in the form of a checklist and asked parents to identify steps that they had taken to make sure their child's needs were met. These 20 survey statements related to parent, teacher, and administrative conferences; volunteer work; teacher placement requests; knowledge about the district's selection criteria for gifted education programs; committee work; participation in organizations; and political involvement.

To complete the survey, parents were invited to offer other information on the topic of parent advocacy that

the survey may have overlooked. Five parents volunteered additional information. At the conclusion of the study, copies of the findings were distributed to the 21 parents who contributed to the study.

According to Purcell (1993), states with mandated gifted and talented programs need parent advocacy to maintain these programs. Advocacy is also essential for gifted program stability and expansion in states without mandates. Hence, with or without state mandates, advocacy appears to be an essential element in maintaining and expanding gifted programs. Parental advocacy often precedes state mandates. One-third of the participants in our research reside in states with mandated programs. Our survey deliberately avoided the crucial issue of state funding in order to concentrate on parent advocacy. Table 1 lists the 22 survey items and the frequency of the positive responses to each item.

FINDINGS

The findings from this small but influential group of parent advocates suggest that successful programs have leaders who are respected community members, diplomatic, soft-spoken, assertive, and intelligent. They are well-informed and consistently provide key educators with information pertaining to the needs, research, and alternative educational programs offered to gifted students throughout the country. These individuals are also willing to share and delegate authority. They carry through with promises, schedule only necessary meetings, start with short term goals, but keep the big picture in mind. In this small sample, they seemed to be tireless workers, modest about their accomplishments, generous about sharing their success stories with other advocacy groups, and eager to seek ways to improve their own advocacy efforts.

Successful programs focus on how to improve local education for all children. They establish an active rather than reactive stance and have watchdogs who keep an eye on legislative activities. Furthermore, they have a clearly established procedure for keeping advocacy members informed about legislative committee discussions and agenda items regarding detrimental or favorable gifted education policies.

Unsuccessful programs have leaders who respond only to crisis situations and who lack direction and long and short term goals. These leaders try to make program changes too quickly without understanding school budgets, policies, or more importantly, the attitude of key educators within their district toward gifted education. In addition, unsuccessful advocates tend to restrict school board options by presenting a limited number of suggestions for change without offering research support for their ideas.

Parents of gifted children must be cautious in their approach to advocacy. The parent from New York who was a member of the institute sample once heard a classroom teacher characterize another advocacy parent as a "whining, hysterical mother." Parent advocates need to keep the welfare of all children in mind or they may be viewed as self-serving, aggressive, unrealistic, and interfering.

Articulate, informed parents provide the catalyst needed for change. As shown in table 1, the parents from this small sample where indeed informed. We were surprised by the number of parents who used the term "quiet infiltration" to indicate the importance of intrapersonal communication and collaboration with classroom teachers. Being visible and productive for the benefit of all children appeared to be a preliminary requirement for change.

Although a number of respondents described individual projects such as grant-writing and fund-raising activities to assist their local school districts, none of the participants mentioned that a lack of funding prevented their advocacy groups from being successful. One participant stated that "fund-raising promotes goodwill." Parents didn't condemn their local school board or lament the lack of local, state, or national funding as a deterrent to their efforts or progress, and they often went beyond the local school system to supplement their child's needs with outside opportunities.

CONCLUSION

One of the problems that parent participants shared was that the cohesiveness of the group often changed as the children of the active advocates matured. Continuity in the parent advocacy group is, therefore, sometimes difficult to maintain and due to the slowness of change in schools, the immediate results that parents hope to create may not always materialize by the time their child moves on to a different school.

Parents are their children's best advocates and are sometimes more persistent than educators because they have a vested interest in their children's future at heart. Part of the job of every gifted coordinator and school administrator should be to make parents aware of the power they wield. According to the director of the Michigan Department of Education (Michigan Alliance for Gifted Educators Conference, 1997), legislators listen to parents. Whereas, educators are sometimes perceived as having a private agenda in keeping their programs intact, parents' motives are perceived as purely for children's welfare. As one parent from Mississippi so aptly stated, "The one person a legislator cannot avoid is a Mama coming at him with a cause!"

Based on the information we received from parent advocates, a partnership between classroom teachers and parents would benefit both teachers and students. Parent

(see LASHAWAY-BOKINA & ROBINSON, page 18)

Table 1
Essential Elements for Gifted-Child Parent Groups Survey

Survey Items	Percentage of Positive Responses
• Have had conversations with my child's teacher regarding possible modifications in his/her academic program.	90
• Have spoken with the principal of the school about my concerns.	80
• Have spoken with other parents of gifted children about common concerns.	95
• Am or have been a member of a gifted advocacy group.	81
• Have volunteered to be involved in enrichment activities such as *Future Problem Solving, Odyssey of the Mind, Science Olympiad, Junior Great Books, etc.*	62
• Have requested that my child be placed with the best teacher available for his/her grade level.	86
• Have volunteered in my child's classroom.	95
• Am knowledgeable about the criteria used for selection of students for gifted and talented programs in my school or district.	100
• Have challenged the results of evaluations of my child's abilities and talents that have been done by a school or district.	29
• Have made inquiries about the school structure, bureaucracy, attitudes, and precedents in my local district.	81
• Have participated on a school or district planning committee for implementing or improving programs for gifted/talented students.	62
• Have attended school board meetings.	71
• Have participated in a school board meeting to voice concerns about the status of the gifted/talented opportunities in my district or school.	67
• Am a member of a local, state, or national association for the gifted and talented.	62
• Have read books or magazine articles on appropriate education for gifted students and other issues in gifted education.	95
• Have transferred my child from a public school to a private school.	05
• Have transferred my child from one public school to another public school that better meets his/her needs.	48
• Have started a newsletter to increase awareness of the needs of G/T children.	43
• Have attended a state or national conference for gifted education.	52
• Have contacted the state education agency for policy on the education of gifted and talented, programs available, funding, state mandates, or parents rights and responsibilities stipulated in state laws.	43
• Have contacted my legislators for information on legislation or to express concerns about the status of programs for gifted education.	57
• Other	24

Diamonds in the Rough:
The Paradox of the Gifted Underachiever

Vanessa B. Stuart

The label of gifted and talented traditionally evokes an image of a highly intellectual or highly creative individual, whose abilities and productivity exceed the norms (Whitmore, 1986). To refer to a gifted child as an "underachiever" might seem a contradiction in terms. Nonetheless, 10 to 40 percent of the gifted population is identified as such (Whitmore, 1980). Often children who are not performing at the level of our expectations are described as lazy or rebellious. They need appropriate guidance and direction to change negative behavior patterns and become successful and productive in our society. The purpose of this article is to identify causes of underachievement, describe characteristics and behaviors of gifted underachievers, and outline some appropriate intervention strategies.

Underachievement is described as a negative discrepancy between a student's academic grades and his or her IQ score, or between achievement test scores and IQ scores (Schneider, 1997). Gallagher (1991) defines gifted underachievement as "a youngster scoring in the top 10% in academic ability but who is performing in the middle or bottom third of his or her group . . ." (p.223). Other identification methods may use complex mathematical formulas, which utilize aptitude scores to predict scores on achievement tests. Behavior checklists to identify reoccurring patterns of underachievement may also be used.

CAUSES OF UNDERACHIEVEMENT

There are a variety of causes for underachievement in gifted students ranging from learning disabilities to psychoneurological disorders, medical-neurological impairment, and psychosocial disorders (Berk, 1983). The focus here is on psychosocial causes which are often the most difficult to understand and complicated to treat. Underachievement for an otherwise competent and able student frustrates both parents and teachers because it cannot be explained away with a tangible medical cause or diagnosable learning disability. Even though the source of the problem is psychological, the problems are as genuine as those caused by learning disabilities or psychoneurological disorders. Sometimes behaviors of underachievement are a result of a student's inability to cope with internal conflicts and this may be manifested in an academic phobia, such as gender conditioning regarding girls' roles and abilities in subjects like math and science. Some students develop passions for certain topics, such as computers, which consume all of the student's time, excluding other areas of learning ("What educators,"1996).

External factors, such as illness or parental conflict, may contribute to underachievement in gifted students (Gallagher, 1991). Peer pressure during adolescence may diminish a gifted child's personal productivity. Finally, the classroom itself may not be suited for the student's needs, either because of interactions with a particular teacher or an inappropriate curriculum. A class that has too much structure may suppress a student's natural talents, while a classroom environment with too little structure provides no stability or direction ("What educators," 1996).

CHARACTERISTICS OF GIFTED UNDERACHIEVERS

Underachievement may be an immature effort to protect a bruised self-image (Gallagher 1991). Terman and Olden (1947) identify four characteristics associated with gifted underachievers that support this hypothesis:

- a lack of self-confidence
- inability to persevere
- a lack of integration toward goals
- the presence of inferiority feelings.

Gifted underachieving students often attribute success or failure to luck or fate rather than assuming responsibility for their futures (Gallagher, 1991). These students have a myriad of identifiable symptoms. They consistently have incomplete work, lack academic initiative, and frequently exhibit anxiety about taking tests or working in their weaker academic areas. Social problems or maladjustments, such as feeling guilty or blaming others for their failures, repeatedly cause difficulties when functioning as a member of a group. This is often coupled with depression and fear of failure or success

Underachieving students may possess some of the characteristics, all of these characteristics, or completely different characteristics which identify them as a gifted underachiever; therefore, underachieving individuals need to be diagnosed differently, and treated according to their distinct circumstances (Schneider, 1997). One certainty does exist: with budget limitations, there is increasing emphasis for gifted programs to require both high aptitude and high performance (Seaberg, 1989). This fact necessitates the need to identify and remediate these behaviors in order to help these students achieve their full potential.

INTERVENTION STRATEGIES

The methods of intervention are as varied as the characteristics of gifted underachievers. Goethe, as quoted in "What educators," 1996) stated, "Treat people as if they were what they ought to be, and you help them to become what they are capable of being." Studies also show that the earlier remediation for underachievers begins, the more effective it will be in reversing previous patterns (Borland, 1989).

After identification of the gifted underachiever, there are several specific elements essential to any rehabilitation program ("What educators," 1996). One must identify the specific causes and level of discomfort and discouragement the learner feels in academic settings. The intervention program should provide the most appropriate learning environment, including a positive and supportive atmosphere of mutual respect. Finally, teachers need to understand the importance of allowing the students to work in areas of passion and share their results with real audiences. Counseling is needed to develop an understanding of self, constructive coping skills, and a healthier, more realistic self-concept and higher self-esteem (Whitmore, 1986).

Many of the same characteristics of gifted underachievers can be seen in underachieving students of average ability; however, the added element of giftedness poses further challenges for intervention. Schnieder (1997) categorizes gifted underachievement into five basic types:

- laid-back and unmotivated
- anxious; low self-esteem
- selective underachievement
- impulsive and manipulating
- negative and oppositional.

For each of these types she develops specific and systematic strategies to help the underachiever overcome these negative and destructive behaviors.

To help a student characterized by lack of motivation and perseverance, one might expose the gap between intentions and actions while stressing the connection between efforts and outcomes, choices and consequences. This type of student needs reinforcement for effort, as well as actual achievement. For younger children, evaluation forms to communicate progress between home and school may be useful.

The overanxious underachiever would need to develop relaxation techniques in their repertoire of coping strategies. Confront the child's perfectionist expectations and help him/her to develop reasonable goals. Help children to see their personal abilities, using caution to avoid allowing them to become dependent upon constant reassurance from others.

The student who practices selective underachievement and engages in long, involved, philosophical discussions and arguments needs an empathetic ear. Interact with this student on an equal level showing genuine warmth and unconditional positive regard. Allow yourself to be a sounding board. Often this type of gifted underachiever just wants to be taken seriously and feel that someone understands how he or she feels.

When a gifted underachiever is impulsive and manipulating, it is important for the interventionist to be empathetic, without condoning unacceptable behavior. Discover what this type of student values as rewards, and use where appropriate. Expose and explain the manipulations that the child practices, and teach more appropriate ways to satisfy his or her needs. Help the child to learn self-control and delay gratification through corrective experiences.

For a student who is oppositional and prone to tantrums, the interventionist should avoid power struggles while providing more appropriate strategies to deal with undesirable situations. Provide acceptable choices to foster appropriate decision making and independence rather than giving into tantrums. Discuss the impact and consequences of the child's behavior, then model more appropriate assertive skills.

It is important to remember that underachievement is a behavior that can be changed over time, and it is intimately tied to the child's self-concept (Delise, 1990). Children are natural learners and begin life with a desire to attain knowledge, comprehend it, and apply it according to their own abilities. Children don't begin school intending to fail or frustrate their parents and teachers, but some children become lost along the way, and need guidance and experiences that nurture success to return them to the right path ("What educators," 1996). Children, like lumps of coal, must have precise conditions and adequate time to transform into magnificent jewels.

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(from LASHAWAY-BOKINA & ROBINSON, page 14)

advocates appear to be willing to sacrifice the necessary time and energy to support schools, teachers, and their child's curriculum.

As a leader in parent advocacy once said, "If you don't use it, you lose it" (Clark, 1996). Can local school districts afford to lose the talents of their brightest students? We think not. The addition of charter schools, home schooling, and voucher systems now give parents greater choices and challenge public schools to reexamine their gifted education programs. Parent advocacy groups will no longer allow the pattern of neglect of high-ability students to be maintained. According to recent increases in state mandated gifted education programs throughout the nation, state department of education officials also seem to be responding to parental concerns. As parents' voices combine and swell, a cognizant response will follow and positive changes can be expected that will improve the educational opportunities for gifted and talented students.

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The New G/T State Plan: *Its Impact on Professional Development*

Rebecca V. Rendon

The professional development of teachers in the United States historically included little, if any, information about the special characteristics and needs of students classifiable as intellectually gifted. Consequently, educators have often lacked the understandings, attitudes, and skills essential to effectively design and implement appropriate educational programming for gifted students with exceptional potential for academic achievement. In its attempt to close this gap between teacher training and appropriate educational programming for gifted students, the Texas State Board of Education adopted the *Texas State Plan for the Education of Gifted/Talented Students.* This plan is divided into five areas: Student Assessment, Program Design, Curriculum and Instruction, Professional Development, and Family-Community Involvement. The area of professional development has had a major impact on hundreds of school districts in the state of Texas.

PROFESSIONAL DEVELOPMENT

The *Texas State Plan for the Education of Gifted/ Talented Students* defines those required to have professional development as "All personnel involved in the planning, development, and delivery of services to gifted students have knowledge to enable them to offer appropriate options and curricula for gifted/talented students" (19 TAC 89.2(1); 89.2(2); 89.2(3); 89.5). Some of the major implications are that the state now defines the areas in which teachers must have 30 clock hours of staff development; whereas in the past, specific areas were not required. These 30 hours must consist of nature and needs of gifted/talented students, assessing student needs, and curriculum and instruction for gifted students. Teachers who provide instruction and services that are a part of the program for gifted students must also receive a minimum of six hours annually of professional development in gifted education. However, the major impact has been with the acceptable (compliance) indicator stating that "administrators and counselors who have authority for program decisions must also have a minimum of six hours of professional development that includes nature and needs of gifted/talented students and program options for gifted/ talented students (19 TAC 89.2(3))". By making this a requirement, the state has assured that more educators will become aware of the unique learning needs and strengths of gifted students.

LOCAL EDUCATION AGENCIES

While local school districts must be in compliance with the state law, they can always make additional requirements. When this happens, the local policy will always supersede that of the state. The Brownsville Independent School District realized that a successful program depends on teacher training and decided to supersede the state requirement. The only way to have full impact on the district was to incorporate our standards as part of the local policy. Some of our changes were that teachers serving identified gifted students must receive a minimum of 12 hours of professional development annually (instead of the state requirement of six) and administrators and counselors must receive 30 hours of training in gifted education (instead of the six hours required by the state). This is part of the district's goal to eventually become an exemplary district in gifted education.

The district also decided to follow the Texas Association for the Gifted and Talented (TAGT) professional development areas, which include basic needs and characteristics, identification and assessment, curriculum and instruction, social and emotional needs, and creativity and instructional strategies. Since the majority of our teachers attend the TAGT state conference to receive professional development hours, it was much easier for us to replicate TAGT's requirements for purposes of documentation. Also, the breakdown of areas follows many of the course requirements for a G/T endorsement in the state of Texas. We felt this would give all the participants a complete (though not in-depth) picture of gifted education. Participants receive six hours in each area respectively. Even though we had many complaints intially, educators (mainly administrators and counselors) have expressed their appreciation for expanding their knowledge in gifted education.

ACCOUNTABILITY

Since the district decided to include extra requirements, it became the responsibility of the Department of Advanced Academic Services to account for professional development hours in gifted education for every teacher in the district. We have developed a data bank that tells us how many hours each teacher has and in what area they have the hours (see Fig. 1). Campus principals receive an update on their teachers' hours in August and January. That provides them with the opportunity to

hold teachers accountable for the required professional development hours. Teachers who do not meet local district policy may not teach identified gifted students. It is the responsibility of the teacher to provide documentation to the district of any out-of-district conferences, inservices, etc. in gifted education in order for them to be awarded credit. We have been very strict in implementing this policy so that educators will realize that gifted students are just as important as any other special population. We would never consider placing a bilingual student with a teacher who did not have the appropriate certification; gifted students deserve the same treatment.

FIGURE 1

Campus No.	Teacher Name	Job Description	BN	IA	DC	CI	SE	Core Hours	Pre-AP/AP Hours	96/97 On-going	97/98 On-going	Previous G/T Hours	Total Hrs. Completed
133	Armijo, Al	2nd grade	6	6	6	6	6	30		10.5	3		43.5
133	Casas, Ana	Kinder						0					0
133	Carter, Robert	4th grade	6	6	6	6	6	30		12	6	46.5	94.6
133	Duran, Esther	Principal	6		6	6	6	24					24

BN=Basic Needs Characteristics, IA=Identification Assessment, DC=Differentiating the Curriculum, CI=Creativity Instruction, SE=Social Emotional Needs.

G/T TRAINING

Core G/T training refers to the required 30-hour training by the state. The district offers two 30-hour core training institutes in the summer (two weeks) and several inservices for on-going professional development. The 30-hour core training is offered throughout the year, one day a month until the 30 hours have been completed. The district also offers many opportunities for teachers to acquire the 12 hours of on-going training throughout the year. Since the district is so large (45,000 students), we try to provide as much professional development as possible in-house to meet the needs of all our educators.

FUTURE IMPACT

Research suggests that the effectiveness of inservice training depends on the presence of long-term staff development mechanisms (Van Tassel-Baska, 1986). A study conducted by Cramer (1991) investigated issues in the education of gifted children in the United States. There were six issues that were identified as crucial, with training of teachers of the gifted ranking a high third. It is imperative that districts focus on quality teacher training programs in gifted education to ultimately improve achievement of gifted students.

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GIFTED AND TALENTED INTERNET SITES

- **Advanced Academic Services - Texas Education Agency**
  http://www.tea.state.tx.us/gted/
  Download documents & other information related to gifted education in the state of Texas.
- **GATE/AP ChatBoard**
  http://www.teachers.net/mentors/GATE/
  Share ideas with other teachers & parents of gifted students.
- **Gifted Resources HomePage**
  http://www.eskimo.com/~user/kids.html
  Extensive web page with links to all known online gifted resources
- **ERIC Clearinghouse on Disabilities and Gifted Education**
  http://www.cec.sped.org/gifted/gt-menu.html
  FAQs, Digests, Fact Sheets, Listservs, Minibibliographies, and Links
- **Gifted and Talented Book Searches**
  http://www.amazon.com
  http://www.barnesnoble.com
  Use subject search to locate books on gifted education.

Strategic Parental Involvement: *Developing Student Advocacy and Leadership*

Becky Whittenburg

(Editor's Note: This article originally appeared on the internet in a slightly different form.)

I'm going to jump into this discussion because it is something that I believe is at the root of many talented and gifted issues. I strongly believe that parental involvement falls under many different categories. Parental involvement in our children's lives begins at birth and continues until death. It is "in the job description" under the title parent. The kind of parent involvement that is spoken of in terms of gifted education is just one of those different categories. In my opinion, it needs to be viewed on a continuum. Parental involvement at kindergarten is pretty much pervasive, but by high school needs to be minimal.

Parents need to see the importance of allowing their children, *first*, to define their own issues, and *second*, to learn how to be their own advocates. Countless times I have seen a parent impose his/her issue on the child and not listen to what the child's issue really was. When it is an issue of safety, I feel that is the only time it is appropriate for a parent to impose their involvement over a child's objection. As a parent, I have had the gift of gifted children able to say, "I want to tell you about something, but I don't want you to do anything about it." I have given them the gift of a parent able to listen and honor their request. As a result, my children (who are all now teenagers) feel they can tell me anything. They can also decide when they need help and know I will be there to help.

In my affective groups at the elementary level, I actually train gifted/talented students how to advocate for themselves. I teach that timing is everything; that they need to approach the teacher in private and respectfully; that they need to present their case (say they think math is too easy, for instance), propose how to offer proof (i. e. test out of a unit), and give one or two ideas of what they would like to do in place of that unit.

Recently, a group of students who had a new teacher, felt that their work was too repetitive and easy. They came to me as their building advocate. I reviewed the process and sent them on their way. Yes, it would have been easier for me to just go to the teacher myself, but in the big picture I felt it was more valuable for them to try to advocate for themselves. The teacher informed me that they presented the ir case very respectfully and well. She attempted to improve their instruction.

A week later the students were still not satisfied with the level of work although they admitted it was "a little bit better." I asked them what they thought should be the next step. They decided to go to the principal. (Believe me, I would have loved to have been a fly on the wall in that office!) They made an appointment through the secretary and gathered previous tests and other documentation as per the guidance I gave them. We reviewed the process, and I sent them in. They did a great job. The principal came and told me immediately (thank goodness — I was dying of curiosity) and made a point of meeting with the teacher in question. She was instructed to get higher level texts from the nearby high school, was evaluated on the basis of her use of pre- and post-testing, and was helped to become a better teacher of gifted kids. What the kids gained was so much more than just those months of higher level instruction; they gained a skill that allowed them to become masters of their own educational experience. Although the parents were aware, the students did it all themselves.

Unfortunately, I have many more examples of inappropriate "parental involvement" than positive examples. As a parent, I have had to learn as well.

HOW TO BE YOUR OWN ADVOCATE

a student guide to making a difference

1. **Keep your cool.**
2. **Politely ask the person in charge for an appoinment.**
3. **When you meet, bring the matter up in a courteous way:**
   a. **Explain the problem *and also***
   b. **Give your ideas on how to improve the situation**
4. **Realize that the person in charge may still have different ideas and you may not get what you want.**

My two oldest children dance 10-20 hours/week and wished to be exempt from high school physical educations requirements. My daughter was able to go to her high school counselor and gifted education specialist to fill out the paperwork, provide documentation and get the waiver completely on her own. She was in charge of her life and empowered to believe she could handle her own issue.

My son went to his high school counselor, who told him the principal would never honor it. He went to his gifted education specialist who confirmed the principal's position. We discussed it and he decided that he wanted to take it as far as he could to get this reversed. It was his decision. He went to the assistant principal and got a copy of the procedure for filing a request for appeal which we looked at together. It outlined the entire process. He gathered letters of documentation from other students at other schools in the district who were given credit and/or waivers for physical education based on advanced level work outside of school. He was able to contact and get letters from someone at every other district high school. Since I work in the schools, I was better able to get letters from other principals who were allowing exemption, which I did (parental involvement). When all documentation had been compiled, I asked him to inform the assistant principal of our decision to go ahead with the appeals process. She thanked him for informing her and wished him luck.

I made the appointment for meeting with the assistant superintendent, took my son out of school that afternoon, and drove him to the office. This was when I began to see how unusual it is for a child to advocate for him/herself — even at the high school level. The assistant superintendent told us that this was the only time in her years of experience that the student had appeared to present his/her own case. Yes, my son was nervous, but it had been his decision to go ahead, and it was more powerful for him to present his case than for his parent to do so. He did an excellent job of presenting his case. He provided his documentation and spoke very strongly about why he felt the capriciousness of other schools honoring such requests and not his was unfair (a real gifted kid's issue). He requested that the policy be in place so that all kids across the district had the same opportunity to not do lower level work in an area where they demonstrated higher level achievement outside of school.

When the assistant superintendent asked me if there was anything I wished to add, I had nothing to say. My son had been his own best advocate. More than being exempt from physical education, he learned how to use the bureaucratic system and work within it. He learned how to follow a procedure. He learned how to oppose a district policy and win the respect of the people who put it in place— how to be strong and forceful and respectful as well. And he won!

My son has not always won, however. In fifth grade he was paired with the worst possible partner for a month's science project on space. He had, up until that point, considered space science to be one of his favorite passions. Because of his degree of frustration, I arranged for us to go in to talk with the teacher and try to work out a different plan. She refused to really listen to him and refused to compromise. He ended up having to live with that. After fifth grade, he no longer cared for space science. I praised him for his courage and ability to express himself and then acknowledged to him that sometimes that's the way it goes — but not for any lack of effort on his part. That was a learning experience as well. A reality of life is "sometimes you win, sometimes you lose."

I have seen the very best in terms of parental involvement and the most appropriate as well. I have also seen the very worst. I think it is important to be there for our kids, especially when they are young. I also think it is important to wean them from needing us and empowering them to handle most issues themselves. And they must be taught how to do that appropriately and well. It is a life skill that will hold them in good stead as they make the difficult transition to "life after high school."

My son graduates this year from high school at barely 16. He will be leaving to attend a program 1,000 miles away. I am confident that he will be able to handle most of what he has to face, in spite of his youth, because he has been taught how to do it. He has the necessary skills. I also know that he will ask if he needs help and communicate freely with me, knowing I will not intervene unless he desires it. I will sleep easier knowing he can handle it without me. I can also sleep easier knowing he does not feel the need to hide things from me out of fear of my response. I loved his total dependence on me when he was young. But as a parent, I know that it cripples our children when we do not encourage and enable them to grow beyond that kind of "needing."

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(from CARTER, page 9)

me? How old are you? Do you have a dog?" But they accepted him. They brought him apples the second day. The following week John had students leaning out the third story window dropping pencils so that he could calculate the distance to the ground. At the age of ten John scored the highest numerical "A" in the class. He took trigonometry the second summer term and again scored the highest "A".

John wanted to take calculus and physics next, but he was supposed to be going into the sixth grade. The Marshall public school suggested that he go to sixth grade in the morning for English, history, and violin and college in the afternoon. This worked out well until January when the university had a one month J-term. There wasn't a class John could take, so John's professor offered to teach an upper-division directed study class on matrix theory. John scored 100 on the final at the end of the month. He was then able to go on to Calculus II and Physics II for the Spring term.

About this time John announced that he and Jethro Bodine of the *Beverly Hillbillies* both had a sixth grade education and that was all he needed. He wanted full-time college. The public school and university also thought this was a good idea. We agreed, if he could pass the university's English entrance exam. John only missed one question.

East Texas Baptist University gave him a full scholarship, and the public school said he could continue taking violin if he wanted to in the public school since it was not offered at the university (which he did).

We had the usual problems with the press, but other than that things just went along normally. The only difference was that instead of taking John to sixth grade we drove him to the university. John had a wonderful time. He joined the math club and got to play the dead body in the window seat in the university's production of *Arsenic and Old Lace*. (The body had to be lifted in and out of the window seat and John was the lightest weight body on campus.) John also enjoyed getting to tutor other students. John was shy but friendly. The girls mothered him, and the boys protected him. Because he stood out on campus, everyone knew him and looked out for him.

John graduated at the age of 14 with a Bachelor of Science degree, 4.0 GPA. His major was mathematical science, and his minor was computer science, with an equivalent minor in physics. When his name was called out to receive his diploma all of the students spontaneously gave him a standing ovation. The Dean interrupted the procession to give a speech telling about John and presented him with a special plaque in honor of being the youngest student to have graduated from E.T.B.U. It was a special day for John, his first graduation ceremony!

John wanted to get his doctorate, but we felt that he was too young to go off on his own, and there wasn't a graduate school within driving distance. Since my husband had the ability to be transferred in his job, we decided that the best thing to do was to move closer to the graduate school that John wanted to attend, University of Arkansas. John wanted to get his doctorate in theoretical physics. He was accepted at the university and given a full fellowship. John loves the advantages of being a doctoral student. The first day he went to the library to pick out books, he discovered that doctoral students get to keep library books for three months at a time! John shares an office with two office-mates whom he has become friends with. And along with the physics, the school has been very lenient in letting him also attend foreign language classes, which he has been enjoying.

Last May, at age 16, John earned his master's degree. He still has a 4.0 GPA. He has now begun his dissertation research toward his doctorate. He says that his goal is to become a physics professor.

More than anything else, I wanted John to grow up happy and enjoying life. I don't think he would have if we had not let him go to college early. I can't even imagine what life would be like for John if he were sitting in a tenth or eleventh grade classroom right now.

It took a great number of open-minded, flexible people for John to be where he is today. The decisions that were made in elementary school were many times based on belief in a child rather than textbook opinions about giftedness: John failed his first IQ test. He made all "A's" in elementary school, but not necessarily perfect scores on everything he turned in. He always had more questions than he had answers. He was young and small for his grade, not outgoing, overly sensitive, cried easily, and he was extremely forgetful about routine tasks, etc. But despite all of this, educators were willing to give him a chance. As a result, today we have a very well-adjusted, happy 16-year-old who looks forward to each new day.

Belilnda Carter, a full-time mother, wife, and homemaker, feels blessed in her husband (a minister), her oldest son (in the military), and in her youngest son John.

Gifted Texans: *Exploring the Implications*

Jan Garland Cannon

The theme of this issue is "Giftedness, a Texas Tradition." Given that Texans are human beings, and gifted individuals are generally held to make up the upper 5 to 10 percent of any particular human group, odds are that quite a few Texans both past and present have been and are gifted. But how attuned are we to considering outstanding Texans as gifted adults? Jim Delisle, noted author and presenter on gifted issues, asserts that gifted adults devalue giftedness to students by misguided attempts at humility:

"When I am presenting to adult audiences on the topic of social and emotional needs of gifted children, I get them comfortable before tossing in a zinger, 'How many of you are gifted?' The most common responses are non-verbal: shuffling of feet, downcast eyes, and an uncomfortable wiggling in their seats, fearing, no doubt, that I will call on them to personally 'own up' to their unique gifts. Educators and parents of gifted children often present themselves as poor role models with regard to the acceptance of personal giftedness. With comments like 'you don't have to be gifted to teach the gifted'... we are sending a very mixed message . . . Blame this lack of openness on personal modesty or the cultural belief that you don't 'blow your own horn.' But whatever its source, it is sending a signal that the only acceptable gifted person is the humble one. . . It is vital that adults talk with gifted children about their own giftedness. Also, they can help gifted kids recognize the distinction between being *better at* some things than others. . . and being *better than other people. . .*"

> "How attuned are we to considering outstanding Texans as gifted adults?"

Still, do you really want to talk to your students about how gifted you are? Want to get out your autobiography and go all the way back to skipping fifth grade and all the way forward to scoring in the top 2% on the vocabulary portion of the GRE? Perhaps not.

Here's an alternative, and it's an opportunity for research and a chance to get students discussing the idea of gifted individuals as "movers and groovers." First, have students come up with names of perhaps twenty outstanding Texans. (Consult the social studies TEKS for your grade level for names of essential historical figures.) In addition, have the students nominate people in their own homes, schools, and communities to be included on the list. Once the list is finished, students then conduct research on individual Texans.

In order to structure the search of giftedness in the notable Texans listed, have students create a chart based on the areas of giftedness from the *Texas State Plan for the Education of the Gifted and Talented* (intellectual, creative, or artistic area, leadership, or a specific academic field), Howard Gardner's eight intelligences, and/or their own definition of giftedness. Students should then place the names in the chart and decide the degree to which the chosen Texans fit the categories of giftedness in the chart.

This chart will provide opportunities to debate just what it means to be gifted and how well gifted Texans have used their individual talents. (You may wish to start by considering what exactly is the difference between creative area and artistic area, how is intellectual area to be distinguished from specific academic field, etc.) Also, depending on the depth of their research, students can question whether these Texans sacrificed their giftedness to "belong" at various stages of their lives. And of course, let murals, posters, and original puppet plays on these gifted Texans abound!

(see CANNON, page 31)

Maximizing the Achievement of Gifted Learning-Disabled Children

Janet Whitley, Mary Cauble, and Julia House

Learning disabled-gifted — it is difficult to imagine that the same child could have both sets of characteristics because they appear to be so opposite. LD gifted students may not fit the matrix to qualify for gifted education because the disability masks the giftedness and many will not be tested for special education because the giftedness masks the learning disability. Overall, they may be achieving on a level commensurate with their peers which means they may be falling between the cracks. What is it about being learning disabled and gifted that makes it so difficult to meet the educational needs of these twice exceptional children? And, more importantly, what can schools and teachers do to maximize their achievement?

> "Once students are identified as gifted/learning disabled, other questions emerge - for example, which programs should serve them? What are the unique educational needs of the gifted/learning disabled?"

What does a learning disabled gifted child look like? While examining characteristics of students, it is important to remember that groups of individuals, especially learning disabled or gifted children, comprise a very heterogeneous group. There may be many common characteristics often observed in these individuals, but they are put together and interact differently in any one individual.

Most popular definitions of learning disabilities revolve around understanding or using language. Therefore, one can often observe difficulties in thinking, speaking, reading, writing, and/or spelling. In some children, there are also problems with mathematical calculations. Achievement problems related to cultural background, environmental conditions, socioeconomic status, and/or a lack of opportunity to acquire an education must be ruled out before learning disabilities can be identified; and learning disabilities may not be the result of sensory impairments, mental retardation, or emotional disturbance. Generally, to identify a student as learning disabled, there must also be a discrepancy between potential (IQ) and achievement, which in Texas means typically a difference between IQ and achievement of more than 15 or 16 points.

While considered a very heterogeneous group, there are several characteristics that are often seen in learning disabled students. Lack of motivation, learned helplessness, and attribution of academic successes or failures to external forces are common among learning disabled students. Students with LD are often referred to as passive learners — that is, they don't know what to do to help themselves learn, and they don't know how to ask for help. LD students may also exhibit attention and memory problems, and often they will be unable to generalize what is learned in one situation (for example the classroom) to another situation (another classroom, real life, the neighborhood, etc.). Some LD students may have processing problems. For example, while the student may have ideas about which he/she would like to write, there may be problems in getting it down on paper. Some LD students may not have good problem solving skills or thinking skills and many exhibit inconsistent learning patterns. They may have strengths in mathematics and good verbal skills, but may not do well in spelling and reading. They may also show inconsistencies from day to day — working for many hours on learning how to do a math problem and then not being able to do it again the next day. Common behavioral characteristics may include immature social skills, being disorganized, impulsiveness, attention problems, and poor motor coordination.

Gifted children and youth are those who exhibit high performance capability in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or

excel in specific academic fields. Common characteristics of the gifted are that they read well and widely, have a large vocabulary, and are widely informed. They have a good memory, are curious, ask probing questions, work independently, and tend to have long attention spans. They generally have good judgement, understand relationships, and are capable of complex thoughts. In addition, they produce original ideas.

If the two lists of characteristics were placed side by side, many of them would appear to be opposite. One would not expect to see such a range in characteristics in one individual. Add the innumerable possibilities of characteristic combinations, and this then makes up another very heterogenous group of individuals (Barton and Starnes, 1988; Boodoo, Bradley, Frontera, Pitts, and Wright, 1989). Swesson (1994) maintains that the "gifted child with a learning disability has an erratic arrangement of strengths and weaknesses" (p.24). Olenchak (1995) argues that "they possess the serious academic and behavioral weaknesses associated with the majority of learning-disabled students and the strengths related to giftedness and talent" (p. 386). Silverman (in VanTassel-Baska, 1998) states that many learning disabled gifted learners may be visual-spatial learners as are other underachieving groups such as dyslexics or children with ADD. Gifted/LD students may demonstrate behavioral and/or academic tendencies of learning disabled children such as disrupting class, carelessness, disorganization, perceptual and memory problems, motivation and social problems as well as memory deficits and off-task behavior (Baum, 1994, Howard, 1994; Swesson, 1994; and Olenchak, 1995). These same authors found that the LD/gifted child may also have above average abilities in problem-solving and display creative and abstract thinking. They may also exhibit high motivation when working on tasks that interest them and be highly creative.

Teachers less often refer students with learning disabilities to gifted programs (Minner, 1990; Minner, Prater, Bloodworth, & Walker, 1987). Once students are identified as gifted/learning disabled, other questions emerge —for example, which programs should serve them? What are the unique educational needs of the gifted/learning disabled?

Special education has traditionally been modeled after the medical model with remedial programs individually designed to remediate the identified weaknesses. Gifted education has identified students by a matrix which generally defines characteristics and other criteria which are to be considered. However, programs which have served each type of exceptionality individually may not be effective when both areas of exceptionality are found in the same person. A new paradigm that focuses on individual strengths is needed. In this model, strengths would be identified, talent development would be emphasized, and a wide variety of enrichment activities would be offered. Remediation would be but a small part of the program (Howard, 1994).

Currently two schemas exist in education which could serve as a foundation for identifyting strengths — the concepts of Multiple Intelligences (Gardner,1983) and learning styles (Dunn and Dunn, 1994). These schemas offer educators a variety of ways to look at individual students. Gardner, for example, examines traits which all children possess, but which are more developed in some individuals than in others. Dunn and Dunn (1994, p. 2) define learning style as "the way each learner begins to concentrate on, process, and retain new or difficult information." How can teachers use these two concepts to examine and modify what they do instructionally to meet the unique needs of the learning disabled/gifted student?

Dunn and Dunn describe 21 elements which they believe form the basis for examine the learning style preferences of students. Studies have shown that, for each individual, only 6-10 elements are of key importance. Those elements which most describe gifted students are that they are highly motivated and have strong preferences for kinesthetic and/or tactual perceptual strengths (although they also tend to be high in auditory and visual perceptual abilities as well). They prefer to learn alone rather than in groups and they prefer late morning and afternoon learning times. Another way to examine learning preferences is to look at processing styles — is a student analytical or global in approaching learning tasks? Analytic learners prefer to learn information sequentially and cumulatively. They want the pieces to build into a "whole". Globals, on the other hand, prefer to see the big picture first, and then learn the details. Analytic learners tend to be persistent and want to finish a task once they start on it while globals are less persistent; they like to work on several tasks simultaneously or take breaks while working. The Dunns have found that most younger children are global, and that some children become analytic when they are adolescents and older.

The concept of multiple intelligences was first described by Howard Gardner in his 1983 book *Frames of Mind.* He suggested that intelligence is characterized by problem solving ability, and that individuals learn in identifiably distinctive ways (Gardner, 1991). Gardner grouped capabilities into seven categories of intelligences: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal (Armstrong, 1994). An eighth intelligence, naturalistic, was added by Gardner in 1995. Basic to understanding and working with Gardner's philosophy of intelligences is the belief that each person possesses all seven intelligences and that each intelligence can be developed to an adequate level of competency by most people.

So how can schools identify and work with the LD gifted student? When considering students' eligibility into the gifted and talented program in a school district, a vast array of identification resources should be implemented. Multi-dimensional criteria should be established to discover potentials and talents in a more diverse population of students. Besides academic/achievement tests, use specific subtests and consider accepting referrals from teachers, parents, peers, and students themselves. Schedule student interviews and auditions and have students submit sample products and/or portfolios to obtain a true perspective. When considering learning disabled students for the gifted and talented program, school personnel could consider giving more weight to those qualities that are not affected by the disability and look seriously at cut-off scores to allow consideration for student weaknesses due to the disability. A screening form for teachers will help in observation of specific attributes. Other indicators include creativity, humor and students' hobbies and passions.

In working with gifted learning disabled students, it is imperative for all teachers (special education, gifted and talented, and regular education) to work cooperatively for the benefit of these special students. Students identified as learning disabled will have an Individual Education Plan (IEP) which is established at an Admission Review and Dismissal (ARD) meeting. The gifted and talented teacher should attend this meeting and incorporate goals for this student, focusing attention toward strengths. Entrance into the program can be on a trial basis with specific modifications and goals stated within the student's IEP. The gifted and talented teacher will need to become familiar with modifications and/or adaptations which will benefit the student and accommodate their disability. Don't forget that the special education/resource teacher can be a big asset.

How can a teacher utilize learning styles instructionally with a group of students with such diverse characteristics and needs? Many researchers agree that these students need instruction dealing with abstract concepts and a focus on generalization and synthesis of information (Silverman, 1989; Baum, Owen and Dixon (1991) while providing appropriate modifications for specific needs. Students with learning disabilities may need help in structuring assignments and making choices for their success. Often learning disabled students need alternatives provided to written assignments — either alternatives to handwriting assignments or alternative ways of demonstrating mastery of material—and so use of computers is often recommended (Silverman, 1989, Tobin & Schiffman, 1983, Waldron, 1991). Perceptually, learning disabled gifted students may not have developed all four perceptual areas into strengths as gifted students tend to do. Rather, they may tend to prefer the kinesthetic learning preferred by low achievers, so teachers may need to make special attempts to make sure that some of the learning options/choices involve active experiences that will appeal to kinesthetic learners. Not only should options be offered for acquiring information, but also for communicating mastery of the information.

Modifications for these students will probably not be drastic, but because it is unfamiliar territory, they may seem overwhelming to the teacher. Modifications may be as simple as having reading material on audiotape, highlighted text, prepared outlines over covered material, visual aids, documentaries, colored transparencies to accommodate reading difficulties, use of calculators for math, precomposed checklists, and the use of computers for students who have difficulties with writing, spelling, and/or grammar. Many accomodations can be accomplished through good planning and the embedding of learning styles and multiple intelligences into the weekly lesson plans.

Mnemonics can be developed to improve memory along with rhyming scheme, word association, and use of the pegword method. Reading strategies can include recording, relating, rereading, and retrieving. Additional strategies to promote reading include metacognition, metacomprehension, drawing inferences, and activation of prior knowledge. Use of meaningful context enables the student to relate easier and acquire factors for knowledge base. Creating graphic organizers, comparing and contrasting graphs, webs, concept maps, schematic maps, Venn diagrams, and topic webs enable students to organize information for easier memory and retrieval. In place of the typical language arts assignments, students can be involved in creating a web page or generate a class newsletter from a desktop publishing program on the school or classroom computer. Instead of only going to books or encyclopedias, students can research an approved topic of interest on the Internet. Allowing students different avenues for discovery into content areas promotes risk-taking and extends their own value of application to real world situations. To maintain different perspectives or points of view, group discussions should be a positive and rewarding experience. Rules should definitely be established so students feel comfortable expressing their ideas.

To promote productive thinking skills, several models can be practiced in the classroom. The Osborn brainstorm model, Eberle's SCAMPER, de Bono's six thinking hats, and the Synectics model can be used randomly or involving specific content areas (Starko). To encourage creativity, allow students to develop products while engaging in their preferred multiple intelligences and learning styles. This gives them several choices in creating products and demonstrating understanding in specific content areas. Teaching strategies which work effectively

with gifted and talented students will also work effectively with the LD/gifted students.

Encouragement, high expectations, a safe environment for risk-taking, opportunities for learning, and individual choices transform students through enrichment. Classrooms can be made special with flexible programming. Teachers will generate relationships within the classroom while provoking new interests during exploration of new subjects. Valuing individual differences helps students to develop a realistic self-concept. The LD/gifted students will benefit as their strengths are exploited while modifications are implemented to help them cope with their learning disability.

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(from HICKERSON, page 2)

in the first twenty years of TAGT history. We will continue to examine these questions, to research and apply our understandings, and to speak out again and again with the knowledge that we are building insight into the nature of giftedness, of the characteristics that typify those who are gifted, and ways in which we might better recognize and identify these characteristics among all populations in our great state. We struggle to accommodate a variety of means of identifying unusual abilities and precocious talents, and to support our insights with quantifiable evidence and documentation. We continue to question reliance on traditional quantitive measures of achievement such as grades and standardized test scores, while demanding solid research basis for qualitative measures, portfolios, observational data, and inventories. We strive to be fair, equitable, unbiased and inclusive, while maintaining the integrity of the concept of "giftedness."

In mythical Lake Woebegone, all children are "well above average." We realize that this is a statistical oxymoron: that if an "average" on any scale exists, then some of us must be below that measure and require special services, and some must also be, by definition of the term, above average — even far above average; and they also require special services to meet their needs and fulfill their true potential. We also know that to do this well requires specialized knowledge and education.

We are proud of the accomplishments we have made on behalf of educating gifted students. By mandate of the Texas legislature, all public school districts in our state are required to identify and provide academic services to gifted learners, from kindergarten through their senior year. Teachers, counselors, and administrators now regularly receive increasingly sophisticated professional development in gifted education, such as that offered through TAGT's professional development workshops and institutes, and the annual conference. This past summer, the first class to complete the TAGT Summer Professional Development Institute held at Southwestern University at Georgetown experienced firsthand the principles of gifted curriculum in terms of depth, complexity, abstraction, and accelerated pace, from some of the most knowledgeable instructors in the field: Peggy Kress, Ann Trull, Wayne Craigen, Kathy Hargrove, and Ann Wink. I was fortunate to observe their final presentations; what enthusiasm, humor, intelligence and inventiveness! This seed group will now take back to their respective areas of the state a new level of appreciation for gifted students, along with newly-developed skills and strategies for educating those students — and their professional colleagues, too. Look for announcements for next summer's institute, and plan to apply or to recommend someone you know for this opportunity.

Texas is a rugged, diverse state, proud of its geographic, ethnic, and historic distinctions. Contemporary Texas isn't really very far from its origins, and we remember and honor our predecessor's struggles to survive and flourish on this land. We build monuments and shrines to their memory, and proudly celebrate their unique, individual talents and accomplishments. From the earliest people to inhabit this land to the waves of newly-arrived Texans who continue to find opportunities here, this has never been a state for the timid or faint of heart. This is a state for the outspoken, the strong-willed, the determined. In such an environment, it should not surprise us to recognize our position in the field of gifted education: TAGT is the largest advocacy group for gifted in the world. As we move into the new legislative year, our membership and our leadership are united and committed to furthering support for gifted education. We can only continue to progress if we remain committed, strong-willed, informed, and united in our purpose.

This year our annual TAGT conference is in Dallas, and our theme is "Giftedness: A Texas Tradition." Come celebrate with us and enjoy the opportunities to expand your own level of professional expertise in gifted education. Study the conference program overview in the newsletter and plan to get the most out of the conference, from Wednesday's all day pre-conference sessions, through the general sessions, featured events, and many breakout sessions Thursday through Saturday morning. Enjoy many opportunities to network and visit with others in the field of gifted education — parents, teachers, administrators, university and research specialists, exhibitors - there is plenty for everyone on this program. Regardless of your areas of specialization or interest, this conference has much to offer you!

Recognition of individual strengths, unique attributes, and exceptional talents has always been a Texas tradition. It is our mission to continue to pursue this goal for all our gifted students in Texas, well into our second twenty years and the twenty-first century. ¡Viva Texas! ¡Viva TAGT!

(from CRAIGEN, page 1)

Senator, although I am sharing my concerns with you about my own child, I am sure that other parents with gifted children have the same concerns."

In the mid-1970's, although individuals were expressing concerns similar to those of this parent, a unified voice for gifted and talented children did not exist in Texas. Thus, in February of 1978, a group of approximately twenty concerned parents and educators met together in Dallas to consider the feasibility of organizing a statewide advocacy group to promote better educational opportunities for gifted students.

The result of this first meeting clearly showed a need for such an organization. Committees were formed to set up goals and by-laws. In June of 1978, Articles of Incorporation were filed; and a champion for the rights of gifted and talented students in Texas was born. This new association, chartered as a non-profit education-related organization, was the Texas Association for the Gifted and Talented.

According to results of a survey conducted a few years back by a national organization of state associations for gifted education, TAGT is the nation's largest advocacy organization for gifted and talented students, and it sponsors the nation's largest annual conference for educators and parents of gifted students. Beginning in 1978 with only forty charter members, by its twentieth year TAGT had over 8,300 members with approximately 6,000 of those members attending the annual conference.

This active participation in the organization comes from twenty years of anticipating needs and addressing those needs in a variety of ways. From its first newsletter in 1979, TAGT realized the need for keeping the public informed. The association's quarterly journal, *Tempo,* highlights themes and initiatives of interest to parents and educators. The journal reaches an audience of over 8,500 people and has achieved national acclaim as one of the finest publications in the nation on gifted education. In addition, TAGT publishes a bimonthly newsletter, *Insights* (a directory of TAGT scholarships, grants, and awards), and an annual professional development registration catalog.

The association also publishes documents for specific gifted/talented audiences. Starting in 1990, with the publication of *Identification of Gifted/Talented Students in Texas* (revised 1997), these publications now include *Curriculum Guide for the Education of Gifted High School Students* (1991, 1993), *Raising Champions: A Parent Handbook for Nurturing Their Gifted Children* (2nd ed. 1997), *University Programs in Gifted Education in the State of Texas* (revised 1998), and *Instructional Units for Gifted and Talented Learners, Grades K-6* (1997).

When it began in 1978, TAGT knew that even though the Texas Legislature had for years supported legislation for gifted students, no funds had been allocated to assure that appropriate services would reach these students in their local school districts. Just one year after the organization's beginning, the 66th Texas Legislature appropriated the first funds for the gifted. Still, the legislature only offered funding to districts that opted to provide services.

Recognizing that many school districts still chose not to serve their gifted students, the organization set its sights upon a time when, by law, all gifted students would be appropriately served. That time finally arrived in May, 1987 when legislation was passed requiring gifted and talented programs in all Texas school districts by the 1990-91 school year.

With a mandate in place, TAGT turned its attention to the State Board of Education to help assure that appropriate rules for implementation were passed. The first *Texas State Plan and Guidelines for the Education of the Gifted and Talented* was approved in 1990. A completely revised version of the plan was approved by the State Board in November of 1996. This new nationally recognized plan moves gifted education into an era of accountability where all state gifted programs must be rated acceptable, while districts are encouraged to develop recognized and/or exemplary programs as well.

The association's voice is also heard through a variety of position statements. Starting in May of 1992 with a position paper on professional development, other position statements include choice/charter schools (1995), curriculum and instruction for high ability students (1995), and accountability indicators for advanced and gifted learners (1997).

Today, TAGT continues to work with key decision-makers to assure that quality programs for the gifted and talented grow and improve in Texas.

A dream of the organization's founders was to provide scholarships for gifted students, their parents, and teachers. At the first TAGT conference, the hat was passed, and the grand sum of $36.80 began the scholarship fund. From that humble beginning, the organization developed plans to use a portion of each conference registration fee for scholarships and to eventually establish endowments, so that by 1997, more than $400,000 had been awarded to more than 1,600 students, educators, and parents. These awards are in the form of scholarships, research grants, and teaching and research fellowships.

In 1991 and 1992 the organization demonstrated its understanding of providing for the various needs of gifted/talented special interest groups. In May of 1991, a TAGT Coordinator's Division was established to help people with similar positions network and communicate how quality programs can be developed and maintained. Just one year later the TAGT Research and Development Division was established to help universities, schools, state agencies,

and committees develop and monitor quality gifted/talented programs through the blending of research, development, and practice.

Another reason for the existence of TAGT is to provide a unified voice for parents to help assure that the educational needs of their children are met. The organization's commitment to parent/community involvement has grown to include a special parent focus at the annual state conference. In addition, in 1990 a vice-presidency for parent/community involvement was created on the TAGT board to ensure that TAGT never loses sight of the important role that parents play in the lives of gifted/talented children.

TAGT's mission statement is very clear in its direction for the organization. **To promote awareness of the unique social, emotional, and intellectual needs of gifted/talented students and to impact the development of appropriate educational services to meet these needs.** By focusing on the attainment of its mission, TAGT in twenty years has grown to be a dynamic force for the rights of gifted children in the state of Texas.

James Gallagher, author of *Teaching the Gifted Child* reminds us that ". . . failure to help the gifted child reach his potential is a societal tragedy, the extent of which is difficult to measure, but which is surely great. How can we measure the sonata unwritten, the curative drug undiscovered, the absence of political insight? They are the difference between what we are and what we could be as a society."

To see that the sonatas are written, the curative drugs are discovered and the political insight is present takes people unified in seeing that the needs of gifted/talented students are met. They must exhibit traits of awareness, commitment, organization, and involvement if they are to be successful. The achievements of TAGT are directly attributable to members and staff who have exhibited these traits. In Texas, in the field of gifted education, these traits are indeed a Texas tradition.

Wayne Craigen, Gifted/Talented Specialist for Austin ISD, is a Past President of TAGT.

(from CANNON, page 24)

Emily Dickinson was not a Texan, but doubtless most Texans are open-minded enough to consider her gifted anyway. Many people only remember her "I'm nobody! Who are you?/ Are you nobody, too?/ . . . How public like a frog/ To tell your name the livelong day/ to an admiring bog!" But in another mood she wrote "Aspiration."

We never know how high we are
Till we are called to rise;
And then, if we are true to plan,
Our statures touch the skies.
The heroism we recite
Would be a daily thing,
Did not ourselves the cubits warp
For fear to be a king.

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(from OGDEN, page 6)

They may be far less task oriented. NFs probably seek out or volunteer for G/T classes because of the challenge or the excitement, whereas SJs many times seek the appointment out of a sense of responsibility or are assigned by administration precisely because they have a sense of responsibility.

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Editor's Note: *For information or to take a Myers-Briggs Test, visit these internet sites:* http://www.keirsey.com/cgi-bin/keirsey/newkts.cgi *and* http://sunsite.unc.edu/personality/faq-mbti.html

(from HIATT, page 7)

as diverse as the way parts of government interact with one another to the way in which scientific experiments are carried out. Sometimes educators overlook the importance of "just the facts," but these details will be critical building blocks in more fully developing the other dimensions of depth.

Two of these dimensions, patterns and trends, can only be established if the student has a good grasp of the details and rules of the disciplines. By studying patterns, students will become more aware of recurring events, elements, and ideas that are repeated over time. Emphasizing trends enables students to identify the various factors that affect and influence major concepts and ideas within a discipline. One reason why it is important for students to understand the patterns and trends of a discipline is because these dimensions allow students to knowledgeably speculate on the final three dimensions of depth—focusing on the big ideas, which define the principles, theories, and generalizations of an area of study; ethical issues; and the unanswered questions of a discipline. These last components of depth are not to be viewed as topics to be presented late in a student's school career. Students at all grade levels often are asked to comment on ethical considerations in the stories they read or in historical and scientific events. However, only by offering students the opportunity to consider the details, patterns, and trends of a discipline can we provide students with the evidence they need to present their viewpoints. And only by encouraging them to use the language of a discipline can their viewpoints be offered in a knowledgeable manner.

Just as depth provides a firm foundation within a discipline, complexity focuses on building understanding within and across disciplines. As we look at subjects over time, across disciplines, and from multiple perspectives, those subjects become richer and more complex. When we study views of the Civil War from primary sources as opposed to a television mini-series, we see how interpretations of events have changed over time. When they study that same event by reading speeches made in the Confederate Congress and the U. S. Congress, students begin to understand the different perspectives in which the war was viewed. Students use the knowledge they have gained to begin to draw more sophisticated conclusions about issues, concepts, and events within disciplines.

While this overview provides only a brief picture of what is implied by depth, complexity, and pacing, it hopefully offers some idea of what you might expect teachers and students to be focusing on in programs designed for gifted students. The task of developing such a curriculum is very demanding, and teachers and administrators will need the support of parents to make their efforts meaningful. However, by working together, local communities can provide a sophisticated set of services to students that challenge all students to their maximum potential.

Evelyn Levsky Hiatt is associate senior director for the Division of Advanced Academic Services at the Texas Education Agency. Past-president of both the council of State Directors of Programs for the Gifted and the Texas Association for the Gifted and Talented, Ms. Hiatt serves on the governing board of the International Baccaluareate Organization and the advisory board for Advanced Placement in the Southwest Region. She is the very proud recipient of the Lifetime Advocacy Award presented by the Texas Association for the Gifted and Talented in 1998.

BOOK REVIEW

Teaching Models in Education of the Gifted **by C. June Maker and Aleene B. Nielson. PRO-ED, Inc., Austin, TX 1995**

Are you still wrestling with the *Texas State Plan for the Education of Gifted/Talented Students*? Unsure of just how to comply with the plan and meet the needs of your gifted/talented students? Need a teaching model which will add some continuity to your program? C. June Maker and Aleene B. Nielson, authors of *Teaching Models in the Education of the Gifted,* may have answers you need. Originally published in 1982, this is the new and improved second edition. It is a thorough compilation of teaching-learning models that can be used in the development and implementation of programs for the gifted.

Maker and Nielson have done all the work for us. They have created a comprehensive review of everyone who is someone in gifted education: George Betts, Benjamin Bloom and David Krathwohl, Jerome Bruner, Sidney Parnes, Joseph S. Renzulli, Shlomo and Yael Sharan, Hilda Taba, Calvin Taylor, David J. Treffinger, J. P. Guilford, Lawrence Kohlberg, Frank E. Williams, and newcomers S. A. Gallagher, H. B. Adams, and B. Wallace. The very best of the very brightest is handed to you in twelve immaculately organized chapters to enhance the effectiveness of your gifted program. The authors recommend the process of adaptation/selection, i.e., "decide whether one approach can serve as the only model used or whether the models should be combined, used together, or used in different situations."

My personal favorites are the tables which provide the reader with sample activities for each of the teaching models discussed in the book: autonomous learner model, taxonomy of cognitive objectives, Bruner's Basic Structure of Discipline, Parnes Creative Problem Solving Process, Renzulli Enrichment Triad Model, Group Investigations Model, Taba Teaching Strategies Program, Taylor Multiple Talent Approach, and Treffinger Self-Directed Learning Model. The book culminates in a 39 page table illustrating ways to integrate, supplement, or adapt content and product modifications across the various teaching models which will enable a program coordinator to develop an effective program which fits the unique needs of the gifted students on any campus.

The authors do an excellent job of remaining objective in their discussion of each teaching model. Extremely helpful are the sections of each chapter which focus on the historical background of each method, as well as related research on its effectiveness and advantages and disadvantages.

There is do doubt about the use of this book as a text in university courses in the gifted and talented education, but the book has also become an invaluable resource to me as coordinator of a gifted and talented program.. It has made possible the development of a functional curriculum which takes into consideration interests of the children, parental concerns, individual teachers styles, strengths and preferences, and the unique physical environment of our campus. Your book shelf is incomplete without this book.

—Review by Carman Gonzalez, Socorro Independent School District.

(from MCLENDON, page 3)

nature of some of the communications and in some instances the dissemination of inaccurate information are disturbing. When we hear that some legislators are receiving so many e-mails of such conflicting nature that they're not sure what to believe, an alarm sounds.

Those of you who were active during the last legislative session know how important a communication link that e-mail was in letting our representatives and senators know the concerns and wishes of the gifted education community statewide. When we perceived our programs were threatened, we mounted a ground swell of support from parents and educators on behalf of gifted and talented students that could not be ignored. We had a rallying point; we were a unified voice. With mandates and funding for programs being eliminated in a growing number of states, we have held on in Texas. Are we where we want to be? Obviously not. Do we have tremendous work ahead of us? Without a doubt.

Simply said, let us be mindful of how we use this powerful and pervasive communications tool so that we remain a strong, effective, and united voice for gifted education. A recent communication from one e-mailer to another articulates this idea and the concerns about the number and nature of messages that state policy makers are receiving from well-intentioned advocates: "We have a common goal on this list serve, to give g/t kids in Texas the opportunities they need and deserve." The response: "Hear, hear," with the plea, "to please be cognizant of the fact that your 'conversations' are not just between two or three people but are seen by many." TAGT would add, "and by decision makers who need clear, consistent messages from the gifted education community to create the policies that will ensure quality education and services for Texas gifted and talented students."

A FINAL WORD: *REASSESSING SOME TRADITIONS*

Michael Cannon

Of all the wonderful Texas traditions, cowboy life and lore hold a special place for many of us. My grandfather had a small farm near Abilene, a few head of cattle, and some chickens and pigs, but his horses were nearest to his heart. As a member of the Haskell County Sheriff's Posse, he would don his white Stetson and red satin shirt and proudly ride his palomino in parades and rodeos. When he was 70, he was still winning cutting horse contests in the rodeo. I never knew anyone with a more courtly manner around the ladies or who laughed louder at his own jokes. At the time I didn't really appreciate him or the cowboy tradition he enjoyed so much. But I recently came across a book of cowboy wisdom *(Don't Squat with Yer Spurs On)* and I was reminded that not only is there a lot to learn from cowboys, but that there are some direct applications to teaching and advocating for gifted children. With this in mind, consider the following thoughts.

> Solvin' problems is like throwin' cattle.
> Dig your heels in on the big ones and catch the little ones 'round the neck.

It doesn't take a genius to spot a goat in a flock of sheep.

It seems obvious to many in the field of gifted education that gifted learners have special needs, but it is a real revelation to some people. These kids don't fit in, and may seeem to be troublemakers because their own needs are not being met. We not only have to be able to separate the sheep from the goats, but we have to help others to see the difference as well.

Always drink upstream from the herd.

Teaching able learners often seems like a race just to stay a bit ahead of them. We can't go from page to page in a text and expect them to reach their potential. We have to go riding on ahead and while they are drinking up knowledge, we have to refresh ourselves from the stream as well.

And then there's that other herd - our fellow teachers and administrators. Traditionally gifted programs and teachers have been the innovators and leaders in curriculum and program design. To differentiate learning in a meaningful way we have to stay informed about the latest research and trends - get our drink before the rest of the herd gets there.

If you're ridin' ahead of the herd, take a look back every now and then to make sure it's still there.

However, it is vitally important that we make sure we don't lose our students (or colleagues) by trying to move too far too fast, by expecting them to stretch beyond what is reasonable or realistic. We shouldn't be so taken with our leadership that we lose those we should be leading.

Don't get mad at somebody who knows more'n you do. It ain't their fault.

While we rejoice and marvel at the extraordinary abilities of our students, and ever encourage them to reach their full potential, sometimes their brilliance can be hard to bear. Patience in the face of excellence (especially smart-alecky excellence) can be difficult.

Don't let so much reality into your life that there's no room left for dreamin'.

Do we ever get so caught up in identification, advocacy, program design, curriculum modification — the "reality" of gifted education — that we forget the exhiliration of the dream that started this thing we call gifted education?

Bender, Texas Bix (1992). *Don't Squat With Yer Spurs On! A Cowboy's Guide to Life.* Layton, UT: Gibb Smith

Call for Articles

Spring 1999
Hispanic Issues in Gifted Education

Hispanics are the fastest growing minority group in the state, and Hispanic students have not always been fairly represented in gifted programs. This issue will focus on the special needs, interests, and concerns of gifted Hispanics students. Identification strategies, specific program options, and parent involvement techniques could be the subject of articles, as well as theoretical and research studies. Personal essays are another possibility.

The deadline for submission of articles is **December 1, 1998.**

Summer 1999
Creativity

Creativity, often considered one of the most important characteristics of the gifted learner, is the focus of this issue. Articles may address the subject in general or pursue topics including but not limited to assessment, identification, and programs in creativity. The specific areas of the visual and performing arts will be featured. Magnet school programs in the field as well as outstanding individuals are also possible topics.

The deadline for submission of articles is **March 1, 1999.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education. *Tempo* is a juried publication and manuscripts are referred to members of the editorial board.**

Please keep the following in mind when submitting manuscripts:
1. Manuscripts should be between 1000 and 2500 words on an upcoming topic (see topics above).
2. Use APA style for references and documentation.
3. Submit three copies of your typed, double-spaced manuscript. Use a 1 1/2 inch margin on all sides.
4. Include a cover sheet with your name, address, telephone and FAX number and/or e-mail address.

Send all submissions or requests for more information to:
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*** Institutional members receive all the benefits of regular membership, plus may send four representatives to all TAGT conferences at the member rate, regardless of individual membership status.*

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