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ABSTRACT

Each of the four issues of the newsletter of the Texas Association for the Gifted focuses on a theme: leadership, evaluation and assessment, curriculum issues, and accountability issues. Issues usually contain theme-related major articles, columns by the Association's president and executive director, a column examining related research, answers to questions, and book reviews. Major articles include: "Leadership and the Gifted in the 21st Century" (Frances Karnes and Jane Chauvin); "Teaching Children To Lead" (Mary Seay); "Understanding and Encouraging Leadership Giftedness" (Dorothy Sisk); "First Steps: Creating a Quality Leadership Program" (Laura Phillips Mackay); "Gifted Hispanic Girls: Education, Support, and Encouragement" (Cynthia Shade); "The Rationale and Validation of the Torrance Test of Creative Thinking" (E. Paul Torrance); "Gifted Program Evaluation" (Ernesto Bernal); "Parent Assessment of Giftedness: Using Portfolios" (Bertie Kingore); "Educating with the Harkness Table" (Tyleer C. Tingley); "Using Testing and Public Information To Make the Case for Gifted and Talented Students" (Chrys Dougherty); "Appropriate Identification Criteria: A Self Study" (Bertie Kingore); "Clues from Brain Research for Challenging Gifted Learners" (Barbara Clark); "Teaching beyond the Average" (Robert Schultz and Margaret Price); "Science, Service and the Gifted Learner" (Mary Nied Phillips); "Future Problem Solving: Improving Skills" (Kent Hutton); "Gifted Instruction Goes Dot-Com" (Helen Teague); "Internet Resources" (Helen Teague); "Performance Standards for Gifted Students" (Evelyn Hiatt and Linda Phemister); "Accountability for Gifted Students: Burden or Opportunity?" (Tonya Moon and Carolyn Callahan); "Standards of Learning and Gifted Education: Goodness of Fit" (Joyce VanTassel-Baska); and "Emerging Giftedness for the LEP Student" (Pamela M. Cooper). (Individual articles contain references.) (DB)

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Edited By Michael Cannon

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

TEMPO

Volume XX Issue 1

Leadership and the Gifted in the 21st Century

Frances A. Karnes, Ph.D.
The University of Southern Mississippi
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A new century beckons; a new millennium approaches — who will fashion the dreams the dreams that will become the vision for this new age? Who will possess the ability to empower others with this vision; and who will have the strength to help others turn this new vision into a reality? Would it not make sense to turn to our most able in our quest for guidance in this new beginning? The gifted child of today is the hope of tomorrow. From these ranks should come the leaders of the 21st century.

Research Findings

Stodgill (1974) in his *Handbook of Leadership* conducted extensive analysis of the available research in the area of leadership and came up with a list of characteristics that most leaders from all ages seemed to possess. These characteristics were based on the assumption that leaders were "born" and not "made." As such, these characteristics were considered to be inborn, fixed, and had applications across all situations (Karnes & Bean, 1996). While many of these traits are still highly prized in a leader, more current research (Bennis & Nance, 1985; Hollander & Offerman, 1999; Yammarino & Bass, 1990) has focused on "transactional and transformative leadership theories." In this model the transactional leader is thought to motivate the followers through contingency rewards and negative feedback. On the other hand the transformative leader models and inspires the actions of his followers beyond their expectations as together they develop a sense of mission and seek to reward new ways of think-

(see KARNES and CHAUVIN, page 12)

Winter 2000 Issue

LEADERSHIP

FROM THE PRESIDENT

On Leadership

Karen Fitzgerald

Tempo
Volume XX Issue 1 Winter 2000

PUBLICATIONS EDITOR
Michael Cannon

What an exciting time for us to be alive! With the beginning of the new millennium comes a chance at new beginnings for all of us in our personal and professional lives. When we look back over the last decade we see what great gains we have made in the state of Texas in gifted education. And TAGT, our state gifted organization, has strongly advocated for appropriate education of all gifted and talented youngsters across the state. In just ten years the Texas Association for the Gifted and Talented has grown from 4,000 members to a membership approaching 9,000 educators, parents, students, and community members. Our annual professional development conference has grown from 2,300 attendees ten years ago to an average of 6,000 people over the past five years. Our TAGT budget has grown from less than $300,000 to over $1 million and financial accountability has been the key component of our association's risk management policy during the past decade.

Because of TAGT's strong advocacy, we have a funded state mandate with laws, rules, and a state plan which guide us in making good decisions to create top quality gifted and talented programs. TAGT is a stronger organization today than it has ever been! However, there is still much exciting work to be done by all of us.

As I begin my year as your president for the year 2000, I accept the responsibility for leading TAGT into the next millennium. With a new president and our new Executive Director, Dr. Amanda Batson, you will see some changes at TAGT. Several ideas will be the focus of our discussions on the Executive Board in the coming months.

- First, our web site will get a new look and will include additional helpful information for our members.
- Second, we will continue to increase communication with you this year through numerous publications, meetings, and electronic means.
- Third, we will continue to advocate for accountability standards for gifted and talented programs at the state level.
- And fourth, TAGT will continue to work with SBEC (State Board of Educator Certification) to promote teacher certification in the area of gifted and talented education.

(see FITZGERALD, page 15)

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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The Journey of Leadership

Amanda D. Batson, Ph.D.

Just as my predecessor struggled with her first communication, so have I. The struggle is not so much what to say but how to initiate the conversation, how to entice you to continue the journey, how to find my official voice for TAGT . . . again. More than ten years ago, I began my service for TAGT as a volunteer on the Executive Board. I was the Regional Representative from Region III. Eventually I was elected an officer and served as President in 1992. Recognizing the need to map out the journey for the association, the 1992 Executive Board, Executive Director, and I developed the TAGT strategic plan which included the change from Regional Representative to Regional Director plus other revisions which now are part of the TAGT Bylaws

To become Executive Director is a rare opportunity. I am grateful to the Executive Board for extending this opportunity to me. The rich legacy of my predecessors, Laura Allard and Connie McLendon, provides a deep foundation for the association and a future bright with promise. Accomplishments by the executive boards and Connie McLendon over the last decade have set the stage for new levels of excellence. Running this race for gifted children takes teamwork, persistence, and commitment. To win the race, leadership is required on at least three levels.

DEVELOPMENTAL LEADERSHIP

The leaders of tomorrow are enrolled in the schools of today. Students who are gifted in leadership are in developmental modes as are leaders of all ages. However, the young gifted leader is especially vulnerable and capable. As a student who is gifted in leadership, the capability is present. The vulnerability exists because of the likelihood that the gifted student leader will not have access to appropriate education. Such education would develop his leadership skills and thus expand his capacity for service.

Unusual capacity of leadership is recognized in the state definition of gifted and talented students as (Texas Education Code, §29.121). This unusual capacity of leadership, as all areas of potential, must be developed in order to flourish.

Gifted leaders need opportunities to build relationships and find settings which offer meaningful service opportunities, and have emotionally as well as physically safe environments in which to lead. Such an environment is inviting and includes adult role models and mentors. The young gifted leader can take risks, succeed or fail, then try again in search for her or his leadership style. Mentor young gifted leaders in your community or school and support the development of programs for gifted student leaders. Working side by side, leaders can span age, space, and time in service to others. Leadership fostered over time becomes a valuable resource to a community, state, and nation.

INDIVIDUAL LEADERSHIP

In your role, whatever that role or roles may be, you are a leader. Whether teacher, principal, coordinator, parent, university professor, community member, or student, you are a leader. Thus as you and those in your world come together, a community of leaders and learners can be established. As an individual leader, your work is dynamic and changes, as needs change. Your leadership on behalf of gifted and talented students is an important service arena.

In 1995, L. Bolman and T. Deal wrote in *Leading with Soul* (102), "Leading is giving. . . The essence of leadership is not giving things or even providing visions. It is offering oneself and one's spirit." As you offer your time, energy, ideas, and spirit to support quality services for gifted students, you increase the chances that this special population will develop to its potential. I encourage you to search for meaningful, positive ways of giving yourself and your spirit to gifted education in your community and state. Work with your school principal and teachers to build an exemplary leadership program for gifted students. Recognize and celebrate young gifted leaders, their principals, teachers, and parents. Offer leadership opportunities to these students not only in the school setting but also in the community. As individual leaders serve in their respective towns, cities, school districts, universities, and families, strong ties are formed. These ties can create associations, which impact programs and initiatives for the gifted across the state and nation.

ASSOCIATION LEADERSHIP

Volunteers are a bedrock in American life. Such leadership

(see BATSON, page 18)

Teaching Children to Lead

Mary Seay

"Great necessities call forth great leaders."

That sounds as if it could be something that Abigail Adams might have written about the need for leadership to deal with the problems facing gifted education today. But, she actually wrote it to Thomas Jefferson (Bennis , 1990). About the middle of this century, we were hunting for young leaders in science and math to defuse the Soviet's embarrassing bellwether lead into space. Today, with an apparent dearth of bright young political leaders, it seems imperative that the education establishment work at developing the positive side of the young people with budding leadership characteristics. Leadership programs may be as important to the future of our country as the humanities and math programs which we work so hard at fostering.

> "The most important element in the kaleidoscope of power is the ability to be a catalyst for other people's dreams and hopes."

Two of the things which schools do not teach are an understanding of how to make money work for you and an understanding of the power of leadership. I still don't know how to make money work for me; therefore, pray explore here with me an effort at associating students with the art of leading.

For quite a few years, we have identified a group of students who have exhibited leadership characteristics to a marked degree and placed them on a Young Scholars Board of Directors. These students have been selected by a committee of the individual secondary school's counselors, principal, assistant principal, and members of the present Board of Directors, often on the recommendation of one of the Young Scholars Board members. The District has four junior highs and four high schools. Two of the high schools are of an alternative nature, so we draw students primarily from six schools. Our Board typically numbers ten to fifteen members, of which two students serve as Co-Chairs, two as Vice-Chairs, and two as Business Managers.

The chief job of the Board is to develop, organize, and execute a conference which is designed to round up young leaders from all grade levels and to provide them with a forum to talk to each other about subjects which are of interest to them. This conference is called, not surprisingly, The Young Scholars Conference and is held the last Saturday in February of each year. The Board of Directors chooses to hold the conference at the local university campus which has a very nice facility for the general sessions, the break-out sessions and, provides the lunch which the Board members devise.

The logistics of the planning for the conference begin with the most time consuming job of the conference: the decision of who will be their keynote speaker. They scour newspapers, magazines, listen to TV news and kid news shows, alert relatives in other states, and try to find a student somewhere in the United States who has done something that they think will inspire our group of West Texas youngsters. Speakers they have found include the girl from New Jersey who had sold the most Girl Scout cookies in the world, and who had also written a book about selling yourself; a thirteen year-old girl who was a radio and TV disc jockey and news anchor from Minnesota; a twelve year-old young man who was a pilot, and at nine had circumnavigated the globe, first obtaining permission to land in Soviet airspace from the Soviet Prime Minister, thus becoming the ONLY private pilot to ever land in Soviet airspace, a record which will stand, I presume, forever since there is no longer a Soviet Union or any Soviet airspace. He was from California. The Board has also invited a Russian exchange student; the author, at thirteen, of a children's book published by the Written and Illustrated By Publishers; the winner of the USA Pentathlon who was a cadet at the Air Force Academy in Colorado; and a fifth grader from Abilene, Texas, who had written a book about video games and had a syndicated newspaper column in seventeen newspapers about new video games at that time.

Two of the best received speakers the Board ever invited were a young man from Chicago and a young woman from Tennessee. The eleven year old boy had been one of the speakers at the Million-Man March in Washington a few years ago. Some of the Board members saw him on TV

and were finally able to negotiate for him to come to the conference. The young woman was the Cambodian girl in *The Girl Who Spelled Freedom.* While she herself was a college student and had been played by an actress, her story of the flight of her family from Cambodia still brings us chills. That movie incidentally, can be rented and is worth the time for your own students to view. Her name is Lin Yan .

We will embark very shortly on the search for this year's speaker. Once this effort has come to fruition, the next step is for the Board members to visit each campus to advertize the next conference. Unfortunately, the Board members have to be out of school for about two days during this cheerleading phase of their work. They develop speeches and go in pairs to the campuses to talk to groups of students about becoming speakers for our break-out sessions: not an easy job because we need ninety to one hundred break-out speakers. This stage is what I think Tom Peters calls "selling it to the sales force." If the Board Members can excite young children who will become presenters, the conference will be a real barn burner. This is the point where elementary leadership arises and where we look for future Board of Directors members.

The conference requires three categories of leaders. First, we look for presenters who will talk for ten to fifteen minutes about any subject in which they are interested. We later group these speakers into sessions which are about an hour and fifteen minutes in length, and we group them by grade level (first and second, second and third or third and fourth, for example). This means that students who are just attending the conference as participants may choose to go to listen to students in their own grade level or they can choose that of their little sister, who is presenting in the room next door.

Second, we seek displayers . These are students who have visual arts to display, science fair exhibits, collections, artifacts, or anything which will lie on the tables or hang on the walls. Some of the exhibits have been impressive. We once we had a display composed of 76 pictures of Elvis Presley and another of 301 dolls. There have also been coins, baseball and football cards, rocks, and other indescribable collections. Somehow, the weirder they are, the more interested the students are in them. There was once a hot-glued giraffe made of aluminum root beer cans (brown and yellow) created by a nine-year old. It was not quite life sized, but it made an impact on the students.

Third, we hunt down entertainers. Entertainers are all sizes and shapes; they present plays, do karate and gymnastic demonstrations, dance, sing, play the piano, and various other instruments, and once we even had a yodeler. We have choirs, ensembles, poetry reciters. Along with our local Mariachi Band from one of the junior highs, we always get to enjoy the Ballet Azetca Dancers who range from very tiny to very tall, and they perform traditional Mexican dances.

Leadership Characteristics

Encourage students to:

- grow in information
- dream big dreams
- set goals in motion to accomplish the dream
- develop action plans
- acquire as many new skills as possible
- learn to evaluate their own abilities
- value the contributions of others

In November we solicit poetry and art from all secondary English and art teachers. The Board members meet in January to decide what art and poetry will go into the program. It is a significant honor to have one's art on the cover of the Young Scholars conference program. Student art and poetry is liberally sprinkled throughout the program.

By December the Board has to agree on a menu and napkin and table cloth colors. This sounds easy; they agonize over the decisions. They have to use buffet service, but they insist on a very nice luncheon menu and all the trappings of an event which is both serious and fun. The Board wears sport coats, ties, and going-to-church dresses, and as they speak to the students at the campuses, they emphasize the importance of being dressed up for the conference. Some of the Board members go with me to negotiate with the university food service representative. Price is important to them, but so is decorum.

In January the Board scouts the community for door prizes. This is great publicity for the conference, and a terrific opportunity to use their persuasive instincts. They always have forty or fifty door prizes to give away.

In February, I have to take them out of classes again the week before the conference. We write what each Board member will say or do, because, as they like to remind me, "NO adult speaks at this conference." And, indeed they do

(see BEAT, page 14)

Understanding and Encouraging Leadership Giftedness

Dorothy Sisk

Leadership calls for interpersonal, psychosocial and human relation abilities. Gardner's (1983) theory of interpersonal intelligences has helped to motivate educators to include leadership as a type of giftedness and provide programming to develop leadership. Ramos-Ford & Gardner (1991) define interpersonal intelligence as the ability to understand other individuals, their actions, and their motivation and to act productively on this knowledge. Leadership was included in the definition of gifted submitted by the U.S. Commissioner of Education (Marland, 1972); however, in practice most programs for gifted students have been limited to general intellectual aptitude or specific aptitudes in which students have been identified with high scores on standardized intelligence, and/or achievement tests. Yet, in spite of this limited program offering for the gifted, many students gifted in leadership were identified because they were also high achievers and had high ability. When lists of normative characteristics of gifted are matched with lists of leadership characteristics there is considerable overlap and interaction. Lists of normative characteristics have been compiled by numerous researchers (e.g., Terman & Oden, 1951, Renzulli, et.al, 1976, Maker, 1982, Gallagher, 1985, Sisk, 1987, Silverman 1993). Silverman's (1993) list pairs intellegence characteristics of gifted students with personality characteristics.

Interrelated Characteristics of Gifted Learners

Intelligence Characteristics	Personality Characteristics
• Exceptional reasoning ability	• Passion for learning
• Intellectual curiosity	• Powers of concentration
• Rapid learning rate	• Analytic thinking
• Facility with abstraction	• Divergent thinking/creativity
• Complex thought processes	• Keen sense of justice
• Vivid imagination	• Capacity for reflection
• Early moral concerns	• Intensity
• Insightfulness	• Perseverance
• Need to understand	• Acute self awareness
• Need for mental stimulation	• Nonconformity
• Perfectionism	• Questioning of rules/authority
• Need for precision/logic	• Tendency toward introversion
• Excellent sense of humor	
• Sensitivity/empathy	

(Silverman, 1993)

Relationships of Intellectual, Personality and Leadership Characteristics

As these two lists illustrate, there is tremendous relationship between intellectual and personality characteristics. Intellectual characteristics, keen sense of justice, and early moral concern, are components of leadership characteristics, (Catton, 1953, Eisenhower 1967, Bennis & Nanus, 1985). The intellectual characteristic of power of concentration and the personality characteristic of intensity can be paired with the leadership characteristic, a sense of urgency (Manske, 1987). Leaders tend to develop warm person-to-person relationships and this characteristic correlates with the personality characteristics of sensitivity/empathy, need for understanding, and insightfulness. Leaders are decisive which relates to the intellectual characteristics of analytic thinking, complex thought processes, and exceptional

reasoning ability. Decision-making requires leaders to be rapid learning (intellectual characteristic) with a facility for abstraction (intellectual characteristic) to handle enormous amounts of information. Leaders have courage and this characteristic relates directly to the two personality characteristics, nonconformity and questioning of rule authority. Leaders insist on excellence which relates to the personality characteristic of perfectionism. Leaders are intellectually curious and have a passion for learning, since leaders are a vital part of the change process. One characteristic that Silverman (1993) lists as a personality characteristic that seldom pairs with leadership is a tendency toward introversion. Leaders cannot hide in the crowd, because they are responsible and accountable for the results of their followers (Bennis & Nanus, 1985). However, even though many leaders are extroverts, it is important not to overlook introverted gifted students as potential leaders. With the overlap among intellectual, personality, and leadership characteristics, it is clear why so many academically gifted students have potential to be gifted in leadership.

Definition of Leadership

Leadership means different things to different people. After a comprehensive review of the literature, Sisk and Shallcross (1986) concluded that there were almost as many definitions of leadership as individuals trying to define the concept. Representative definitions according to Baldwin (1970) include:

• President Harry Truman said that a leader is a man who has the ability to get other people to do what they don't want to do and like it!

• Field Marshall Montgomery stated that leadership is the capacity and the will to rally men and women to a common purpose and character that implies confidence.

• Vince Lombardi defined leadership as getting inside the players and motivating them.

• Al Neuharth (founder of *USA Today*) said leaders create a vision of the future and in other people to make the vision a reality.

Researchers (Stogdill, 1974, Baldwin 1970; Foster, 1981, Manske, 1987) agree that outstanding leaders appeal to the hearts of their followers, not just their minds. Martin Luther King, Jr., who led the great crusade for civil rights from 1955 to 1968, epitomized a leader with great vision and the tenacity to move ahead at all costs. Despite being jailed several times, stabbed, and stoned, King persisted in his efforts to fulfill his dream of a world of racial equality and improved living conditions for the poor. Over and over again, King repeated, "I have a dream. . ." People became electrified, screamed, cheered and cried, pushing him to ascending heights of revelations and discovering. (Baldwin, 1970)

Debate on Leadership Development

The debate as to whether leaders are born or made is still not settled (Stogdill, 1974, Baldwin, 1973, Foster, 1981). However, Manske (1987) is emphatic that leaders are made, not born.

"The born leader school believes that a leader's style is determined by his or her genetic inheritance. The opposing viewpoint, to which I subscribe, is that leadership style is acquired in the same manner as are sophistication and graciousness - by study, emulation, and experience!"

Research on characteristics of leadership indicate that leaders demonstrate the personal power skills of creative insight, sensitivity, vision, versatility, focus, patience, and conflict resolution skills (Sisk, 1999). Table I uses a Likert scale (1 low and 10 high) to indicate how these characteristics of leadership can be used as an observational scale to help identify or screen students gifted in leadership.

Table 1. Seven Personal Power Skills

Creative Insight	1	2	3	4	5	6	7	8	9	10
Sensitivity	1	2	3	4	5	6	7	8	9	10
Vision	1	2	3	4	5	6	7	8	9	10
Versatility	1	2	3	4	5	6	7	8	9	10
Focus	1	2	3	4	5	6	7	8	9	10
Patience	1	2	3	4	5	6	7	8	9	10
Conflict	1	2	3	4	5	6	7	8	9	10

(see SISK, page 19)

First Steps: Creating a Quality Leadership Program

Laura Phillips Mackay

Leadership programs have many similarities to the latest fad diet. The program may work for a while, but the end results usually do not last. To avoid this pitfall, determine how we identify leaders before any program is created. Leaders and the elusive characteristics of leadership can be traced back to the beginning of our history. Famous names like Alexander the Great, Hitler, Martin Luther King, and Joan of Arc, all inspire a different definition of leadership. Present day governments try to train their leaders beginning in the classroom. This article will examine different methods used to identify leadership ability and the implications for programming in a school setting.

> "Providing for the high ability leaders of tomorrow is important both on a federal and state level, but defining what characterizes leadership potential in young gifted children is a difficult task."

In 1926 Lewis Terman questioned whether gifted students had leadership capabilities. Through a survey comparing the attitudes of gifted and non-gifted students, he found that the group of gifted students slightly outperformed the control group in having a preference for being a leader of a club or team (Terman, 1926). While this does not mean that all gifted students make great leaders, it does mean that schools should look at how they nurture potential leadership ability. In 1972 the U.S. Office of Education under the leadership of Sidney Marland, Jr. began to address this area. Leadership ability was included as one of the areas in which children can be identified as high performing and therefore requiring "differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society."

The inclusion of leadership in the definition of what it is considered gifted and talented changed the way services were to be provided. No longer was it enough to differentiate for general intellectual ability, but now it was also important to consider creativity, leadership, and the visual and performing arts, when developing curriculum offerings for high ability children. Texas acknowledged the importance of providing special programming for children of high leadership ability in the 1996 *Texas State Plan for Gifted Students*. In section 2.1.1 E of this document, a district which wants to reach an "Exemplary" ranking must offer services that "are comprehensive, structured, sequenced, and appropriately challenging, including options in the four (4) core academic areas, arts, leadership, and creativity." Again, in section 3.1E, "Curriculum for the gifted/talented provides options in intellectual, creative, or artistic areas; leadership; and specific academic fields." Obviously, providing for the high ability leaders of tomorrow is important both on a federal and state level, but defining what characterizes leadership potential in young gifted children is a difficult task.

The 1972 federal definition legitimized non-academic areas as worthy of federal funding, but as Huckaby(1981) noted, it may have caused a "classic case of horse and cart reversal" (p. 20). He pointed out the fact that since federal funding was now available for leadership programs, many states rushed to create these new categories and did not research what was worth doing or the impact of their programs on students. Huckaby stated the result is that "We have a multitude of educators and grant writers supporting leadership giftedness even though they have little or no empirical support for the programs they propose" (p. 20). Based on this idea, any program created for an elementary school needs to first focus on pedagogy and research, and not be thrown together haphazardly. There are several questions that need to be answered including:

- What is leadership?
- What are the characteristics of leadership?
- How can you identify leaders in an elementary school?
- What programs are already available to provide curriculum for young leaders?

As Foster (1981) pointed out, "There is a great uncertainty

as to what really constitutes leadership and even more perplexity as how we ought to train for its expression in school age children or for that matter in adults" (p.18). Unfortunately not much has changed since 1981. The notion of leadership varies from domain to domain depending on whether the subject is politics, education, government, business administration, or philanthropy. By including a leadership strand in programming for high ability students, leadership "stands legitimized, ready for the infusion of financial and instructional support for the development of programs for persons evidencing a potential for such talent" (Foster, 1981, p.18). However, defining leadership is much harder than the simply including it in a federal definition of gifted. To avoid the horse and cart reversal, Clear Creek ISD wanted to create a profile sheet to determine leadership ability in gifted students, then design a program to meet their needs and specific characteristics.

When looking at creating a leadership program for gifted students, it is important to make sure that your standards for admittance match your program criteria. With this in mind, Clear Creek ISD decided to develop a profile sheet of the quantitative and qualitative criteria we would look at to determine admittance to a leadership program. Self-nomination, peer nomination and teacher nomination would be used together to help screen potential applicants. This was decision was based on research by Friedman (1984) which found that if you could only use one nomination method when selecting student leaders, then the best predictor was self-nomination. However, student leaders selected by a combination of self, peers and teachers scored the highest in leadership ability.

Several quantitative tests were considered for the self-nomination portion of the profile. Unfortunately, the majority of these tests were designed for adults and not practical for use with children. Our two child favorite child-centered tests were the Tests of Leadership in Children and Youth Leadership Ability Evaluation (LAE) and the Leadership Skills Inventory (LSI). Oakland et al (1996) provides a very through analysis of all tests mentioned and was the basis for our beginning research. In the end, we decided to use Karnes' Leadership Skills Inventory, where students mark responses that are indicative of their own behavior. Familiarity with her research and ease of use were the two main reasons for our decision. This would serve as one of the quantitative pieces in our profile sheet. The other piece would be a teacher ranking of the student's leadership qualities.

When determining which instrument would be best to use as a Teacher Rating we again looked at several different scales including: Renzulli's Scales for Rating the Behavioral Characteristics of Superior Students, the Gifted Evaluation Scale (GES), and the Gifted and Talented Screening Form (GTSF). Renzulli's Scales for leadership ability was one of our first choices, in part because many teachers in our district were already familiar with the subscales. It was also felt that the leadership characteristics we were looking for in our program were represented in Renzulli's leadership subtest. The GES was also popular and is based on Public Law 95-561 and had norms and test-retest reliability. In the end we decided to pilot both rating scales and try to research which one best identified the leadership characteristics sought for our program.

Qualitative criteria include a student portfolio, a peer ranking score from a class activity and classroom grades. The student portfolio consists of various activities to measure how a student acts in a leadership capacity. Most of the ideas were taken from Karnes' and Bean's book *Leadership for Students, A Practical Guide for Ages 8-18* (Karnes and Beans, 1995). One portfolio page asked the question, "How do you know you are a leader?" and left open the way a child could respond. Another page consisted of asking, "Ways I have been a leader at school or in my community." Also part of the portfolio is a more situational question to see if students respond to a leadership role. Students will be given three situations and asked how they would respond. An example of one situation is, "The food in the cafeteria seems to be getting worse. Many students are complaining that they don't want to eat the food. Using your leadership skills, what could you do to change the situation?" The key is to look and see if the student relies only on himself or if they involve others in changing the situation.

The peer ranking is newly designed and involves the student peer group in ranking different students as leaders. A group of five students will be asked to rate each other on a variety of characteristics. Questions include: Does the student cooperate with others? Do other people listen to what the student has to say? Is the student involved in many different activities? Students will rate each other on a five-point scale ranging from Never to Always. Testing on this activity still needs to be completed, but it is hoped a high score on the peer ranking activity will correlate with a high teacher and self-ranking. Students who are placed in the pilot leadership program will need three out of the five criteria.

We will be researching our results with this profile sheet during the next year. We have many questions to answer. Does the Leadership Skills Inventory correlate with the peer and teacher ranking? Do our measures hold true no matter what the age of the child? Are different types of leadership

(see MACKAY, page 18)

Gifted Hispanic Girls: Education, Support, and Encouragement

Cynthia Specia Shade

How do schools meet the needs of gifted Hispanic adolescent girls who come from a low socioeconomic status background? In addition to gifted education, Hispanic females who live in poverty need unique and specific interventions. Schools, as early as possible, should redefine curriculum as well as provide an array of opportunities that foster success in and outside of the school setting. First, gifted girls need to understand themselves before they can achieve.

Being an adolescence woman is hard enough and when young women are gifted and Hispanic, they must also deal with their culture, mores, and traditional customs. Therefore, a strong support system is needed to enable them to effect achievements and to cope with societal pressures. Intervention in the form of counseling should be in place as early as possible for gifted Hispanic girls. After all, they are our future leaders and decision-makers.

Unfortunately for society, "Girls show a decline in adjustment over the adolescent period; by the age of 17, their emotional tone and sense of well-being are much lower, and they suffer from more symptoms of depression than boys. Girls are more susceptible to many affective disturbances, including sleep problems, stress, and negative self-appraisal" (Matthews, p. 57). Thus, school counselors should hold regular quality sessions that meet the needs of gifted girls. The sessions need to help girls to understand themselves and to learn techniques and strategies that will help them become successful. In addition, gifted girls should be taught by teachers who are gifted themselves, especially female teachers who are able to model positive attributes that can influence appropriate behaviors for these girls.

Tenacity

Gifted females need to learn to be tenacious. "There is a general consensus that young persons are influenced by their desire to be accepted by a social group" (Hanson & Hall, 1997). This is particularly strong in adolescence. Thus gifted girls often conceal their giftedness as indicated by a number of gender equity research reports. American Association of University Women (AAUW) has conducted a number of such research studies. To counter the pressures, AAUW (1995, p.1) has five key principles; they are:

- Celebrate girls' strong identity
- Respect girls as central players
- Connect girls as central players
- Ensure girls' participation and success
- Empower girls to realize their dreams

Gifted Hispanic girls should be taught how to cope with societal pressures such as commitments surrounding extended family, dating, religious activities, and school work. "Because of male dominance in Hispanic families, girls often are not encouraged to excel in academic areas or pursue careers outside the home" (Maker & Schiver, p.73). Students must have inner strength and a vision of success in order to succeed. When one G/T female Hispanic senior was asked how she was able to cope with the continual pressures of her family and friends, she replied that she went to the library every night so that they could not disturb her. She had her sights on success and she desperately needed an alternative place to study. This example illustrates how young women must cope with the rigorous courses of study she faces; however, family is also very important. The library becomes her coping mechanism. She has a place to study and the home is for her family and friends.

Another young woman was able to have real world experiences during the school day. One day a week she was in a mentorship program at Southwest Research in San Antonio. Her interest was in engineering and she was mentored by a group of engineers who develop products for NASA. She was the valedictorian of her high school class and received a full scholarship to a prestigious state university. Her family initially did not let her go away from home, but later she went to school at a university outside of San Antonio. Today she is working as an engineer in New York City and has, among other projects, designed a marble spiral staircase for a major clothing store chain.

Resilience

A study was conducted by S. M. Reis and her colleagues (1998) entitled "Determinants of Achievement in Culturally Diverse Gifted Females" (p.176). The group wanted

to determine what would make the culturally diverse females successful in an urban setting. From this study, she categorized several factors.

The first factor is resilience. "The gifted females...were extremely resilient, acknowledging their abilities and working to achieve a level that was commensurate with their abilities. They existed in a community of achievers within a large urban high school that contributed to their efforts to succeed" (Reis, p. 177). "All participants lived in a city plagued by violence, drugs, poverty, and crime.... The young people profiled in this study survived in the city and excelled in their school" (Reis, S.M., pp.177-178). These females seemed remarkable; they accepted their plight and continued to pursue available opportunities.

Self Belief

Reis also found that "The young women attributed their strong belief in self to several factors or influences, including supportive adults, extracurricular activities, appropriate educational opportunities, family support, peer support, and personal characteristics including sensitivity, cultural appreciation, realistic aspirations, motivation, and resilience" (p. 178).

Inner Will

The investigators also found that the young women had a strong inner will. "They used a variety of methods to succeed. A determination to succeed was consistently echoed by most of the participants. . .especially the female achievers" (p.179). The young women who achieved had internal motivation and were driven to succeed.

Systems of Support

Gifted females especially need support systems and many times this came from teachers and the guidance of other supportive adults (pp. 179-180). The students developed a network where they could be academically successful. Extracurricular activities were important components and the students learned to excel as well as manage their time. Special programs such as Upward Bound helped girls build a support system across the city. "For example, the guidance counselors began to realize which students had the ability and the desire to succeed academically and provided the opportunities for students who were the most likely to succeed to be together in classes and summer experiences" (Reis, 180).

Gifted Girls Seminar & Interventions

In an effort to provide support for Hispanic gifted girls in Edgewood ISD (San Antonio), a multi-tiered plan including seminars was developed and implemented during the 1997-1998 school year. These seminars fostered self esteem, organization skills, and goal setting. In addition, participants were encouraged to select rigorous academic courses. Speakers and facilitators were professional women and members of the American Association of University Women. The seminar groups were small to facilitate discussion.

In the first seminar, the role model for our gifted Hispanic young women was Dr. Dolores Muñoz, superintendent of Edgewood ISD. After Dr. Muñoz' keynote address, the girls watched a short video, "Girls Can" and participated in small group discussions. Following these discussions was an activity designed for the gifted females to develop their own "Self Portrait." This seminar began with the idea of self. Discussion leaders asked questions, such as "Who are you now?" and "Who do you want to be?" Another activity celebrated success as the students were asked to tell the group about their proudest moment and what enabled them to succeed.

The seminar participants were then asked to "Draw traditions that make you who you are." To be successful, one needs to understand ones' self and how culture shapes who one is. The cumulating activity was a goal setting session.

Prior to the Gifted Girls' Seminar, a staff development session on gifted girls was presented to teachers. Seminars were also held for counselors who provide guidance to gifted females. In addition, G/T parent meetings were conducted district-wide; parents were given the pertinent information about their daughters' needs during adolescence. The key to success was the combination of these interlocking components.

Mentors

In 1998, Edgewood implemented the Independent Study Mentorship program. Gifted females needed to see and hear how they could learn in the workplace through mentorships. During the seminar, Taft High School seniors traveled to Edgewood and told their mentorship stories. Another activity revolved around making choices: good choices, bad choices, and the consequences. Choices were about life, career, health, relationships, finances, and the delay of gratification. The discussions which followed dealt with love, marriage, and how to design their own lives. "Indeed, being gifted does not free a young woman from the cultural forces encouraging gender-typical career choices" (Kelly & Cobb, p. 205).

Today, junior and senior gifted girls have the opportunity to participate in an Independent Study Mentorship. These courses are tied to the Distinguished Achievement

(see SHADE, page 16)

(from KARNES and CHAUVIN, page 1)

ing and acting. These new and improved solutions to problems create the "new order".

The majority of the research on leadership and giftedness suggests a positive relationship between the two concepts. Both effective leaders and gifted individuals are characterized as being highly verbal, socially sensitive, good problem solvers, critical thinkers, creative, task committed, and idealistic. The propensity of gifted students to arise as the leaders in a school setting was revealed in Terman's (1925) classic longitudinal study of the gifted. Leta Hollingworth's (1926) research showed that in a group of children, the IQ of the child designated as the leader by his or her peers was as much as twenty points higher than the followers. As recently as 1984, Lawrence Shaklee found that gifted students could be characterized as visionary leaders, while nongifted students appeared to be more organizational leaders. All of this research points to the fact that attention must be paid to the early development of leadership, especially in the gifted population (Karnes & Bean. 1996).

Leadership Development Program

The Leadership Skills Inventory and the Leadership Development Program (Karnes & Chauvin, 2000) have been designed for use with upper elementary, middle school, high school, and post-secondary students. Implementation can be directed to those within and outside of the school. The former group would include teachers working with students in the regular classroom, the resource room, residential/non-residential high schools, and extracurricular clubs and organizations. Utilization could also take place within a specific course on leadership. Schools, as well as, community groups and colleges and universities may wish to develop after school, weekend, or summer programs. The Leadership Studies Program based on these concepts has been conducted for sixteen years at The University of Southern Mississippi with documented results (Karnes & Merriweather, 1989; Karnes, Merriweather & D'Ilio; and Karnes, 1999).

The LSI (Karnes & Chauvin, 2000) is a self-rating, self-scoring instrument. The student rates him/herself using a four point Likert scale in the nine areas and plots the total score for each on the Leadership Skills Inventory Profile sheet. The LSI has been designed to show areas needing development by each student. In addition to the profile sheet, the teacher/instructor may wish to do an item analysis for each student and for the entire group that will determine the nature and depth of the instructional program. An example would be that those students in an advanced English course may not need as much instructional time on written and oral communication skills as perhaps younger children would.

The Leadership Development Program (Karnes & Chauvin, 2000) is comprised of instructional strategies to strengthen the needed areas for leadership. There are one or more activities for each item on the LSI. Reproducible pages that offer further detail are also in the manual. Items that are listed may also encourage students to develop activities on their own. These activities have been pilot tested on groups of students in summer leadership programs.

After a thorough review of the professional literature in the field of adult leadership training, the concepts and skills were distilled for children and youth into the nine categories: fundamentals of leadership, written communication skills, speech communication skills, character-building skills, decision-making skills, group dynamic skills, problem-solving skills, personal skills, and planning skills. A brief description of each of these areas follows.

The fundamentals of leadership include concepts and skills such as defining terms, identifying various leadership styles, the requirements and the responsibilities of various leadership positions, and determining the positive and negative aspects of it. Knowing, outlining, and writing various types of speeches, distinguishing fact from opinion, and preparing an agenda are a few of the concepts and skills of written communication skills. Speech communication involves speaking in a clear and concise manner, summarizing and expressing the thoughts of others, using body language effectively, and being honest and sincere when speaking. Character-building skills include treating others fairly, being sensitive to the needs of individuals, doing what I say I will do, and respecting the rights of others. Decision-making skills encompass gathering facts, reaching logical conclusions, and supporting group decisions. Leading groups to allow people to feel safe in expressing their opinions, understanding the viewpoint of others, working effectively for compromise and helping others agree upon a plan of action are found in the group-dynamic skills. Identifying problems and formulating strategies for their solution are a part of problem-solving skills. Being able to revise strategies that do not work and even accepting unpopular decisions are also a part of these skills. Personal skills include things such as self-confidence, sensitivity to the feelings of others and personal grooming. Reliability, punctuality and integrity are also necessary personal characteristics of a good leader. The effective leader must also develop planning skills such as organization, goal setting, and the ability to put plans into action. Skills in this area also include the ability to take suggestions from others, to be flexible and to delegate authority to others.

Plan for Leadership

After the student has mastered all areas in need of further development, he/she then writes a plan for leadership that should be based on something to be initiated or changed in the school, community, or religious institution. The group may wish to brainstorm ideas. However, to assure for high motivation for the completion of the plan, the area for leadership action must be self-selected. The teacher or group leader should not give specific topics for the plans to students. The components of the plan include a goal with corresponding objectives, activities, person(s) responsible, time line, and evaluation. After each student completes the writing of his/her plan, time should be allocated for the presentation of it. During this activity, constructive feedback and additional ideas for the individual plans can be given by the members of the group. This activity gives additional experiences in the enhancement of speech communication and planning skills. An extension of the development and implementation of each plan for leadership would be to have school and community leaders representing all fields of human endeavor, ages, genders, and socioeconomic levels to listen to the students present their plans. This has been a highly successful component of the Leadership Studies Program conducted each summer on the campus of The University of Southern Misssissippi during the leadership breakfast (Karnes & Bean, 1996). After each presentation, time is given to the general discussion of leadership among the students and community leaders.

After the completion and evaluation of the plans, the teacher or instructor may guide the students in displaying how they conducted their leadership projects in the school, community, or religious affiliation. School and community exhibits should be another goal as there are many appropriate places, such as banks, malls, and libraries to present the leadership plans. The students can make the contacts, set up their displays, and write thank-you notes — all a part of being a leader.

Summary

The whole question of what leadership is and whether or not individuals can be trained for leadership is one that many people have explored. John Mariotti (1999) defined the role of a leader as follows:

- To create a clear understanding of the current reality and a healthy dissatisfaction with the current situation.
- To help develop a shared vision of a more desirable future situation.
- To create an environment in which people are motivated to embark on the journey to the future (p. 75).

The LSI and the Leadership Development Program are an effort to help young people to realize the skills that they already possess and to work to acquire those that they are lacking. Equipped with these skills they should be in a perfect position to effect the type of change that Mariotti describes. He goes on to say that there is a lot of "unrealized leadership" in everyone. The amount will vary from one individual to another. The realization of one's potential for leadership will also depend upon the circumstances in which one finds him/herself and the risk involved in assuming the task of leader. The Leadership Development Program presents a realistic portrait of what is entailed in being a leader. It cannot forecast all of the problems with which a leader may be confronted, but it can help to identify the skills that are universal to all leaders. The use of this instrument and the follow-up instructional activities can help to increase the self-confidence that a young gifted person might bring to a leadership position or even give him or her the confidence needed to seek the leadership position to begin with.

Given the problems with which the world has to contend with as we approach the new century and the new milennium, people should be quite concerned with the whole question of leadership. We need this generation of gifted youth to help individuals decide where they are going and how they will get there. It is they who must possess the gifts that will keep the group on course during the journey in spite of obstacles and difficulties that are sure to arise. The younger that gifted individuals are exposed to this type of training, the greater their potential will be to contribute to the present and to be prepared to assume their roles as well trained, gifted adult leaders.

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(from SEAY, page 5)

not. We practice in front of the microphones on the dais. They are their own performance directors, telling each other to speak into the mike, and deciding together how to pronounce each name they will introduce. At this time they also have the responsibility of assembling the programs, a ten or twelve page affair, and affixing the luncheon ticket to each one. Friday before the conference, the Board meets at noon in our administration building for hamburgers and speeches. We go over our speeches in the Board of Trustees meeting room, using the Trustees' mikes for one more practice. They need plenty of assurance that they are not going to make any major mistakes before the four hundred or so students and parents in the Young Scholars audience.

Afterward we go to the university campus to put up our easels (built by the carpenter shop especially for Young Scholars) and our signs, arrange name tags, prepare packets for participants, entertainers, presenters, and displayers. They have learned that the packets have to be separated to manage the big crowd which appears between eight and nine the next morning. They check the luncheon tables, and especially the colors of the cloths and napkins. On Saturday morning, they are there by seven to man the registration tables and give orders to the dozen or so volunteers (moms, teachers, and even a few dads).

By eight-forty they are on that dais, and their show has begun. There are usually few mishaps, but there has never been anything that these polished young men and women could not handle with grace.

And, so, finally we reach money. Except for the Board members and the students whose art work and poetry are used in our program, everyone pays the $8.00 registration fee to come to the Young Scholars Conference. That almost buys the lunches. I have a line-item in my budget called Young Scholars, and the keynote speaker gets paid from my consultants line. We offer them $300.00 plus expenses, but occasionally they bargain for much more, which I raise in the community from some "angels."

This conference is a great stretching experience for not only the students who are the Board of Directors, but also for every child who takes part in the effort. Chances to enhance the skills of leadership abound. For the most part these natural leaders teach themselves. They are given the opportunity to set their goals, chart their course, conquer the setbacks, and rise to success. On occasion I preach a little. I talk about Anthony Robbins' view that leadership is about having power over yourself. And Rollo May's view that if we become absorbed with getting the upper hand, in gaining power over others, we become estranged from those we want to inspire. And the most important element in the kaleidoscope of power is the ability to be a catalyst for other people's dreams and hopes.

The Board members learn to appreciate their own abilities more, and they feel stronger every year because they have tasted success, and it is delicious. Even sweeter is the sharing of success with each other. The Board is an incredibly bonded group of young people, happy when they are together. Some have five years experience behind them, some are first timers. They are all very strong leaders, but they recognize each other's talents, and they bring to each other the message of respect. In the special interweaving of their efforts toward the success of the conference, they become partners. Their opinions are respected, and everyone's ideas implemented where possible. We set reasonable and clear expectations, and these young people are given the practical autonomy to step out and contribute directly to the success of our shared venture, to their own personal triumph, and to the assurance that we can now set the bar a little higher, and once again, go for the gold.

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(from FITZGERALD, page 2)

But a leader is a leader only insofar as she has followers. When Dr. Ernesto Bernal spoke at the TEA Bilingual/Gifted and Talented conference last November, he said, "In the next millennium we need people who will lead us to places we haven't gone before." All of us are leaders in our own way, whether teaching a class, raising a child, or guiding a G/T program in our school or district. We can all be leaders by wanting certain actions and expecting certain results. The degree in which we get what we want is the measure of our leadership.

What are the actions and results that you would like to see TAGT accomplish this year? Won't you share your dreams with us? Together we can work to make the Texas Association for the Gifted and Talented the premier state organization that will lead us to those places we dream about for gifted students.

The year 2000 will be a year when we turn our dreams into successes. Leadership is a partnership and no one is an expert. As your leader, I will work to bring out the potential in others. I hope to help others discover what they already know. I learned when I was young that leaders become successful by helping others become successful, too. Working together we can accomplish many things.

In his speech for the First General Session at the 1999 TAGT conference, Dr. Joseph Renzulli said, "Rather than predict the future, we need to create it. We all need to be a part of creating a better future for Texas' gifted and talented youth." We all have the power to design the quality of our lives. We all have the potential to make a difference. In my opinion, we need patience with people and impatience with limitations. We need to have courage and perseverance, for leadership is a form of persuasion. It is an effect of our interactions and the exercise of our influence.

My challenge to you is that you strive to develop an even stronger leadership role on behalf of the gifted children closest to your heart this year.

- Advocate for gifted children wherever you go. Send articles to your local newspaper which feature G/T children's accomplishments.
- Share information from *Tempo* with administrators and teachers in your school.
- Arrange for G/T students to showcase their products within your community.
- Continue to raise your voice for gifted and talented children who so desperately need the acceleration and enrichment not normally provided in the regular classroom.
- Speak up and speak out. For without your voice, how do we make the public aware of the need for gifted and talented programs? How can we better promote G/T students than by hearing about them from someone with knowledge and experience?

As leaders we wear many hats. All leaders must at times be the "diplomat," the "troubleshooter," the "negotiator," the "stabilizer," and the "visionary." Our need for leaders with vision is even more urgent today than yesterday. We must identify and develop our gifted and talented students in ways which will insure their filling the leadership gap for the future.

We live in exciting times full of dreams for the future. Let us continue to promote awareness of gifted education and gifted and talented students throughout the year 2000. It is a new beginning for all of us. And one small voice makes a difference. Just start walking. Just start talking. Start the journey. We can go together!

Visit the TAGT web site at:
http://www-tenet.cc.utexas.edu/tagt/

(from SHADE, page 11)

Program (DAP), which requires a plan of advanced coursework. In order to receive the DAP, one must complete four advanced measures, including the Independent Study Mentorship.

The Independent Study Mentorship course is a unique career investigation. Junior and senior students complete an in-depth one-half to a year long course of study in an area of special interest under the helpful guidance of a mentor in the field. A teacher facilitates this course and helps students narrow their field of study, learn time-management skills, communications skills, interpersonal skills, interviewing, speech delivery, and goal setting. In addition, students spend much of their time with their mentor in pursuit of their research studies. This makes a dramatic difference as the mentored student learn if she really wants to pursue her chosen career. By the end of the mentoring experience, she will know if she should plan a career based on her mentorship. She may want to continue with that career choice or she might try another type of mentorship.

Mentors help the students to understand real life experiences. The student who is mentored is placed with a professional in the community. Students have been mentored by a veterinarian, a computer expert, and a professional photographer among others and have found some answers. At the end of the course, students are responsible for a one-hour minimum formal presentation to an invited audience where they present the results of their research study. The study will be judged by a panel of professionals in the field that is the focus of the project or conducted under the direction of mentor(s) and reported to an appropriate audience.

PSAT/SAT Institute

It became evident that intervention was also needed for raising college entrance scores. Thus, the G/T Program developed and implemented a PSAT/SAT Institute. The goals of the program were to increase students' scores on the Preliminary Scholastic Aptitude Test (PSAT) and Scholastic Aptitude Test (SAT) and to increase the number of National Merit Semifinalists in Edgewood. In addition, this program should increase the number of scholarships received by students through high test scores and increase the number of students being accepted for enrollment to prestigious colleges and universities. The program ran two weeks in the summer and practice tests were given on Saturdays prior to the October testing dates. In the fall of 1998, the females in EISD out-scored the EISD males on the SAT. The Institute was repeated in 1999.

Teacher Seminar

A district-wide staff development session was developed for teachers of the gifted. The seminar was researched-based and moved the participants from theory to practice. As with all effective staff developments, one always starts with "self." Teachers were asked to tell about a time that they felt particularly successful in school. In addition, the professionals reflected non-pleasurable experiences.

What is the best way to increase high school graduation rates for Hispanic students?

Mentoring programs	33%
Educating parents about the value of education	29%
More funding to schools	18%
Other	20%

Hispanic Business, Inc., October, 1998

Counselors

Counselors have received a staff development session on the social and emotional needs of gifted students. Counselors in Edgewood have been very responsive to student needs. If a gifted girl goes underground, the counselor works with that young woman to help her understand and accept her giftedness. Counselors developed group sessions for gifted girls.

Counselors also make certain that the high ability students enroll in the San Antonio Pre-freshman Engineering Program (PREP). This program is an eight week, mathematics-based, academic enrichment program. It emphasizes the development of abstract reasoning and problem solving. PREP helps students prepare for careers in the fields of mathematics, science, technology, and engineering. Students are eligible to participate in middle and high school.

Parental Intervention

Edgewood realizes that parents are the biggest influence in his/her children's education. Approximately 93.3% of the families in the district qualify (by federally established criteria) as low income families. Because of socioeconomic

limitations, parents experience greater difficulty in providing enriching experiences for a gifted child than parents in more affluent or suburban areas. Thus, it became imperative that the school district provide challenging and enriching educational experiences for students.

The district has developed a strong parent component. The Parent Involvement Program provides educational programs to help facilitate education of the children. The program focuses on training and educating parents on how to help their child mentally, emotionally, physically, and socially. The G/T program works in tandem with the Parental Involvement Program.

Conclusion

Successful Hispanic females need an extensive support system in place. This will include teachers, counselors, family, older siblings, and their high school friends who also want to succeed. These inner city youth need continuous counseling to help them stay focused on their dreams. Teachers who work with these students need to praise their good work as appropriate and to help them make useful and creditable choices. They need to overcome the frustrations of societal pressures and in order to do so, the students need to hold tight to their visions of success. In addition to their goals, they must be resilient in order to succeed; this must come from internal motivation. In order for these females to succeed they need to know who they are - what is their self-portrait? Even with so many cultural forces, gifted females can succeed with programs such as the Independent Study Mentorship; they must believe that this is a changing world and they can succeed.

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(from BATSON, page 3)

is immeasurable in its true value. According to Max du Pree in *Leading Without Power* (1997, 2), there are approximately 1.5 million nonprofit organizations in America. TAGT is one of those, an association of volunteers who serve for love, not money.

As the largest advocacy group for gifted in the world, TAGT holds great influence and simultaneously great responsibility. The TAGT mission to promote awareness of the unique social, emotional, and intellectual needs of gifted and talented students and to impact appropriate educational services for these students stands as tall and valid today as when it was first written. To achieve such a mission on behalf of the 3.5 million gifted students in Texas demands a strong, vibrant, and responsive organization.

Du Pree further writes, "leadership among volunteers is rather dependent in beautiful ways on shared values and commitment, on understood visions expressed in workable mission statements, and on moral purpose."

As we build association leadership, our individual and collective actions to achieve the TAGT mission are critical. Participation at the local and regional levels is a nonnegotiable if the statewide network of support and challenging opportunities for gifted students is to remain vibrant. Association leadership "looks like" joining and/or establishing a local or regional association of parents, educators, and other friends of gifted who meet, communicate, advocate, and lead locally on behalf of excellence for all gifted students. Such leaders become informed and knowledgeable about gifted education, legislation, rules, and requirements. As appropriate, these leaders share accurate, timely information with other leaders and decision makers.

Association leadership is maintaining your membership in TAGT and inviting others to join. Attendance at the annual TAGT Professional Development Conference and other TAGT sponsored events is evidence of leadership. Association leadership means volunteering to assist your Regional Director, and certainly, it is service on the Executive Board. Perhaps, most importantly, association leadership is building relationships, joining hands and hearts, to maintain and extend avenues of support for quality gifted education.

As I begin my journey of leadership as TAGT Executive Director, please travel with me. It is only as we work together that we can create new levels of excellence for gifted. John Gardner "raised what he called the question underlying all the other questions today, 'Whether we have it in us to create a future worthy of our past.' " (J. Jaworski, *Synchronicity the Inner Path of Leadership*, 1998, 172). As I contemplate the list of exemplary accomplishments and lasting contributions that the association has made, I find the challenge of creating a TAGT future worthy of the TAGT past to be daunting but feasible. Such a challenge becomes an extraordinary opportunity only if we travel together and remain focused on the reason for our journey: gifted and talented students.

(from MACKAY, page 9)

identified equally? Is there a cut-off score on the peer ranking sheet that helps identify a leader or does it make any difference what you score? While we have found a good place to start with entrance criteria, it is important not to set a subjective number as a criteria and hope it identifies a leader.

Leadership is an elusive quality that is hard to define. Clear Creek is taking the first steps toward identifying leaders, then designing a program to meet their needs. We hope these steps towards profile design will inspire others in designing a quality program for high ability leaders.

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(from SISK, page 7)

In a study of the personal leadership style of 200 middle managers (Sisk, 1999) found that successful managers have high aspirations, a willingness to work, the ability and willingness to think beyond themselves, a conviction that they can achieve anything they want if they put their mind to it, and a belief that success is not so much a matter of luck and intelligence, as it is a matter of patience and persistence. When the managers were asked what recommendation they would make to help young people develop leadership, they offered four suggestions: 1) find and develop your strengths, 2) keep overcoming your weaknesses, 3) focus on the essentials of a task first, and 4) create a personal style or statement.

Texas Governor's Honors Program

Leadership skills have been taught to gifted students primarily during adolescence (Feldhusen & Kennedy, 1988, Sisk and Rosselli, 1989) and many of the leadership development programs have been designed as part of a summer leadership program such as the Texas Governor's Honors Program (TGHP). Evaluation of these experiences indicate that they can produce gains in leadership ability. (Follis

Figure 2 Prototype of Leadership Giftedness Development Plan

Characteristics of Leadership Giftedness	Teaching Strategies	Teaching Models	Selected Key Concepts
Self Confidence Wide Range of Interests Communication Skills Curiosity/Questioning Tolerance of Uncertainty Responsibility Independence Persistence Sociability Serious Minded Sensitivity/Empathetic Critical High Energy Flexibility in Thought/ Action Empathy Self-Directed Creative Problemsolvers Dominant Decisionmakers Moral Concerns/Ethical	Simulation Roleplaying Visualization Bibliotherapy Future Study Journal Writing Creative Problemsolving Co-operative Learning Metacognitive Skills Problem-based Learning Contests/Competitions Mentorships Internships Self Awareness Activities Inquiry	Taylor Multiple Talent Sparling Shared Resp. Guilford Structure of the Intellect Bloom's Taxonomy Williams Creativity Betts Autonomous Learner Renzulli Triad Gardner Mult. Int. Clark Integrative Edu. Treffinger Self-Directed	Impact of Technology on Communication Leadership and Community Structure Land as the Basis for Life Multicultural Roots of America Manpower as a Resource Innovation Humankind's Need for Celebration and Creative Expression

Leadership Materials

There are a variety of materials available for developing leadership including *Leadership Skills Development Program* (Karnes & Chauvin, 1985); *Leadership: A Skills Training Program: Ages 8-18* (Roets, 1981); *Leadership: Making Things Happen* (Sisk & Shallcross, 1986); *Leadership: A Special Type of Giftedness,* (Sisk & Rosselli, 1989); *Skills for Leaders* (Gray & Pfeiffer, 1987); *Leadership Education: Developing Skills for Youth* (Richardson & Feldhusen, 1988); and Parker (1989); Leadership Training for the Gifted in *Instructional Strategies for Teaching the Gifted.* & Feldhusen, 1983, Karnes, Merriweather & D'Illio, 1987; Meyers, Slavin & Southern, 1990; Sisk, 1988, 1990-1999, 1999, Smith, Smith & Barnett, 1991). A Prototype of a Leadership Development Plan used in TGHP is listed in Figure 2.

This prototype of leadership utilizes four steps to plan and develop curriculum in leadership:

- Awaken leadership ability by activating the characteristics of leadership giftedness.
- Exercise and strengthen leadership potential with engaging teaching strategies.
- Teach structured lessons based on teaching models including skills, attitudes, and content.
- Teach for transfer or use beyond the classroom by emphasizing key concepts and real world problems.

Implementation of the Prototype of Leadership

One unique application of the prototype for leadership is to implement the concept for a school-wide effort. This is being carried out in Waco, Texas at Tennyson Middle School. All four steps will be introduced to the entire staff and teachers. The goal is to awaken leadership ability in the staff and students with the end goal of developing their leadership potential.

For ten consecutive years Lamar University has hosted the Texas Governor's Honors Program (TGHP). Recognizing that leadership can be nurtured and enhanced in all population groups, the program has provided accelerated enrichment opportunities for outstanding high achieving students from all population groups and geographic regions. Since 1986, incoming high school juniors enrolled in gifted programs have been invited to apply for admission to the TGHP. From 1986 until 1988 the program was held at the University of Texas at Austin. In 1989, the program was not held. The 1990-99 Texas Governor's Honors Programs have been held at Lamar University in Beaumont.

Overview of the Program

The Texas Governor's Honors Program is conducted under the auspices of the Texas Education Agency, funded by the Texas Legislature with matching grants from Lamar University, Texas Commerce Bank, Texas Association for Gifted and Talented, Houston Endowment, and individual donors Dr. Jack Gill, Mrs. Ida McFaddin Pyle, Mr. Tom Harken, Mr. Bill Munro, Mr. C.W. Conn, Dr. Nate Rogers and Dr. David Beck. The program extended invitations to 200 participants and 12 alternates in a three-week, residential program from July 4 - July 23, 1999.

The purpose of TGHP is to recognize outstanding high potential and achievement in secondary gifted students and to provide a unique professional training opportunity for university faculty and secondary teachers in a model setting.

The program goals are:

- To provide in-depth instruction in content areas with an emphasis on leadership.
- To provide an opportunity for academically gifted students to develop a better understanding of the democratic process and issues/problems facing citizens in a global society.
- To provide an opportunity for academically gifted students to interact with one another and to develop an understanding of their responsibilities to themselves and others.
- To provide training for secondary school teachers using a variety of engaging teaching strategies that are appropriate for developing leadership.
- To serve as a model for local school districts to establish secondary school programs for gifted students.

The 1999 Texas Governor's Honors Program continued a leadership component called the Leadership Corps that provided 20 outstanding students from previous years an opportunity to return to TGHP to serve as role models and to further their own leadership. Participants in the 1998 program also had an opportunity to return as Junior Counselors.

TGHP is managed by Dr. Dorothy Sisk, director of the program with an assistant director, Mrs. Jean Hayworth. Staff development is provided by Dr. Sisk and other TGHP staff members. Instruction is provided by professors at Lamar University and experienced secondary teachers. Graduate and undergraduate students serve as counselors, living in the dormitory with the students to provide academic, social, and emotional support.

Students make application to Lamar University and indicate their academic achievement through the use of PSAT, SAT and ACT scores, achievement and aptitude test data, class ranking, and grades. In addition, students provide teacher recommendations and complete open-ended essay questions on the topic of leadership. Eligible students are students enrolled in state approved honors, gifted, and advanced placement courses, or those who show outstanding ability in leadership. The student population of the 1999 group was representative of the ethnic breakdown in the state of Texas.

The curriculum of the Texas Governor's Honors Program has been designed to provide in-depth instruction in interdisciplinary content areas and to link content to skill development and problem-solving, with an emphasis on leadership development. The curriculum is planned around the concept of providing qualitatively different curriculum concept and experiences as developed by the National/State Training Institute for Gifted and Talented.

Academic content courses are offered that are not normally included in secondary schools. Students select three subjects that meet once a day for three weeks, and their first, second, and third choices are honored. Course titles include Logic, International Negotiation and Conflict Reso-

lution, Persuasion, Journalism, Drama, Marine Biology, Group Dynamics, Advanced Prose Writing, Great Moments in History, Landmark Decisions of the Supreme Court, Musical Production, Environmental Ecology, Pre-Med Studies: Evolution of Life, Film History, Modern American Music, Pre-Calculus, Pivotal Decisions that Changed the World: The Men and Women Who Made Them, Comparative Religion, and Spanish. In addition to the content areas, students participate in activities in the late afternoon including tennis, volleyball, dance, movement, instrumental ensemble, Tae-Bo, table tennis, musical production, drama, video production, swimming, weight lifting, softball, basketball, racquetball, and soccer. Special evening seminars with speakers help build the students' awareness of societal, political, environmental, and economic issues. Speakers in 1999 included astronaut Dr. Bernard A. Harris; Dr. Jack Gill, a venture capitalist; Mayor David Moore from Beaumont; and Mr. Tom Harkin, a Horatio Algier scholar.

The 1999 program was a resounding success, and the students indicated that they would highly recommend the program to others. Students, staff, and instructors were in agreement that the 1999 Texas Governor's Honors Program had a significant impact on their lives. Opportunities for personal, social, and academic growth were evident to all participants. The effects of the program on future leadership roles were definitely emphasized as the students returned to their school districts to develop leadership projects such as the San Marcos Texas Coalition of Youth Leaders project conceptualized by two TGHP participants.

Research on Gifted Adolescents

For the last three years, Sisk (1997, 1998, 1999) has applied the Dabrowski theory of overexcitability to students in the Texas Governor's Honors Program. Dabrowski's theory is composed of two parts: 5 overexcitability levels and 5 levels of development. Dabrowski theorized that the strength of overexcitabilities, with special talents and abilities comprise a person's developmental potential. Dabrowski (1938) stated that overexcitability is developmental and can be observed in infancy. The five overexcitabilities (OE's) include psychomotor, sensual, imaginational, intellectual, and emotional. Dabrowski studied gifted children and youth in Warsaw and found every one of them showed considerable manifestations of the overexcitabilities (Dabrowski, 1972).

Twenty-five students volunteered to take the Dabrowski questionnaire, which required thoughtful responses and time to be set aside for completion of the task during the busy 3-week session of TGHP. All of the students scored level 3 on emotional, imaginational and intellectual overexcitability. Ten scored level 3 on psychomotor and twelve scored level 3 on sensual. In analyzing the responses, the ten students who scored at level 3 were actively involved in sports and they had selected aerobics, soccer, Tae Bo, basketball, swimming, tennis and football as activities during TGHP. The twelve students who scored level 3 on sensual selected advanced writing, history of music, drama, and instrumental ensemble as activities. Students in the research project were curious about Dabrowski's theory, which was explained to them after the administration of the instrument. They enjoyed discussing the questions and their responses and were in agreement that intensity is not a deficit. The five OE's are summarized and adapted by Piechowski (1979) along with selected responses of TGHP students at level 3 of all 5 levels of excitability:

Imaginational (OE)(M) is the capacity for free play of the imagination and creative vision. It is recognized through rich association of images and impressions (real or imagined), inventiveness, vivid and often animated visualization, use of image and metaphor in speaking and writing, attraction to the unusual, and the like. Dreams are vivid and can be retold in detail. Daydreaming, distractibility, predilection for fairy tales, magical thinking, imaginary companions, love of fantasy, poetic creations, dramatizing to escape boredom, or a taste for the absurd and surrealistic are also characteristic expressions of Imaginational. An example is:

> "Sometimes when I am imagining something, I can be composing a short musical piece and my mind usually is filled with music that I have heard or performed, but it is in the moments of internal quiet that I hear new things." (Female, age 16)

Emotional (OE)(E) is the heightened intensity of positive and negative feelings. It is recognized in the way emotional relationships are experienced; in strong attachments to persons, living things, or places; in the great intensity of feelings and emotions and an awareness of their full range. Characteristic expressions are inhibition (timidity and shyness); enthusiasm; emotionality; compassion and understanding of others; strong affective recall of past experiences; concern with death, fears, anxieties, and depressions; and occasional feelings of unreality. Intense loneliness may be combined with intense desire to offer love, or a deep concern for others. Intrapersonal and interpersonal feeling achieves a high degree of differentiation. An example is:

> "Last summer, I became involved with the Summer Special Olympics for children with disabilities. We worked hard for weeks and weeks and finally the 'big

day' came. I was able to see our hard work pay off. To see this excellence in these special little children's eyes flooded my soul with happiness. I don't think I've ever had a rush quite like that." (Female, age 17)

Psychomotor (OE)(P) may be viewed as excess energy or heightened excitability. It may manifest as love of movement for its own sake, rapid speech, pursuit of intense physical activity, impulsiveness, pressure for action, drive, or the capacity for being otherwise active and energetic. Examples of Psychomotor OE are illustrated in the response below:

"I feel tons of energy after I do really well in a race. If I win or improve my track times I get lots of energy. With all of this new found energy I usually annoy people. It comes out in the form of hyperness and excitement." (Male, age 16)

Sensual (OE)(S) is sensory aliveness and heightened capacity for sensual enjoyment. It finds expression in heightened experiencing of pleasure through touch, taste, smell, sight, and sound, as well as in seeking sensual outlets for emotional tensions. Sensual overexcitability is manifested as a desire for comfort, luxury or aesthetic delights; it includes the pleasure derived from being admired, being in the limelight; it may also manifest itself as intense sexuality. Sensual outlets of emotional tension include overeating, buying sprees, and other forms of self-indulgence to soothe oneself. Sensual OE may also demonstrate itself as extreme sensitivity, and sometimes irritation to sensory input. One example included:

"All the time, I am always trying to create scenes from my surroundings. Sometimes I imagine people that I would like to talk to and, don't laugh, talk to them. Much as they did in the movie "Tap." I listen to the sounds around me and hear music in it."

(Male, age 16)

Intellectual (OE)(T) is intensified activity of the mind. Its strongest expression is manifested in asking probing questions, avidity for knowledge and analysis, preoccupation with logic and theoretical problems, striving for understanding and truth. Other behaviors are a sharp thinking, development of new concepts, striving for synthesis of knowledge, and a desire to search for knowledge and truth. An example is:

"I would first find a pattern and follow it. What goes on in my head would be how would one solve the problem. Second, I would tell myself that I'm not confused. Think - why do we have to understand this idea? Last, find the pattern." (Female, age 16)

Silverman (1983) states that the strength of the OE's combined with talents and special abilities can be used as a prediction of the developmental potential of individual students. This concept of developmental potential adds an important dimension to the concept of giftedness, particularly the idea that capacity can be improved.

Healthy emotional development of academically gifted students is as important as academic achievement and the counselors of TGHP included the Dabrowski questions in the daily journal writing of the students in order to provide opportunities for them to reflect on their excitabilities. Counselors reported considerable growth in self-understanding. In addition, the teachers of the academic subjects noted a remarkable difference during the three week period, as the students demonstrated greater willingness and openness to discuss topics of moral concern, reflected higher expectations for themselves and others, and displayed interest and willingness to serve on community projects.

The first Governor's Program was initiated in Georgia in 1970, followed by 25 individual states developing and offering summer Governor's Programs for gifted students. Some Governor's Programs are financed through their State Department of Education, while others receive funding as line item budgets, such as in Mississippi where the funding goes directly to the Mississippi Women's University, and in North Carolina the funds are directly funded to the North Carolina Governor's program as a line item budget.

In the past legislative session, the Governor's Honors Program was deleted from the Texas Education Agency budget. The deletion of this program represents a loss to the over 2,000 students who have benefited from the program from 1990-1999 and the countless number of students who could continue to benefit throughout the years. In addition, over 200 teachers participated in the program from 1990-1999, taking course work in gifted education. The teachers' students have benefited from the teaching strategies that they incorporated in the classroom, and most importantly, these teachers became "active recruiters" of TGHP candidates.

Students, teachers, parents, and dedicated individuals who have supported the program from 1990-1999 are committed to reinstate TGHP. Individual assistance and support from teachers, counselors, parents and students can be helpful. Those who wish to may write directly to the Governor and to the Commissioner of Education at TEA, to share how they, their students or sons and daughters have benefited from TGHP and ask how the program can be reinstated.

Through summer leadership residential programs such as TGHP, gifted students can become more conscientious problem-solvers and leaders who will demonstrate caring, compassionate behavior. As future leaders, they will be committed to being shapers of Texas' future.

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What the Research Says about Leadership

Susan K. Johnsen

Leadership as an area of gifted and talented has been included in the federal definition beginning with the Marland report in 1972 and in the more recent 1993 National Excellence report. The State of Texas also includes an "unusual capacity for leadership" within its definition (see Chapter 29.121 of the Texas Education Code, 1995). Unfortunately, few Texas school districts have K-12 programs for developing leadership abilities among gifted and talented youngsters. With the implementation of the new *Texas State Plan for the Education of Gifted/Talented Students*, the majority of schools have occupied themselves with meeting "acceptable" standards by establishing programs in the four core academic areas. However, to achieve "exemplary" status, a district will need to implement a "leadership" program. This summary of research may provide some insights for teachers and those educators responsible for developing such a program. For this review, articles published in *Gifted Child Quarterly, Journal for the Education of the Gifted,* and *Roeper Review* during the past eleven years were examined. To be included, the article needed to focus on leadership development of gifted and talented youth.

The research on leadership giftedness is quite limited. The majority of authors identified qualities or summarized opinions of students who participate in summer leadership programs. The curriculum of these summer leadership programs stress theories or models of leadership, personal development, group dynamics, communication skills, planning, decision-making, and/or creative problem-solving (Feldhusen & Kennedy, 1998; Karnes, Meriweather, 1987; Sisk, 1988; Smith, Smith, & Barnette, 1991). Using pre and post tests, these researchers do report that students develop a variety of leadership skills during these summer experiences (Karnes, Meriweather & D'Ilio,1987; Smith, Smith, & Barnette, 1991). Some students even reported that the leadership skills developed during the summer program transferred to the school and home settings (Smith, Smith, & Barnette, 1991). Significantly, the gifted and talented youth who attended these summer programs stated that they wanted to make a difference in their schools and communities, and they wanted to have a choice about how and when to serve (Wade and Putnam, 1995).

Some of the researchers observed the relationships among a variety of variables. For example, leadership opportunities were related to gender (Karnes & D'Ilio, 1989), to dramatic skills (Feldhusen & Pleiss, 1994), to verbal skills (Hensel, 1991; Myers, Slavin, and Southern,1990) to aggressive behaviors (Myers, Slavin, and Southern, 1990), and, most importantly, to the task demands (Myers, Slavin, & Southern; Ross & Smyth, 1995; Smyth & Ross, 1999). In fact, youth in mixed-ability grouping appeared to have more opportunities for developing transformational leadership skills than in more homogeneous groups (Ross & Smyth, 1995; Smyth & Ross, 1999).

For teachers, they recommended developing leadership by teaching prosocial behaviors such as assuming different viewpoints and talking about feelings (Hensel, 1991), delegating responsibility to student groups, adjusting opportunities for leadership to the maturation levels of gifted learners, and providing pull-out programs for leadership development (Ross & Smyth, 1995). For parents, Karnes and D'Ilio (1989) recommended nurturing independence and expressiveness at home. For schools, Feldhusen and Kennedy (1988) recommended a comprehensive program that included a study of foreign languages; mentoring experiences with leaders; early mastery of knowledge in the major disciplines; experience in goal setting, formulating objectives, and planning; the examination of values, ethical principles and philosophical systems; and early identification of special talents. Lindsay (1988) also recommended the infusion of moral education into leadership programs to develop leaders with a perspective of moral rectitude.

Unfortunately, Oakland, Falkenberg, and Oakland (1996) found that identification and assessment instruments are not only technically inadequate but lack a clear conceptual base. This concern was addressed in an excellent article by Roach et al. (1999). These authors studied 120 youth-based organizations and found that "leaders" do not exist distinctly separate from the situation. Being a leader among youth is much more active, procedural and relational. Leadership is related to the "wisdom of spontaneity," extracurricular experience, and having an area of expertise. As one youth mentioned in their study, "It ain't no gift; it's hard work" (Roach et al., p. 21).

More studies are obviously needed in the area of leadership giftedness. These studies need to concentrate on observing the development of leadership in an array of naturally occurring situations so that appropriate models, assessments, and curriculum might be designed. "Educators must attend less to individuals and their traits and far more to learning situations that encourage leadership . . . Its [the program] focus for youth must be the issue of *how* leadership happens, not *who* leads" (Roach et al., p. 23).

Feldhusen, J. F., & Kennedy, D. M. (1988). Preparing gifted youth for leadership roles in a rapidly changing society. *Roeper Review, 10,* 226-230. This article described five components of a leadership education: (a) experience in predicting, planning and extrapolating; (b) explicit leadership training; (c) thinking skills; (d) experience in problem finding and problem solving; and the (e) study of major concepts, themes, issues, and ideas. Along with leadership education, the authors emphasize the need for a comprehensive program that includes a study of foreign languages; mentoring experiences with leaders; early mastery of knowledge in the major disciplines; experience in goal setting, formulating objectives, and planning; the examination of values, ethical principles and philosophical systems; and early identification of special talents.

Feldhusen, J. F., & Pleiss, M. K. (1994). Leadership: A synthesis of social skills, creativity, and histrionic ability? *Roeper Review, 16,* 293-294. The purpose of this research was to identify correlations among leadership talent, creative ability, and dramatic skill in youth who have been identified as having high leadership ability. Fifty-four classroom teachers who were enrolled in graduate educational psychology classes each identified one student (N=54) who they felt had strong leadership ability. The teachers then completed three rating scales for each student selected as a leader. These rating leadership scales were developed by Karnes and Chauvin (1986), DeHaan and Kough (1956) and Renzulli et al. (1976). In addition, the teachers also completed the creativity and dramatic characteristic sections of the Renzulli scales. While the correlation between leadership and dramatic skills was significant (r = .31), the correlation between leadership and creativity was not. The authors conclude that dramatic skills play a role in leadership. Leaders "inspire not only with planning and personal interaction skills and with the quality of their ideas, but also with the drama of their visions which they communicate" (p. 294).

Hensel, N. H. (1991). Social leadership skills in young children. *Roeper Review, 14,* 4-6. To determine how schools might provide opportunities for children to develop social sensitivity, the authors studied four and five year old gifted preschool and kindergarten children. After introducing a series of role-playing and problem solving activities that attempted to sensitize the children to others' perspectives, the children's behavior was observed on the playground and in classroom activities. The authors also administered the Peabody Picture Vocabulary Test (PPVT) and a sociogram (Perez et al., 1982). Children who scored high on the PPVT also scored high on the sociogram providing validation for the influence of verbal skills on peers. These children also exhibited more leadership characteristics in their dramatic play. They recommend some strategies that teachers may use in developing leadership and prosocial characteristics in children: focusing on different viewpoints; modeling caring behaviors; discussing alternative ways of handling problems; helping children learn to make decisions; helping children develop interactive skills; and helping children learn to talk about their feelings and ideas.

Karnes, F. A., & D'Ilio, V. R. (1989). Leadership positions and sex role stereotyping among gifted children. *Gifted Child Quarterly, 33,* 76-78. The purpose of this study was to determine the attitudes of gifted students toward sex role stereotyping of leadership roles. The sample included 97 students between the ages of 8 to 12 who were attending a program for intellectually gifted students. An instrument was administered to the students that asked the students to select a man or woman for each leadership role. Significant differences were found for 20 of the 34 leadership roles with boys demonstrating more traditional views of leadership roles.

Karnes, F. A., & D'Ilio, V. R. (1989). Student leaders' and their parents' perceptions of the home environment. *Gifted Child Quarterly, 33,* 165-168. This study investigated the perceptions of the home environment among students nominated by their schools and enrolled in a leadership training program and those of their parents. The sample included 76 students in grades 6 to 11 who were attending the Leadership Studies Program at the University of Southern Mississippi and their parents (55 mothers and 46 fathers. The Family Environment Scale was administered to all of the parents and their children. Significant differences were found between children and their mother and/or father on "expressiveness" and on "intellectual-cultural orientation" and with mothers on "independence." The au-

thors conclude that the parents should create a home in which these differences are minimized so that leadership can be nurtured at home and at school.

Karnes, F. A., Meriweather, S., & D'Ilio, V. (1987). The effectiveness of the leadership studies program. *Roeper Review, 9*, 238-241. During 1985-1986, over 100 sixth through eleventh grade students participated in the summer Leadership Studies Program at the University of Southern Mississippi. The major purpose of the program was to teach students the skills necessary for growth in leadership development. Students participated in these activities: fundamentals of leadership, decision-making skills, group-dynamic skills, personal skills, and planning skills. To determine growth, the instructors in the program administered A Leadership Skills Inventory (Karnes & Chauvin, 1984) at the beginning and end of the summer program. They found that the students performed significantly better on all of the subscales: fundamentals of leadership, written communication skills, speech communication skills, values clarification, decision making skills, group dynamics skills, problem solving skills, personal development skills and planning skills.

Lindsay, B. (1988). A lamp for Diogenes: Leadership giftedness and moral education. *Roeper Review, 11,* 8-11. The author describes the importance of infusing moral education within leadership education. He reviews Kohlberg's conceptual framework, Bloom's Taxonomy, and Getzels and Jackson's characteristics of a moral person. He concludes that leadership giftedness does not fit a pre-established stereotype; leadership education should address the consequences of the training, the legitimacy of the role, and the effects of leadership on group performance and member satisfaction; pre-established moral education is moral indoctrination; moral education focuses on developing a mature valuing process; leaders must learn to lead from the perspective of moral rectitude; inquiry and discovery learning allow for the development of leadership giftedness.

Myers, M. R., Slavin, M. J., & Southern, W. T. (1990). Emergence and maintenance of leadership among gifted students in group problem solving. *Roeper Review, 12,* 256-261. This empirical study examined the relationship between leadership and task demands with unstructured and novel problems. It also examined the effectiveness of various leadership styles in group problem solving. The subjects were 122 secondary school students in grades 10 and 11 who participated in a weeklong summer program. These students were placed in groups of eight, which were directed by a trained teacher of the gifted. Their task was to identify and seek a resolution to a problem and present their solution to an audience using a multimedia format. Data were collected using surveys, independent assessment of group projects, and qualitative observations. Results indicated that students who were fluent or "verbally aggressive" emerged as leaders (p. 258). In groups where no strong leadership emerged early, "passive leaders" assumed leadership by taking personal responsibility for the completion and organization of the group task. Leaders tended to either attempt to lead the group through the force of their personality (i. e., Active Leaders) or through modeling group input to fit their ideas (i. e., Participative Leaders). Groups with Interpersonal Leaders tended to produce higher quality products than Authoritarian types of leadership. The authors conclude that the nature of the task tends to influence leadership style and success. They suggest that teachers might teach various leadership skills by varying the structure and goals of the task itself.

Oakland, T., Falkenberg, B. A., Oakland, C. (1996). Assessment of leadership in children, youth and adults. *Gifted Child Quarterly, 40,* 138-146. This article reviewed existing standardized measures of leadership and suggested future directions for the assessment of leadership. The authors presented four concepts or theories that are presented in the literature: leadership as power and influence; leadership as skillful management of behavior; leadership as personal qualities and traits; leadership as an interaction between personal qualities and environmental resources and needs. Since most literature focuses on adults, the authors believed that a review of instruments would be useful. They reviewed the psychometric properties of seven leadership measures. They concluded that significant deficiencies existed in the assessment of leadership among children and youth. Only the Leadership Skills Index (Karnes & Chauvin, 1985) was designed to measure leadership in children and youth. In addition, the measures were normed inadequately and lack information about reliability and validity. One measure conceptualized leadership as an interaction between personal and environmental qualities. Seven appeared to measure leadership as traits, but the others lacked clarity as to their conceptual base. The authors recommend that those interested in identifying gifted children for programs take the best existing measures and supplement them by developing additional assessment procedures.

Roach, A. A., Wyman, L. T., Brookes, H., Chavez, C., Heath, S. B., & Valdes, G. (1999). Leadership giftedness: Models revisited. *Gifted Child Quarterly, 43,* 13-

24. While many leadership models have been developed for adults, few exist for young people. This article provides a brief review of models and programs for adults and contrasts them with those articulated by youth who work as leaders. This study involved 30,000 youth between the ages of 8 and 28 who were involved in 120 youth-based organizations in 34 regional areas. The organizations' activities centered on athletics, community service, or the arts. The researchers collected data by means of field notes, audio recordings, interviews, daily logs, and statistical analyses of a sample who participated in the National Educational Longitudinal Survey.

At the macro analysis level of analysis, the groups were cross-age with older youth increasing the levels and types of responsibility and leading younger members of the group. At the microanalysis level, the groups reinforced a sense of belonging through group insignia on clothing, word, slogans, stories, decorations on the building, etc. The macro and micro elements were held together by roles of members within the organization, a few rules that were generated by the youth, and risks related to performances and possible failure before public audiences. Features of effective youth organizations included high performance expectations, learning to pose as well as solve problems, cycles of performance, the use of diverse talents and expertise of individuals, a minimum number of rules, high demand leaning toward performance before authentic assessors, individual responsibilities for development, proficiency with multiple symbol systems and fluency in communication skills, consistent call for self assessment, strong links to ways the real-world selects, and high responsibility for making and upholding rules (p. 15).

The authors suggest that leaders do not exist as distinctly separate from audiences, stories, and contexts. "Being a leader" is more active, procedural, and situational-relational. The youth in this study identified the ability to assess situations quickly and step forward or backward (i. e., wisdom of spontaneity), to be aware of the group needs and talents, and to be aware of one's self as important leadership qualities. The authors conclude with a summary of the relevant literature on leadership. First, academic achievement is not as highly correlated with future leadership as extracurricular experience. Second, it is unclear how specific development of skills such as communication or self-awareness is related to leadership in other contexts. Third, having an area of expertise allows youth to participate as part of a leadership team. Finally, the authors encourage a rethinking of leadership among gifted and talented youth by citing a young person's definition, "It ain't no gift; it's hard work" (p. 21).

Ross, J. A., & Smyth, E. (1995). Differentiating cooperative learning to meet the needs of gifted learners: A case for transformational leadership. *Journal for the Education of the Gifted, 19*, 63-82. The authors suggest that mixed-ability grouping can provide opportunities for the development of transformational leadership skills among some gifted learners. They define transformational leadership as "a leadership that facilitates the redefinition of a people's mission and vision, a renewal of their commitment and the restructuring of their systems for goal accomplishment" (p. 67). Dimensions include identifies and articulates a vision of the organization, fosters acceptance of group goals, conveys high performance expectations, provides appropriate models, provides intellectual stimulation, provides individualized support, rewards contingently, and builds culture. The authors identify three challenges in heterogeneous groups: inclusiveness, enacting the ideal, and monitoring growth. In response to these challenges, the gifted learner may exhibit transformational leadership with the teacher's assistance and with appropriate content. The teacher needs to delegate greater responsibility to student groups, adjust opportunities for leadership to the maturation levels of gifted learners, and provide pull-out programs for leadership development. The task must provide for multiple levels of response, not have routine completion procedures, require multiple abilities to complete it, and be sufficiently complex.

Sisk, D. (1988). A case for leadership development to meet the need for excellence in teachers and youth. *Roeper Review, 11*, 43-46. Dr. Sisk describes two leadership programs in this article: one, for teachers, and one, for students. The SCATT teacher training honors program attempted to attract and keep talented students in the teaching profession and facilitate their development into competent and committed teachers. The teacher trainees also were involved in a residential leadership training program for middle school and high school students. The curriculum in the two-week summer program was based on a problem approach. Students identified issues and problems in society and analyzed how these problems affected the individual. Using the creative problem solving process, students looked at the "mess," generated alternatives, and moved to solution finding. Resources included community professionals who were actually involved in solving the problems that were presented to the students.

Smith, D. L., Smith, L., & Barnette, J. (1991). Exploring the development of leadership giftedness. *Roeper Review, 14*, 7-12. The purpose of this research was to ex-

plore and describe the impact of a leadership training program for adolescent students. Thirty students attended a summer residence program, the Superintendent's Leadership Conference. The cognitive components of the program emphasized the theory and conceptual models of leadership, which were followed by applications within experiential activities. For example, after two-way communication and active listening were taught, the groups were required to build the highest tower from two sheets of newsprint and a piece of masking tape.

Other practical and naturally occurring situations were also used such as problems arising from night curfews. Students kept journals that described their experiences and feelings daily. Physical activities that stressed cooperation rather than competition were also included. Evaluation data were collected at the beginning and end of the program and after three months. Using the Leadership Quotient Index (Weinberg, Smotroff & Pecka, 1976), students made significant increases on the openness and persuasion scales. On the Gordon Personal Profile Inventory (1987), the students made significant gains in "ascendancy" or the ability to be verbally active in a group, make independent decisions, and be self-assured in relationships with others. Students rated four components of leadership higher than others: Project Adventure, sessions on leadership theory, sessions on speaking, and sessions on listening. The involved staff also indicated that participation in the program led to increased inter-departmental cooperation and better personal relationships among staff.

After three months, the students rated three program influences: encouraging teamwork, listening to different viewpoints, and taking risks. The students indicated that they used the ability of listening to different viewpoints the most across multiple situations. Within the academic situation, they used establishing goals, performing well under pressure, speaking effectively, and facing problems rather than postponing. In school government, they used making good decisions, making difficult decisions, and speaking effectively. In extracurricular activities they used taking risks when necessary, demonstrating initiative, encouraging teamwork, and encouraging healthy competition. At home they used compromise and motivation. The authors concluded that the leadership program resulted in student changes that transferred to other settings.

Smyth, E., & Ross, J. A. (1999). Developing leadership skills of pre-adolescent gifted learners in small group settings. *Gifted Child Quarterly, 43*, 204-211. This exploratory investigation attempted to answer three questions: How can the leadership behavior of gifted learners be observed? What forms of transformational leadership are manifest when gifted learners work with gifted and nongifted peers? Is the frequency of transformational leadership behavior influenced by instruction? The sample consisted of 58 students from grades 4-6. These students were placed in small groups of 4 and 5 that varied in regard to heterogeneity (e.g., some groups were composed of one gifted learner with nongifted peers, others with gifted learners and high academic achievers, some from the same school and others from different schools). Students were assigned a task that was likely to elicit leadership behavior. All sessions were videotaped. Results indicated that transformational leadership strategies were used when working in cooperative groups across all conditions. These leadership dimensions were included: identifies and articulates a vision, fosters acceptance of group goals, conveys high performance expectations, provides appropriate models, provides intellectual stimulation, provides individualized support, contingent reward and culture building. Leadership improved with instructional intervention; students participated in defining the leadership criteria. Teachers and students were able to analyze behaviors using the videotapes.

Wade, R. C., & Putnam, K. (1995). Tomorrow's leaders? Gifted students' opinions of leadership and service activities. *Roeper Review, 18*, 150-151. The sample in this study included 145 high school sophomores and juniors who attended a summer program at the Connie Belin National Center for Gifted Education at the University of Iowa. These students completed a questionnaire about their feelings toward student council and community service. Overall 81 students mentioned a positive benefit of student council activities while 61 cited at least one problem and 14 students were neutral. Students had more positive (99) than negative comments (41) to make about community service. Two themes emerged from their comments: Students want to make a difference in their schools and communities, and students want to have a choice about how and when to serve in their communities.

Susan Johhnsen is Associate Dean of Scholarship and Professional Development 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 a past President of the Texas Association for the Gifted and Talented.*

Q&A

Answers to Your Questions

Donna Corley

QUESTION: Our district is looking for an instrument that measures leadership. Do you have any suggestions?

ANSWER: You might want to order a specimen set of Khatena-Morse Multitalent Perception Inventory by Dr. Joe Khatena and Dr. David T. Morse from Scholastic Testing Service, Inc. This instrument can be used with students in the fifth grade through adulthood. It also identifies giftedness in art and music. It has the capability of being scored in your district which is sometimes an advantage. It is different from most leadership measures that I have examined: The students are responding based on feelings by checking rating scale items.

QUESTION: My fifth grade son has been identified as gifted in the area of leadership. Do you have any suggestions for how I might nurture this at home?

ANSWER: The first thing that I might suggest is that you familiarize yourself with what kinds of services are being offered by the district for your son. Get in touch with his teachers immediately and ask what you can do to support their efforts in the classroom and nurture your son's ability in other areas. It is always best to make a list of any questions that you might have over a period of time before going in to visit with the teachers. Just before the conference, organize your questions into categories and estimate how much time you think might be appropriate for each category. This should help make the most of everyone's time. Ask the person in your district that is in charge of gifted programming if there are any workshops being planned at the district level that address leadership and ask if you might attend. Check with your education service center in your region and ask if they have any literature on leadership that you might borrow or trainings in leadership that you might attend. University classes on gifted education that have a leadership component are a possibility. Check with TAGT and NAGC for conferences that might address leadership either directly or indirectly. Joining the parent affiliation with TAGT is the best way to network with parents across the state that have similar interests and questions. One last thing that I might suggest is *Leadership for Students: A Practical Guide for Ages 8-18* by Frances A Karnes, Ph.D. and Suzanne M. Bean, Ph.D., from Prufrock Press. This is publication not only contains helpful information but the students actually interact with the text in the form of answering questions and making journal entries.

QUESTION: I noticed that my daughter has the ability to influence other children to do what she wants; not only those of her own age but also those much older. However, sometimes she influences them in ways that are not positive. Is this ability to influence others considered leadership?

ANSWER: Leadership is a complicated combination of traits, situations, and interactions. In observing your daughter's interactions with others, try to analyze what you are seeing in terms of the personal traits that she is using, what the situation she is in, and what kinds of interactions are taking place. This might assist you in isolating just one component that might help you in turning the ability more in a positive direction.

QUESTION: My child's teacher asked me to supply an artifact for his portfolio in the area of leadership. What kinds of things should I consider submitting?

ANSWER: Since you did not give the age of your son, I can suggest some general ideas. Consider community involvement. Does he hold an office in any organization outside of school? Even organizations for young children carry positions of responsibilities that you might consider. Church related situations provide opportunities for students to exhibit leadership qualities. Consider how your son interacts with his immediate or extended family. Look for signs of organizing and/or directing events, jobs, or people. Watch him when he is interacting with his peers. Does he organize or direct their activities? Does he set the tone for the interaction in any way? Snapshots or anecdotes reveal much about the times that your child has taken the lead.

Book Reviews

***Gifted Grownups: The Mixed Blessing of Extraordinary Potential.* By Marylou Kelly Streznewski. New York: John Wiley, 1999.**

The premise of this book is fascinating; Mrs. Streznewski conducted a ten-year study of 100 gifted adults, ranging in age from 18 to 90, from all walks of life. As she states in the preface, "they were diversified by sex, family background, education, occupation, geographic location, ethnic origin, social class and race." Some were highly skilled professionals, some were retired, and some were in prison. It's hard to get more diverse than that!

Her purpose was to explore and to understand the "burdens" of giftedness, inspired by her 20+ years teaching gifted students at a high school in Pennsylvania. She wondered what happened to gifted students when they grew up, since she often was frustrated in trying to provide guidance to many of these students who she felt were not living up to their potential.

Having been a teacher of gifted students myself for 15 years, I had encountered the same concerns and questions, so I approached this book with great interest. To my disappointment, the book did not live up to my expectations. While it contained lots of interesting information and stories, it was ultimately a disappointment. Each chapter presents numerous interviews and anecdotes around topical ideas in her research, but, while this sounds promising in the table of contents, these fragmented anecdotes served to scatter the information rather than unify it.

As I read anecdote after anecdote, I lost track of who was who. Rather than presenting a full perspective of each person, the author presents information bit by bit in various chapters. While this serves her own organization, as a reader, I was put off by it. I found the people's stories fragmented, and I did not gain a clear picture of most of the people interviewed. This made it difficult for me to get involved with the subjects of the research. As I read the book, I kept wondering where I had read about his person before and found myself continually flipping through the book to refer back to the person being interviewed.

Yet while I did not enjoy this book, I still recommend that it be read. I know of no other work that covers the lives of everyday gifted people. There is much to be learned from the lives of these gifted adults. I only wish the book was more reader-friendly and better written.

—review by Tracy Weinberg

***Liberating Everyday Genius* by Mary-Elaine Jacobsen. New York: Ballantine Books, 1999.**

Mary Jacobsen's recent book also focuses on adult gifted individuals and while it too includes interviews and first hand accounts, the purpose of this book is help the reader come to terms with personal giftedness. Distrusting IQ scores, the author has developed the concept of Evolutionary Intelligence which combines aspects Gardner's Multiple Intelligences, Gifted Traits (intensity, complexity, and drive), and Advanced Development (humanistic vision, mandated mission, and revolutionary action). The book contains the Evolutionary Intelligence Profile, a self-rating questionnaire of 240 items that promises the reader an analysis of strengths and weaknesses.

In addition, there is a list of common criticisms (and responses) of gifted individuals, including "Why don't you slow down?" "Can't you stick to one thing?" "You have do to everything the hard way." "Where do you get those wild ideas?" and "Who do you think you are?"

A complex book, this is worth a close look by gifted adults and those who work with gifted children.

—review by Michael Cannon

Summer 2000
Issues in Curriculum for Gifted Learners

Curriculum is one the key elements in G/T education and it has been approached in a number of ways. What are the most successful models? What new possibilities are there? What are the big issues and concepts in curriculum today? Which models/approaches are in contention and why? Thoughtful articles dealing with all gifted curriculum issues are welcome.

The deadline for submission of articles is **March 1, 2000.**

Fall 2000
Passport to the Future: Accountability & Programmatic Excellence

The future of gifted education will depend on the excellence of programs and on the means used to hold districts accountable. Articles are requested on exemplary programs: how they are developed, examples of outstanding programs, and how programs are evaluated. Accountability topics may include teacher training, programmatic responses, state accountability standards, or other accountability issues.

The deadline for submission of articles is **June 1, 2000.**

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***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are evaluated by members of the editorial board.**
Please keep the following in mind when submitting manuscripts:

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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. Attach a100—150 word abstract of the article.
5. Include a cover sheet with your name, address, telephone and FAX number and/or e-mail address.

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The Rationale and Validation of the Torrance Tests of Creative Thinking, Verbal and Figural

E. Paul Torrance, Ph.D.
University of Georgia at Athens

Although creative thinking may be manifested in something other than verbal and figural forms, some of the most important products resulting from the creative thinking process are found in these forms. I am not yet prepared to specify even the range and dimensions of the tasks and products necessary to provide an adequte estimate of a person's creative thinking potential for dealing with figural and verbal material. On the basis of my analysis of the thinking manifested by scientists, artists, writers, and other noted for their outstanding creative achievements, I have tried to assemble batteries of figural and verbal activities that require the kinds of thinking analogous to the thinking involved in recognized creative achievements. An attempt will now be made to sketch the psychological rationale of the activties or tasks contained in the Torrance Tests of Creative Thinking (TTCT).

Importance of Recognizing the Rationale of the Tasks

For any kind of use of the TTCT, it is important that the user have at least basic knowledge of the rationale for the tasks of activities, and be familiar with the concepts of creative thinking that underlie the instrument. It is important that the test tasks do more that motivate divergent thinking.

(see TORRANCE, page13)

Evaluation & Assessment

FROM THE PRESIDENT

Karen Fitzgerald

Tempo
Volume XX Issue 2 Spring 2000

PUBLICATIONS EDITOR
Michael Cannon

During the last decade, assessment and evaluation have been hot topics in the field of gifted education all across the country. With the new emphasis on student performance standards and accountability, assessment and evaluation have moved "front and center" on the public's education agenda. Through student assessment and evaluation, we can demonstrate G/T students' growth over time.

Many people confuse assessment and evaluation. Often they are assumed to be the same thing, but they are really quite different. These two concepts have different definitions, different applications and different intents. Assessment is intended to inform both teachers and their students about student performance. It is used to drive instruction and it enables students to continue progressing in their learning. Evaluation is the interpretation and judgment of students' accomplishments. Using evaluation techniques, teachers grade the degree of students' learning and rank their varying levels of performance. Using evaluation, educators decide on the quality of students' work and classify their performance mastery on learning objectives.

Teachers incorporate assessment and evaluation procedures in their instruction. Teachers have always done this, some better than others. Once we have decided what students should know about a given topic, a new question pops up: How do we know that they know it? When should a teacher use assessment and when is evaluation appropriate? Dr. Bertie Kingore describes the differences between assessment and evluation applications (see chart, p. 22).

We must also remember that authentic assessment designed and implemented by G/T students increases students' self-esteem and their motivation to excel. When we provide parents with concrete documentation of their child's growth and learning, our teaching is more meaningful and understandable to them. Authentic assessment validates teachers as decision-mak-

(see FITZGERALD, page 22)

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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Reflections on Assessment and Evaluation

Amanda D. Batson, Ph.D.

History, current events, and dreams can guide reflections and actions. In this column, these parameters guide my thoughts and musings related to assessment and evaluation. As one contemplates the past, lives the present, and dreams the future, ideas and action steps emerge.

History

The processes of assessment and evaluation are as old as education itself. As long ago as Socrates (425 BC?), students were questioned with instructional decisions based on their answers. Socrates is credited with saying "the unexamined life is not worth living." Through assessment and evaluation, the education lives of gifted students can be examined.

More than 150 years ago, Horace Mann, as Secretary of the State Board of Education in Massachusetts, initiated standardized testing for multiple classrooms in his state (Asp, 2000, 123-124). The responses from 19th century citizens mirrored modern reactions to current assessment and evaluation efforts: public outcry at poor performance; state-designed tests took priority over teacher-designed measures; concerns erupted about the mismatch between teaching methods and classroom curriculum and the state instruments; and fear appeared regarding inappropriate classification of students.

Current Events

In Texas today, the Academic Excellence Indicator System (AEIS) including the Texas Assessment of Academic Skills (TAAS) has been established in response to public demand for accountability and improved pupil performance. Can assessment and evaluation help us achieve the goals of accountability and improved pupil performance for Texas gifted students? That depends on the assessment and the evaluation. If Texas educators and parents are expecting AEIS and TAAS to reveal individual and/or collective performance indicators as related to gifted students, they will be disappointed. The Texas accountability system is a strong system with an established foundation that has been constructed over time with renovations made as needed; however, the system to date does not include all Texas students. The system does not provide appropriate opportunities for Texas gifted students to demonstrate growth over time nor does it provide sufficient information to guide improved instruction and services for these students. Thus, the vast majority of Texas gifted students are excluded from the state ac-

(see BATSON, page 19)

As State Performance Standards for GT Programs Increase, So Does the Need for Program Evaluation

Ernesto M. Bernal

Programs for the gifted and talented students in public schools have generally not been known for conducting systematic program evaluations because they simply do not have the resources to conduct regular evaluations of ongoing programs and also due to a tradition of relative unconcern.

Years ago, before school districts received any significant state funding for gifted and talented (GT) programs, evaluation for GT programs was largely confined to federally supported programs (Bernal, 1986), such as the few that operated under the Office of Gifted and Talented. Successful advocacy for GT education by state and national organizations since that time has brought not riches but considerable resources in most states to support GT education. With these allocations, however, has come accountability. And accountability normally implies the need to evaluate a program more or less formally in order to show results, efficiency, compliance, or some other criterion of successful implementation within the bounds of law or policy.

This paper is written from the point of view of a professional evaluator who works closely with program coordinators, facilitators, school principals, teachers, and parental and public advocacy groups. It is based on a brief that appeared in the Newsletter of the Research and Development Division of TAGT (Bernal, 1999). The generalizability of this discussion to other states, however, should be plain to see. My recommendations here speak directly to GT program coordinators, but they are intended for all stakeholders in the GT program, especially GT teachers, school administrators, and parents of GT students.

A Common Scenario

The vast majority of GT programs meet the minimal criteria necessary to achieve accreditation in their states. In Texas, the Texas Education Agency (TEA) has recently adopted enhanced requirements for school districts to perform at "accredited," "recognized," and "exemplary" levels (Sherman & Fouse, 1998). School districts have found that they must become more proactive in order to achieve these higher ratings for all their special programs. There are, for example, new expectations for a diversity of programmatic offerings and greater levels of training and awareness for all instructional and administrative personnel, not just

those at the campus level. The TEA has established two important ways to monitor school districts: (1) reviews of its statewide Public Education Information Management System (PEIMS) database, in which every student and educator is entered, and (2) periodic compliance monitoring on-site (the infamous District Effectiveness and Compliance visits). When a district is about to be "DEC-ed," every coordinator or facilitator of bilingual education, special education, or GT education is usually in a spin trying to gather the information required by the TEA not only for its standard report but also in response to specific concerns raised as a result of its database reviews. It has been my experience that after a successful DEC visit, program coordinators breathe again for the first time in months and feel they should lay aside any concerns about program evaluation for a long while in order to tend to other pressing matters, what they believe to be the "real" business of the GT program.

The options for monitoring districts and even schools through a fully relational database may be more or less unique in Texas at this time (Bernal, 1998), but the general experience with evaluation and accreditation visits, in my experience, generalizes to GT programs in other states.

Need Evaluation Be an Onerous Task?

Program coordinators do not like to waste their time, for they have little time to waste. Many of the coordinators with whom I have been privileged to work initially felt that they had little time for attending to evaluation, one more task to add to their already overwhelming load. But just as a GT program needs a theme or model to differentiate its instruction, a manager needs a way to focus her/his efforts to achieve the maximal benefit to the program. Evaluation can provide such a rationale, a defensible way to prioritize one's work and justify decisions about the allocation of resources.

In short, the Age of Accountability offers new opportunities for the GT program to innovate and establish itself as a real curricular force within a district. The worst scenario, it seems to me, is for the GT program to be barely in compliance, to be merely accredited, to be a program that has nowhere to go or, more accurately, nowhere to lead.

Educational programs that seek to innovate—to lead—need to engage program evaluation seriously, else their innovations will be ephemeral, subject the whim of those who are currently in elective offices or administrative positions, and not generate any support that is based upon the program's results or performance. Even "steady-state" GT programs should be evaluated if they are to survive the policy and budgetary contingencies that every district experiences on occasion. GT coordinators need to evaluate evaluation, as it were, to become convinced of its utility in both everyday and official business, not just to settle crises, for there is nothing that quite compares to having the facts at hand about an issue—not opinion or impression, but data!

Every essential feature of the GT program needs to be evaluated periodically (Carter & Hamilton, 1985), and innovative departures should be evaluated every year. Thus features that are required for accreditation, such as a nomination-selection-identification process, should be examined in depth on a regular cycle, so that every year there is a record of critical questions being addressed at the program's own initiative and a paper trail of subsequent corrections made in pursuit of these findings. New departures, such as a grant-based GT project, a pilot magnet program, or a special effort to meet the needs of a subpopulation of GT students (e.g., LD gifted), require more frequent

In recent years the growth in **state funding** for GT programs, controversies over traditional practices, and the concern over outcomes have made program evaluation of GT programs more pertinent both to **sound management** and **accountability.**

(see BERNAL, page 15)

Parent Assessment of Giftedness:
Using Portfolios to Document Gifted Learners' Talents

Bertie Kingore

One ignored role of portfolios is parental assessment of children's exceptional learning needs. The products children develop can provide clear documentation of their achievements and potential.

Introduction for Educators

Parents have the right and need to be active partners with schools in planning and supporting the education of their children. When identifying gifted potential, districts benefit from parental assessment information in forms other than checklists. Portfolios enable parents to be proactive instead of reactive. They encourage parents to be viable members in the assessment process by preparing concrete examples of children's abilities and needs.

Portfolios increase the credibility of parental assessment of gifted potential by documenting the depth and complexity of the child's work. Documentation through products illustrates each gifted characteristic of the child that a parent has observed and increases the likelihood that a parent's perception of the child's needs is respected. However, if parents overestimate the advanced potential of a child, school personal can meet with the parent to share a small set of typical examples of grade-level products to compare with the parent's selections and concretely substantiate that the child's learning needs are best met through the core curriculum rather than advanced contents.

Parental development of a portfolio to substantiate a student's gifted potential is particularly needed when the child is:

- part of an educational system that values parental assessment in identifying and serving advanced learners and wants to increase the validity of that assessment;
- very young and not yet recognized as advanced by adults at school;
- a member of a diverse culture whose gifted behaviors are more difficult to assess in a mainstream classroom;
- advanced in one subject area and not in all;
- new to the area so the child's potential has not been demonstrated in that school;
- a student in a school where the curriculum in all classes is not differentiated for able learners.

Guiding Parents' Selection of Products

Parents need guidance in selecting products that are appropriate and effective. Share your district's mission statement and definition of giftedness with parents so they can more directly match selections in the portfolio to the school's philosophical stance. For example, when your school's program serves academic giftedness in language arts, math, social studies, and science, you want parents to include products that demonstrate advanced talents in one or more of those areas.

The product list included in the parent section is meant to prompt ideas of a wide range of products from home that might be appropriate for students' portfolios (adapted from Kingore, 1999a). A variation of these products specifically suited to very young children is shared in *Communicator* (Kingore, 1999b) .

The following factors increase the assessment value of a portfolio.

- A portfolio should be an integral reflection of what a child has learned rather than artificial activities and isolated skills.
- Products that effectively advocate giftedness demonstrate depth, complexity, and the ability to process and reorganize information to produce a product unique for that age or level.
- The products should help substantiate that the child's interest and expertise in topics are not typical.
- Products selected for a portfolio must be completed by the child without assistance.

If applicable, copy the parent section of this article for parents to facilitate their assessment and development of a portfolio. Specify to whom parents should share the portfolio once the product selection process is complete.

Reference

Kingore, B. (1999a). *Assessment: Time-Saving Procedures for Busy Teachers (2nd ed.)*. Austin: Professional Associates.

Kingore, B. (1999b). Portfolios: Documenting the needs of young gifted learners. *Communicator*: California Association for the Gifted, 30(4), 10-11, 46-47.

Develop a Portfolio to Document Your Child's Talents

Prepare a small selection of your child's products to document learning achievements and advanced potential.

Schools want to provide opportunities for children to learn as much as they are ready and able to learn. Your insight about your child's at-home demonstrations of learning heighten our understanding of your child's needs. A portfolio increases the credibility of your advocacy for your child by documenting the depth and complexity of your child's work. Product examples increase the likelihood that your perception of your child's needs is accepted and respected inasmuch as the products illustrate each gifted characteristic you have observed.

How Do Parents Begin?

- Use a pocket folder or photo album (one-inch thickness) as a portfolio container to organize a few products your child has produced. Photographs can be used to represent large or three-dimensional items.
- Keep the portfolio small. Six to ten items are probably sufficient to represent your child's talents. A small sampling of carefully selected products makes a more thoughtful presentation than a large scrapbook approach. Educators have demanding work loads and are more likely to have time to attend with interest to a sampling.
- Date each product. It is significant for authenticity and achievement level comparisons to note when each item was completed.
- If needed for clarity, prepare brief product annotations that explain how your child demonstrated a specific characteristic through that product or during the process of completing that product.
- Briefly describe additional exceptional behaviors frequently displayed by your child, such as independent thinking, problem solving, and questions about topics or concepts not typically asked by children. You are in a unique position to recount to others the process as well as the products of your child's learning.
- Share written anecdotes of the child's expressed perceptions of school that suggest advanced sensitivity and unexpected points of view. Use your child's own words to describe the challenge or lack of it in learning situations. For example, children often tell adults that they are bored. What does your child really mean if she or he says "bored"? Record what your child says about when and how they are bored at school.

Guidelines for Selecting Portfolio Products

The Examples of Portfolio Products list (following page) is meant to prompt ideas of a wide range of products that might be appropriate in your child's portfolio. Select products that are an integral reflection of what your child has learned rather than artificial activities and isolated skills. Let the portfolio represent the main idea you want educators to understand about your child.

Products that document giftedness demonstrate depth, complexity, and the ability to process and reorganize information to produce a product unique for that age or level. The products may substantiate your child's interest and expertise in topics that are not typical.

Products selected for a portfolio must be completed by the child without assistance for two important reasons. Foremost, because your child's self esteem is influenced by his or her competent personal achievements. Remaking products into adult projects risk children acquiring feelings of doubt and ambiguity about their abilities. Secondly, the portfolio is taken more seriously when the products look child-appropriate rather than adult-level perfect. Educators are suspicious of products that suggest extensive adult intervention.

A Final Encouragement

As an advocate rather than an adversary, assume the clear stance that you want what all parents want for their children: the opportunity for children to learn as much as they are ready and able to learn. All children deserve to learn at their optimum readiness level—even the gifted. Be an advocate whose only motive is to ensure your child's right to an appropriate education. If we are motivated by children's best interests and not our ego needs, our efforts will usually guide us in the most appropriate direction.

Dr. Kingore is a national consultant and author working with Professional Associates in Austin. She has written numerous articles, instructional aids, and fifteen books. Dr. Kingore and her husband are the parents of three gifted sons whose needs and talents fuel her dedication to gifted education.

EXAMPLES OF PORTFOLIO PRODUCTS

Product	Explanation	Purpose
Art	Art pieces should include the child's natural, creative explorations and interpretations (rather than crafts)	Art reflects developmental levels, interests, graphic talents, abstract thinking, and creativity.
Audio tapes	Tape the child's explanation of advanced concepts, philosophical viewpoints, musical creations, problem solutions, and ideas.	Audio tapes verify advanced vocabulary, fluency, creativity, higher-order thinking, and concept depth.
Computer	Document computer skills through applications of more sophisticated software and programs created by the child.	Computer-generated products indicate computer literacy, analysis, content-related academic skills, and concepts applied in the task.
Dictations	An adult writes a child's dictated explanation of a product or process. Adults prompt these dictations with statements such as: "Tell me how you did that."	Dictations increase adults' understanding of the why and how of what children do. It may indicate advanced vocabulary, higher-level thinking, fluency, and content depth.
Graphs or charts	Some children produce graphs or charts to represent concept relationships, formulate problems, illustrate math solutions, and demonstrate the results of independent investigations.	Graphs or charts demonstrate specific skills or concepts applied in the task, higher-level thinking, data recording strategies, and organizational skills.
Photographs	Photograph your child's math patterns, creative projects, dioramas, sculptures, constructions, science experiments, models, or organizational systems.	Photographs represent three-dimensional products. They provide a record when no paper product is feasible.
Reading Level	Provide one or two examples of books or printed material the child reads independently (not material the child has memorized). Include the child's reflection of the book to demonstrate analysis skills.	All gifted children do not read and interpret advanced level materials. However, since advanced learning opportunities often require reading independence, educators are interested in students' reading levels.
Research	Gifted students usually have information and expertise beyond age expectations in one or more areas. Share examples of the independent studies pursued by your child.	Research products reveal specific interests, synthesis, content depth, and complexity typical of advanced learners.
Video tape	Video tapes are wonderful ways to document performing arts and a child's learning process. They are less applicable to substantiate academic skill development due to the equipment and time hassle necessary to show the tape. Limit tape entries to three or four minutes if they are to be reviewed by educators.	A video presents a significant visual record and integration of skills and behaviors. When recording group interactions, a video can demonstrate interpersonal and leadership skills.
Written products	Provide examples of original works written by the child including stories, reports, scientific observations, poems, and reflections.	Written products demonstrate advanced language, productive thinking, organization, meaning construction, concept depth, and complexity

Educating with the Harkness Table

Tyler C. Tingley

While physical surroundings — buildings, classrooms, furniture and lighting — are often cited as important to the learning environment, it is unusual for a particular table to be the center of learning.

Whether it's English or mathematics, at Exeter we call all our classes "Harkness" classes and our teachers "Harkness" teachers. Harkness identifies a table you will find at the center of every class both literally and figuratively. Harkness Tables are oval and seat a dozen students and a teacher, but they are much more than a place to sit. At the Harkness Table classmates learn by discussing their thoughts and ideas rather than just by taking notes. Teachers are participants in the discussion, guiding students in significant ways without lecturing.

Harkness Tables originated at Exeter in 1931 when philanthropist Edward Harkness challenged the Exeter faculty to create an innovative way of teaching. From the start, the purpose of the Harkness Table was to make class more "real" and therefore more involving. I think the 1930s faculty understood that Harkness Tables would make being smart more fun. They knew that discussing even your least favorite subject around the Harkness Table would make that subject interesting. But how could they know that the Harkness Table would teach students to collaborate rather than compete with each other inside and outside of class? And how could they know that the Harkness Table would make the whole community respectful of one another's ideas and therefore a safer and more generous place to learn and live?

There is a story about the building of the first table. It seems that when Mr. Harkness sat at it, it didn't suit him because he detected a flaw. He couldn't see the eyes of every other person at the table. How can you have a meaningful discussion, if you can't see the eyes of the people you're talking to? So the table was designed with its oval shape. But another stumbling block was encountered. The oval tables were too big to fit through a doorway. The solution? Builders brought their materials to the rooms themselves and constructed the tables inside. Picturing this makes me think of a ship in a bottle - Harkness Tables actually are part of the rooms.

(see TINGLEY, page 18)

Using Testing and Public Information to Make the Case for Gifted and Talented Students

Chrys Dougherty

Why should teachers and parents of gifted and talented students focus on testing and public information? The answer is clear: public information can help us make the case for gifted students. Teachers and parents may want to consider the following points:

Public information helps teachers and parents agree on how well the needs of gifted and talented students are being met. Without data, we rely on stories of individual students, but have no systemwide information to enable us to agree on how representative these stories are.

Public information helps teachers and parents hold school district policymakers accountable. It is the public availability of information that keeps the pressure on policymakers to address the needs of specific groups of students. Without information to show that schools somewhere else are performing better with advanced students, you can only assert that your local schools should place more emphasis on the needs of those students. Without data, you're just another teacher or parent with an opinion.

We have relatively little public information on above-grade-level performance by advanced students. Measuring school performance in the absence of indicators of above-grade-level performance is like conducting a high-jump contest with a bar that cannot be raised above three feet. A school that is highly successful in challenging advanced students can look almost identical in the public record to a school that neglects those students.

The Texas testing and accountability system is focused on getting below-grade-level students up to grade level. The TAAS passing standard shows partial mastery of grade-level material, while the TAAS proficiency standard (a Texas Learning Index of 85 or above, versus 70 for passing) shows that

the student is truly up to grade level. But the TAAS test is not designed to measure student performance above grade level.

The Texas system has been successful at raising achievement of below-grade-level students. TAAS proficiency as well as passing rates have risen every year, an indication that more students are getting up to grade level. In addition, mathematics scores on the National Assessment of Educational Progress (NAEP), a test given to a sample of students in each participating state, showed that Texas 4th graders improved more than the students in any other state between 1992 and 1996.

The large number of TAAS proficient students and "ceiling students" shows the need for above-grade-level information. "Ceiling students" are those who score within one standard error of measurement of a perfect score. A study of ceiling students conducted by the author in 1998 shows that 19% of Texas students in grades 3-8 were at the TAAS ceiling in reading, and 14% were at the ceiling in mathematics. In some schools, the majority of students topped out on the test. In all, approximately 333,000 Texas 3rd-8th graders were at the ceiling in reading and 247,000 were at the ceiling in mathematics. The need for above-grade-level information is not confined to a small group of gifted and talented students.

Without information on above-grade-level student performance, we have no measure of the academic progress of advanced students. It says little that a student masters the fourth grade TAAS at the end of the year, if she could have mastered the test at the beginning of the year as well. A fourth-grader who could have mastered a sixth-grade test at the beginning of the year should be able to master at least a seventh-grade test by the end of the year.

What Parents and Teachers of Gifted and Talented Students Can Do

What can you, as a teacher or parent of gifted and talented students, do to help school districts focus on data indicators that address the needs of those students?

Become familiar with the above-grade-level indicators that currently exist. High school indicators of above-grade-level performance include Advanced Placement test results and student participation in advanced courses and International Baccalaureate programs. For middle schools, Algebra I end-of-course test results are an important above-grade-level indicator. Two middle schools with similar TAAS results can have very different success rates in algebra. (See the website www.just4kids.org for information on middle school algebra.) Become familiar with your school's and district's Advanced Placement, advanced course-taking, and algebra end-of-course results and discuss these results whenever the subject of test scores comes up.

A school that is **highly successful** in challenging advanced students can look almost identical in the public record to a school that **neglects** those students.

Work with TAGT to develop additional above-grade-level indicators. One notable success in this area was the passage of Rider 69 by Rep. Scott Hochberg in the spring 1999 legislative session requiring the Texas Education Agency to develop exit level performance standards in the core content areas for gifted and talented students. If those standards are mea-

NOTE: One standard error is a rough estimate of the expected change in scores if the same student took the same test on different days. On the TAAS test, this estimate differs by the grade and subject, but typically amounts to a difference of two or three in the number of items correct or a 4-5 point difference in the student's Texas Learning Index score.

The findings of the 1998 ceiling students analysis may be down loaded from "School Data - Understanding the TAAS test" section of the Just for Kids website www.just4kids.org.

(see DOUGHERTY, page 21)

DETERMINING APPROPRIATE IDENTIFICATION CRITERIA: A SELF STUDY

Bertie Kingore

Mark a response for each question.

Yes	No	Maybe		
☐	☐	☐	1.	Do your identification instruments and strategies include multiple criteria that measure students' abilities in each area of giftedness relevant to the district's definition and services? In other words, are you eliciting the characteristics you intend to serve?
☐	☐	☐	2.	Does the identification process produce information that is useful in instruction and promotes the needs of all students?
☐	☐	☐	3.	Does the identification process occur early enough to maximize for students the benefits that may be obtained from special programs?
☐	☐	☐	4.	Does the identification process delineate and provide reoccurring opportunities to screen students not yet identified?
☐	☐	☐	5.	Are the identification instruments and strategies appropriate for the specific needs and characteristics of the age levels, economic levels, diverse cultures, and special populations represented within your district?
☐	☐	☐	6.	Are the standardized tests reliable and valid for your multi-ethnic population and for students likely to perform at levels far beyond those expected for their age group?
☐	☐	☐	7.	Are all identification instruments and materials available in each of the languages represented by the diverse ethnic groups in the district?
☐	☐	☐	8.	Does the identification system consider qualitative information from a variety of people most familiar with the students' needs, abilities, and behaviors?
☐	☐	☐	9.	Does your identification system endeavor to balance any limitations of one criterion with the strengths of another criterion?
☐	☐	☐	10.	Recognizing the limitation of a single score on any measure, can a student qualify for the program despite a low score on one criterion if performance is appropriately strong on other criteria?
☐	☐	☐	11.	Can the identification process realistically be accomplished with the time, staff, and funds available? What training or changes are needed?
☐	☐	☐	12.	Is the identification process and time line clearly explained in a written form and readily available to all?
☐	☐	☐	13.	Are all members of the identification committee trained in the nature and needs of gifted students?
☐	☐	☐	14.	Is everyone on the identification committee prepared to recognize the limitation of matrices, review accumulated data, and interpret specific needs before final decisions are reached so that placements are based on students' needs rather than numbers who can be served?

Action Plan

We need to: _____

(from TORRANCE, page 1)

Rationale of the Torrance Tests of Creative Thinking Verbal Forms A and B Activities

Activities 1-3: Ask-and-Guess

One of the clearest and most straightforward models of important elements in the creative thinking process is demonstrated in the Ask-and-Guess activities. It is included in the battery in order to give subjects an opportunity to express their curiosity and to measure their ability to develop hypotheses and think in terms of possibles. In developing the various forms of this test, it has seemed to me that much of the essence of creative thinking, especially creative scientific thinking, is captured in the process of asking and guessing. The Ask-and-Guess activities are divided into three parts or activities: Asking, Guessing Causes, and Guessing Consequences. Activity 1, Ask, reveals the subject's ability to become sensitive to what is unknown because the questions asked are those that cannot be answered by simply looking at the picture.

Activity 2: Guessing Causes, and Activity 3, Guessing Consequences

It should first be noted that Western scientific thought has long divided the phenomena of nature inot two series: causal conditions, and the results or consequences of these conditions. Developmental psychology, however, has apparently been more concerned with the development of causal thinking than about thinking of consequences or possibles. This does not mean, however, that psychology has been uninterested in the human ability to predict behavior. The ability of the clinician to predict human behavior, for example, has received considerable attention.

Activity 4: Product Improvement Activity

Product Improvement has always been one of the most dependable measures. It is a complex task with a high degree of face validity. It almost always makes good sense to teachers, parents, businesspeople. They are able to recognize what they consider to be a desirable type of thinking. The activity is also attractive from the standpoint of administration and scoring. To most subjects at all age levels, it is an interesting task. It permits them to "regress in the service of the ego" and enables them to develop ideas that they would not dare express in more serious tasks.

Activity 5: Unusual Uses Activity

Unusual Uses, in Verbal Form A (Cardboard Boxes) and in Form B (Tin Cans), are fairly direct modifications of Guilford's Brick Uses Test. After preliminary tryout with a variety of stimuli, the author decided to substitute tin cans and cardboard boxes, since bricks are less available for children to use in their play, and in their constructive and experimental activities.

Activity 7: Just Suppose Activity

Just Suppose is an adaptation of the consequences type test in Guilford's battery, and is a variation of the Guessing Consequences Activity of the Ask-and-Guess activities. This variation was designed in an attempt to elicit a higher degree of fantasy and to be more effective with children. The subject is confronted with an improbable situation and is asked to predict the possible outcomes. In order to respond productively to this task, the subject must "play with" the possibility and imagine all of the things that could happpen as a consequence. This kind of thinking seems to be highly important in creative behavior, but many individuals are unable to entertain such possibilities, even to this extent, and find such tasks intolerable.

Rationale of the Torrance Tests of Creative Thinking Figural Forms A and B Activities

Although a variety of figural tasks have been developed, the standardized batteries consist of three activities, each desinged to tap somewhat different aspects of creative functioning. These differences are reflected to some extent in the activity instructions.

This triad of test activities in a sense represents at least three different creative tendencies. The Picture Construction Activity sets in motion the tendency toward finding a purpose for something that has no definite purpose and to elaborate so that a purpose is developed. The Picture Completion Activity calls into play the tendency toward structuring and integrating and gives an opportunity for in-depth presentation of a single object, scene, or situation. This activity creates tension in the beholder, who must control this tension long enough to make the mental leap necessary to get away from the obvious and commonplace. Fail-

ure to delay gratification usually results in the premature closure of the incomplete figures and an obvious or commonplace response. The invitation to make the drawing tell a story is designed to motivate elaboration and further filling in of gaps in information. In the Lines and Circles Activities, the repetition of a single stimulus requires an ability to return to the same stimulus again and again, perceiving it differently each time, disrupting structure in order to create something new.

Validity

In a research report, efforts were made to include the most supportive information in the matters of validity and reliability, from a database of over 2,000 publications concerning the TTCT.

Evidence regarding every type of validity is cited. Improved performance on the TTCT is associated with humor, motivation, training, experiences in creative problem solving, and experiences in the creative arts (music, drama, and creative writing). The most persuasive evidence of validity is demonstrated in the longitudinal studies of creative achievement in real life. Preliminary results of the forty-year follow-up have been cited in this research report. Excluding flexibility, all of the remaining verbal measures of the TTCT demonstrate positive and significant results.

Throughout the forty years that the TTCT have been in use, they have consistently shown high reliability when administered under standard conditions, however, motivation is certainly a factor which may influence reliability. Training is desirable in the matter of scoring, but reliability can be maintained whenever scoring instructions are not carefully followed.

Torrance, E.P. (2000) *Research review of the Torrance Tests of Creative Thinking, Figural Forms A and B.* Bensenville, IL: Scholastic Testing Service.

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(from BERNAL, page 5)

evaluations to keep the innovation on track and the stakeholders informed and satisfied (Bernal, 1998), but these special efforts should not replace the ongoing concern with evaluating the program's essential features.

States are starting to require documented performance from the GT programs they fund (for example, Olenchak & Castle, 1999). In many instances, school boards, too, are looking at outcomes (Carter & Hamilton, 1985). Historically, however, GT programs have not done much in the way of evaluation (Bernal, 1986). The upshot has been that GT program coordinators and teachers are often unprepared for and unpleasantly surprised by new demands from accrediting agencies for evidence of, say, GT students' creative products (Tomlinson & Callaghan, 1993). One should not lose sight of the fact that a state's standards for GT education, however good they may be, are intended to ensure certain denominators in every program or to recognize different levels of compliance. They should not be the only matters considered in a school district's GT program evaluation plan (Callaghan, 1992). Each program needs to raise evaluation concerns over features that individuate the program, that give it a unique purpose or style of delivery (Carter & Hamilton, 1985; Gallagher, 1991). Another example, one that is not tied to accreditation, may also serve to make the point. As the parents of GT minority students become more vocal and occasionally critical of the GT program's shortcomings from their point of view, GT coordinators have often been left without any data to support the changes that they have wrought, have no evidence to document how well the minority students are doing. At least one district in south Texas had to compromise the numerical integrity of a magnet school GT program to neighborhood schools because it simply could not point to any results. Instead of professional leadership from the GT program, local politics and the preferences of a few principals held sway.

Getting Started in Program Evaluation

So how does one get started? Start by planning to evaluate one important facet of your GT program every year. (See Van Tassel, 1980.) Write a plan that ties the GT program to the district's most pressing political, educational, or economic agendas, and show how an improved and well documented GT program will make a difference to the children it serves. . . and to their parents. Always involve the parents of the GT students in your plans, and ask them to promote the plan for a better GT program with the administrators and school board members they see.

Sometimes the political climate dictates the facet of the program that needs to be addressed on a priority basis. But during calmer times, put the features of your program on a cycle for evaluation: this year, parental involvement; next year, the AP program. As Gubbins (1998) put it, focus on students, focus on curriculum, and focus on program implementation, especially on service delivery models. This will establish the informational base for periodic accreditation visits and reports. Larger GT programs may need to combine features and levels (e.g., service delivery at the middle schools and high schools) in order to achieve the specificity necessary to effect improvement as a result of the evaluation (Lapan, 1989).

The heart of the process is to ask critical questions about the feature you are evaluating. Better yet, identify the stakeholders (Lucksinger, 1999) who are or who will be most affected by the feature and establish an ad hoc evaluation committee for the year to ask the critical questions for you. GT coordinators need "buy in," after all, and can get this as part of the evaluation process, provided that they are responsive to the recommendations of the evaluation committee. "Is there a gender or ethnic pattern in the set of GT students who withdraw from the GT program?" "Which schools have the most underrepresentation of GT students?" "Do any GT students 'fall through the crack' between elementary and middle school?" If the GT evaluation committee can answer questions such as these, creative solutions to the problems they imply are usually quickly forthcoming.

Every GT program, ideally speaking, needs the services of an evaluator, for too often educators who can brainstorm a good evaluation concern do not know how to compose a good evaluation question that is solvable within the financial and time constraints under which the program operates. Few coordinators have the time and the necessary preparation to do this work (Tomlinson & Callaghan, 1993), even though many

evaluation questions can be answered in a straightforward manner through small samples ("action" research) or simple surveys that one person could handle on a part-time basis. Ongoing evaluation of the program, however, requires assistance from the district's research and evaluation (R&E) office, if the district has one, or from a consultant who, preferably, knows both program evaluation and gifted education, so that none of the essential elements are overlooked. (See Gallagher, 1991.) Alternatively, the consultant could come from the district's central office, or could be contracted separately to do a specific job or on an ongoing basis, much as the services of diagnosticians or psychometrists are acquired. Sometimes the GT coordinator has an assistant who, for example, handles the testing of nominated students and knows the related statistics. Perhaps this person's responsibilities could be expanded to include program evaluation if the appropriate training or supervision could be arranged.

The program coordinator should take the initiative in any case, deciding which of the questions need to be answered, checking the proposed methodology for its political viability and financial feasibility, and ensuring that the evaluation focuses on improvement, so that the evaluation reports make practicable suggestions in their conclusions. (See Lapan, 1989.) A good evaluation report includes findings that are akin to a needs-assessment (see Lucksinger, 1999), and is the basis for a subsequent evaluation of the remedies proposed by the evaluator or the GT evaluation committee and adopted by the GT coordinator and the administrator in-line.

Next year, the GT coordinator—perhaps assisted by the members of this year's ad hoc evaluation committee—can profitably spend time implementing this year's evaluation-based recommendations, while the coordinator sees to it that yet another feature of the GT program is being evaluated. Simple, no?

What If One Cannot Even Do This?

When conditions overwhelm the GT coordinator and militate against adopting program evaluation as the coordinator's managerial centerpiece, it is useful to remember that implementing good suggestions for improvement (i.e., suggestions based upon facts, not just opinions or the wishes of influential persons) is what a coordinator's job should be about, mostly. If the coordinator is doing mostly everything but this, then the coordinator needs assistance desperately, because he/she is wasting precious time and energy! Forget what I said about how to start and start, instead, by evaluating the coordinator's job.

The program coordinator should work with the administrator in-line to form a special ad hoc committee with a few GT teachers, a principal, a central office administrator, and a parent leader who is wise in the ways of organizations. (This, by the way, would be the ideal time to bring in an evaluator, but a program in desperate straits will likely not be able to do this.) Insist that the committee ask the hardest, most critical question first, even if it puts the coordinator's job at stake: "Is it the coordinator or the job? Why is the coordinator relegated to a yeoman's job, not a professional's?" If the answer is that aspects of the job militate against high coordinator performance, then shift back to the formative issues: "What needs to be done?" Perhaps the placement of the GT program in the district's organizational chart needs to be re-assessed. Find out if the GT program has a budget line, and whether the coordinator controls all or part of it. Even this very basic level of involvement is an opportunity to build support for the program, because it will raise the awareness of many stakeholders and likely result in some substantial improvements in the coordinator's position and the program generally. To better serve GT students—being creative, in other words—is what a GT coordinator's job is all about. To get to this position it is sometimes necessary for the coordinator to elect to risk his/her job.

Conclusion

A coordinator who wants to be a strong advocate for GT education will not wait for things to happen to the GT program before setting things into motion. But a prudent coordinator is proactive and professional, not reactive and arbitrary. Evaluation can help a GT program stay healthy, for it will keep it actively and creatively engaged with GT teachers, school administrators, and parents. It will also create strategic opportunities to make the GT program shine. When reviews and accreditation visits come up, a coordinator will have something to say and something solid to show

for her/his work over the years, not something that had to be "thrown together" in the last few months, the content of which is completely under someone else's control.

Evaluation points the way for the program to go in order to achieve a tradition of quality based on ongoing improvement. It also gives a program coordinator some objective guidance and a strong rationale for making critical managerial decisions, such as new directions and the allocation of limited financial resources to strategic goals. Good evaluation, in short, can "make" the coordinator into an effective leader of the GT program and give GT concerns a strong voice in district-wide decision-making.

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(from TINGLEY, page 9)

It is striking to me that even though we have Harkness Tables in every class, we still always refer to them as "the" Harkness Table. That's because the unique experience of learning at the Harkness Table transcends any individual class. Let me suggest how.

When I first came to Exeter, I had a conversation with several new students. I asked them why they had come. One senior said, **"I wanted to go to a school where everyone was smart and where I could have good conversations."** As principal, that resonated with me. Around the Harkness Table we learn to have intense conversations. We're the ones who talk without raising our hands and we want to talk about everything. When somebody says, "Well, what do you think?" we all have something to say.

Suddenly, you're seeing the big picture and it's thrilling. And the thrill of discovery doesn't stop when class ends. One student told me he found his voice here. He said he used to hang back with his opinions, but now he can't wait to speak up inside and outside of class.

There is never any busy work at the Harkness Table. Instead of a math book with an endless number of identical problems and the answers in the back of the book, your math teachers write their own text and design problems that will challenge you. In your history class, you move beyond dates - instead, you are asked to consider what "the facts" mean and why you think they are important. In your English class, your teacher wants to know which books you and your classmates have already read and which ones you want to read. Sometimes, the class syllabus may even grow out of everyone's ideas. You go to school to challenge yourself with the unknown, not the known. That's what makes class absorbing and keeps you immersed in it all.

It's **safe to be smart** because there is a notion of **democracy** that is characterized by the quality of thoughts, efforts and enthusiasm.

A lot of students choose to come here because it's safe to be smart. When you're sitting at the Harkness Table, whatever your background is, social trappings and distinctions drop away to make room for each person's perspective. It's safe to be smart because there is a notion of democracy that is characterized by the quality of thoughts, efforts and enthusiasm. The respect we feel for one another grows out of being together at the Harkness Table and extends to every aspect of our lives.

Imagine walking into an English class. Last night, you read George Orwell's essay, "Shooting an Elephant." Would the narrator kill an elephant again if he had it to do over? You and your classmates are trying to decide. Someone jumps in and says definitely. But you don't think so. You point out the author's remorse. Ideas fly around the table. Of your 12 classmates at this Harkness Table, no one is left out of the discussion. No one is hiding. Everyone speaks his or her mind, yet you each make each other question your assumptions.

You are no longer plugging formulas into problems, you're finding the formulas for yourself. You get to think ahead of time about a question and then you have the chance to explore and confirm your ideas.

Teachers are also participants in a Harkness discussion. Sometimes prospective parents think this means the teacher isn't teaching. In fact, the teacher is demonstrating to students how to learn rather than just what to learn. That's where our notion of "respecting the pupil" comes from. Harkness teachers excel at asking questions that excite inquiry. The more students want to know, the more they learn.

It is important to understand that the Harkness Table fosters a sense of collaboration and encouragement that continues when class is over. Students tell me they learn just as much from each other after class as they do in class, whether they're the one giving the help or getting it. "It's incredible how much you can learn when you're together instead of apart," a student said to me. Imagine school like that.

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(from BATSON, page 3)

countability system. More on this topic will be shared in the fall 2000 *Tempo*.

Back to the topics at hand: assessment and evaluation. A dictionary definition of the word "assess" includes this entry: to examine critically and estimate the merit, significance, or value of; criticize; evaluate. It is of interest to note the Latin root *assidere* that can be translated "sit beside." If an assessment, whether it is a multiple-choice test, essay, oral recitation, project presentation, or performance, were a time for "sitting beside," both teacher and pupil jointly would approach the assessment. Both would become students of the assessment itself and the results. Grant Wiggins (1998) advocates use of educative assessment. Such assessments demonstrate the basic purpose of assessment which is to "educate and improve student performance" as opposed to simply auditing such performance (Wiggins, 1998, 7). When assessment is used as a tool for quality improvements, student and teacher performances can be modified for increased achievement.

Evaluation, on the other hand, generally implies a judgment or estimation of value, worth, or importance. In schools, evaluation or judgment is employed almost minute by minute whether it is the determination of hall pass privileges, appraisal of teacher performance, or administration of TAAS. The closer the link between goals of assessment and evaluation, the greater likelihood a sound, defensible decision will be made. Formal evaluation processes should be designed prior to development and implementation of assessments. Such evaluations need to be based on appropriate, challenging social, emotional, and academic goals. For evaluation to be meaningful for gifted students, the design of the evaluation and assessment components must be aligned with the unique social, emotional, and intellectual needs of the individual and respective group. Stephen Covey (1989) reminds us to "begin with the end in mind." If advocates for Texas gifted students begin with the end in mind, dreams of excellence can become reality.

Dreams of Excellence

What if there was a statewide program evaluation model based on The Texas State Plan for the Education of Gifted/Talented Students? What if this model was part of the Academic Excellence Indicator System (AEIS) or a comparable system? What if every parent, teacher, principal, superintendent, school board member, business person, community leader, and citizen of our great state could access this information? What if assessments for gifted students were designed to meet their unique needs by modifying the depth, complexity, and pacing of the general school assessment program? What if revisions in programs and student performance were guided by the evaluation and assessment results? What if all these facets occurred? Dreams of excellence for gifted students could be realized.

Components of such a dream are floating in the Texas education world. The Texas Education Agency District Effectiveness and Compliance (DEC) system could be used regularly to monitor district and campus programs for gifted students. Work has been underway through DEC+ to refine this process; however, implementation is unclear at best. Multiple indicators become part of the AEIS district and campus report cards; perhaps, GT program status could become an AEIS indicator even if, in the beginning, it is just "report only."

. . . the vast majority of Texas gifted students are **excluded** from the state accountability system.

AEIS is a rich data source that needs extensive mining. One group, Just for the Kids (www.just4kids.org),

leads in this mining activity. Its mission is to serve as a voice for maximizing every child's public education; see the article in this *Tempo* by Dr. Chrys Dougherty. With access to data, evaluation needs can be identified and appropriate assessment tools can be developed.

The state testing system is focused on the state mandated curricula. Revisions to TAAS to reflect the latest state curricular expectations, Texas Essential Knowledge and Skills (TEKS), are in progress. Opportunities to take above level TAAS tests could advantage gifted students especially if such assessment results were resources used in placement and service decisions. Assessments that address all facets of an enriched curriculum could benefit all Texas students, especially the gifted. An enriched curriculum includes language arts, mathematics, science, social studies, art, music, physical education, languages other than English, and various electives. To thrive and thoroughly examine student progress and achievement, interdisciplinary assessments that cut across all curricular areas are required. Every advocate for Texas gifted students will need to take supportive steps.

Supportive Steps

Become knowledgeable. Study the evaluation and assessment programs at the campus, district, and state levels. When your local schools, district, or newspaper present the annual AEIS Report Cards, study the results and look for data points which shed flickering light on opportunities for gifted students. These slivers of light can be seen in the high school data, for example, advanced course enrollments or SAT or ACT results. Secure a copy of the *Texas State Plan for the Education of Gifted/Talented Students* (www.tea.state.tx.us/gted). Support your school and district teachers, principals, and superintendent in implementation of the local program(s) for gifted students while simultaneously supporting challenging curriculum and instruction for all students. Educators are encouraged to attend the spring 2000 TAGT conference hosted by the GT Coordinators Division; this meeting for gifted education leaders is scheduled for April 13-14, 2000, at the Red Lion Hotel in Austin. With the theme, New Horizons for Leaders in Gifted Education, assessment and evaluation issues will be woven throughout. See www.txgifted.org for further information.

Assessment and evaluation can be viewed as two sides of a coin. The evaluation side needs to be imprinted first in direct relation to appropriate goals for gifted students. The assessment side should be imprinted secondly and may appear differently dependent on the unique needs of the student. The coin can be tossed but in order for gifted students to enter the game, modifications in assessment and evaluation are required.

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Correction: In the Winter 2000 Tempo, reference was made to the 3.5 million gifted students in Texas; such reference should have read more than 300,000 Texas students in gifted education programs.

(from DOUGHERTY, page 11)

surable, they can become the basis of a new set of indicators for whether schools and school districts are challenging gifted students. TAGT was instrumental in supporting Rep. Hochberg's bill and encouraging other legislators to vote for it.

Above-level testing is an idea that needs to be tried in elementary school. A fourth-grade student who is doing seventh-grade work should be given a seventh-grade test. Currently, the information parents and teachers receive on that student is derived from fourth-grade tests covering mostly fourth-grade curriculum.

Administer an above-level test and compare notes with other teachers and parents. Working together, parents and teachers can develop evidence that above-level testing produces information not provided by the current testing and accountability system. They can present this information to local school district officials and encourage the district to collect more information on the academic progress of gifted and talented students.

Encourage TAAS reporting that focuses on the proficiency standard, not the passing standard. Focusing TAAS reporting on the proficiency standard will help raise the bar for average students. This, in turn, will make it easier for schools to raise expectations for above-average students.

Work with TAGT and state policymakers to incorporate above-grade-level indicators into the Academic Excellence Indicator System and the state accountability system. The proposed incorporation of the state Algebra I end-of-course exam scores into district accountability ratings is a good precedent for such a change. Additional options for change include:

- Require above-grade-level performance by a certain percentage of students in order for a campus or district to receive an "exemplary" rating.
- Add a new rating beyond "exemplary" for schools and districts with large numbers of high-achieving students.
- Provide a state letter of commendation for schools with many students performing above grade level.

Finally, remind people that the same policies that are good for gifted and talented students are good for all students. Encourage them to ask these questions:

- Are high academic standards and challenging curriculum good only for gifted and talented students?
- Is challenging every child academically at his or her own level good only for gifted and talented students?
- Are ambitious school goals good only for gifted and talented students?
- Is improving the assessment of student academic growth good only for gifted and talented students?
- Is an effective flow of information between schools and parents good only for gifted and talented students?
- Is parent involvement in setting school goals and monitoring progress good only for gifted and talented students?

With better information on the academic progress of gifted and talented students, parents and teachers can focus public attention on the needs of those students and on the value of challenging all students to reach their potential.

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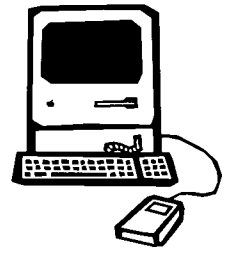

Visit the TAGT web site at:
http://www.txgifted.org

(from FITZGERALD, page 2)

ing professionals. Portfolios should emphasize the products, the processes, student effort, achievement, and self-evaluation. Teachers of the gifted assess student products, the ability of students to work within a team, individual learning styles, portfolios, and anecdotal observations. We evaluate their projects, reports on the books they have read, how well the student team completed the task, and their critical thinking skills. Instructional rubrics, often designed by the G/T students themselves, are used to provide a shared standard of work quality.

Assessment Applications	Evaluation Applications
Diagnose strengths and needs	Establish grades
Determine the pace of instruction	Determine accountability
Provide instructional feedback	Evaluate standards
Gauge progress	Grade progress
Monitor curriculum effectiveness	Measure program effectiveness
Motivate excellence	Formulate education policies
Make grouping decisions	Determine placements in special programs

Kingore, B. (1999). *Assessment.* 2nd ed. Austin, TX: Professional Associates p.139

Educators deserve an assessment and evaluation system that tells us whether our work is producing changes in G/T student achievement. Both educators and parents deserve an assessment and evaluation system that tells us whether our G/T program is making a significant difference in our school. Unfortunately, gifted and talented students are often forgotten when evaluation assessments are designed. We want to be held accountable for the excellent teaching we do.

We can chart the course of student growth for our G/T students. We need to be held accountable so we can show that money spent on programs for the gifted will pay off for decades to come. Extraordinary levels of achievement require making and sustaining multiple changes throughout the school year. Teachers of the gifted come prepared to make the changes it takes to improve assessment and evaluation for G/T students.

One question which troubles many of us who work with gifted and talented students is: How much classroom time for gifted students is spent on informal assessment for grade level objectives or practice for the formal assessment which could already be mastered without that practice? Educators, parents and the public look to standardized tests as a way of measuring our expectation for all students. Unfortunately, for many gifted students, the assessment instrument's ceiling is too low and the expectations too limited.

One of our professional goals can be to establish benchmarks specifically designed for G/T students to measure their progress toward goals over time. There are many issues to consider: What if the AEIS reports included the progress of G/T children in their gifted programs? What if TAAS tests offered open-ended questions with higher ceilings for those students who easily master the tests? What will performance standards look like for gifted and talented students?

Texas can set the new benchmarks in gifted education on both assessment and evaluation. We can help schools focus their efforts on G/T student results that are important to their patrons. We can share articles, books, and information about G/T assessment and evaluation with other educators and parents. We can form networks with other interested educators to nurture ideas as we share our successes and concerns or problems.

As Pablo Picasso said, "What one does is what counts and not what one had the intention of doing." Time to get going!

What the Research Says About Assessment

Susan K. Johnsen

Assessment is a broad term. It may be used for identification, diagnosis, grading and reporting, instruction, program and curriculum evaluation, and even theory development. In the *Texas State Plan for the Education of Gifted/Talented Students*, Section 1 on Assessment, primarily addresses identification. This review, therefore, selected research related to identification. Evaluation will be included in another issue of *Tempo*. Articles published in *Gifted Child Quarterly, Gifted and Talented International, Journal for the Education of the Gifted,* and *Roeper Review* during the past ten years were examined. To be included, the article needed to focus on identification procedures within the United States. Using this method, 69 articles were discovered.

Approximately 25% of the articles addressed the use of multiple criteria and alternative assessment procedures, particularly in relation to the identification of special populations. Alternative assessments included portfolios, case studies, peer and self-nominations, auditions, interviews, parent questionnaires, products, and activity checklists. In some cases, dynamic assessment was used in examining the change in student performance when specific interventions are introduced (Borland & Wright, 1994). For the most part, the authors were positive, reporting increases in the numbers of minorities and/or economically disadvantaged students in their programs. As Cramond (1998) cautioned, however, very few empirical studies report the predictive validity of alternative assessments and the application of multiple criteria. Exceptions to her conclusions were two studies in this review. Johnsen and Ryser (1997) did find that portfolios were able to predict improved scores on the TAAS and successful performance in the gifted program four years later. Similarly, Baum, Owen, and Oreck (1996) found a process for identifying talents in dance and music that predicted future performance in these areas. Hopefully, more researchers will address this significant issue.

Almost 25% of the articles evaluated specific instruments that are used or might be used in identifying gifted and talented students such as the Diet Cola Test, Clark's Drawing Abilities Test, DISCOVER, and Tactuality Test. As Adams and Callahan (1995) concluded, many of these instruments may be suited for evaluation or for use in an instructional program but should not be used in identification, which involves higher stakes. To improve this selection of instruments, two of the articles provided specific methods for evaluating instruments (see Callahan, Lundberg, & Hunsaker,1993; and Hansen & Linden, 1990). While the majority of the articles tended to present procedures for identifying students in more traditional areas such as achievement and intelligence, at least 13 of the articles looked at instruments for identifying students with talents in creativity, leadership, and artistic areas. Unfortunately, many of these areas remain ill-defined and therefore difficult to assess (Hunsaker & Callahan, 1995).

Seven articles also looked at ways of identifying young gifted children. For the most part, these articles reported positive results including an increase in the number of students served, stability with measures, and changes in teacher lessons and attitudes toward identifying young children. Without early intervention, Johnsen and Ryser (1994) found an alarming decrease in gifted students' achievement.

Several studies did examine above-level testing (e.g., tests developed for students two grade levels above) and found that they were highly effective in discriminating among students (Lupkowski-Shoplik & Swiatek, 1999). Schumacker, Sayler, and Bembry (1995) developed a Learning and Study Strategies Inventory for identifying early warning signs of students who may be at-risk in participating in early college admission programs such as the Texas Academy of Mathematics and Science. With the current emphasis on acceleration, these types of tests may hold promise for addressing the needs of gifted and talented students. Many of the authors simply provided recommendations for identification. These included: using multiple criteria, using technically adequate instruments, collaborating with professionals in the field to evaluate portfolios, training teachers and those who are nominating students, assessing students dynamically or in non-school settings, becoming aware of cultural differences, and using alternative assessments.

Adams, C. M., & Callahan, C. M. (1995). The reliability and validity of a performance task for evaluating science process skills. *Gifted Child Quarterly, 39*, 14-20. The authors evaluated the reliability of The Diet Cola Test and its validity for identifying gifted students. They tested 180 students in grades 4 through 8 in six states. The authors concluded that the data did not support its use in identifying students but was suited for assessing science process skills as part of an instructional program or evaluation.

Baer, J. (1994). Performance assessments of creativity: Do they have long-term stability. *Roeper Review, 17*, 7-11. In the first study, poetry and story-writing tasks by fourth and fifth graders were rated twice at eleven-month intervals. In the second study, oral stories by second-grade students were rated at an eighth month interval. In both cases, a significant relationship existed between the first and second ratings leading the author to conclude that these types of assessments are as stable as other creativity tests.

Baum, S. M., Owen, S. V., & Oreck, B. A. (1996). Talent beyond words: Identification of potential talent in dance and music in elementary students. *Gifted Child Quarterly, 40,* 93-101. This study presents strong reliability and validity evidence to support a process that identifies talent in dance and music. The subjects included 396 third graders with a substantial percentage of disadvantaged, bilingual and special education students. Teacher and professional artists' observations and talent identification instruments were included in the process.

Borland, J. H., & Wright, L. (1994). Identifying young potentially gifted, economically disadvantaged students. *Gifted Child Quarterly, 38,* 164-171. The authors review the procedures used by Project Synergy for identifying economically disadvantaged, potentially gifted kindergarten students in urban schools. The authors recommend the use of observation, portfolio assessment, dynamic assessment, and case study methods.

Brown, C. N. (1997). Gifted identification as a constitutional issue. *Roeper Review, 19*, 157-160. This author contends that the underrepresentation of minorities in gifted programs may be an issue of constitutional law. Policy language needs to encourage a conception of giftedness that eliminates barriers to participation of economically disadvantaged and minority students in gifted programs.

Callahan, C. M., & Caldwell, M. S. (1993). Establishment of a national data bank on identification and evaluation instruments. *Journal for the Education of the Gifted, 16,* 201-219. This article discusses the national data bank on identification and evaluation instruments. It includes a sample rating form and the services provided by the bank.

Callahan, C. M., Lundberg, C., & Hunsaker, S. L. (1993). The development of the scale for the evaluation of gifted identification instruments (SEGII). *Gifted Child Quarterly, 37*, 133-140. This article presents an instrument that may be used in evaluating instruments that are being considered for use in a program for gifted and talented students. The instrument was used to evaluate over 100 tests at the University of Virginia site of the National Research Center on the Gifted and Talented.

Clark, G. A., & Wilson, T. (1991). Screening and identifying gifted/talented students in the visual arts with Clark's Drawing Abilities Test. *Roeper Review, 13*, 92-96. This study describes an instrument that successfully identifies gifted/talented students in the visual arts. Drawing ability is related to age and instruction

Clasen, D. R., Middleton, J. A., & Connell, T. J. (1994). Assessing artistic and problem- solving performance in minority and nonminority students using a nontraditional multidimensional approach. *Gifted Child Quarterly, 38*, 27-31. This study investigated nontraditional assessments — drawing and problem solving tasks—and their use in identifying both minority and nonminority students in a major Midwestern city. Peer and teacher nominations were also used. The drawing and problem solving tasks were inversely related. The authors conclude that these assessment tasks appeared to identify a number of minority and nonminority students with potential in art or problem solving.

Coleman, L. J. (1994). Portfolio assessment: A key to identifying hidden talents and empowering teachers of young children. *Gifted Child Quarterly, 38*, 65-69. The article described a Javits project called the Early Assessment for Exceptional Potential in Young Minority and/or Economically Disadvantaged Students (EAEP). The project used portfolio assessment in identifying and developing instructional plans for K-3 children. The directors developed a list of primary identifiers and provided teachers with authentic videotaped examples of children manifesting these behaviors. During the identification process, the teachers collected anecdotal records, peer/self nominations, products, and taught sample lessons.

Coleman, M. R., & Gallagher, J. J. (1995). State identification policies: Gifted students from special populations. *Roeper Review, 17*, 268-275. The authors reviewed the policies from all fifty states and found that the policies were not the major obstacle in serving gifted students from special populations. After reviewing three case studies of specific states, including Texas, the authors concluded that resources and support must be made available to educators at the local level.

Cramond, B. (Ed.).(1998). The use of multiple criteria for identifying gifted students. *Roeper Review, 20*, A-1-A-8. This article summarizes Georgia's multiple-criteria rule and the challenge of developing multiple criteria. Some of the problems relate to the limited research that supports the application of multiple criteria measures, the increased costs, and validity and reliability concerns about alternative assessments.

Dawson, V. L. (1997). In search of the wild bohemian: Challenges in the identification of the creatively gifted. ***Roeper Review, 19,*** **148-152.** The author suggests that teachers may respond to well-mannered creative children but may fail to recognize the talents of less conforming creative students. She recommends that teachers assess students in non- school settings, evaluate behaviors instead of personalities, and examine classroom management procedures.

Edmunds, A. L. (1998). Content, concurrent and construct validity of the leadership skills inventory. ***Roeper Review, 20,*** **281-284.** Using a sample of 90 academically gifted grade 12 students from an urban magnet high school, the author found that the Leadership Skills Inventory related to past leadership behavior and related to actual leadership behavior, but contained only one factor of leadership.

Feiring, C., Louis, B., Ukeje, I., Lewis, M., & Leong, P. (1997). Early identification of gifted minority kindergarten students in Newark, NJ. ***Gifted Child Quarterly, 41,*** **76-82.** This report presents data on a screening and assessment procedure used to identify gifted inner city minority kindergarten students. Instruments included the sequential administration of the Brigance K & 1, a locally developed Gifted Screening, the McCarthy Scales of Children's Abilities. Before the project began, only .2% of the children entering first grade were identified as gifted in contrast to the 2% found in this sample.

Fishkin, A. S., & Johnson, A. S. (1998). Who is creative? Identifying children's creative abilities. ***Roeper Review, 21,*** **40-46.** These authors group methods of assessing creativity into four categories: process, personality, product, and press or situation. They provide an extensive list of measures used to assess creativity in school- aged children. The authors conclude that no single measure of creativity is sufficient; that past activities, products, and achievement are the most valid methods for predicting future creativity; and that these instruments are highly subjective.

Fishkin, A. S., Kampsnider, J. J., & Pack, L. (1996). Exploring the WISC-III as a measure of giftedness. ***Roeper Review, 18,*** **226- 231.** This study found that subtest scatter of WISC-III scores occurred with greater frequency in a gifted sample of 21 girls and 21 boys in West Virginia than for subjects in a normal sample. The gifted sample performed better on the Similarities and Comprehension subtests.

Ford, D. Y., & Harris III, J. J. (1990). On discovering the hidden treasure of gifted and talented black children. ***Roeper Review, 13,*** **27-32.** These authors provide recommendations for identifying black children. They suggest building trusting relationships; becoming aware of cultural differences; providing role models, mentor, and group counseling; involving the community; using non-traditional instruments; and involving parents.

Glascoe, F. P. (1996). Can the BRIGANCE Screens detect children who are gifted and academically talented? ***Roeper Review, 19,*** **20-24.** A total of 408 children from four geographic regions were administered the BRIGANCE, the Slossen Intelligence Test-Revised, the Woodcock-Johnson Psychoeducational Battery, the Child Development Inventory, and Teacher Ratings. The author found that the BRIGANCE and teacher ratings identified 82% of the gifted children.

Gagné, F., Bégin, J., & Talbot, L. (1993). How well do peers agree among themselves when nominating the gifted or talented? ***Gifted Child Quarterly, 37,*** **39-45.** This article presents the development of a new peer identification instrument that was used by over 2,343 children in the 4th through 6th grades. Stronger interpeer agreement was found for intellectual and physical aptitudes and lesser on creative aptitudes. The researchers conclude that peers can reliably assess a fairly large variety of talents.

Hadaway, N., & Marek- Schroer, M. F. (1992). Multidimensional assessment of the gifted minority student. ***Roeper Review, 15,*** **73-77.** This article describes the portfolio as an alternative identification procedure for gifted minority students. The portfolio includes writing, journals, artwork, projects, class discussions, free time use, and samples from home.

Hansen, J. B., & Linden, K. W. (1990). Selecting instruments for identifying gifted and talented students. ***Roeper Review, 13,*** **10-15.** This article provides a method for selecting tests. They encourage program directors to be well informed about the technical qualities of tests.

Haroutounian, J. (1995). Talent identification and development in the arts: An artistic/educational dialogue. ***Roeper Review, 18,*** **112-117.** The author recommends procedures for identifying artistic talent. Tests should only be used along with observation and assessment of student performance and products. Educator and artists should collaborate in the identification process.

Hong, E., Milgram, R. M., & Gorsky, H.(1995). Original thinking as a predictor of creative performance in young children. ***Roeper Review, 18,*** **147-149.** The authors administered divergent thinking and problem solving tasks and two subtests from the WISC to a sample of 60 second graders. They found that divergent thinking was related to creative performance (i. e., out-of-school creative activities), but not to intelligence.

Hunsaker, S. L., & Callahan, C. M. (1995). Creativity and giftedness: Published instrument uses and abuses. ***Gifted Child Quarterly, 39*****, 110-114.** This study examined the use of creativity instruments in 418 districts. The authors found that the majority of the districts have not clearly defined creativity, have focused on a single dimension of the construct, and have not considered the product and environment dimensions.

Hunsaker, S. L., Finley, V. S., & Frank, E. L. (1997). An analysis of teacher nominations and student performance in gifted programs. ***Gifted Child Quarterly, 41*****, 19-24.** This study examined the relationship between teacher nominations that focused on specific characteristics of children from culturally diverse and/or low-income backgrounds and student performance. Two nomination instruments were used: (a) the TABs Summary Form (Frasier et al., 1995) and (b) the Scale for Rating Students's Participation in the Local Gifted Education Program (Renzulli & Westberg, 1991). The instruments were related to creativity and broad social abilities in the gifted program, but not to academic variables.

Johnsen, S., & Ryser, G. (1994). Identification of young gifted children from lower income families. ***Gifted and Talented International, 9*****, 62- 68.** This study examined the relationship among measures used in the identification of 4 to 7 year olds for a summer program. The best predictors of future achievement included the SAGES-P Reasoning subtest, the parent checklist, and the teacher checklist. One year later those students identified for the program performed significantly better on the ITBS. Three years later, all of the students' scores on the ITBS dropped significantly, with the identified children's scores decreasing at twice the rate as those who were not identified as gifted.

Johnsen, S. K., & Ryser, G. R. (1997). The validity of portfolios in predicting performance in a gifted program. ***Journal for the Education of the Gifted, 20*****, 253-267.** This study examined the degree to which samples collected in product portfolios from 216 kindergarten through second grade students were able to predict their successful performance in a gifted program four years later. Students whose portfolio scores were in the top quarter performed significantly better on math and reading achievement subtests. These results provide some validity for the use of portfolios when identifying gifted students.

Kettle, K. E., Renzulli, J. S., & Rizza, M. G. (1998). Products of mind: Exploring student preferences for product development using ***My Way . . . An Expression Style Instrument. Gifted Child Quarterly, 42*****, 48-57.** The authors present a survey that is designed to assess students' interests in creating a variety of products. The pilot study included 45 districts, representing 24 states. Internal consistency for the scales ranged from .72 to .95. Using factor analysis, the authors also identified 11 factors. The remainder of the article focuses on ways of using the instrument in a Schoolwide Enrichment Model.

Kirschenbaum, R. (1998). Dynamic assessment and its use with underserved gifted and talented populations. ***Gifted Child Quarterly, 42*****, 140-147.** This article presents a relatively new approach to assessing cognitive ability—dynamic assessment. This diagnostic procedure consists of a test—intervene—retest format that focuses attention on improvement in student performance. The author suggests that this approach may be used as a means for assessing special populations who may not perform well on tests of intelligence or creativity, for examining the effects of the revolving door identification model, and other instructional models.

Kleuver, R. C., & Green, K. E. (1990). Identification of gifted children: A comparison of the scores on Stanford-Binet 4th Edition and Form LM. ***Roeper Review, 13*****, 16-20.** A sample of 51 young Anglo children were tested using the Stanford-Binet 4th Edition and Form LM. Twenty-seven were also administered the K- ABC. While both forms of the Stanford were significantly correlated, the majority of the children's scores were lower on the Binet 4th Edition. The Binet 4th Edition was more similar to the K-ABC achievement scores.

Lupkowski-Shoplik, A., & Assouline, S. G. (1993). Identifying mathematically talented elementary students: Using the lower level of the SSAT. ***Gifted Child Quarterly, 37,*** **118-123.** The authors found that the Secondary School Admission Test, which was designed for fifth through seventh graders, discriminated among talented third, fourth and fifth graders in an Iowa and Texas sample. The test identified those who were exceptionally talented and eliminated the ceiling effect for at least 98% of the sample.

Lupkowski-Shoplik, A., & Swiatek, M. A. (1999). Elementary student talent searches: Establishing appropriate guidelines for qualifying test scores. ***Gifted Child Quarterly, 43*****, 265-272.** This study examined the qualifying test scores of EXPLORE, the Elementary Student Talent Search, that identifies talented third-through sixth-grade gifted students. The authors found that the EXPLORE scores are normally distributed and compare favorably to eighth-grade norms. They conclude that EXPLORE is a useful instrument for identifying exceptionally talented youth and that the 95th percentile should be maintained as the qualifying criterion.

Maker, C. J. (1996). Identification of gifted minority students: A national problem, needed changes and a prom-

ising solution. ***Gifted Child Quarterly, 40,*** **41-50.** The author presents a new identification procedure based upon Howard Gardner's Theory and the use problem solving. The DISCOVER assessment process includes a checklist of 82 behaviors and 68 characteristics of products that are collected using five different activities.

Marek-Schroer, M. F., & Schroer, N. A. (1993). Identifying and providing for musically gifted young children. ***Roeper Review, 16,*** **33-36.** Along with characteristics and needed instructional experiences, the authors review methods for identifying young musicians. Recommendations included observation of behaviors through interviews, auditions, and parent questionnaires in conjunction with testing (*Primary Measures of Music Audiation, measures of Musical Abilities*).

Massé, L., & Gagné, F. (1996). Should self- nominations be allowed in peer nomination forms? ***Gifted Child Quarterly, 40,*** **24-30.** The Peer Nomination Form was administered to 391 French-speaking students and grades 4 to 8. Results revealed that self-nominations were very frequent (41%) in a 12-item peer nomination form. Self was significantly correlated to peer nominations (.44) but not to teacher nominations (.23). In improving the accuracy of self- nominations, the authors suggest that examiners mention in the directions that their self-nominations will be compared to those of peers and teachers.

Masten, W. G., Morse, D. T., & Wenglar, K. E. (1995). Factor structure of the WISC-R for Mexican-American students referred for intellectually gifted assessment. ***Roeper Review, 18,*** **130-131.** School psychologists administered the WISC-R to 68 Mexican-American students who were referred for evaluation for an intellectually gifted program. They found that the factor structure was different for this sample of students.

Matthew, J. L., Golin, A. K., Moore, M. W., & Baker, C. (1992). Use of SOMPA in identification of gifted African-American children. ***Journal for the Education of the Gifted, 15,*** **344-356.** Using the System of Multicultural Pluralistic Assessment (SOMPA), the researchers were able to increase the number of minority students who were identified for the gifted program in a large urban school district. The SOMPA was used with the WISC- R. Prior to the SOMPA procedure, the mean IQ score for 55 students was 119.02; after the adjustment, it was 135.72. Mean test achievement scores for SOMPA and non-SOMPA students were the same.

Mills, C. J., & Barnett, L. B. (1992). The use of the secondary school admission test (SSAT) to identify academically talented elementary school students. ***Gifted Child Quarterly, 36,*** **155-159.** An above level form of the SSAT was administered to two samples of fifth and sixth graders. The distribution of scores indicates that it is an acceptable instrument for identifying academically talented elementary school students. Mean scores for eighth and ninth grade samples were recommended as cutoffs for identifying highly able fifth and sixth grade students.

Mills, C. J., & Tissot, S. L. (1995). Identifying academic potential in students from under-represented populations: Is using the Ravens Progressive Matrices a good idea? ***Gifted Child Quarterly, 39,*** **209-217.** A sample of 347 low income minority students from New York state were administered the Raven's Advanced Progressive Matrices (APM) along with a more traditional measure of academic aptitude (The School and College Ability Test)(SCAT). They found that a higher proportion of minority children scored at a high level on the APM than on the SCAT, however, differences among ethnic groups were found with Hispanic students being under-identified. In addition, the SCAT was more associated with school grades and measures of achievement than the APM.

Oakland, T., Falkenberg, B. A., & Oakland, C. (1996). Assessment of leadership in children, youth and adults. ***Gifted Child Quarterly, 40,*** **138-146.** The authors presented four concepts or theories that are presented in the literature: leadership as power and influence; leadership as skillful management of behavior; leadership as personal qualities and traits; leadership as an interaction between personal qualities and environmental resources and needs. They reviewed the psychometric properties of seven leadership measures. They concluded that significant deficiencies existed in the assessment of leadership among children and youth. Only the Leadership Skills Index (Karnes & Chauvin, 1985) was designed to measure leadership in children and youth. The authors recommend that those interested in identifying gifted children for programs take the best existing measures and supplement them by developing additional assessment procedures.

O'Tuel, F. S. (1994). APOGEE: equity in the identification of gifted and talented students. ***Gifted Child Quarterly, 38,*** **75-79.** The Academic Programs for Gifted with Excellence and Equity (APOGEE) serves the top 25% of students in each of these categories: free or reduced lunch, at-risk, culturally different, and handicapped. The identification procedure includes grades, previous test scores, and nominations by teachers, administrators, parents, and the students themselves. Preliminary results are shared.

Passow, A. H., & Frasier, M. M. (1996). Toward improving identification of talent potential among minority and disadvantaged students. ***Roeper Review, 18,*** **198-202.** Suggestions are offered for improving the identification of minority students: (a) Use broadened concepts of gifted-

ness; (b) identify attributes and specific behaviors; (c) understand cultural context; (d) use authentic assessment; and (e) identify using learning opportunities.

Plata, M., & Masten, W. (1998). Teacher ratings of Hispanic and Anglo students on a behavior rating scale. *Roeper Review, 21*, 139-144. This study examined the 12 teachers' nomination rates of Hispanic and Anglo students to gifted and talented programs using the Scales for Rating Behavior Characteristics of Superior Students. Results indicated that ethnicity was a factor in teachers' nomination rate with Anglos receiving higher ratings across all scales. Hispanic females were nominated fewer times than any other group.

Plucker, J. A., Callahan, C. M., & Tomchin, E. M. (1996). Wherefore art thou, multiple intelligences? Alternative assessments for identifying talent in ethnically diverse and low-income students. *Gifted Child Quarterly, 40*, 81-92. The authors evaluated an assessment instrument based on the MI theory, the Multiple Intelligences Assessment Technique. They found that the internal consistency reliability fell within an acceptable range for each of the subscales (.72 to .87). The results from the factor analysis, however, revealed only two subscales that were consistent with the hypothesized factors of verbal and mathematical. Other validity issues were raised by the inconsistent results across schools, across ethnic groups, and in the subscales' relationships with achievement tests. The authors conclude that much work remains before the instrument can be used in high-stakes testing such as identification.

Plucker, J. A., & Runco, M. A. (1998). The death of creativity measurement has been greatly exaggerated: Current issues, recent advances, and future directions in creativity assessment. *Roeper Review, 21*, 36-39. These authors recommend multiple indicators of creativity in assessment such as divergent thinking tests, product assessments, personality measures, activity checklists, teacher, parent, peer and self ratings. The recommend the need for additional reliability and validity studies of instruments and techniques for measuring creativity.

Reid, C., Udall, A, Romanoff, B., & Algozzine, B. (1999). Comparison of traditional and problem solving assessment criteria. *Gifted Child Quarterly, 43*, 252-264. This study described the performance of elementary school children on the Problem Solving Assessment, which was used to identify students who are gifted. Participants were from a large school district in the southeastern region of the United States. Positive relationships were evident among scores for different types of intelligences and the Matrix Analogies Test—Short Form. The authors reported that more minorities were identified using this approach.

Reyes, E. I., Fletcher, R., & Paez, D. (1996). Developing local multidimensional screening procedures for identifying giftedness among Mexican American border population. *Roeper Review, 18*, 208-211. This article describes a project that successfully identified Mexican American students for the gifted program. The process included the training of local personnel in specific characteristics; parent, teacher, and community inventories in Spanish and English; student portfolios; the Torrance Test of Creative Thinking; and the Matrix Analogies Test. Using a holistic process, the ID teams selected students using local norms.

Robinson, N. M. (1992). Stanford-Binet IV, of course! Time marches on! *Roeper Review, 15*, 32-34. The author encourages the use of the Stanford-Binet IV over the 1972 Stanford Binet because it has more recent norms and a better factor structure.

Sandel, A., McCallister, C., & Nash, W. R. (1993). Child search and screening activities for preschool gifted children. *Roeper Review, 16*, 98-102. This article describes a modified case study approach for identifying preschool gifted children. After referrals, the project staff interviews the parent, teacher, child, and makes observations of the child in informal settings. The Peabody Picture Vocabulary Test and the Hess School Readiness Test are administered. Finally, for those who met the standards during screening, the Stanford-Binet, the WISC Preschool Primary Scale, or the K-ABC is administered. Using this approach, they found 16 gifted children from the 34 complete evaluations.

Sarouphim, K. M. (1999). DISCOVER: A promising alternative assessment for the identification of gifted minorities. *Gifted Child Quarterly, 43*, 244-251. This article presents the DISCOVER process, which is based on the general framework of Gardner's theory of multiple intelligences and Maker's definition of giftedness. The DISCOVER procedure consists of five activities that incorporates linguistic, logical-mathematical, and spatial intelligences. The author reports an interobserver reliability of .81 with percentage of agreements ranging from 75 to 100% and a range of intercorrelations with the Raven from .09 to .58. The author concludes that further research is needed on the effective use of DISCOVER and other performance-based assessments.

Schumacker, R. E., Sayler, M., Bembry, K. L. (1995). Identifying at-risk gifted students in an early college entrance program. *Roeper Review, 18*, 126-129. The Learning and Study Strategies Inventory was used to provide early warning of students who were participating in the Texas Academy of Mathematics and Science at the University of North Texas. Students were found to be at-risk on time management, selecting main ideas, and class preparation.

Scott, M. S., Deuel, L. S., Jean-Francois, B., & Urbano, R. C. (1996). Identifying cognitively gifted ethnic minority children. ***Gifted Child Quarterly, 40,*** **147-153.** The authors administered nine different cognitive tasks to 400 kindergarten children in regular education and 31 kindergarten children identified as gifted. Five measures, particularly those that were open-ended and verbal, discriminated between gifted and the normal sample. Other tasks appeared to have a ceiling effect. Some of the highest performers in the regular education sample were minority. The authors suggest that such performance measures may be useful in identifying gifted minority children.

Scott, M. S., Perou, R., Urbano, R., Hogan, A., & Gold, S. (1992). The identification of giftedness: A comparison of white, Hispanic and black families. ***Gifted Child Quarterly, 36,*** **131-139.** Using a survey with 600 families, these researchers had parents from different ethnic backgrounds generate characteristics about their children. More similarities than differences were found across the three groups. The authors found that fewer minority parents request an evaluation of their child for possible placement in the gifted and talented program. The authors conclude that this reluctance might contribute to the underrepresentation of minority students in gifted programs.

Schack, G. A., & Starko, A. J. (1990). Identification of gifted students: An analysis of criteria preferred by preservice teachers, classroom teachers, and teachers of the gifted. ***Journal for the Education of the Gifted, 13,*** **346-363.** Using 18 possible criteria, 308 teachers were asked to circle the five that they thought were most important in identifying gifted students. Overall, the criteria of creativity, learns quickly and easily, initiates own learning, and curiosity were chosen most frequently. Classroom teachers were more likely to rely on grades and classroom performance while teachers of the gifted chose IQ scores and learns quickly and easily.

Sevier, R. C., Bain, S. K., & Hildman, L. K. (1994). Comparison of WISC-R and WISC-III for gifted students. ***Roeper Review, 17,*** **39-42.** Thirty-five elementary children in gifted programs were administered the WISC-R and WISC III. The authors found that the students' mean scores were significantly lower on the WISC-III than the WISC-R.

Shaklee, B. D., & Viechnicki, K. J. (1995). A qualitative approach to portfolios: The early assessment for exceptional potential model. ***Journal for the Education of the Gifted, 18,*** **156-170.** This article describes the development of the Early Assessment for Exceptional Potential portfolio model using the criteria for the assessment of trustworthiness of qualitative research. To triangulate data and ensure internal validity, anecdotal records, observations, videos, home survey, products, and nominations were used. Teachers were also trained in using the portfolio system. The authors found that teachers' attitudes changed toward exceptional potential.

Silverman, L. K., & Kearney, K. (1992). The case for the Stanford-Binet L-M as a supplemental test. ***Roeper Review, 15,*** **34-37.** The authors argue for the Stanford-Binet L-M (1973) because it is able to differentiate highly gifted from moderately gifted children, has a higher ceiling than other tests, is untimed, is more engaging for preschoolers, assesses abstract reasoning, provides mental age, has a strong research base, high predictive validity, and a long history of successful use.

Spangler, R. S., & Sabatino, D. A. (1995). Temporal stability of gifted children's intelligence. ***Roeper Review, 17,*** **207-210.** The WISC-R was administered to 66 children who were initially 8 years old and then at 36 and 72-month intervals. They found that the subtest and full-scale scores were relatively stable. The only subtest score that varied significantly was information.

Sternberg, R. J., & Clinkenbeard, P. R. (1995). The triarchic model applied to identifying, teaching, and assessing gifted children. ***Roeper Review, 17,*** **255-260.** The authors discuss the triarchic model, an assessment to measure the model, and how the assessment results relate to instruction. They provide some concurrent validity data for the assessment and conclude by discussing activities that relate to the three types of intelligence: analytic, creative, and practical.

Sternberg, R. J., Ferrari, M., Clinkenbeard, P., & Grigorenko, E. (1996). Identification, instruction, and assessment of gifted children: A construct validation of a triarchic model. ***Gifted Child Quarterly, 40,*** **129-137.** This article presents the triarchic theory of human intelligence and ways that it may be used for the identification, instruction, and assessment of the achievement of gifted children. College students who were identified using the Sternberg Triarchic Abilities test (STAT) appeared to perform better when their triarchic ability was matched to instruction and assessment.

Stinespring, J. A. (1991). The quest to find an alternative way to identify artistic talent in black students. ***Roeper Review, 14,*** **59-62.** This article describes the Tactuality Test. The purpose of the test is to find artistic talent, primarily with black students. While the author reports poor technical qualities, he is interested in collaborating with others in researching the instrument.

Tyler-Wood, T., & Carri, L. (1991). Identification of

gifted children: The effectiveness of various measures of cognitive ability. *Roeper Review, 14*, 63-64. The authors administered the Otis-Lennon, the Cognitive Abilities Test, the Stanford-Binet (LM), and the Stanford-Binet (4th) to 21 elementary students. The mean scores on these intelligence tests ranged from 123 to 133 and were significantly different. The authors encourage the use of multiple criteria for identifying gifted students.

Tyler-Wood, T., & Carri, L. (1993). Verbal measures of cognitive ability: The gifted low SES student's albatross. *Roeper Review, 16*, 102-105. The Cognitive Abilities Test (CogAT), Otis-Lennon School Abilities Test, Stanford-Binet, Slosson Intelligence Test-Revised, and Matrix Analogies Test (MAT) were administered to 20 elementary students from lower socioeconomic backgrounds and 20 who were not from such backgrounds. The low SES students performed significantly lower than the control group on the verbal portion of the CogAT, the verbal potion of the Stanford-Binet, and the Slosson Intelligence Test-Revised.

Weber, P. (1999). Mental models and the identification of young gifted students: A tale of two boys. *Roeper Review, 21*, 183-188. Using a case study, the author encourages teachers to identify young gifted students. She provides some recommendations for altering teachers' mental models that prevent early identification.

Wilkinson, S. C. (1993). WISC-R profiles of children with superior intellectual ability. *Gifted Child Quarterly, 37*, 84-91. The WISC-R was administered to 456 Grade 3 students. The profiles of students whose full-scale scores were 120 were analyzed. While most excelled in complex reasoning, differences were noted for boys and girls. Boys showed strengths for simultaneous and visual-spatial reasoning while girls showed strengths for sequential and social reasoning. This study found that children with superior intellectual ability exhibit a wide variety of strengths.

Woods, S. B., & Achey, V. H. (1990). Successful identification of gifted racial/ethnic group students without changing classification requirements. *Roeper Review, 13*, 21-26. This article describes the Academically Gifted Project that increased the number of racial/ethnic group students in grades 2-5 by 181%. They found these key factors: use existing aptitude and achievement test scores with 85%ile as a cut-off; continue all students through the evaluation sequence; communicate with parents; administer WISC-R; and collaboration.

Wright, L., & Borland, J. H. (1993). Using early childhood developmental portfolios in the identification and education of young, economically disadvantaged, potentially gifted students. *Roeper Review, 15*, 205-210. This article describes the use of portfolios developed in Project Synergy at Columbia. Portfolios include standard samples, teacher-selected samples, child-selected samples, notable moments, and let-me-tell-you-about-my-child cards. The authors strongly encourage the use of portfolios as an indicator of giftedness.

Young, E. R., & Fouts, J. T. (1993). Field dependence/independence and the identification of gifted students. *Journal for the Education of the Gifted, 16*, 299-310. Using a sample of 150 second and third graders, the authors discovered that students who were nominated for gifted services are more field independent than those not nominated, and that those selected for gifted services are the most field independent of the students even when controlling for intelligence. The authors concluded that field-independent (analytical) cognitive style enhanced the prospect of being selected for gifted services

Susan Johhnsen is Associate Dean of Scholarship and Professional Development 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 a past President of the Texas Association for the Gifted and Talented.*

Q&A Answers to Your Questions

Donna Corley

Question: I just received a letter from my son's school informing me that he was not selected for the gifted and talented program. It appears to be a form letter because the date and my son's name were handwritten on blanks. The letter does not give me any information about why he was not placed or who made the final decision. How is placement decided? Who makes that decision?
Answer: Contact your son's school and request a conference to review the screening that took place and to ask questions about the selection process that was used to make final decisions concerning placement. Making decisions concerning placement into gifted programs is a complex process. To be in compliance with state law, screening should include a minimum of three quantitative and qualitative instruments and procedures that measure ability and strengths in the student's language. A committee of at least three local district or campus educators who have received training in the nature and needs of gifted learners must make the final decision according to state law. Many districts use a matrix or profile which allows them to plot results of tests, surveys, portfolio assessments, interviews, etc. You should be able to view that summary sheet and ask for feedback concerning the discussion regarding your son's placement.

Question: I was informed recently that my child will not be placed in gifted programming for next fall. What recourse do I have?
Answer: It is a state law that school districts must have written policies that include provisions for appeals of district decisions regarding program placement. Contact your child's campus and request a copy of those procedures and any related paperwork.

Question: How do I go about getting my child screened for placement in gifted programs?
Answer: Within legal parameters, each school district is allowed to decide on policies and procedures by which they will screen for gifted services. It is a state law that these policies must be disseminated to parents. Communicate with your child's campus or the district's coordinator of gifted programming and request a copy of those written procedures and policies. Ask for a nomination form.

Question: My daughter who is in kindergarten is being tested for our district's gifted program this spring. Does the state address screening children this young for gifted programming?
Answer: Yes, the state of Texas addresses screening for gifted programming at the kindergarten level. The use of many criteria is encouraged, with a minimum of three criteria required. These children should be performing well above their peers.

Question: Our district has a talent pool for all students in the district who are in kindergarten, first grade, and second grade. What is the purpose of a talent pool?
Answer: Contact your district coordinator for gifted programming and request information on your district's talent pool. Talent pools are useful for assessment in the early years. If your district is not formally identifying any children for gifted services until they are at the end of their second grade year, they would be out of compliance with state law and should be operating under a wavier from the Texas Education Agency. Waivers ensure that the needs of the children are being addressed both in data collection and services provided. Districts who are identifying advanced students at kindergarten, first grade, and second grade and are providing services do not need the waiver. The law now provides for reassessment. This means that a pool of students who have the potential for performing at advanced levels may be selected early and reassessed at a later date for placement in gifted programming at the higher grades.

Question: When the principal reviewed my daughter's GT screening with me she kept using the terms quantitative data and qualitative data. What did she mean?
Answer: Quantitative data are derived from standardized measures such as an achievement test or an ability test. Qualitative data are acquired through the use of teacher, parent and/or student surveys, observations, student products, student interviews, etc.

Questions: When a student is identified in the state of Texas as gifted, what kind of services should they be receiving?
Answer: In the state of Texas, students should be receiving

(see CORLEY, page 32)

Book Reviews

Tracy Weinberg

***Competitions: Maximizing Your Potential* by Frances A. Karnes and Tracy L. Riley. Prufrock Press, 1996.**

This book is a very useful resource for teachers of the gifted and for any student who is competitively minded. The book contains information on more than 275 competitions, covering the four core academic areas, plus fine and performing arts, foreign languages, leadership and service learning, and general academic competitions. Each entry contains specific information about the contest, from the general (purpose and description) to the specific (awards, deadlines, judging criteria, and advice about entering and competing).

The book also contains slim opening and concluding sections which expand its use. The introductory portion has information about competitions in general, the benefits of them, and suggestions for selecting appropriate ones. The final section is designed specifically for students and is entitled, "Competitions Journal." This 20-page section has tips for getting started in competitions, from selecting an appropriate competition, making contacts by letter or phone, to keeping a journal about your goals and how to best enjoy and learn from one's own achievements in these activities.

As an educator who has coached and sponsored a variety of academic and creative endeavors for nearly 20 years, I was duly impressed by the range of competitions noted. The book has the competitions familiar to many Texans (Odyssey of the Mind, Future Problem Solving, Academic Decathlon, Advanced Placement, etc.), plus many more with which I was not familiar. Despite the fact that this book is approaching 4 years old, it has "aged" well, and I would highly recommend it as a resource for the classroom.

***Iowa Acceleration Scale: A Guide for Whole-Grade Acceleration K-8.* By Susan Assouline, Nicholas Colangelo, Ann Lupkowski-Shoplik and Jonathan Lipscomb. Gifted Psychology Press, 1998.**

To accelerate or not to accelerate? If that is the question, then the Iowa Acceleration Scale may help you come up with an answer. The Iowa Acceleration Scale is a well-organized and useful tool for school personnel in charge of making educational decisions of this nature.

The Iowa Acceleration Scale consists of three parts—the student form, a summary and planning sheet, and an 80-page manual. The form itself is used to gather information about a student, much like a diagnostician would use in planning for a special education ARD placement meeting. Information compiled includes both family and school data, noting specific scores on various tests administered, and a series of observations, similar to a Renzulli-Hartman Rating Scale. These observations cover school and academic factors, developmental factors, interpersonal skills, and attitude and support. Its overall purpose is to provide a comprehensive and well-balanced picture of a student for whom grade-skipping is begin considered. This data is then condensed onto the summary and planning sheet, which is used to formalize the group's consensus about the specific student. The manual gives instructions, samples of completed forms, and a common-sense approach to the thorny question of grade-skipping and acceleration. It also includes an intelligent summary of educational and psychological research on this topic, as well as an extensive bibliography.

While the Iowa Acceleration Scale does not break any education boundaries, it does provide a comprehensive method of assembling and organizing information about students in a way that will ease decision-making. It is not designed to provide a quick fix or to give easy answers, but will help all interested parties make intelligent and informed decisions.

(from CORLEY, page 31)

services in one or more of the four core academic areas (math, science, social studies, language arts), depending on their specific identification. The general school program for each core area should be modified in depth, complexity, and pacing (acceleration). Layered within this modified program you should expect to see a continuum of experiences that lead to advanced level products and/or performances, opportunities to work in groups with students who are also identified as gifted, as well as with other students, and have opportunities to work independently, and when possible, have out-of-school opportunities in their strength area.

Donna J. Corley, Ph.D., coordinates gifted programs for Conroe Independent School District. She is also a member of the TAGT Executive Board. Submit questions relating to gifted education directly to Donna Corley, 702 N. Thompson, Conroe, TX 77301, or by e-mail: dcorley@conroe.isd.tenet.edu

Old Report Cards, New Standards

Michael Cannon

Over the years, report cards have been one of the most tangible forms of student evaluation. Without intending to become a collector of educational memorabilia, I have come into possession of report cards from four generations of my family. While working on this issue of *Tempo*, I examined these historical doucments, looking for some insights into past ideas about evaluation with the hope of finding direction for the future.

In the farming community of Penelope (between Dallas and Waco), my grandmother, Muriel Morris, was in 9th grade for the 1911-12 school year. Her grades in spelling, arithmetic, civics, algebra, rhetoric, and general history were recorded in the "Scholar's Monthly Reports," a booklet that also included an inspiring quote for each grading period. My favorite is from November: "Let us cherish our Public Schools as the looms, and our Teachers as the weavers, who weave the wondrous destiny for the Nation."

In 1934, my father Floyd was in third grade at the Mayfield (Hale County) Community School and his report card, with familiar elementary subjects (science, however, being called "Nature Study"), also has a list of "attitudes toward school work," the worst of which include "indolent, inclined to mischief, and whispers often." And the current controversy about advertising in schools isn't new. This report card has a prominent ad for a local funeral home on the cover, including its telephone number, 6.

By the time I attended third grade in Hale Center in 1958, the report card gave as much space to desirable habits, traits, and attitudes as to academic grades. Science was taught only in the second semester.

Looking at one of my daughter's recent computer-generated grade reports, the appearance gives the impression of mathematical exactness. The long behavioral lists of previous generations is gone, replaced by a conduct grade of S or U.

The grading scales on these four reports are remarkably similar. With some slight differences in number equivalents for grades and the previous use of the "E" as a failing grade, student evaluation looks much the same.

But similar grades and subject names mean little when trying to understand exactly what was taught and what was learned, in the past or today. One way to approach this is through the use of standards like the Texas Essential Knowledge and Skills (TEKS). For gifted and talented students, however, the TEKS (as used in the current TAAS test) are an inadequate means of evaluation.

In an effort to address this, the Advanced Academic Services division of the Texas Education Agency has initiated a standards project to develop content and performance standards in the core academic areas for selected grade levels of gifted students. The first phase of the project (coordinated by Region XIII ESC) has begun, with committes of educators working to develop exit level standards for English, social studies, math, and science. These voluntary standards will be piloted in several high schools around the state in the 2000-2001 school year. Further phases of this project include the development of content area standards for 8th and 4th grades.

The idea of evaluating products and performances of gifted and talented students using standards developed expressly for this purpose is new for gifted education, but one that is vital. To validate gifted education programs, we should be able to point to evaluation data of students, data based on standards that are clear and understandable to school administrators, the general public, and legislators. This kind of data would not only provide respectability to the many excellent gifted programs, it would also give concrete feedback for programs' improvement.

This kind of evaluation will not fit on a traditional report card with its neat rows of letter grades. The future of evaluation in Texas does not have to look like the past.

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 SERVICES TO MEET THESE NEEDS.

TAGT EXECUTIVE BOARD LONG RANGE GOALS

- **Advocate appropriate services and accountability standards for all gifted and talented students.**
- **Provide current information and research about gifted and talented learners and the field of gifted education to the TAGT membership and general public.**
- **Develop an effective advocacy network.**
- **Increase and diversify membership.**
- **Develop strategic alliances with the Texas Education Agency, Education Service Centers, higher education, and others.**
- **Support quality professional development for educators of gifted and talented students.**

Adopted by the TAGT Executive Board: 2.5.00

Call for Articles

Fall 2000

Passport to the Future: Accountability & Programmatic Excellence

The future of gifted education will depend on the excellence of programs and on the means used to hold districts accountable. Articles are requested on exemplary programs: how they are developed, examples of outstanding programs, and how programs are evaluated. Accountability topics may include teacher training, programmatic responses, state accountability standards, or other accountability issues.

The deadline for submission of articles is **June 1, 2000.**

Winter 2001

Guidance and Counseling of Gifted Children

The particular social and emotional needs of gifted and talented children are often overlooked by counselors, administrators, teachers and parents. Articles are requested that address these needs, describe successful counseling programs, vocational guidance, and other related areas.

The deadline for submission of articles is **September 1, 2000.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are evaluated by 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. Attach a100—150 word abstract of the article.
5. 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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Member Name(s)_____ Telephone:(H)_____ (W)_____
Mailing Address_____ City_____ State_____ Zip_____
School District & Campus Name/Business Affiliation_____ ESC Region_____
Email address:_____

PLEASE CHECK ONE: ❑ Teacher ❑ Administrator ❑ Parent ❑ School Board Member ❑ Other_____

Individual.....$35 ( ) Family.....$35 ( ) *Student.....$15 ( ) **Must include verification (campus, district, grade)*

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Choose either or both: G/T Coordinators.....$10 ( ) Research & Development.....$10 ( )

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Tempo

Volume XX Issue 3

Summer 2000 Issue

Curriculum Issues

Clues from Brain Research for Challenging Gifted Learners

Barbara Clark
California State University, Los Angeles

"The brain, with its complex architecture and limitless potential, is a highly plastic, constantly changing entity that is powerfully shaped by our experiences in childhood and throughout life."

—Marian Diamond, Ph.D., University of California, Berkeley (1998, p.2)

"An animal is only as smart as it needs to be...nature programs parts of the brain to sharpen up when – and only when – experience demands it."

—Richard Coss, Ph.D., University of California, Davis (Diamond, 1998, p.29)

For several decades educators have had the advantage of a growing body of data from the neurosciences. These data have provided numerous clues to how the brain develops, the impact of early experience on the brain, the relationship of intelligence and brain development, and how educators and parents might make learning and teaching more effective and efficient. Because of this body of work, the very definition of intelligence has changed for it can no longer be restricted to the linear, rational cognitive function, but must include the integration of all of the functions of the brain; the cognitive (both linear and spatial), the emotional-social, the physical, and the intuitive. Intelligence must be considered dynamic just as the growth of the functions of the brain are dynamic with high levels of in-

(see CLARK, page 12)

FROM THE PRESIDENT

Tempo
Volume XX Issue 3 Summer 2000

Karen Fitzgerald

As another school year draws to a close, it is time to reflect on the past year with all of its glories, all of its sorrows. It is time to look back and say, "Thank you for all you do." As an educator, I always found this time of year most exciting. Students are ready to get out of school for the summer. Teachers are anxious for the school year to be over. Parents are making plans for summer experiences. Everyone is filled with hope and anticipation of what is to come, not only during the summer, but when school opens again in August. Times like this continually remind me why I chose to be a teacher of the gifted.

Just last week I stopped by one of our elementary schools for a visit to classrooms and couldn't resist a quick stop in the library. There, among the stacks of nonfiction books, was seven-year-old gifted student Sarah, looking for information on her plant cloning project. She asked me if I could help her find some interesting books on plants that would help with her research. Sarah's teacher and parents were encouraging her to follow her interests in her studies. While other students in Sarah's class didn't understand her passion for plant cloning, those closest to her did.

As teachers and parents of the gifted, you are fortunate to see daily the curiosity and creativity of bright children. You give your students the opportunity to explore and you encourage their natural inquisitiveness. You are constantly aware of each student's interest in a subject. You like students deciding some of the specifics they want to explore within a topic of study. You understand that student choice is important in gifted programs and you strive to motivate your students toward more depth and greater complexity in their studies. Recently John, a fourth grader, told me he likes the gifted program best because he isn't asked to complete numerous worksheets for TAAS review there.

(see FITZGERALD, page 18)

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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Curriculum for Gifted Students: A Map and Compact for Excellence

Amanda D. Batson, Ph.D.

We have no idea the havoc we wreak nor the damage we inflict upon gifted/talented students when we fail to give them the curriculum they need and deserve. Gifted students in Texas spend on average 2,275 days in school (K-12) and this time must be filled with challenges that stretch the mind and press the envelope of potential. Curriculum should set the stage for these adventures.

However, curriculum often is perceived as dry, boring, and most frequently as volumes used for doorstops or bookends. Curriculum should be a map and guide for the journey to excellence as well as a compact with the people. Is the map flat, round, or multidimensional? Does such a compact exist? What is curriculum? How does it impact gifted students?

Definitions and Expectations

Curriculum is defined in many ways, and all or most definitions are valid at least from the perspective of the user. According to F. English (1992), there is the written, taught, and tested curriculum. Written curriculum can be state-mandated, district or campus designed, and teacher prepared. Taught curriculum is the product actually delivered in the classroom or other learning environment. Tested curriculum includes the content and processes that are assessed. Ideally, there is direct alignment of these curricula. In reality, this alignment is difficult to achieve.

There also are parent, community, higher education, and student curricula. Parents, usually based on their own schooling experiences, have expectations of what their child or children should learn in school. The community has numerous curricular expectations of the schools. Whether it is basic skills preparation, work force development, penmanship, citizenship, computer literacy, health education, physical education, athletic competitions, fine arts, academic competitions, safety, responsibility, self-discipline, oral communication skills, (not to mention) reading, writing, mathematics, science, geography, or history, the range of community curricular expectations grows almost continuously. Higher education administrators and faculty members have collective and individual curricular expectations of public and private K-12 schools. These expectations vary campus-to-campus and college-to-college depending upon university or school culture, education goals, and societal pressures.

Most importantly, however, are the individual anticipations that the child brings to the classroom. Each stu-

(see BATSON, page 23)

Teaching Beyond the Average: A Vision for Classroom Change

Robert Arthur Schultz
Margaret Ann Price

Curriculum is a word with many, many definitions. Depending on the focus, curriculum can be defined as simply as the textbook, or as complex as the meaning of life. In this article, curriculum is broadly examined, not as something to be implemented in a classroom, but as an integral part of everything that has to do with teaching and learning.

The word curriculum dates back to ancient Greece. In its most literal translation, *currere* (curriculum) is a "course to run," the "what," if you will, of teaching. However, this literal definition is too limiting.

Curriculum involves more than the materials and experiences provided by the teacher for the student. Interactions occur between students, the educational setting, teachers, the environment, and community that influences classroom actions (Schultz & Delisle, 1997). "A curriculum includes some notions of where the traveler is going, how the traveler might get there, and what life might be like not only on arrival, but also along the way" (Marsh & Willis, 1995, p. 9).

Curriculum is more than the "what" of teaching. It also involves how we plan to implement activities and why we choose a particular method or activity in the first place. Metaphorically, curriculum is a complex entity that fluidly evolves as the interplay of the aforementioned components act upon one another. This continually changing milieu effects a teacher's best developed instructional plans in a multitude of ways. Often these complex interactions and effects are not considered during teacher certification programs.

Teacher Training

Teacher preparation tends to focus on general pedagogical concerns such as classroom management, preparing lesson plans, and assessment and evaluation. Rare are the programs that focus on purposeful instructional design based on the needs and interests of the students. This is understandable in that few programs involve intensive field experience by preservice teachers where they interact with the classroom milieu throughout a school year.

Preservice teachers do not have many opportunities to get to know students in their field site placements as they shuffle in and out on a rotating basis. This does little to provide a sense for the rhythms and cycles that guide classroom operations, interactions, and negotiations (Connelly & Clandinin, 1988).

Since 1987, Texas, for example, has pared down programs of teacher development in colleges and universi-

ties. The Texas Higher Education Coordinating Board (THECB) has capped the number of pre-professional hours required for the certification process. Particularly in secondary education, preservice teachers are limited to 18-hours of college course work carrying the "education" moniker (THECB, 2000).

Teacher educators face a particular dilemma in the curriculum coverage of their classes. While there may be cursory coverage (if any at all) focusing on exceptional students in the general curriculum, there is little time to focus on the particular strategies, nature, and specific needs of these students. Courses specifically designed to explore giftedness are often relegated to masters degree programs, which relatively few Texas teachers pursue. Consequently, teachers entering the classroom have a myopic view of how to work with exceptional populations based on their preconceived notions about these individuals.

In typical certification programs for teachers of the gifted and talented, instructional design and classroom experiences are critical to understand giftedness in its many forms. An assumption often underlying the preparation program is that teachers who return to a college or university for certification after earning an initial teaching credential have expertise regarding curriculum development, instructional planning and implementation based on student needs. However, this is rarely the case when these teachers have had minimal, if any, opportunities to reflect on their practices through interaction with other teachers or to explore pedagogical options. "Most teachers and administrators inherit a curriculum when they accept their jobs and there is relatively little they can do to modify or change it globally. . . There is little need for them to concern themselves with broad curricular issues" (Jackson, 1992, pp. 17-18). Therefore, discussing differentiation and enrichment (although seemingly simple in theory) requires application to a particular teacher's classroom situation to be ingrained into the teacher's pedagogical arsenal.

This underlying flaw in preparation programs for all teachers limits the ability of the candidate to implement perceived best practices when they differ from the philosophical orientation the teacher holds regarding style of teaching and expectations for student learning. Perceived notions and beliefs are difficult to alter, not only with students!

I teach a battery of education courses for secondary preservice teachers including Issues and Reform in Education, Instructional Design, Classroom Leadership, and Curriculum Development. Since our secondary certification program requires a content degree, most of the individuals I work with consider themselves content experts. Many view teacher education courses as barriers to their aspirations, and wastes of time and money. Indeed, few of the almost 200 individuals I have worked with believe students have special needs or abilities requiring teacher modification and classroom accommodation. As a teacher of the gifted, this perception frightens me!

Acceptance, respect, and responsibility are focal points in every course I teach — keys to knowing and understanding one's students. I challenge the notion that most students are "typical" and the expectation that having knowledge of a laundry list of teaching strategies ensures student learning. I voice my concern that learning is rarely a result of teaching; knowing that this is exactly the scenario playing out in my courses (a concern I readily share with preservice teachers.) They empathize and assure me that this is not the case. Nevertheless, I know their perceptions and expectations have been reinforced by years of experience as students; and will likely reemerge once my class becomes a distant memory (Schultz, 1999, p. 4)

Indeed, few of the almost 200 individuals I have worked with believe students have special needs or abilities requiring teacher modification and classroom **accommodation.**

It is apparent that curriculum must be designed and implemented in a fluid manner at the point of contact between teacher and student. However, many gifted and talented certification programs provide only a transparent attempt to approach practical considerations of classroom implementation and instructional planning.

The most often used method is a practicum experi-

(see SCHULTZ & PRICE, page 18)

Science, Service, and the Gifted Learner: Connecting Curriculum to the Real World

Mary Nied Phillips

The role of authentic learning and assessment in developing the gifts and talents of students is not a new concept. In speaking to the First General Session at the 1999 TAGT conference, Joseph S. Renzulli, long an advocate of creative productivity in young people, stressed the student's role as a first hand inquirer and producer who constructs knowledge for his present use, and finds, focuses, and acts on problems. As Renzulli paraphrased: "By their deeds ye shall know them."

Embedded in Renzulli's Multiple Menu Model presented to the TAGT audience as Figure 4 of his handout is a key factor vital to any special enrichment program for the gifted: leadership. Susan K. Johnsen (1999) writes:

"...the majority of (Texas) schools have occupied themselves with meeting 'acceptable' standards (for implementing the Texas State Plan for the Education of Gifted/Talented Students) by establishing programs in the four core academic areas. However, to achieve 'exemplary' status, a district will need to implement a 'leadership' program." (p.24).

Fortunately, the need for developing the leadership potential of gifted students can be met by districts implementing Renzulli's paradigm on the development of creative productivity (1999, Figure 4, p. 2) through a service learning model. The model can be interdisciplinary, covering all five domains (arts, sciences, humanities, mathematics, and social sciences) listed by Renzulli, or it can focus specifically on one domain such as the sciences.

The emphasis throughout the National Science Education Standards (1996) is on student inquiry into authentic questions, and its chapter on Principles and Definitions clearly states that "Learning science is something students do, not something that is done to them" (p. 20). At the critical core of the Standards is the nurturing of a community of science learners participating in a wide variety of hands-on and minds-on activities ranging from observation and description to the testing of constructed explanations and the communication of their ideas and results to others.

The acquisition of scientific knowledge is combined with reasoning, thinking, and communication skills (Standards, p. 2) and based whenever possible on real life situations, whether in the classroom, outdoors, or a labora-

tory setting (Standards, p. 31). The Service Learning Model is therefore ideally formulated for the application of Science as Inquiry, Teaching Standards A (Standards, p. 30).

The Effective-Learning Cycle, the heart of the Service Learning Model, is summarized in *Learning Through Service* (McPherson, 1989) and refers to the four elements required for complete learning: 1) concrete experience and observation; 2) considered reflection on that experience, 3) synthesis and abstract conceptualization, and 4) testing of the new concepts in new situations (p. 4). On its Texas web site (2000), service-learning has been defined as

> "a teaching methodology that enriches instruction by providing thoughtfully designed opportunities for students to use their skills and knowledge in service to and with the community."

According to McPherson (1989), one of the key components for service learning success is that students, particularly adolescents, be able to interact with adults as colleagues, rather than as those being taught. Renzulli reemphasizes this point, referring to the role of the student in an authentic learning situation as being "...transformed from one of lesson-learner to firsthand inquirer, and the role of the teacher changes from an instructor and disseminator of knowledge to a combination of coach, resource procurer, mentor, and sometimes, a partner or colleague" (1999, p. 6).

These roles for student and teacher can usually be realized in curriculum projects linking science as inquiry and service learning, particularly in the area of environmental education, where the first element of the learning cycle, making concrete experiences and observations, easily lends itself to campus or community problem identification (e.g., a littered playground or a polluted water source), even by elementary students.

A recent national survey of K-12 teachers sponsored by the Environmental Literacy Council in partnership with the North American Association for Environmental Education and the National Environmental Education and Training Foundation and conducted by the University of Maryland's Survey Research Center, found that sixty-two percent of teachers include environmental topics in their curriculum, with recycling topping the list, followed by endangered species and energy conservation as topics most frequently covered (NSTA Reports, 1999). This strengthens the possibility for using environmentally based opportunities for authentic, service-based learning.

In classrooms across the country, gifted learners increasingly **demand** more attention and discussion from their teachers on local and global issues while often assuming the role of expert in areas related to **technology**.

The service experience, based on action research by students, can be viewed as a six-step cyclical process that begins with 1) group or individual planning, and continues with 2) the implementation of the plan (experience); 3) observation or the examination of what actually happened; 4) meaning or discussion of what was learned; 5) application; and 6) the reaching of a new understanding and the planning of new activities (McPherson, 1989). Students, schools, and communities are all part of the service cycle, each benefiting through the completion of its essential components: preparation, service, reflection/evaluation, and celebration/recognition.

In Texas the school-based program that funds and coordinates service learning statewide is called the Texas PK-12 Learn and Serve America. This program receives funding from the Corporation for National Service through a contract with the Texas Education Agency which administers it through the Region 14 Education Service Center and the Texas Center for Service-Learning at the Charles A. Dana Center at the University of Texas in Austin. Education Service Centers across the state are involved in training teachers and school personnel in the service-learning methodology prior to the submission of a grant proposal; they also monitor the yearly grants.

(see PHILLIPS, page 20)

Future Problem Solving: Improving Student Skills

Kent Hutton

Future Problem Solving (FPS) provides students many of the skills needed to face the future creatively and with confidence. The program offers students the opportunity to understand the value of research, group interaction, problem solving, teamwork and effective communication. In addition, thinking futuristically is an important part of competing in the FPS program. Thinking futuristically, related to FPS, is difficult to teach in the classroom without techniques and tools that apply specifically to the FPS program. Teaching these techniques to middle school and high school students will help them compete in FPS and life.

Value of the Future Problem Solving Program

In 1974, Dr. E. Paul Torrance (Crabbe, 1991) started the FPS program to stimulate students to think about the future before leaving high school and teach them to creatively address important global problems. The mission of the program is to teach students creative problem solving through competitive or non-competitive instructional programs with an orientation to developing positive futures. The program incorporates many critical learning activities including topic research, student teamwork, a six-step problem solving process, and a competitive problem-solving environment. In addition to these skills, students learn the realities of teamwork, task and time management, communications skills, and the value of group contributions. This learning provides a foundation that enables students to become better thinkers concerning the challenges they will face in the future and stimulates them to become change agents. Joseph Coates (1998), a renowned futurist, states in his article "Readying Children for the Future," that educational programs must prepare students for the future. This preparation includes helping them understand themselves, their world, their choices and plausible ways to achieve their goals. This understanding develops a sense of optimism and confidence in their ability to engage the future. Coates believes it is best to teach these skills to students between kindergarten and high school.

Future Studies and Future Problem Solving

FPS incorporates three skill categories, thinking skills, problem solving skills and communications skills. These skill categories incorporate individual knowledge development, pattern recognition, research techniques, creative

brainstorming tools, evaluating alternatives, speaking and writing skills, and ways to improve persuasion and clarity. The FPS program provides numerous tools and prescriptive problem-solving concepts for students to use in the program. Experience from year to year enhances the ability of students to use these tools and techniques.

One additional valuable skill used in FPS, but not well understood, is thinking futuristically. This thinking skill enhances the individual's ability to solve future oriented problems. While most individuals use the concepts of future thinking, it is difficult for teachers to provide specific techniques for students to use in the FPS competition. By providing teachers with tools developed in Studies of the Future programs, formatted to FPS, the teachers are able to help students understand and use the tools in FPS competition. These techniques improve the students' ability to compete in the FPS program.

How to Think about the Future

Studying the future is a problem-solving process that evaluates the past, considers today's environment, and develops alternatives that may occur in the future. In future studies, the student imagines differences from today's world, considers ideal future situations, evaluates alternative future environments, plans for achieving preferred futures, and monitors the environment for changes that may alter the course of a desired future. Thinking futuristically utilizes a number of specific techniques to help individuals think about the future. In general, people think about the future in one of three ways. Some do not consider the factors that influence their environment and only react to changes as they occur. Some individuals look at probable trends and take actions that are responsive to only these trends. The most effective way to think about the future is to analyze trends, evaluate options, creatively envision the future desired, and take positive actions to achieve a desired outcome.

Lack of information and unexamined assumptions influence the ability to study the future. Each of these limitations inhibits the ability to consider viable options the future may present. To overcome these limitations, it is important to understand what factors influence change in the environment being evaluated. There are three mechanisms of change: cycles, trends and wildcards that influence future environments. Cycles are event patterns that repeat with some degree of regularity. These can include extremely long cycles such as weather patterns, or short cycles such as sports seasons or birthdays. Trends are increasing or decreasing event patterns that do not repeat. These include patterns such as global warming, population growth, and declining job security. Wildcards are sudden or unexpected events that have a significant effect on the environment. Previous wildcards include the OPEC oil embargo, and fall of the Berlin Wall.

Understanding the change mechanisms that influence the environment being evaluated is the first step to effective futuristic thinking. The next step is to recognize that all factors work together as part of a system to influence the environment being evaluated. An example of this is population growth. There are many factors influencing both birth rate and death rate of a society. These factors include education, nutrition, medical technology, and other societal activities. All of these factors influence the overall population growth or decline of the society being evaluated. To evaluate mechanisms of change and systems, it is important to consider the factor of time. The past is the foundation for the future because it provides a basis for evaluating the cycles and trends influencing the future environment. The present, while only a moment of time, provides a step to the future by indicating the present status of the change mechanisms. In addition, the present provides a view of how the various components of the overall system interact. This information provides a foundation to develop possible options about the future.

The **past** is the foundation for the **future** because it provides a basis for evaluating the cycles and trends influencing the future environment.

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Gifted Instruction Goes Dot-Com

Helen Teague

"*The age of illustration is upon us and illustrate we must if we hope to gain and hold the attention of young and old.*" When I saw this quote in an advertisement, I was surprised at its succinct message. Illustration does more than grab attention; it summarizes the intensity of moments and condenses communication. The timing of the quote was startling too, because when I first saw it I was standing in an antique shop reading an 1893 ad for an apparatus called the "Stereoscope" which I later learned was a precursor to the overhead projector.

The internet already holds the attention of young and old. Knowledge on the web is increasing faster than red ants to a discarded piece of picnic cake. In 1997, there were approximately 1.2 million websites (BBN Timeline, 2000). On Friday, January 21st, 2000 headlines screamed that the Super Highway contained one billion websites (BBC News, 2000). If Moore's Law is correct, by Independence Day, these numbers will double.

Futurist and educator David Thornburg says, "We are drowning in information... what we need now, more than ever, is the skill to know how to apply this information in useful ways, which requires knowing how to foster creativity in ourselves and in others" (Thornburg, 2000, 1). A curriculum-based paradigm shift awaits.

Curriculum enhancement and the gifted curriculum are a complementary pairing. The Internet mirrors the thinking processes of G/T teachers and students because:

- It clusters ideas
- It connects seemingly unrelated topics
- It can be disorganized

Clusters Ideas: From frenetic connections, over 500 search engines index web content by author's name, ideas, titles, and keywords. Literally billions of resources respond to the click of a keystroke. How long can one surf the Net? Until the "12th of never" as the song suggests, or at least until the connection times out.

Connects Unrelated Topics: Enter "Lions" into the Northern Light search engine http://www. northernlight. com and the vistas of tundra and Astroturf converge in a list of references that invite investigation. The message that the world is connected and interrelated resonates in millions of transactions everyday. Gone are the eras of isolation. The Internet is a virtual FiloFax for global collaboration. The implications for a Cyber United Nations

of gifted learners are exciting.

Disorganized: Visit most websites today and an instant confrontation with color, data, spinning images, blinking messages, and repeating jingles often obliterates the initial quest for inquiry. It is as if Blaise Pascal, the inventor of the computer language that bears his name saw into the future when he said, "All man's problems stem from his inability to sit quietly in a room alone" (Caarlson, 173). If we believe that technology only mirrors society, then we are living in the midst of a global cyber collage. The teacher's role as Cyber Travel Guide is essential to Web Resource Management.

PARADIGM	TRADITIONAL USE	WEB IMPLEMENTATION
Intake Learning	Lectures, Interviews	RealAudio, On-line video, Online Lesson Assignments
Discovery Learning	Library, Interviews, Simulations, Scavenger Hunt, Cooperative Learning	Web Searches, Discussion Groups, Email Dialogue, Online Quizzes, Digital Conferencing, Scavenger Hunts
Active Learning/ Problem-Solving	Laboratory, Journaling Simulations, Construction Problems	Simulations, E-Journals, Network Conferences, Portfolios, WebQuest Completion, Email.
Assessment	Objective/Subjective Measurement Tests, Performance	Digital Portfolios, Online Quizzes/Tests

TABLE 1

Does the Cyber Collage Bother Students? They hardly seem to notice. The Internet comprises only one part of the technology that they choose. This is the generation that grew up connected to cable TV and hundreds of entertainment channels. Most kids today have never seen a rotary dial telephone. They recognize the name "Kennedy" first as an MTV veejay, not the 35th president. They have no problem with the metaphorical dissonance inherent in "chat rooms" without voices or webpage "visits" without travel.

How Will the Internet Influence Curriculum? The short answer is, it already has. Last year 293 million letters were sent using the US Mail. However over 2.2 billion pieces of email were also sent (Sklaroff, 1999) Of the 74 million Internet users, 80% are under age 50 (Pew Research, 1998). Within that age range, teenagers are the fastest growing "dot-com" group. There is no conversational coma in existence on the Internet with "buddy lists" and instant messaging chatroom software enabling instantaneous communication. Today, a sure sign of a dating breakup is not the return of the letter jacket or class ring, but the removal of the beloved from the buddy list. Email has revived long dormant writing enthusiasm and fluency. What passes for "writing" may be a pastiche of smileys ☺ and initial shorthand in a sentence-structureless wasteland. The teacher's mission is to interject style and grammar.

Students and teachers learn best *with* technology rather than *from* it. But teachers usually teach as they were taught (Sargent, 1999). Teachers willing to reach kids through their medium must find and hit the elusive "any key." Years of teaching experience makes almost

(see TEAGUE, page 15)

(from CLARK, page 1)

telligence actualized only when appropriate challenge is provided. The static, genetically inherited, immutable view of intelligence can no longer be justified. These new data have found their way into many homes and classrooms and have provided the basis for numerous books and presentations. Those involved in gifted education would benefit from the recognition of the importance of these data and the impact they can have on theories and practices.

Understanding the implications from brain research allows a clearer understanding of giftedness and its development. Children are not born gifted, but with a limitless potential based on the existence of over a hundred billion brain cells. In most infants these are healthy neurons with their endowment of unique genetic patterns awaiting the interaction with experiences that can develop them into a basis for high level abilities and gifts. At birth, these neurons are already enhanced or inhibited in their growth by both physical and emotional interactions provided in-utero. Educators at home and at school create giftedness, not just through genetics, but through experiences that are rich and appropriately stimulating.

Ample evidence now informs parents and educators that actions, sensations, and memories are constantly shaping both the function and the anatomy of the brain. The challenge now becomes to provide experiences that can optimize learning and maximize each child's potential. An understanding of the clues brain research provides that allows optimal learning is important to the growth of all children and, because of their unique needs, critical to the development of gifted children. Several basic concepts, repeatedly confirmed by research, are essential to this understanding:

- The dynamic nature of the brain allows the growth of brain function to progress or regress, but not to remain static;
- The major function of the brain is associative, always integrating, combining, and synthesizing various modalities and areas of specialization; and
- The potential of brain development is essentially unlimited for most individuals.

Although these concepts are exciting in the possibilities they offer for nurturing all learners, the demanding need to develop unique and appropriately stimulating experiences to nurture giftedness make these clues of special interest to educators of gifted learners.

The Dynamic Nature of the Brain

The dynamic nature of brain development, the principle of progression or regression, begins at conception and ends only with the final breath. Brain structure and function change throughout life with the nature of the change dependent on the interaction between the genetic endowment and the amount and type of stimulation provided by the environment. To take advantage of this characteristic of brain function, learning must be relevant and challenging to the individual. That implies that to optimize learning we must plan curriculum to meet each child at the point at which that child is developing and then allow continuing development to occur at the child's pace and within the child's interests.

Clue #1

One of the differences found to be a characteristic of the brains of those with high levels of intelligence is an increased branching of the neural dendrites (the appendage of the cell that carries energy/information to the cell) within the brain resulting in more complex processing of information.

The Challenge: For gifted learners the concept of the dynamic nature of the brain requires that the materials and experiences be more complex in content, context, and presentation. To provide for complexity in the curriculum allow gifted students to:

- access a large variety of ideas at many levels;
- learn from a variety of perspectives including the view of experts and the influence of time;
- move from the known to the unknown; and
- plan and implement solutions to community problems.

Clue #2

Appropriate stimulation causes the nucleus of the neural cell to produce more powerful biochemical content within the cell body creating more efficient and effective brain processing and allowing more intensity, depth of understanding, and uniqueness of expression for the learner.

The Challenge: Changes within the cell that allow more depth of understanding require curriculum that provides more depth in the study of concepts and information by allowing the gifted students to:

- question and examine generalizations;
- access the terms and language of a variety of disciplines;
- focus on details and patterns of themes and ideas;
- embellish and elaborate on themes and ideas;
- develop skills in research, hypothesizing, and hypothesis testing.

Such changes also require that learning experiences provide more novelty by allowing students to:

- work in a climate of respect for unique and unusual ideas and products;
- develop projects of their own choosing;
- have unstructured time to physically and mentally explore, examine, and/or alter existing patterns;
- follow divergent paths, pursue strong interests, and solve problems in diverse ways;
- develop original applications of knowledge and understandings, including hypothesizing and hypothesis testing.

Clue #3

Appropriate stimulation increases the production of glial cells that surround the neural cells of the brain and whose function it is to nurture the cell body and provide an insulation sheath (mylination) to the axon of the cell. This increase in the mylination of the axon allows energy/information from the cell to be carried to other cells more quickly through a more powerful synaptic exchange. By increasing the speed of this synaptic exchange from one cell to another the speed of thought and learning is also increased.

The Challenge: As the speed of learning increases gifted students often require acceleration in their instruction and advanced and sophisticated materials from which to learn. The pace of instruction can be accelerated by: early entrance to any level of schooling such as kindergarten or college; pre-testing a lesson or unit and giving instruction on only what has not been learned; self-paced programs of instruction; or other means of tailoring the pace of learning to the student. However the acceleration of the curriculum is accomplished, the result will be moving through the core curriculum in less time than is typical. Acceleration can be provided by allowing gifted students to:

- learn and work with intellectual peers, including adults and other students with expertise in the student's interest areas;
- compact or telescope content to avoid relearning material already mastered;
- group flexibly;
- access advanced and/or unusual subject matter, materials, and processes, and new and challenging information;
- use learning centers and individual learning packets to individualize learning.

The Associative Nature of the Brain

The associative nature of the brain can be seen in brain scans taken with a multitude of instruments not available only a few decades ago. As the technology has improved, the understanding of how the brain functions has given a clearer picture of how to best provide for learning. The opportunity to integrate ideas and build new concepts from information across disciplines and time makes use of this brain function.

Clue #4

Through appropriate stimulation the brain can be seen to become more effective and efficient in its functioning. A more rapid integration of all of the brain's functions is one of the processes that supports this effectiveness.

The Challenge: The use the brain makes of integration as a tool of effective function requires that the curriculum give access to integration of content and processes to make optimal learning possible. To provide for integration the gifted student must be allowed to:

- work in a climate where choice is provided and encouraged;
- have access to a wide range of materials from many disciplines and eras;
- become acquainted with a large variety of ideas at many levels;
- learn integratively with all intellectual processes included in the instruction;

- incorporate visual and verbal modes in learning and evaluation;
- produce materials for evaluation that show the integration of ideas, materials, and processes across disciplines, time, and grade levels.

The Concept of the Brain's Unlimited Potential

The concept of unlimited potential calls into question many of the present assumptions about organizing educational programs and learning experiences. Neither the speed with which a child can learn nor the level at which the learning should be presented can be assumed by knowledge of the child's age. Gifted learners are often 2 to 4 years beyond the concepts and informational base provided to their age peers. This accelerated processing and the resulting advanced knowledge base are caused by changes in the brain. These are common characteristics of gifted learners and these characteristics along with the dynamic nature of the brain make it essential that the curriculum for gifted learners be differentiated. Faster pacing and the opportunity for more advanced material is of basic concern less the gifted learner regress from lack of challenge.

The provision of a curriculum that is determined only by age without consideration of what the child knows and the skills that the child has already mastered will often result in gifted children being asked to relearn what has already been mastered, tutor other children on skills and concepts already known, or do more of the same type or level of academic tasks. These are the most commonly used strategies in regular classrooms to provide for gifted learners. Such strategies will not provide the challenge the brain needs to progress to higher levels of the learner's potential. Continuous progress, not regress, must be the concern of all who work with gifted children.

The clues form the brain research mentioned above are only some of the valuable information that is now available from the neurosciences to educators and parents of gifted children. If we are to appropriately challenge those children in our care and allow them to optimize their potential we must take advantage of the new data and stretch our understanding. What is optimal can only be glimpsed, but as educators we have clues to amazing possibilities ahead.

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Dr. Clark is a recognized scholar in the national, and international communities and has presented major addresses and workshops throughout the United States, and in Australia, Austria, Canada, Mexico, South Africa, the Netherlands, Taiwan, Kyrgyzstan, China, Turkey, Hong Kong, and Thailand. Her current interest is improving gifted education and talent development, and in the development of a model for optimizing learning for all children that is based on brain/mind research.

(from TEAGUE, page 11)

no difference when beginning to utilize web content, according to a study by *Education Week* (Sargent). The availability alone of information without skills to distill and evaluate, does not make a curriculum or even a lesson plan valuable. The educator's pedagogical expertise adds the needed dimensions.

When application skills are coupled with synthesis, talent vaults the Internet from a cyber-catalog to a cyber-curriculum of problem-solving importance. Technology tools for educators to consider fall into six categories:

- Drill and Practice Software
- Tutorials and Software
- Simulations and software
- Interactive Software
- Online Software
- Presentation Software

How can teachers become cyber instructors—quickly and easily, but with enthusiastic caution? The vast resources of the Internet can make Trefinger's nomenclature of the "AHA" moment commonplace. The best way to "Get to AHA" is to add resources as an enhancement to current curriculum. One teacher said,

> "As you work into using the computer in the class room, you start questioning everything you have done in the past, and wonder how you can adapt it" (Sandholtz, 17).

The progression of change moves toward a student-centered, constructivist collaboration. Passive education as receivership is an anachronism. Most teachers start by adding a website or two to enhance favorite units or lesson plans (Sargent, 1999). Table 1 displays the Internet variations of traditional lesson components.

Add "PEP" to enhance current curriculum with the Internet:

- personalize
- energize
- publicize

Personalize

Take an existing lesson such as an introductory unit and personalize it by adding an online puzzle. At the Puzzlemaker site **http://puzzlemaker.school.discovery.com/,** over 10 different puzzle templates are available. In a quick, fill-in-the-blank format, teachers can type a selection of student names or vocabulary words, even numbers, and the Puzzlemaker site creates a puzzle to print or save. Use Puzzlemaker to create puzzles that relate to the unique attributes of students, school culture, city, and beyond.

A WebQuest, an online version of the Scavenger Hunt, is another successful integration tool to build discovery learning. Professor Bernie Dodge from San Diego State University developed this problem-solving model which divides simulation problems into 6 parts: Introduction, Task, Process, Conclusion, Evaluation, and References. Following the Creative Problem Solving(CPS) model, students discover answers to a "Big Question" scenario usually while portraying roles such as TimeKeeper, Reporter, Historian, Accountant, etc.. Several examples of excellent WebQuests and a template to download may be found at the following website: **http://edweb.sdsu.edu/webquest/webquest.html**

Energize

Energize curriculum beginning with quick mini-lessons using Internet resources. For Example, as a Warm-Up activity, students may discover the "Cool Word of the Day" **http://www.cool-word.com/**, Quote of the Day **http://www.bemorecreative.com**, or Fact of the Day **http://www.cool-fact.com/**. They can review historical calendars at **http://www.historychannel.com.**

Students can visit these sites and add entries to a hardcopy or online journal, also known as E-Journal. In a cyber-based version of the coffee klatch, students may email each other or the instructor discussing the latest daily insight.

One especially helpful tool is Eboard **http://www.eboard.com/.** Eboard is a free tool that hosts educators' data in electronic bulletin boards. This data is ready for access at any time from any location. In ten minutes, an educator can create an Eboard by simply typing information in an online form. Updating an Eboard takes five minutes. Teachers can offer students an incentive to visit by listing a bonus question, quiz answer, or question hint. Educators' may also archive previous assignments and leave assignments for absent students. Daily or weekly schedules, homework assignments, extra credit, and teaching philosophy are excellent uses for the Eboard site, or a personal webpage, or a School Intranet site.

Excitement grows as students realize the growing presence the Internet is taking within their curriculum. The "with-it-ness" factor described by Jacob Kounin permeates a personalized, energized curriculum (Ryan & Cooper, 1998, 174).

Publicize

Tout the great things you are doing in your classroom with Internet resources that can be accessed anywhere at anytime. Parents who can access assignments, vocabulary words, and handouts from work or home become connected team players.

Th gifted student is often a chronic "busy bee," pursuing a schedule that would make coffee nervous: team sports, choir, and band, church youth groups, etc. By utilizing the tools already located in the Internet, these students may be absent from school but they do not have to be absent from the curriculum.

"SchoolNotes" **http://www.schoolnotes.com** allows a teacher to publish online Flashcards just by typing a word and definition in an online form. Schoolnotes also offer students the option of sending email to their teacher even if the student does not have an email account. To ensure safety all students submissions are filtered and logged before being sent to the teacher.

Kierkegaard's words echo prophetically:

> "Instruction begins when you, the teacher, learn from the learner, put yourself in his place so that you may understand what is learning and the way he under stands it." (Ryan and Cooper, 1998, 315)

Take a general survey of your students to see who already has webpages. You may be surprised at the online presence already represented. Invite students to help you begin or enhance your own webpage. Gifted kids enjoy sharing what they know. A wonderful collegial atmosphere replaces the traditional "Sage on the Stage" paradigm, which is the antithesis of the way gifted kids learn.

As we look ahead to curriculum innovations and issues, the single greatest achievement that the Internet may provide may be toward a sharing of knowledge rather than merely dispensing it. Perhaps the classroom can host information from the huge database of the Internet and synthesize it into something new and exciting.

Pause from your reading and remember the major events of our last century. Does your mind recall words and phrases first or pictures? The advertisement in 1893 was correct. Images convey knowledge and power. We have known this awhile. Words can frame the impact of an image. The Internet-enhanced curriculum can contain it all.

Gifted students, with their inherent sense of discovery and curiosity will continue investigate the Information SuperHighway. Teachers are invaluable as guides for students to distill, apply, create, and evaluate the cyber jungle of images and sounds in a team approach that may bring about innovation and solidarity.

As Harry Wong states, "The art of teaching is the art of assisting discovery." (Wong, 1998) Let us begin today.

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Gifted Dot.Com Internet Resources

Helen Teague

Giftedness Self-Test http://rocamora.org/Page45.html
Gifted educators have long been able quickly recognize the elements of giftedness in their students. Now the internet can make identification process easier. The Rocamora website at has a Giftedness Self-Test that can be printed or saved for future use. These resources might used at the first of the school to help students learn to describe their giftedness.
Grade Level: K-12 & Adult

SprocketWorks http://www.sprocketworks.com/
An interactive place for kids (and adults) to learn the way that they choose to learn." This site uses shockwave files to guide your students through the night sky, play logic games, and having fun while learning. Of course you may also have fun working through the various activities as you preview the site. Subject areas are music, economics, science, art, and geography. This is one of those interdisciplinary websites where you can't help but learn something.
Grade Level: K-12 Adult

Trackstar *http://scrtec.org* is a free service from Texas A&M that helps teachers organize and list websites in an online database. Teachers do not need to know the HTML coding language; online forms hold the data. Lists of URL's frame actual websites. Add questions to each listing for added impact. Students browse through the URL's and "stay on track" of the information they need to know. View Bert Leclere's track on Gifted Resources @ *http://scrtec.org/track/tracks/s05021.html* then create your own!
Grade Level: K-12 Adult

Webography

Dot-Com Gifted Learners
Puzzlemaker: http://puzzlemaker.school.discovery.com
Cool Word of the Day: http://www.cool-word.com
Quote of the Day: http://www.bemorecreative.com
Fact of the Day: http://www.cool-fact.com/
Historical Calendars: http://www.historychannel.com
Eboard: http://www.eboard.com
SchoolNotes: http://www.schoolnotes.com/
WebQuests: http://edweb.sdsu.edu/webquest/webquest.html

(from FITZGERALD, page 2)

One of the most important things you do as educators and parents of the gifted is to support students who take healthful chances and let them know it is all right to fail as well as to succeed. You strive to provide your students the opportunity to understand the consequences as well as the benefits of being risk-takers. "Thinking outside of the box" isn't just permitted in gifted classes, teachers of the gifted encourage it!

Educators of the gifted know that you need to give every student a voice in the classroom. You let your students know that they matter and that they are responsible for their own decisions. If your students are to be independent thinkers, then you know we must first trust them enough to give them a voice in their learning. When sixth grader Maria has more note cards on her debate topic than time to present her points, you understand and guide her step-by-step through the debate process with patience and respect.

Teachers of the gifted know how to provide the fun and excitement necessary in the gifted classroom by preparing interesting and enjoyable learning experiences. You know that it is okay to have fun while learning, especially when the topic of study is a favorite for most everyone.

Gifted students may seem self-confident, yet you continually encourage your students to believe in themselves. You tell them often that they can be very successful and that they can make a difference in the world. A part of our training in gifted classrooms includes helping gifted students to be comfortable with their gifts and talents and to be assured in their personal, academic, and emotional growth. You have learned that students who are valued, respected, encouraged, and celebrated develop strong self-worth and self-confidence.

It's an honor, as well as a huge commitment for anyone who serves as a teacher or parent of the gifted. Your strong commitment, hard work, and holding on to big dreams has paid off. As you look back, pause to reflect on all you did to foster growth in gifted students this academic year. Remember the early mornings, the late afternoons, and the lengthy nights when you gave up your family time and spent it doing school work. And, to you who spend your lives making a difference in the lives of others, we thank you. TAGT wouldn't be the strong advocacy group it is without you. Gifted programs in Texas wouldn't continue to grow stronger without your commitment to excellence and dedication to the education of inquisitive, bright minds. We appreciate you! Relax and enjoy your summer. You deserve it!

(from SCHULTZ & PRICE, page 5)

ence developed by the teacher candidate to express their learning. The practicum tends to be some action research project developed by the certification candidate based on an interest area that they have, furthering their explorations into gifted child education. However, even this applied experience is often waived for inservice teachers who, paradoxically, need it the most to explore how their new learning "works" in the classroom.

Transfer of Learning

Certification candidates do not transfer their learning from gifted child education to other areas in which enrichment and differentiation can provide opportunities for students in need. A combination of factors lead to this common practice. First, learning in school for any person is different from life experiences. Content is packaged into courses that are typically taught in sequence. Broad topics with multiple levels of complexity are not incorporated into this sequence until "the background is covered." Students are expected to master the content sequentially, which is hardly parallel to problems encountered in life.

Second, teacher educators rarely focus on the interrelatedness and continuity of content between courses. This can be due to the aforementioned manner in which they were probably trained; or, more likely, to a lack of adequate time to explore perceptions and expectations they and their students bring to the educational setting.

Failure to address how differentiation, enrichment, and focusing on interest can be conducive to the learning of all students in the classroom prompts gifted child education programs to be deemed elitist by many (e.g., Oakes, 1985; Sapon-Shevin, 1994). Many teachers, however, tend to accept that gifted learners need different approaches, instructional plans, and enriched curricula

to meet their ability levels. This assumption, ofcourse, is true for any learner in the classroom setting.

Planning to Teach

All preservice teachers learn various models of teaching intent on meeting the needs of various learners' abilities. Once taught, these instructional guidelines are expected to be used in classroom contexts. The perception is that the in-service professional makes reflective decisions based on the classroom milieu to help all students learn.

This assumes that the teacher has expertise and comfort in manipulating models of teaching guidelines and procedures to meet the needs of him/herself and the students. This takes effort, and is not underwritten with guaranteed success. Therefore, it is more likely that teachers will focus on a prescribed and described model with inherent flaws but a clear expectation for student outcomes (based on research and anecdotal records provided by the author of the model) rather than trying to individualize instruction when working with students.

This is also apparent when examining teaching practices employed over a series of years. Teachers are more likely to implement strategies that have provided even minor successes in the past rather than work through a new system of teaching without any guarantees of enhanced student learning.

As anyone who has learned a new skill intuitively understands, practice is essential before the skill becomes an effective means of working in a situation. There is a "learning curve," during which time the novice will struggle with intricacies of an approach. If there is reasonable success with the approach, the novice develops some expertise and is more likely to further his/her learning (and its implementation in the classroom). If, however, there is struggle and uncertainty, the novice is more likely to cast off the strategy rather than continue the anxiety associated with an unproven option. Obviously, there is much more to instructional planning and implementation than a few certification courses, field experience and practicum semester.

Being Opportunistic

Preservice teachers enter the education field with highly developed notions about their future classrooms, just as you did when your career began. Rarely are these perceptions and expectations challenged or reflected upon in general education courses (Price, 1998). Teacher preparation courses provide procedural knowledge including methods of teaching, classroom management, and recognition of instructional strategies. They do not focus on the most important classroom component, the students.

This lack of emphasis is exactly where gifted child education has the most to offer general education. Gifted child education focuses on the needs of individuals first, then on how to appropriately address these needs using pedagogy and curriculum. Those of us whose expertise is in gifted child education understand that students learn at different rates and have different abilities. We realize that school structures regularly need alteration to provide opportunities for student learning. We know that theories and practices used with gifted learners are good for all children, although our concern centers on the gifted and talented. Above all, we focus on students' individual strengths, a position frequently neglected by our general education colleagues who more often are concerned with correct procedures for writing lesson plans, developing test questions, and managing classrooms.

So, *what is a teacher struggling to meet diverse learner needs in a fully included classroom to do?* Seek out expertise in local districts (consultants, coordinators, parents, students) and encourage discussion on topics of giftedness in classrooms. Invite these individuals to experience the daily process of teaching by visiting your classroom. Try some strategies associated with your yearly, six-hours of continuing education (Level II and Level III training) and then correspond with your presenter or other experts in the field to gain more information. Use this knowledge, and your own experiences, to aid your curriculum decision-making. Invite other teachers to visit your classroom and provide constructive feedback on your teaching. Do the same with your students. Involve them in making choices to promote their learning. All of these opportunities allow you and your students to grow in both awareness and expertise regarding the nature and needs of the gifted and talented in a classroom setting.

Creativity and advocacy are two strengths educators of the gifted child cherish — use them. Share stories about giftedness with preservice and in-service teachers. Offer to present an introduction to giftedness (and its relevance for all teachers and students) in colleague's classrooms. Above all, encourage discussion, so others begin to understand that giftedness is someone you are, rather than some measured potential or developing ability.

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(from PHILLIPS, page 7)

Due to the cyclical nature of service learning, the current Texas PK-12 Learn and Serve America program is set up on a three-tier grant level beginning with minigrant funding of up to $2,000 for the initial project, continuing with an expansion grant (up to $4,000), and culminating with campus grants (up to $10,000). A dollar-for-dollar match in cash or a listing of in-kind services must be included with the grant application.

Examples of successful service learning projects within Texas include C.A.R.E.--Children Actively Reestablishing Ecosystems in the Bridge City ISD. Intermediate students, upset by the number of trees destroyed and animals displaced by the building of their new school, were encouraged by science department teachers to brainstorm ideas for a remedy. Working with the National Parks and Conservation Association, the Texas Forestry Service, their Region V Education Service Center and the high school industrial technology class, the students designed and created a park and walking trail that could be used by not only the students but also community members, including residents of the Green Acres Nursing Home.

In Georgetown ISD, the aquatic science class at Richarte High School found very high *E. coli* bacteria counts from sewage runoff while testing the water quality of the San Gabriel River. After presenting their research results to the school board and the city council, the city repaired sewage lines to improve water quality. The students went on to another step they called "River Cleanups," writing a video script that was professionally produced for local civic groups; they also created a "hike and bike" trail along the San Gabriel, worked with the Georgetown Parks and Recreation Department to help them plan an outdoor education center, and assisted in developing science curriculum about the river for 4th through 6th grade students. These efforts were presented to an audience of 250 middle school and 90 elementary school students.

At Lake Waco Montessori Magnet School for Environmental Studies in Waco, a PK3-grade 6 campus that is part of Waco ISD, a Learn & Serve minigrant called Weather and Waste: The Three R's Squared began by focusing on solid waste management through yard waste composting with the Landon Branch Neighborhood Association. This service component was combined with campus involvement in the Global Learning and Observations to Benefit the Environment (GLOBE) program, a worldwide project that teaches students the scientific protocols needed to record meaningful scientific data about water, soil, atmosphere and land that professional scientists can use in studying the global environment.

During the course of the 1998-99 school year, three

intermediate multi-age classes in grades 4-6 also become involved in two additional service components: 1) counting and researching birds at campus feeders as part of Classroom Feeder Watch, a national middle school program directed by the Cornell University Lab of Ornithology, and 2) monitoring the aquatic habitat of a seasonal wetland located on private property through a statewide pilot program, Project MarshMALLOW, coordinated by the Texas Agricultural Extension Service. This effort was linked to Texas Amphibian Watch, one of nine Texas Nature Trackers projects coordinated by the Wildlife Diversity Program of Texas Parks and Wildlife. Open to citizen-scientists of all ages across the state, Texas Amphibian Watch is a partner with the North American Declining Amphibian Task Force.

Final products by the intermediate students included a composting slide show at the quarterly meeting of the neighborhood association, a student Birdscope magazine, a booth describing the student projects at the Waco Earth Day celebration, and a wetlands puppet show and four-minute video produced with the help of Waco ISD TV personnel that formed the campus's Project MarshMALLOW presentation at May, 1999, culminating conference in Corpus Christi.

In each example above, gifted students who were part of the service learning project were challenged to think, create, and communicate as firsthand investigators, with hands-on inquiries resulting in student products and/or services directed toward a larger audience within the school district or community. Although environmental issues served as the focus of these authentic learning examples, projects with an interdisciplinary or integrated learning approach are equally appropriate.

In the fall of 1999, after evaluating its first Learn & Serve project, the Lake Waco Montessori Magnet campus applied for and was granted an expansion grant for the 1999-2000 school year. Called Going Global: Explorations Across Time, Space, and Environments, the project developed from a growing campus need for additional emphasis on geography and history, both of which are part of the Montessori cultural studies curriculum starting in kindergarten. Intermediate gifted students brainstormed a list of community organizations they could help by sharing their knowledge about the environment, resulting in a list of project activities ranging from e-mail penpals, a campus web site linked to the main Waco ISD web site, pressed flower bookmarks for members of a retirement residence, and continued research into weather, waste, birds, biomes, and amphibians.

When written and approved, the expansion grant proposal incorporated the continuation of intermediate student involvement in the GLOBE program, Classroom Feeder Watch, and Texas Amphibian Watch and added an in-depth component with the JASON XI Project: Going to Extremes, available through Region XII's Education Service Center as part of teacher participation in its Collaborative for Excellence in Science Teaching. Starting as kindergartners, students researched the Earth's continents, learning about their history, physical and political geography, and the biomes and cultures found on each. A student nickname, The Explorers, was chosen, with The Global Explorer selected as campus mascot.

Agreeing to serve as community partner was the Stilwell Retirement Residence for retired teachers, some of whom became involved in an oral history project by G/T sixth graders documenting the teachers' memories of their childhoods, early school experiences, and the weather and extremes of their early 20th century environments. Thanks to coaching tips from Dr. Rebecca Sharpless of Baylor University's Institute for Oral History, who helped prepare the student interviewers, these taped and transcribed interviews became the heart of a professionally printed 80 page book showcasing a wide variety of articles and artwork from students ranging in age from 5 to 12. Edited and formatted for printing by a graphic arts class at Baylor University under the direction of Professor Terry Roller, the printed version of Going Global successfully capped the campus's journey around the world.

Anthropologist Jennifer James, keynote speaker during the First General Session of the 1998 TAGT conference, elaborated on teachers' roles and the profound changes they should anticipate in their students and classrooms in the year 2000 and beyond. In *Thinking in the Future Tense* (1996), on which her address was based, James writes of students coming to the elementary classroom already possessing computer literacy skills, capable of challenging their teachers to be or become competent at new levels of information gathering, data retrieval, and problem solving.

James's prediction is not a hypothesis; in classrooms across the country gifted learners increasingly demand more attention and discussion from their teachers on local and global issues while often assuming the role of

expert in areas related to technology. Like the title of the recent period movie featuring the collaboration of librettist William Gilbert and composer Arthur Sullivan, the successful classroom for advanced learners may now appear to be "topsy turvy" with teachers increasingly active "behind the scenes" in the roles of facilitator, coach, and resource coordinator, as they guide, advise, and assist their students.

Renzulli (1999) reminded his TAGT audience last December at the First General Session that: "The best way to predict the future is to create it." As gifted and talented students explore new roles as citizen-scientists on their campuses and in their communities through action research and service learning, they are realizing their potential as leaders and creating the future that they personally consider relevant to the real world.

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Service-Learning. www.txserve.org/servlrn.html.

N.B.The web site for the Texas Center for Service-Learning www.txserve.org/servlrn.htlm) provides general information on the benefits of service-learning as well as details on Texas Service-Learning Initiatives and Resources, including Texas Regional Service ESC contacts.

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(from HUTTON, page 9)

There are three types of future options to consider. Probable future options are future environments that extrapolate current trends on a constant steady state basis derived from history. Plausible future options are future environments that can speculate about possible surprises or discontinuities resulting in unexpected results or wildcards. Preferable future options are future environments that use imagination to develop choices or visions of a desired future. To assure these future options are good ideas, all should be grounded in research based on trends, and must be plausible, meaning a believable story can be told about them. In addition, to achieve a desired future, the ideas should be creative and describe concepts no one has thought of before.

Using Future Studies Techniques for Future Problem Solving

Workshops, using Studies of the Future tools and techniques, were conducted in Spring Independent School District (SISD), Spring,Texas during the 1998-99 school year in preparation for the FPS competition. The workshops included middle school and high school teachers and students in the FPS program. The objective of the workshops was to increase students' futuristic thinking and improve their ability to participate in the FPS competition. Both teachers and students received a short presentation on thinking futuristically and a number of specific future studies' techniques related to FPS. The techniques included, mechanisms of change, trend analysis and forecasting, and lateral thinking. In addition, the workshop reviewed two matrix concept techniques describing problem significance and solution impact. Both of these concepts are important in the FPS process.

To measure the effect of these workshops on the students' success in the FPS competition, the number of SISD student teams sent to the state FPS competition was compared to the previous year participation. During the 1997-98 school year, SISD sent three middle school teams and one high school team to the state FPS competition. In the 1998-99 school year, after the workshops, SISD sent seven middle school teams and three high school teams to the state FPS competition.

While there was a dramatic increase in the number of teams qualifying for the state competition after the workshops, the distinctiveness of the FPS scoring system may have also had some effect. However, the results indicate the workshops had some impact on the students' abilities to compete in the FPS program based on

their improved ability to think about the future. After the workshops, some of the teachers and students described what affect the workshops had on them. The overall results of the survey indicate the following:

- The topic of thinking about the future is very interesting, stimulating, and challenging to both teachers and students.
- The first exposure to thinking futuristically overwhelmed many teachers, and this negatively impacted the use of the concepts in the classroom.
- After further exposure to the concepts, the teachers began to understand the value and application of the techniques.
- Until the teachers develop confidence in their ability to use the material in the classroom and see its value, the students will not benefit from the teacher workshops.
- The students learned the techniques rapidly even on first exposure. This may result from the students' willingness to try new concepts without pre vious bias.

Overall both the students and teachers felt the concepts presented in the workshops provided a new way of thinking and better foundation for thinking about the future during the FPS competition.

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(from BATSON, page 3)

dent possesses a unique set of skills, interests, and abilities. As the student applies these personal traits in the classroom, another curriculum emerges – the curriculum that the student actually learns.

The curricular requirements for schools in a democratic society must be dynamic even as consistency and accountability are desired. In Texas, law requires state curriculum and assessment systems with the assessment portion receiving the most press coverage (see Fall 2000 *Tempo* for further discussion). The Texas Essential Knowledge and Skills (TEKS) that guide state mandated, general education now define curriculum in our state public schools. The TEKS provide preparation for the state mandated assessments including Texas Assessment of Academic Skills (TAAS) and more. The TEKS, if modified, provide some hope for aligned and challenging curriculum for Texas gifted students.

Modification and Differentiation

Modification is the key. To be successful, modification or differentiation must be based on a solid, well developed, and aligned general education curriculum. The TEKS, if implemented, can become this core.

Content, Process, Product

Through differentiation of the TEKS, gifted students can access learning opportunities that meet their individual and collective unique needs. Curriculum differentiation is a long-standing facet of appropriate services for gifted students. More than 30 years ago, the National/State Leadership Training Institute for the Gifted/Talented, under the leadership of Irving S. Sato, addressed differentiation of content, process, and product. Depth, complexity, and pacing also have been recognized as critical attributes of differentiated learning opportunities. To that end, the *Texas State Plan for the Education of Gifted/ Talented Students* requires that curriculum and instruction meet the needs of gifted students by modifying the depth, complexity, and pacing of the general school program. Access to such curriculum and instruction is nonnegotiable if gifted students are to achieve.

Classroom Design

The touchstone site for learning often is thought to be the classroom. For many gifted students, however, learning does not occur in the classroom. If the schoolroom is truly a place for student learning, it must be differentiated. C. Tomlinson (1999, 16) compares the traditional

and differentiated classroom, beginning with student differences; in the traditional setting, these differences "are masked or acted upon when problematic" but in the **differentiated classroom** they "are studied as a basis for planning." Responsiveness to student needs, flexibility, multiplicity, teacher as "guide on the side" rather than "sage on the stage" permeate these classes. Access to differentiated classrooms is non-negotiable if gifted students in school are to learn.

Assessment and Accountability

Opportunities to demonstrate learning and to be assessed should mirror the curriculum. Texas school accountability reported via the Academic Excellence Indicator System (AEIS) assumes that a student's success on its foundation assessment, the Texas Assessment of Academic Skills (TAAS), reflects a year's growth for a year's work. That assumption is based on the idea that most students are beginning at a common point and proceeding at a similar pace through the curriculum.

The AEIS does recognize that some pupils don't bring the traditional skill set to the school environment and thus require modified curriculum, instruction, and testing. Students with disabilities may access assessments that match their differentiated curriculum. Students for whom English is their second language may take tests aligned with their modified program. Students identified as gifted/talented do not have state assessments that match their differentiated curriculum. Texas gifted students are denied opportunities to demonstrate their learning on the state accountability system. Access to assessments that reflect differentiated curriculum is a non-negotiable if Texas gifted students and their school systems are to be held accountable.

Compact

A compact is an agreement between two or more persons or groups. In schools, the curriculum serves as an agreement between the professional educators, parents, the community at large, and certainly the students. Such an agreement stands as the commitment regarding what will be taught, what students can expect to learn, what society can anticipate as these children and youth become adults. To have a compact that is owned by all parties, research, discussions, reviews, and contemplation on grand scales must occur. The state of Texas pursued all these avenues and more in the preparation of the TEKS. Thus the general education curriculum is planted in solid ground.

To have a compact of value for gifted students, an appropriately challenging curriculum is required. Content, processes, and products must be modified through complexity, depth, and pacing. This curriculum must be the bedrock of the differentiated classroom. Students in these classrooms across Texas deserve and have the right to demonstrate their learning and to be included in the state accountability system.

Challenge and Commitment

The current compact for Texas gifted students is a patchwork quilt with significant pieces missing. Some school districts have embraced the Texas state plan while others have not. Differentiated classrooms are scattered haphazardly across the state. Modified assessment options for purposes of accountability are not available. Consistency, quality, access, and accountability are lacking.

To become excellent, the curriculum compact with Texas gifted students must receive undivided time, attention, and commitment from each and every one of us . . . teachers, parents, principals, counselors, coordinators, directors, superintendents, school board members, business leaders, legislators, university faculty, and all friends of gifted. Are **you** ready to make this commitment?

References

English, F. W. (1992). *Deciding what to teach and test.* Newbury Park, CA: Corwin Press, Inc.

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What the Research Says About Curriculum

Susan K. Johnsen

According to the *Texas State Plan for the Education of Gifted/Talented Students* (TEA, 1996, p. 7), curriculum and instruction meets the needs of gifted students when its depth, complexity, and pacing are modified. These modifications may include opportunities for students to pursue areas of interest, develop advanced-level products or performances, and/or accelerate through content. Since a variety of choices are available, it is important for the teacher to know which curriculum materials and modifications have the greatest support in the research literature. Therefore, the focus of this review is to examine the effectiveness of various curriculums and/or instructional strategies.

Articles published in *Gifted Child Quarterly, Journal for the Education of the Gifted,* and *Roeper Review* during the past ten years were examined. To be included, the article needed to address curriculum such as structured units and courses of study or student-generated activities; and needed to include the effect(s) of the curriculum. Studies were excluded if they focused primarily on a program model such as ability grouping, if they were a summer curriculum, if their empirical support was simply student self-report, and if the program was outside the United States. Using this selection process, 28 articles were reviewed.

The authors examined the efficacy of these modifications: acceleration (8 articles), problem-based learning (5 articles), student-generated independent studies (4 articles), and the incorporation of thinking strategies (5 articles) such as synectics, creative problem solving, open-ended tasks, and questioning. Three of the articles examined the effects of specific curriculum units that were designed for gifted and talented students (see Van Tassel-Baska's William and Mary units). The vast majority of the curriculum modifications addressed the core academic areas or related topics. The samples studied were split between elementary and secondary students.

Curriculum effectiveness was determined primarily by examining achievement gains on nationally norm-referenced tests, performance-based tests, AP exams, grades, and successful performance on subsequent courses. Some of these achievement-oriented tests were related to the objectives of the curriculum such as writing, grammar, and syntax in the language arts units (VanTassel-Baska, Johnson, Hughes, & Boyce, 1996), depth of understanding in problem-based learning (Dods, 1997), problem finding in problem-based learning (Gallagher, Stepien, & Rosenthal, 1992), and hypothetical problems in creative problem solving (Schack, 1993). Other tests were not aligned with the curriculum objectives but measured related social areas such as increased self-concept (Olenchak, 1995), transfer of thinking skills to the family setting (Moon, 1995), and improved habits of the mind (VanTassel-Baska, Avery, Little, & Hughes, 2000).

Overall, acceleration studies consistently showed gains in achievement and successful performance on subsequent courses. While the one empirical study on curriculum compacting did not show differences in achievement between the experimental and control groups, the students' scores did not decline even when 40 to 50% of the content was replaced (Reis, Westberg, Kulikowich, & Purcell, 1998).

Students and teachers who used the William and Mary units in language arts and science described them as motivating and benefiting students by increasing engagement, reasoning, and habits of the mind. Experimental groups did improve on standardized tests and performance-based assessments that were developed to measure the goals of the Integrated Curriculum Model.

When student interest was used to direct the curriculum, the researchers found that underachievers became achievers (Baum, Renzulli, & Hébert, 1995; Rimm & Lovance, 1992), and that they were more interested in creative outlets (Hébert, 1993). Interestingly, when independent study was assigned, students did not enjoy completing projects (Moon, Feldhusen, & Dillon, 1994).

Problem-based learning influenced the retention of students' knowledge and the depth of their understanding (Dods, 1997), did not sacrifice content acquisition (Gallagher & Stepien, 1996), and improved students' abilities to find problems (Gallagher, Stepien, & Rosenthal, 1992). Other strategies showed improvements in other areas. For example, higher levels of teacher questions elicited higher levels of student questions, synectics improved performance on creativity tests, and future problem solving influenced students' attitudes toward future roles.

Given that curriculum and instruction are the heart of education for gifted and talented students, only a limited number of studies exist that examine the efficacy of these significant program components. In fact, Shore and Delcourt

(1996) found that out of 40 recommended curricular and program practices only five received strong empirical support. This failure to address the effectiveness of various materials means that teachers and school districts need to be cautious in selecting and using materials in their programs for gifted and talented students. Much research remains to be done.

Baum, S. M., Renzulli, J. S., & Hébert, T. P. (1995). Reversing underachievement: Creative productivity as a systematic intervention. ***Gifted Child Quarterly, 39,*** **224-235.** In this study 12 teachers selected 17 students, ages 8-13. All students participated in a Type III study during the school year. Using a multiple case study design, they found that after the intervention, most of the students were no longer underachieving. They found that these factors contributed to the improvement: relating to the teacher, learning about self-regulation strategies and underachievement, working on an area of interest in their preferred learning style, and interacting with an appropriate peer group.

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,*** **423-437.** Richard Dods at the Illinois Mathematics and Science Academy compared the effects of problem-based learning (PBL), traditional lecture (L), and a combination (PBL + L) on student retention of the major concepts in an elective biochemistry course taught at a school for talented students. He collected data through student self-evaluation of the depth of understanding, a test instrument used to measure actual depth of understanding, and a student evaluation of the course. The author found that in-depth understanding is increased by the PBL experience whereas content coverage is promoted by lecture.

Friedman, R. C., & Lee, S. W. (1996). Differentiating instruction for high-achieving/gifted children in regular classrooms: A field test of three gifted-education models. ***Journal for the Education of the Gifted, 19,*** **405-436.** This study examined three instructional models: the Enrichment Triad Model (Renzulli & Reis, 1986), the Multiple Talent Model (Taylor, 1986), and the Cognitive-Affective Interaction Model (Williams, 1986). These models were field-tested in inclusive, general-education classrooms in rural, low-income, and/or ethnically diverse communities. The researchers analyzed how certain elements of the model effected the cognitive complexity of the classroom environment and student involvement in school work. Using a multiple baseline across settings design, the researchers interviewed the participants and observed in teachers' classrooms. They found that a strong positive relationship existed between teacher questions and student responses—the higher cognitive level of the teacher question elicited higher cognitive levels of student responses. The students in classrooms using the Cognitive-Affective Interaction Model demonstrated the greatest gains in higher cognitive levels.

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,*** **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.

Gallagher, S. A., Stepien, W., & Rosenthal, H. (1992). The effects of problem-based learning on problem solving. ***Gifted Child Quarterly, 36,*** **195-200.** The 78 students who participated in the experimental group were enrolled in a high school residential school for students talented in mathematics and science. The students received a problem-based course that incorporated social science, physics, and mathematics: Science, Society and the Future. The experimental group became significantly better at problem finding and performed better than the comparison group on fact finding, problem finding, and solution finding. Interestingly, the researchers found that prior experience with problem solving did not appear to affect the results.

Hébert, T. P. (1993). Reflections at graduation: The long-term impact of elementary school experiences in creative productivity. ***Roeper Review, 16,*** **22-28.** This research examined the question: What is the long-term impact of creative productivity experiences in elementary school? Using nine case studies of students who had participated in the Renzulli Enrichment Triad Model in grades four through six, the author conducted in-depth, open-ended, tape-recorded interviews in their homes during the spring of their high school senior year. Products and available management

plans provided additional information. The following themes emerged after analyzing the interviews, products, and plans: Type III interests affect post-secondary plans; a desire for creative outlets continues in high school; a decrease in Type III activities in junior high occurs; earlier Type II activities provide training for later productivity; and non-intellectual characteristics such as creativity and task commitment remain constant.

Hertzog, N. B. (1998). Open-ended activities: Differentiation through learner responses. *Gifted Child Quarterly, 42*, 212-227. In this ethnographic study, the researcher focused on how and in what ways the responses to open-ended activities of children identified as gifted differed from responses of children who were not identified as gifted in one third-grade and one fourth-grade heterogeneously grouped classrooms. "Open-ended" activities refer specifically to those with multiple responses rather than one correct answer. Data sources included observations over the course of one academic year, interviews with teachers and students, learning style and interest assessment instruments, and documents related to over 33 open-ended activities. The author found that the two teachers in the study evaluated students' responses relative to their expectations of the students, in relationship to the students' abilities. Frequently, students pursued the same knowledge in different ways, but when choices were provided within the content domain, greatest differences in responses occurred. The author found that differentiation of learner responses occurred even when the product involved limited student choices and was not "open."

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

Kolitch, E. R., & Brody, L. E. (1992). Mathematics acceleration of highly talented students: An evaluation. *Gifted Child Quarterly, 36*, 78-86. Approximately 750 students who had participated in the Study of Mathematically Precocious Youth responded to a questionnaire regarding the effects of the program. These students did well in mathematics courses taken several years earlier than is typical and excelled on AP calculus examinations. The majority of the students took calculus two and a half years earlier. The students also participated in mathematics competitions and summer programs, reported working with mentors, became involved in independent projects, and read mathematics books on their own. In general, the females appeared to be less likely to accelerate greatly.

Lynch, S. J. (1992). Fast-paced high school science for the academically talented: A six-year perspective. *Gifted Child Quarterly, 36*, 147-154. This article reports the results of a six-year 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. Students demonstrated subject mastery by taking college Entrance Examination Board science achievement tests. Their mean scores were higher than those of high school juniors and seniors. Follow-up studies indicated that students also performed well in subsequent science courses.

Meador, K. S. (1994). The effect of synectics training on gifted and nongifted kindergarten students. *Journal for the Education of the Gifted, 18*, 55-73. Pre and post tests of The Figural Form of the Torrance Tests of Creativity, the Martinek Zaichkowsky Self-Concept Scale and the Peabody Picture Vocabulary Tests were administered to 107 kindergarten students to determine the effects of synectics training. Curriculum materials included the *Strange and Familiar* and *Art Synectics*. The author found significant improvements in creativity scores for the experimental groups as compared to the control groups.

Miller, R., Mills, C., & Tangherlini, A. (1995). The Appalachia model mathematics program for gifted students. *Roeper Review, 18*, 138-141. In this study, 456 students in the second through the sixth grade participated in the model Mathematics program. The students were placed in four instructional groups on the basis of their quantitative scores on The School and College Ability Test. Each student in the MMP received an individual education plan and assessments were administered to determine mathematics placement within the curriculum. In three months, students in Group 4 (the fastest-paced) mastered 1.3 years of content; students in Group 3 mastered 1.0 years; and students in Group 2 mastered .4 years. The majority of Groups 3 and 4

were ready for algebra by seventh grade. A number of the students completed the high school mathematics course offerings as early as ninth grade. More students also participated in the Johns Hopkins University Talent Search and increased their performance on the SAT math.

Mills, C. J., & Ablard, K. E. (1993). Credit and placement for academically talented students following special summer courses in math and science. ***Journal for the Education of the Gifted, 17*****, 4-25.** The researchers surveyed 892 academically talented students about academic credit and/or course placement for their participation in a precalculus or fast-paced science course during the summer. They found that 39% of the math students received credit and 38% of the science students received credit in their 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*****, 3-17.** These researchers found that intensive summer precalculus mathematics courses that allowed 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.

Moon, S. M. (1995). The effects of an enrichment program on the families of participants: A multiple-case study. ***Gifted Child Quarterly, 39*****, 198-207.** This study examined the effects of the Purdue Three-Stage Model that included two hours of intensive instruction per week in thinking skills, creative problem solving, and independent learning. Ten families of 12th grade students who had participated in the program for at least three years in the elementary school were included. They responded to surveys and were interviewed by the researcher. The researcher found that the enrichment model had these effects on the family. The students shared their experiences in the program, taught families creative thinking and problem-solving skills, and discussed their independent study projects. These interactions resulted in more parent-child communication, greater family cohesion, and enhanced family-school relationships. The effects of the program were not uniform across all families and were influenced by mediating variables.

Moon, S. M., Feldhusen, J. F., & Dillon, D. R. (1994). Long-term effects of an enrichment program based on the Purdue Three-Stage Model. ***Gifted Child Quarterly, 38*****, 38-48.** The long-term effects on a group of 23 students and their parents of the Purdue Three-Stage Model was examined. These students participated in the elementary program for at least 3 years and were either seniors in high school or were attending college. Along with school data, participants and parents responded to a questionnaire. The enrichment program appeared to have had a positive impact on the students and was successful in achieving program goals. Negative effects included being pulled out of the regular classroom, increasing boredom with the regular program, and being different. Contrary to research, students did transfer some of the creative thinking and problem solving skills to content-specific subjects. Since students did not appear to enjoy assigned independent projects, the authors conclude that student-generated studies around their interests may be more effective.

Olenchak, F. R. (1995). Effects of enrichment on gifted/learning-disabled students. ***Journal for the Education of the Gifted, 18*****, 385-399.** This study examined the effects of a one-year participation in an enrichment program on the attitudes, self-concepts, and creative productivity of 108 gifted/LD youngsters enrolled in the fourth through sixth grades in nine school districts. Each of the students had an IEP that included the development of strengths as well as remedial goals and objectives. Curriculum compacting, assessment, and Types I, II, and III Enrichment were treatment interventions. The students were pre and post tested using the Arlin-Hills Survey Toward School Learning Processes and the Piers-Harris Children's Self-Concept Scale. In addition, tallies of initiated and completed Type III products were tallied. Gains were noted in self-concept and attitude. Twenty-seven of the 108 initiated Type III projects and 21 were completed—similar to gifted non-learning-disabled students. The author concludes that this type of program does make a difference for GT/LD students.

Ravaglia, R., Suppes, P., Stillinger, C., & Alper, T. M. (1995). Computer-based mathematics and physics for gifted students. ***Gifted Child Quarterly, 39*****, 7-13.** A group of 27 middle and high school students took computer-based advanced math classes at a middle school. A tutor provided assistance that included correcting off-line work, grading

tests, and certifying performance in the course. 92% of those who took Calculus AB, the first two quarters of college calculus, 100% of those who took Calculus BC, the entire year of college calculus, and 88% of those who took Physics C received scores of 4 or 5 on Advanced Placement tests. The computer courses were designed at the Education Program for Gifted Youth (EPGY) at Stanford University. The authors concluded that computer-based education makes it possible for gifted and talented middle and early high school students to complete advanced courses in mathematics and physics earlier than expected.

Reis, S. M., Westberg, K. L., Kulikowich, J.M., & Purcell, J. H. (1998). Curriculum compacting and acheivement test scores: What does the research say? ***Gifted Child Quarterly, 42,*** **123-129.** Using a sample of 436 second through sixth grade classroom teachers in 27 school districts, these researchers selected 336 students who had complete sets of pre and post test scores on the Iowa Tests of Basic Skills. After receiving training in curriculum compacting, the teachers selected students who had received the treatment. While no significant differences were found in student performance on the ITBS between experimental and control groups, the authors did note that the scores did not decline even when 40 to 50% of the content was replaced with material not within the same content area.

Rimm, S. B., & Lovance, K. J. (1992). The use of subject and grade skipping for the prevention and reversal of underachievement. ***Gifted Child Quarterly, 36,*** **100-105.** The parents of 14 underachieving children and their children who had been subject or grade skipped were interviewed to determine the effects of acceleration. In addition, administrators and teachers were also interviewed. The authors found that all of the children made good academic adjustments and that all of the parents would make the same decision again. While the majority of administrators and teachers were initially negative about acceleration, they changed their position as the child adjusted.

Schack, G. D. (1993). Effects of a creative problem-solving curriculum on students of varying ability levels. ***Gifted Child Quarterly, 37,*** **32-38.** The subjects in this study were 276 students in grades six through eight. Treatment group students participated in a 45-lesson curriculum implemented over a 9 to 18 week period that involved instruction in the creative problem solving process. The students also used CPS to solve real school problems. Pre and post tests incorporated hypothetical problems that were used to assess problem solving. Treatment students showed significant gains in problem-solving ability as compared to students who did not participate in the treatment. No differences were found among ability levels.

Shore, B. M., & Delcourt, M. A. B. (1996). Effective curricular and program practices in gifted education and the interface with general education. ***Journal for the Education of the Gifted, 20,*** **138-154.** The authors selected 40 generally recommended practices that fell under the heading of program practices from their 1991 book *Recommended Practices in Gifted Education: A Critical Analysis*. Five practices, which were uniquely appropriate to gifted education, received strong empirical support: acceleration, career education—especially for girls, ability grouping, program arrangements, and high-level curricular materials. Twelve other practices that received strong support were viewed as effective with gifted students and other students.

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

Tallent-Runnels, M. K., & Yarbrough, D. W. (1992). Effects of the future problem solving program on children's concerns about the future. ***Gifted Child Quarterly, 36,*** **190-194.** The purpose of this study was to determine if gifted students participating in the Future Problem Solving Program would feel that they had more control over their future and different concerns than other groups of non-participating gifted or average-ability students. The sample was 139 students in grades 4-6 from a school district in the Southwest. Results indicated that gifted students who participated in FPS programs responded in a more positive manner about their roles in the future. They also mentioned world affairs, space, technology, war, school or education more frequently than the other groups. The authors conclude that if those who participate in FPS feel that they have more control over their future that non-gifted students might also benefit.

Swiatek, M. A. (1993). A decade of longitudinal research on academic acceleration through the study of mathematically precocious youth. *Roeper Review, 15*, 120-123. Five cohorts who participated in the Johns Hopkins University Study of Mathematically Precocious Youth were surveyed at the age of 19, some at the age of 23, and some at the age of 33. Students who choose to accelerate in high school do not suffer academically but gain speed in their educational preparation. These students perform well at advanced levels of study, complete college, and attend graduate school in numbers that exceed the national average. In addition, the students also express satisfaction with college and their experiences.

VanTassel-Baska, J., Avery, L. D., Little, C., & Hughes, C. (2000). An evaluation of the implementation of curriculum innovation: The impact of the William and Mary units on schools. *Journal for the Education of the Gifted, 23*, 244-272. An evaluation team used case studies at two school sites to examine the three-year implementation of the William and Mary language arts and science curriculum units at the elementary levels. They collected interviews, conducted focus groups, examined documents, and made classroom observations to determine the effects and impact on the school system. Students, teachers, parents, and administrators described the units as benefiting learners—increasing student engagement, enhancing reasoning skills, and improving habits of mind. Teachers also noticed that they acted more as facilitators when teaching the units. The components that appeared to contribute to greater student involvement and interest included hands-on, action oriented, and real-world problem activities. The implementation of the units appeared to affect regular teachers' curriculum in one district, but not the other. The latter district did not have a strong interface between the gifted and general education programs. Neither district tended to use the student assessment component to monitor achievement so these data did not contribute to program improvement and decision making.

VanTassel-Baska, J., Bass, G., Ries, R., Poland, D., & Avery, L. D. (1998). A national study of science curriculum effectiveness with high ability students. *Gifted Child Quarterly, 42*, 200-211. The sample included 1,471 students in 62 classes who were in 15 school districts, and 42 teachers who had been trained in using the selected unit, *Acid, Acid Everywhere*. The Diet Cola Test was used as a pre-post measure to determine student gains in science process skills. The experimental groups did perform better on the Diet Cola Test. In addition, teachers gave the highest ratings to these items on a questionnaire: goals and outcomes were appropriate, students were actively involved, hands-on activities were motivating, unit topics were interesting and relevant, and activities were appropriate to student abilities.

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*, 461-480. This study examined the effects of a 40-hour language arts curriculum unit on elementary students in grades four through six in selected school districts. The Integrated Curriculum Model incorporated these goals: "to develop literary analysis and interpretation skills, to develop persuasive writing skills, and to develop linguistic competency" (p. 464). The experimental groups improved significantly in all three dimensions of the performance-based assessments: writing, grammar, and syntactic forms and functions. The authors conclude that more targeted curriculum intervention that is aligned with specific assessments needs to occur in classrooms for gifted students. They also reported that the abstract concepts and ideas in the unit may be difficult for average learners at this grade level.

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Q&A ANSWERS TO YOUR QUESTIONS

Donna Corley

Question: Our district has served identified gifted and talented students for years in mathematics and the reading/language arts area. Now we are told that they must be served in other areas. What are those other areas?
Answer: Section 3.1A of *The Texas State Plan for the Education of the Gifted/Talented Students* states "School districts shall provide an array of appropriately challenging learning experiences for gifted/talented students in grades 1 through 12 that emphasize content from the four core academic areas." The four core academic areas being referred to are reading/language arts, mathematics, science, and social studies.

Question: If my son is in our district's gifted program, does he need to be subjected to the on-level curriculum?
Answer: According to the state guidelines, curriculum and instruction for gifted students must be addressed by "modifying the depth, complexity, and pacing of the general school program." Curriculum and instruction for gifted and talented learners built around what they should know at their grade level allows for more thorough coverage within a content area and the TEKS.

Question: I teach third grade. My district has a GT curriculum document for third grade that was written ten years ago. There is not one thing in this document that talks about depth, complexity, or pacing. Should I stop using that document and just use the on-level curriculum or should I continue to use this old GT curriculum? What should I do?
Answer: First, determine if your district is in the process of revising the GT curriculum. Whether they are or not, they might have suggestions for how you are expected to proceed. If the decision is up to you, remember three things: preassess, diagnose, prescribe, in that order. Preassessment in curriculum and instruction is vital to the diagnosing and prescribing that an instructor must do. Finding out what a student knows before instruction allows for efficiency and effectiveness in teaching. Preassessment allows the teacher to know whether he or she needs to stay on level or modify. Do not be surprised if gifted students need an occasional on-level lesson at any grade level. On one hand, skipping on-level lessons without preassessing, assuming that gifted learners "already know" is dangerous and can leave gaps in their knowledge base and increase the necessity for on-level lessons in the later grades. On the other hand, continuing on-level lessons without preassessing, assuming that gifted learners need this anyway is just as dangerous, leading to a waste of time which sometimes leads to bad attitudes toward learning. Diagnose the needs from your preassessment of the student and their past performance. Prescribe a curriculum that will meet their needs and allow students who wish to go further into a topic to explore. Be flexible enough to allow time for students to explore any connections/relationships that they make between the disciplines. By doing this you are creating conditions for depth and complexity to occur. Perhaps you will find that you are using a combination of resources that include your on-level curriculum, older GT curriculum, as well as other curricula that you had not even thought of using before.

Question: What is meant by modifying the curriculum using depth, complexity, and pacing?
Answer: Modifying a curriculum by depth simply means that the student is afforded opportunities to explore within a course of study at a greater degree than is typical. This allows for recognition of patterns, trends, principles, etc. that are not as easily discernible in a limited study. Modifying a curriculum by complexity means that the student is afforded opportunities for intense scrutiny of material across disciplines so that he or she can explore relationships in varied dimensions. Modifying the curriculum by pacing may be simply speeding up of the learning process by compacting the curriculum or may be slowing down to give time for in-depth study of a particular topic of interest.

Question: I teach both identified gifted and not identified gifted students in all three sections of Advanced Placement Chemistry. What can I do to differentiate for the identified gifted students?

Answer: Just keeping with the state law concerning curriculum and instruction for gifted learners will help in meeting their needs in any homogeneous or heterogeneous setting. Make sure that you provide opportunities for the students to accelerate when needed. Use preassessment and modify your AP curriculum by quickening the pace— moving quickly through what the students can learn easily, and skipping what they already know. Planning for the students to use depth and complexity will assist in another point in the law — providing students with a continuum of experiences that lead to advanced level products. Plan for grouping within your classroom that will allow them to work with other identified gifted learners and not identified gifted learners. Provide opportunities for students to work independently. Dr. Carol Tomlinson's "Independent Study: A Flexible Tool for Encouraging Academic and Personal Growth," in the September 1993 *Middle School Journal* is an excellent resource for setting up independent study in any classroom. Help students to connect with out-of-school opportunities that will enhance their strengths.

Question: Is there a model GT curriculum out there that I should be using with my GT students?

Answer: Curriculum should serve as a map that helps you help your students to reach a destination. Just like any other destination, there are many ways of getting there. Your district should provide you with your destination. In other words, they will help you to focus on exactly where the students are headed. One statement from the state plan is particularly useful in this context — that the students be producers of advanced level products. The state has given you other guidelines about the tools you need to use along the way — depth, complexity, pacing, an array of learning opportunities, acceleration, independent study, etc. The curriculum, or route, that you choose will depend on that destination.

Donna J. Corley, Ph.D., coordinates gifted programs for Conroe Independent School District. She is also a member of the TAGT Executive Board. Submit questions relating to gifted education directly to Donna Corley, 702 N. Thompson, Conroe, TX 77301, or by e-mail: dcorley @conroe.isd.tenet.edu

TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED

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 SERVICES TO MEET THESE NEEDS.

TAGT EXECUTIVE BOARD LONG RANGE GOALS

- Advocate appropriate services and accountability standards for all gifted and talented students.
- Provide current information and research about gifted and talented learners and the field of gifted education to the TAGT membership and general public.
- Develop an effective advocacy network.
- Increase and diversify membership.
- Develop strategic alliances with the Texas Education Agency, Education Service Centers, higher education, and others.
- Support quality professional development for educators of gifted and talented students

Adopted by the TAGT Executive Board: 2.5.00

BOOK REVIEWS

Independent Study Program by Susan K. Johnsen and Kay Johnson. Waco, TX: Prufrock Press. 1986.

The *Independent Study Program*, developed by Susan K. Johnsen and Kay Johnson, is a guide for helping students acquire and/or refine their research and organizational skills. The program has three components — a 145 page *Teacher's Guide*; a 28 page, consumable *Student Booklet*; and 97 *Resource Cards*. The *Teacher's Guide* offers detailed lesson plans for teachers on skills such as selecting a topic, organizing information, asking questions, and collecting information. It also provides lessons on developing a product, presenting a product, and evaluating the process as well as masters for overhead transparencies and classroom management forms.

The *Student Booklet* consists of worksheets and rubrics that help students plan and work their way through a project. The *Resource Cards* parallel the *Student Booklet*, providing additional examples, graphic organizers, and rubrics.

The authors of the *Independent Study Program* have taken a practical approach to every teacher's task of helping students systematically organize their approach to projects. The program provides step-by-step models, flowcharts, and other methods that students (and their teachers) can use to refine techniques for planning, creating, and presenting projects. Based on the terminology and examples the program is best suited for students in grades four through eight, although some high school students and teachers might benefit from guidelines and rubrics. Unfortunately, the title is limiting. *Independent Study Program* is a valuable resource for any teacher who assigns a research project — not just "independent study."

—reviewed by Mike Tracy

My Nature Journal by Adrienne Olmstead. Lafayette, CA: Pàjaro. 2000.

My Nature Journal is a creative and mind-provoking journal that allow naturalists of all ages to pause and take notice of the simple pleasure of various habitats. The descriptions are easy to understand and spark an interest to learn more. Teachers could use this book to enhance the students' learning in small field studies, as an interdisciplinary unit on its own, or in conjunction with teacher mentoring in habitat areas in the community. Habitats not in the local area might be completed on family vacations.

My Nature Journal will enhance the curriculum of the Green Classroom or any unit on environmental science. It is strongly recommended for any interdisciplinary unit that involves the study of biomes, star gazing, environment, animals, or nature. It is most appropriate for grades 2-6.

—reviewed by Janice Johnson

The Academic Adventures of Laura Bridges: An Introduction to Educational Architecture Therapy by James P. Bridges. Bloomington, Indiana: New Philosopher Press. 1999.

From the time she started kindergarten until she entered Dartmouth College at age 14, Laura Bridges' parents had to struggle not only to understand and keep up with their precocious daughter, but also to convince, pressure, and at times force schools to provide appropriate educational opportunities. In the beginning they had no idea that their daughter was gifted, or even what that meant, but only that her needs were not being met in school. They had to learn how to work with schools, districts, the state department of education, state attorney general, the courts, colleges, and universities.

This book includes a lengthy (132 pages) interview between Laura's father, James Bridges, and her geometry teacher, Margaret Duvall in which Bridges details Laura's school career and the difficulties they faced. Following this are three informative essays, including "Gifted and Talented Education: A Parental Primer," "Gifted and Talented Education on the Planet Earth," and "Fact and Value: Market Research in Education."

The format of the book provides an immediacy not always found in educational writing. While primarily useful to parents, this book will be beneficial to anyone interested in the problems of educating the highly gifted.

Night Thoughts from the Pond

Michael Cannon

I think it was the scream that woke me. It was 2:00 AM and the sound was still echoing through the night. It didn't sound human, but unless a dog was violently ill, or one of the neighbors had started butchering hogs, I couldn't think what it might be. Then I heard it again. A deep sound, primeval and compelling, like some beast in distress or a saw tearing through thick lumber. When the sound came again, I knew. The bullfrogs in the back yard pond were at it again.

When I built the pond and stocked it with fish and tadpoles a couple of years ago (trying to bring some woodland to the city), I had no idea of the vocal power of the little critters. I wonder what the neighbors must think, here in the desert, where a bullfrog is as common as a blizzard in August. Something seems to make these otherwise stoic animals need to announce their existence. The lizards that live in the rock wall have apparently have no need to shriek their presence, and neither have the fish who share the pond with the frogs.

As I lay awake, it struck me that the frog's amphibious existence, at home in both water and dry land, has implications for teaching, in particular for curriculum for gifted students.

Gifted programs and curricula often fall into one of two camps, depending on the district philosophy (or lack of philosophy), economic factors, and grade level of students.

On one side (the dry land, if you will), are the academic, content-based programs, the Advanced Placement and Pre-Advanced Placement classes with a rigorous, usually accelerated course of study. Students move beyond their age peers, both in content and speed. Everything is as expected and out in the open. Objectives are obvious, orderly, and well-structured.

At the other end of the spectrum is the creative, open-ended, project based curriculum (the green water world) in which the process is more important than the product, the discovery and inquiry experiences are the core of the learning process. The learning that goes on in these classrooms is at times no more clear to outsiders (parents, administrators, board members) than the rich green bottom of a pond.

Most gifted programs today try to have a happy mix of the two, an amphibious environment that emphasizes clear content without denying opportunities to swim in the waters of discovery. If you find your own curriculum getting too dry, take a plunge and let things float. Give more choices, allow exploration.

On the other hand, you may discover that your program is really waterlogged. Climb out of the pond, dry out in the sun for a while, and get your bearings again.

Sometimes, like the frogs in the pond, we may get a bit loud, advertising our presence to the land dwellers and the fish. How else can the other frogs tell where we are? Maybe the some things need waking up.

Myself, I'm looking for a nice, quiet salamander.

Winter 2001

Guidance and Counseling of Gifted Children

The particular social and emotional needs of gifted and talented children are often overlooked by counselors, administrators, teachers and parents. Articles are requested that address these needs, describe successful counseling programs, vocational guidance, use of personality inventories (could include birth order and Myers-Briggs), and other related issues.

The deadline for submission of articles is **September 1, 2000.**

Spring 2001

Where Are They? Other Possibilities for Gifted Learners

After elementary school, gifted programming often changes dramatically, in content and structure. What type of programs exist for gifted students in middle and high school and at the university level? Where are the gifted adults? Articles may address the topic in different ways, including descriptions of programs, speculation on models, or portrayals of student experiences.

The deadline for submission of articles is **December 1, 2000.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are evaluated by 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. Attach a100—150 word abstract of the article.
5. 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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TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED
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Volume XX Issue 4
Fall 2000 Issue

Performance Standards for Gifted Students

Evelyn Hiatt
Linda Phemister
Texas Education Agency

Since 1997, the Texas Association of Gifted and Talented (TAGT) has made one of its major priorities the need for evaluation of services for gifted students. The strong accountability system has greatly improved student performance in Texas. The Texas Assessment of Academic Skills (TAAS) measures district effectiveness for all students and spotlights some special programs. For example, it is used to review the state and federal Title I programs as well as migrant programs. However, TAAS is designed to measure student performance on the TEKS and is not considered an appropriate instrument to measure the success of program services to gifted students, which typically go far beyond the TEKS. Traditionally 95% or more of gifted students pass the TAAS.

In 1995, there was no evaluation of the performance of gifted students and only minimal oversight of district compliance. Because of the funding commitment made by the Texas Legislature—approximately $60 million per year—some type of program oversight was critical. Due to the concerted efforts of TAGT, the 75th Session of the Texas Legislature requested that the Texas Education Agency report on how it might best assess the progress of students who receive services offered in gifted/talented programs. Through its research, agency staff discovered that no state had any systematic method of assessing the progress of gifted students. This meant that whatever path it took, Texas would once again be

(see HIATT & PHEMISTER, page 21)

Accountability Issues

FROM THE PRESIDENT

Tempo
Volume XX Issue 4 Fall 2000

Karen Fitzgerald

Where has the time gone? It seems like only yesterday that I was sworn into office as the TAGT President for the year 2000. As I contemplate the events over the past year, I cannot help but think that your dedication, enthusiasm, and cooperation made my tenure in office a rewarding one. In this last column as President of TAGT, I express my sincere appreciation for the opportunity you gave me to serve you and the field of gifted and talented education in Texas.

I would also like to take this opportunity to acknowledge especially the work of the TAGT Executive Board, our new Executive Director Dr. Amanda Batson, the TAGT committee members and division officers, and the TAGT office staff who gave unselfishly of their time and expertise throughout this year. The annual TAGT Conference in Austin will be a memorable one that you won't want to miss.

Recently I attended a G/T seminar where one of the participants asked the speaker why we should do anything *special* for gifted and talented students in our schools. "Those children already have it," she commented. "What do average children get in schools?" While the speaker handled the response to the question well, I am continually amazed that some people in the year 2000 continue to find education of gifted learners unnecessary. Why don't they understand? For years we have been trying to convince other educators that modifications (curriculum differentiation, strategies, techniques, etc.) are needed in the curriculum if gifted and talented learners are to benefit from instruction. This question and answer

(see FITZGERALD, page 13)

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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Circle of Learning Circle of Life for Gifted Students: Short-changed Again

Amanda D. Batson, Ph.D.

For the gifted student, finding one's place in the circle of life can be incredibly difficult, not necessarily because there is so much to see and do but because so many adults in the gifted student's life assume that he/she will "make it anyway." These adults seem to follow this line of thought: gifted students are clearly advanced beyond their age peers, thus, there is no compelling reason to teach, test, and stretch these students. Since gifted students already are performing above their grade level, why provide curriculum, instruction, or assessments to match the needs of these students. As a recent large donor to a world-class university stated to one of our members, "Gifted students don't need help, they will make it on their own." The research, however, is clear and growing in its clarity that — regardless of ability — challenge, stimulation, and achievement are required to learn and develop one's potential. The "make it anyway" logic is demonstrated blatantly in Texas expectations, support, and funding for education of its gifted and talented students.

In May 1999, the 76th legislature adopted an appropriations bill including the education article that begins with the following goal:

> **A. Goal: Standards of Achievement and Equity** The Texas Education Agency will build the capacity of the state public education system to ensure each student demonstrates exemplary performance in reading and the foundation subjects of English language arts, mathematics, science, and social studies by developing and communicating standards of student achievement and district and campus accountability.

For the goal stated above, 18 outcomes are listed in the appropriations bill with percentages to be achieved by August 2001. The first outcome is that the "assessment results of 88% of eligible students will be included in the accountability system." Thus, almost all Texas public school stu-

(see BATSON, page 14)

Accountability for Gifted Students: Burden or Opportunity?

James J. Gallagher

It seems to be the fate of education professionals to be preoccupied with particular topics that seem to dominate the field temporarily. Whether it is 'cooperative learning' or 'inclusion' or now accountability, we are deluged by speakers and articles on a particular subject until another 'hot topic' of interest comes along to take its place (Gallagher, 1998; Borland, 1997).

So why accountability now, and what does this have to do with the education of gifted students? The ugly answer to the 'Why now?' question is that the general public no longer believes educators and their claims about how well they are educating our children. Some partially educated students emerging from the public schools appear to support these suspicions. That is the apparent motivation for statewide testing, end-of-grade testing, etc. The public wants to be reassured that all students are learning basic skills and knowledges in the public schools.

Well, what does this have to do with gifted students? They might not be doing as well as they might but they surely are not failing. It is my position that accountability is an opportunity for the educators of gifted students to show the distinctive performance of our students. First of all, we need to recognize that these statewide tests are not useful to us. Most gifted students consider such examinations as a joke, akin to asking trained high jumpers to leap over a three-foot bar. As I pointed out in a *Kappan* article (Gallagher, 1998) there are three good reasons why such examinations are inappropriate for gifted students.

1. Ceiling Effects. Most gifted students will score at or near the top of the test so that we don't know how much they actually know which makes it impossible to measure their growth, from one time to another, in a content field. How do you improve from a score of 98 percentile on the first test?
2. These tests are often composed of items measuring basic associations or fact mastery and not the high-level thinking processes supposedly being taught to gifted students.
3. If the gifted students are doing something extra in class (conducting experiments, analyzing the space program, or learning about ancient Egypt), there will not be test items on the statewide exams on such topics so the gifted student does not receive credit for accomplishments in these special areas.

Statewide exams can easily lead one into a sense of false security since these gifted students will be doing well on such tests. It takes the results of the Third International Math and Science Study (TIMSS) to show us that our bright students in calculus and advanced science courses perform only as well as average students from other countries (Third International Math and Science Study, 1997). Gifted students themselves reported being bored by simple assignments and ask for more challenge in their classrooms (Gallagher, Harradine, & Coleman, 1997).

If these general education accountability measures won't do, then what can we use to demonstrate true accountability for gifted students? There have been increasing attempts to use alternative measures to assess students with special needs (Ysseldyke & Olsen, 1999). Salvia & Ysseldyke (1998) identified four kinds of approaches that can be used to gather data on students' (a) observations, (b) recollection (via interview or rating scale), (c) record review, and (d) testing. Teachers or educational specialists' judgments as in (b) above have become increasingly useful as we have realized that the teacher or coworkers who work closely with these students on a daily basis can contribute valuable observations and judgments on student performance. Our task is to develop procedures for making such judgments reliable and consistent.

If we say that we are teaching our gifted students 'thinking strategies' then what student products can we produce that indicate mastery of these strategies? If the goal is to have students master problem-based learning then they should be able to describe what they have learned about problem-based learning. Table 1 shows a rubric used to evaluate students who experienced a special unit in problem-based learning in social studies. To aid the judge who rates the student,

Table 1. P-BLISS Rubric: De-Briefing Minute Write
Prompt: *What do you know about problem solving now that you didn't know at the beginning of this unit?*

5	4	3	2	1
The response describes at least **three distinct ideas** about the problem solving process. Ideas are **clearly expressed** with **sufficient elaboration.**	The response consists of **two sufficiently elaborated ideas** about the problem solving process. **or** The response consists of **three ideas** that **require some interpretation** due to minor lapses in clarity and/or elaboration.	The response consists of **one sufficiently elaborated idea** about the problem solving process. **or** The response consists of **two ideas** that **require some interpretation** due to minor lapses in clarity and/or elaboration.	The response addresses the prompt by giving **opinions** about the problem solving process that are **not supported with evidence.** **or** The response is limited to **specific information** about the **given PBL unit**. (does not generalize about problem solving)	The response does not address the prompt. **or** The intended meaning of the response is not clear enough to be deserving of a higher score.

Source: Gallagher, J. & Bray, W. (2000). *Project Problem-Based Learning in Social Studies: Program Evaluation*. Chapel Hill, NC: Frank Porter Graham Child Development Center.

(see GALLAGHER, page 17)

Performance Assessment and Its Role in Instruction of Able Learners

Tonya R. Moon
Carolyn M. Callahan

When most of us reflect our own school experiences, we recall images of rows of desks where we as children were asked to pay attention to the individual at the front of the room, to raise our hands before speaking, and, almost always, to refrain from socializing with the other kids around us. It was a place where some of us were content to sit quietly at the back of the room and others aspired to be the teacher's pet or class clown. More often than not, the classroom was the first place that we realized that we were good at math and foreign language or terrible at English and chemistry. And our assessments of our abilities and competencies were largely formed by the way we performed on very structured, paper and pencil tests. We began with fill in the blank or circle the answer and progressed to multiple choice and essay exams. And certainly, we were not allowed to socialize during the times those exams were given! We also came to learn as we progressed from elementary to middle to high school that judgments of our success came to depend increasingly on how we performed compared to the other students in our classes.

From our own experiences as learners, many of us remember the obstacles that prevented us from grasping the proper way to diagram a sentence or understanding the laws of algebra and the frustration when exam time came and we still didn't know "who, what, why or how." And our relief when that experience was over and we could move on - hopefully to some topic where we would be more successful. Fewer of us can remember those one or two teachers who actually removed the obstacles thereby enabling us to learn. Others of us can remember that we were able to answer the questions on the tests without the tedious instruction we sat through and the exam's greatest challenge was figuring out what the teacher wanted!

In today's classroom, the challenges to learning are even greater than in classroom's of yesteryear. Because of major educational reform efforts, teachers are expected to convey a certain amount - often large amounts — of information between August and May, and students are expected to not only learn the information but also show satisfactory competence on state tests. The students who are unsuccessful in the first attempt at an exam are often faced with a situation in which the teacher "must go on" even if the student has not mastered the material and the student is faced with

the prospect of non-success again and again. The student who has learned the knowledge or mastered the skills is often waiting for others to "catch up" to levels of performance they have already achieved.

The one thing that has not changed with time is teachers using, or searching for, a variety of assessment tools - pop quizzes, end-of-unit tests, textbook end-of-chapter tests, essays, etc. - to motivate students as well as document evidence of student learning. And students are still asking that age old question "Is this going to be on the test?" Unfortunately, regardless of the type of assessment, thoughts and plans for assessing students generally emerge after an instructional lesson or unit is completed. This "instruct-then-test-then-move-on" model completely ignores advances in the cognitive sciences of understanding how students learn. That is, it fails to address the importance of helping students making meaning or understand the value of the content that is being taught. "Most traditional testing assesses the ability to answer well-structured questions. School children spend a great deal of time learning things because they are measured on current tests, not because they have intrinsic value as instructional goals" (Gitomer, 1993).

If we as a society wish to promote critical thinking and problem solving skills in students, to maximize the learning of all students in the classrooms - from the struggling learner to the most accomplished learner — we must investigate other ways to assess student learning, ways that capitalize on and make full and valid use of precious instructional time. One way to promote complex and indepth thinking about meaningful content, to enhance students' ability to make connections within and across disciplines, and to facilitate their capability in seeing relevancy in what is taught is through the use of performance assessment.

Even though several terms are tossed around synonymously—performance, alternative, authentic assessment-each is attempting to convey a form of assessment that requires students being actively engaged, using multiple sources, for the creation of a product or construction of a response. These performance assessments are built on best practices in gifted education and the belief that curriculum, instruction, and assessment are indelibly intertwined and that by focusing on the end result, i.e. what students need to know, understand, and be able to do, teachers understand better the path that must be traveled, i.e. instruction.

Performance Assessments of High End Learners

In many gifted programs, the notion of performance assessment has been relegated to "projects." In many cases these projects can only be loosely tied to specific objectives and seldom can they be tied to the important concepts, understandings and skills of a discipline. In the interest of providing choice, teachers may abandon a common core experiences and set of learning outcomes. Finally, the assessment of the projects may be more closely related to presentation than to substance

To address the ways in which performance assessments can be used as an integral part of assessment that encourages high end learning for all, focuses on important learning outcomes, challenges the most able learners, and yet still provides choice, the University of Virginia site of the National Research Center on the Gifted and Talented (NRC/GT) has been working the past five years with classroom teachers across the country in designing and implementing classroom performance assessments. These assessment tools have been tied to national and state standards (including the TAAS

If we as a society wish to promote **critical thinking and problem solving skills** in students, to maximize the learning of all students in the classrooms . . . we must investigate other ways to **assess student learning**, ways that capitalize on and make full and valid use of precious instructional time.

(see MOON & CALLAHAN, page 19)

Standards of Learning and Gifted Education: Goodness of Fit

Joyce VanTassel-Baska

The importance of the standards movement in education cannot be underestimated. It represents the first time that policy makers from all sectors of public life have agreed upon a set of principles for the future direction of education in this country. Consequently, the only educational agenda that matters is the one related to enhancing teaching and learning for all students in our public and private schools. For demographic, economic, and workforce issues, the standards movement has gained a strong foothold in the national consciousness, and education is forced to respond to the call for higher student achievement through implementing national/state standards (O'Day & Smith, 1993).

Why the need for standards? Fundamentally, there are several reasons for education to seek such curriculum coherence. One of these reasons has to do with assessing quality in curriculum. How do we know that students are learning what they need to for high level functioning in the 21st century? Over ten years of work went into the development of the standards by national groups who were broadly representative of the professions and the educational community at several levels. This input was further shaped by public comment on multiple drafts. Such thoughtful consideration for what America's students should be learning has not occurred since the 1960's and perhaps even was overdue in some respects.

A second reason that standards are important is to ensure educational quality across school districts and schools within districts. Every student has a right to have a challenging curriculum and to receive pedagogical supports to master it effectively. The new standards call for systemic implementation that leaves no one behind.

Another reason that standards matter is more philosophical. We all need guideposts to mark our way. The standards provide just such focus for meaningful work in education to occur. They are designed from the top down, meaning that the model of the adult professional competencies is embedded in them and allows us to work on optimizing the knowledge, skills, and attitudes of our best learners through a focus on behaving like a mathematician, a scientist, a writer and a geographer. All other industrialized countries adhere to a standard curriculum template within which teachers focus on

instructional delivery techniques that work. Only in the United States do we ask teachers to develop, deliver, differentiate, and assess curriculum — all while managing inclusion classrooms. Sharper focus would necessarily improve teaching and deepen the learning for students.

Gifted education clearly is not exempt from this emphasis on standards-based reform. We must view the standards movement as an opportunity to upgrade what we do as well and go through the standards to do it, not around them. There are some potential problems with the standards and gifted education, however. None of the problems are unremediable but each is difficult in its own way to handle.

One problem is the perception that the standards are low level. I hear gifted educators complaining that to work on the standards narrows that focus for gifted learners in our schools to factual material being regurgitated. To counter this concern, I would note that the standards are very broad, some are deep, and there is much latitude for creative teachers to implement the standards at appropriately high levels to satisfy the needs of gifted students under their tutelage. While gifted students can show mastery of many of the standards at an earlier stage of development than currently designated, testing-out mechanisms need to be in place to accommodate this recognized reality (United States Department of Education, 1994). Moreover, teachers need to reorganize strands across grade levels to also streamline the curriculum.

A second perceived problem is that the standards are content-based and therefore not appropriate for the gifted. Nothing could be further from the truth. Quality gifted programming has always been content-based. The hallmark high school programs of Advanced Placement and International Baccalaureate are deeply grounded in the study of the disciplines. Historically, elementary models of gifted education have been similarly organized. Over the history of this field, educators have considered a strong content base as essential, not incidental, to strong curriculum and programming. To the extent that a program relies on thinking skill development and is project-driven with no considerations to content is the extent to which that program is weak and unsupportable by available research evidence. Many such programs nationally already have died out from their own lack of effectiveness.

A third perceived problem with the standards arises from how they are assessed. In Virginia, there is reason for some concern. Even though the standards represent high level learning outcomes as replicated from the national standards project work, the assessments are narrower in orientation and more low level, consequently more based in factual material. Recent critiques of the Virginia assessment tests have noted their lack of scope, their level of task demand, and their lack of consonance with the standards in intent (Brandt, 2000; Webb, 1999). Even so, the gifted community has an opportunity to assess these learners at higher levels through alternative assessment approaches that meet a standard of coherence. Specific performance-based instruments for assessment of student progress have been found highly suitable for use in gifted programs (Adams & Callahan, 1995; VanTassel-Baska, Johnson, Hughes, & Boyce, 1996).

Gifted education is a part of general education reform, not an endeavor separate from it.

What then are some strategies that teachers might employ to implement the standards more efficiently with gifted students? They constitute the following:

- Organize them according to higher order skills and teach across subject areas (e.g., reasoning, communication, research, technology)
- Use the essence of the standards as a rubric for assessing learning (e.g., writing, research).
- Recognize that many of the standards focus on higher level thought (e.g., history strand in social

(see VAN TASSEL-BASKA, page 12)

Emerging Giftedness for the LEP Student

Pamela M. Cooper

In a class of twenty-two non-english speaking students, eleven different languages and three grade levels how was it possible to identify seven as gifted and talented?

The original goal of the Newcomers classroom was to accelerate the learning of english using a combination of key elements: materials, classroom set-up and creative g/t strategies. One natural by product was the emergent giftedness in seven LEP students. They were identified and are now being served in a gifted/talented program. Without developed complex language patterns how could this happen?

Consider the critical and creative gifted strategies. In the past critical thinking strategies were used to identify students for g/t programs. Few LEP students were identified. When the use of creative strategies became the focus as a means to identify more g/t LEP students emerged. (see figure 1) Using the divergent strategies provides the way for the giftedness "in" the student to "come out" without relying on language. It does not mean that all students who demonstrate creativity are identified as academically gifted. Rather, critical attributes of academic giftedness are evidenced in the LEP student products using the creative strategies. As complex language patterns developed the critical and creative thinking strategies converged. The result was clear evidence of giftedness in the LEP student.

Key elements worked in complimentary combination to uncover the giftedness. Consider some examples. Students were visually introduced to a concept; habitats of animals on the seven continents. Without speaking they used picture cards to manipulate the concept including brainstormed lists of herbivores and carnivores, catagorizing by a particular attribute and analogy making from concrete to abstract. They made venn diagrams to compare/contrast the natural resources of the habitats. As complex language patterns developed students were able to verbalize and write in their new language with an understanding of depth and complexity. There was evidence of critical thinking.

Similes and metaphors were evidenced in student products. As example picture the following . A first grader learned about the concept of Picasso's cubism. Later she listened to a story about a sunflower playhouse. At the problem solving center she drew a

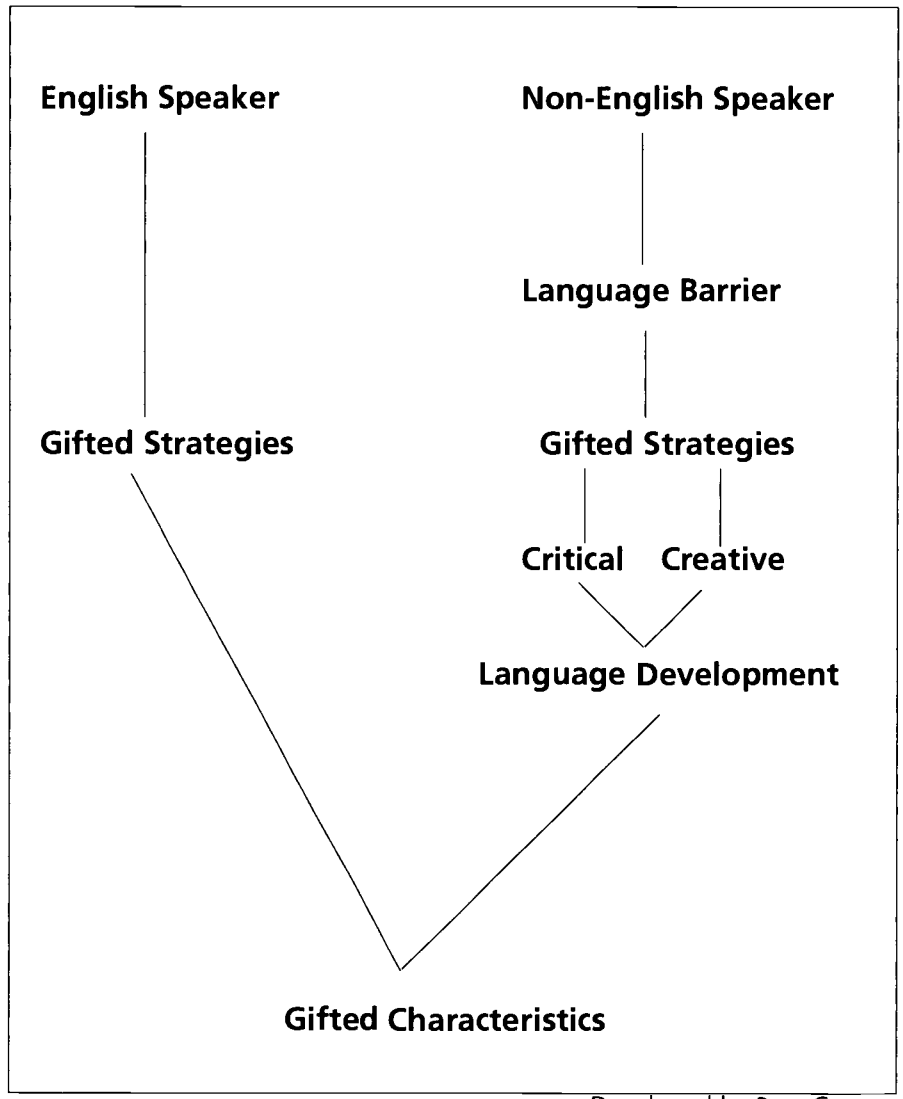
house divided into squares. To represent a variety of flowers, she colored each square a different color. With her best english she offered a brief description of how each color represented a particular flower. Evidence of critical thinking was demonstrated using creative strategies. Language was not a barrier. This type of pattern occurred on a regular basis in multiple content areas using creative strategies.

Key elements in this research based, constructivist type classroom simultaneously developed language patterns at an accelerated rate, taught academic content and uncovered giftedness in the LEP student. Over time the data collected and studied using the creative strategies produced successful recurring patterns with the specific following strategies: productive thinking, brainstorming, reverse brainstorming, SCAMPER, attribute listing, synectics. The trends formed the basis for choosing the indicators for the instrument.

The Classroom Observation Instrument for the Identification of Emergent Giftedness (page 16) in LEP Students is a non-traditional method to observe behaviors and identify the gifted/talented LEP student. Flexible in nature, the instrument is global in structure. Purposefully planned in this fashion, it calls upon teachers to interpret behaviors in global, non-traditional ways. The flexibility of the instrument enables application to specific academic content and the fine arts area at any elementary grade. From the instrument consider the indicator of dimension. A teacher could apply this indicator to the artwork of the first grader as in the case of the cubism. The level of absract critical thinking in the way she applied and transferred knowledge was evidenced in her product. The evidence of dimension makes a connection to the critical attribute of analyitcal thinking. Apply the same indicator to the science project of a fifth grader who writes a computer program about how to use the fourth dimension to build holograms on the computer after building a concrete three-dimensional hologram. Again the level of abstract critical thinking is demonstrated in the product. Again the indicator of dimension connects to the critical attribute of analytical thinking.

Initially, the instrument will be used on pilot basis for the school district. Prior to use teachers will receive staff development to equip them in this combination

FIGURE 1: IDENTIFICATION OF GIFTED CHARACTERISTICS



Developed by Pam Cooper

(see COOPER, page 16)

(from VAN TASSEL-BASKA, page 9)

studies, research strand in language arts, scientific investigation, reasoning, and logic strand in science, probability and statistics strands in math).

- Select core models to use in implementing key process skills embedded in standards e.g.,
  - historical analysis web
  - lit web
  - hamburger model
  - experimental design

- Address the skills in the standards repeatedly (by using models over and over again).

- Select materials that address the intent of the standards, not just the content.

- Use performance-based assessment as an instructional tool to gauge student mastery levels. Re-teach or extend as needed.

- When gifted students exceed standards at given stages of development, accelerate them to the next level within or across subjects; within or across levels. Use learning centers and relevant materials to enhance extended learning opportunities such as Techniques of Problem Solving (TOPS).

- Read and interpret standards across grade levels. Be familiar with the standards 1-3 grades above yours and develop advanced task demands for the gifted from them.

- Always consider ways to integrate learning across standards such as integrating science, math, technology and language arts into a given project.

Only through a thoughtful implementation of a standards-based curriculum, adapted and modified for gifted learners, will teachers of the gifted be able to defend their practice. Gifted education is a part of general education reform, not an endeavor separate from it.

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Dr. VanTassel-Baska's publications including four recent books: Excellence in Educating the Gifted *(1998);* Developing Verbal Talent *(1996) (with Dana Johnson and Linda Boyce);* Comprehensive Curriculum for Gifted Learners *(1995); and* Planning Effective Curriculum for the Gifted *(1992). She also has published over 150 monographs, book chapters, and articles in refereed journals, and serves as the editor of* Gifted and Talented International. *Her major research interests are on the talent development process and effective curricular interventions with the gifted.*

(from Fitzgerald, page 2)

reminded me that we may not have communicated the basic reason we are doing all of this.

For gifted students, it is hard to be better than the top of the class. It is impossible for very bright children to be better than the ninth stanine, or score higher than 99% on testing. Most gifted and talented students easily master TAAS, and grade-level objectives are met before they walk through the door in August. Recent brain research tells us that if we do not provide the appropriate experiences that challenge the brain and nuture intelligence, the growth does not progress. As Dr. Barbara Clark, educator and author of *Growing Up Gifted* says, "Every child deserves to have educational experiences that create growth in the brain and intelligence regardless of their level of development for the alternative is regression and waste of human potential."

Those of us who work every day with gifted students know that gifted education actualizes human potential and we believe that every person is entitled to the most appropriate, most powerful education possible. Many of us who work in the public schools know that there is a wealth of opportunity offered to *average* students. Gifted and talented students aren't *better,* aren't *special,* aren't *privileged;* their learning needs are just different than most students in their schools. The curriculum must be presented at their own pace and with their style and interests in mind if gifted students are to excel.

Dr. Clark also says, "Anything less is to waste human potential, to impede the progress of individuals and of our society, and to misuse the principles of democracy. We who care about children must demand equity for all learners, even those who do not fit the system as it now operates, even those who we call gifted."

As an advocate for gifted students, you will find our annual TAGT conference to be invaluable. Educators from all across Texas and other states join together to share ideas. It is this great wealth of experience and expertise in gifted and talented education and a "spirit of sharing" that keeps the TAGT conference dynamic as we approach education beyond the year 2000. We are all working toward providing the best gifted programs possible. With increased knowledge comes better understanding of the educational needs of these gifted students. From Wednesday's pre-conference to Saturday's parent luncheon, you won't want to miss a minute of this eclectic gathering!

Finally, I look forward to continuing my work on the Board as its Past President for one more year. Now I will be able to concentrate my efforts in Spring Branch ISD on our greatest challenge: providing appropriate services to all of our gifted and talented children, regardless of race, sex, color, creed, socioeconomic status, or handicapping condition. We know that we have not identified enough disadvantaged children for enhanced educational services in our programs for the gifted and talented across Texas. In this new millennium, all gifted children should be offered the *Passport to the Future* which addresses their special advanced learning needs. These children may be more difficult to locate and identify, but our efforts must remain ever vigilant to seek them in every school across Texas. Advocacy on behalf of gifted children continues stronger than ever because of our strong voices within TAGT. Thank you for allowing me to serve as your President. It has been a marvelous year!

(from BATSON, page 3)

dents in grades 3 through exit level will participate in the accountability system and their performances will impact accountability ratings and reports or at least receive a notation. It is assumed that gifted/talented students will be part of those eligible. In the remaining 17 outcomes, however, numerous groups of students are named with each having a legislated percentage of expected performance: dropouts, special education students, limited English-proficient students, five different ethnic groups, economically disadvantaged students. There is not one mention of gifted/talented students in these legislated accountability indicators.

Why is it important to include gifted students in the accountability system? The reasons range from legal to personal. For legal reasons, see Texas Education Code (TEC) Chapter 29; Texas Administrative Code, Chapter 89; and the Texas State Plan for the Education of the Gifted/Talented. For personal reasons, see the 330,000 gifted students across the state. While vast amounts of time, energy, and resources are spent focusing on accountability indicators for students in general, special, and bilingual education, gifted students must settle for "seat time" with no outlet to demonstrate their achievements on the state accountability system.

Representative Scott Hochberg (District 132) recognizes the omission of gifted/talented students from the state commitment to accountability. During the 76th legislature, Representative Hochberg tried in various ways to address this problem. Even as each attempt was met with opposition, he persisted. To his credit, a rider (Rider 69) was attached to the appropriations bill that reads as follows:

> **Standards for Gifted and Talented Students Pilot Project.** It is the intent of the Legislature that the Texas Education Agency develop an assessment system and statewide standards for gifted and talented students at all grade levels. Out of the funds appropriated above in Strategy C.1.3., Improving Instruction - Operations, the Texas Education Agency shall expend $277,250 in each year of the 2000-01 biennium to begin development of such a system, and shall pilot high school exit-level standards for the performance of gifted and talented students in the areas of mathematics, science, social studies and language arts. School district participation in the project or in the use of the standards is not mandatory. The exit-level pilot shall be completed by August, 2001.

As noted above, a little more than $500,000 was set aside to **begin** development of an assessment system and statewide standards for gifted students. In the same appropriations bill, almost $140,000,000 was appropriated for assessment and accountability standards for all other students. Beyond the monetary discrimination, the rider above directs development of an assessment system and statewide standards that appear to be separate from the Academic Excellence Indicator System. Is this a foreshadowing of a "separate but equal" accountability system for gifted students?

Not to appear negative, TAGT considers the aforementioned rider to be the only positive stand that the 76th Legislature took on behalf of Texas gifted students. To that end, Representative Hochberg is to be commended as an exemplary advocate for Texas' brightest youth. However, Rider 69 is only a beginning and tentative at best. Depending on the work of the Texas Education Agency, the results of the pilot are to be reported in August 2001. TAGT, however, cannot wait for the results that are scheduled to appear after the closure of the 77th Legislature and apply to exit level performance only. What happens to the performance of gifted students in kindergarten through grade 10?

The TAGT Executive Board believes strongly that high standards and accountability must be part of gifted education in Texas. To that end, the Board

adopted six goals in February 2000 and directed the goal below to be listed first:

> Advocate appropriate services and accountability standards for all gifted and talented students.

In pursuit of that goal, TAGT is establishing high standards and well-defined accountability measures for all Texas gifted students as a central plank in its platform for the 77th Legislature. Leaders in gifted education know that "what gets tested is what gets taught." Therefore, to develop gifted student potential and ensure a year's growth for a year in school, clear standards must be established that meet and exceed the gifted student at his/her level of learning. Such standards must be available with appropriate measures for every gifted student in grades K-12.

The current state accountability system assumes that all students are at or below grade level; thus, progress is measured against that general standard. The system generally ignores those students who perform above grade level. This large group includes above average as well as gifted students.

Just for the Kids (JFTK), a non-profit organization based in Austin, Texas, regularly analyzes results from the state accountability system. A recent data analysis completed by this group revealed that more than 50% of grade 3-8 students who took the TAAS reading assessment in 1999 scored an 85 or above on the Texas Learning Index (TLI). According to the Accountability Manual published by the Texas Education Agency, a TLI of 85 or above is considered high performance. This same JFTK data analysis revealed that more than 40% of grade 3-8 students who took the TAAS mathematics examination scored a TLI of 85 or higher. These results could be interpreted as success. They also indicate low standards.

Indeed, the state curriculum known as the Texas Essential Knowledge and Skills (TEKS) has been overhauled and strengthened. The Texas Education Agency is leading the revision of the TAAS to match the stronger curriculum. Informally, it is reported that the "son of TAAS" will be so rigorous that there are concerns about extreme declines in student performance. The audience - the citizens of Texas - must wait and see the effect that the new version of TAAS will have on student performance.

Whatever the effect, Texas citizens deserve a system that holds **all** students, their campuses and districts accountable for performance based on high standards. At this time, the citizens of Texas have a system that holds perhaps half of the public school students accountable for performance on high standards.

High standards are relative. What is high for one student may be low for another and vice versa. While relative, appropriate standards are available for students with disabilities and students with limited English proficiency, relative, appropriate standards are denied to Texas gifted students.

All Texans interested in a world-class education system are invited to join TAGT in our struggle for high standards with well-defined accountability measures for the education of gifted and talented students in grades K-12. By establishing challenging accountability measures for gifted students, the bar will be raised for all Texas public school students. It is time that Texas truly has an accountability system established on standards of quality for all. All Texas students should have opportunities to find their place in the circle of learning and thus, the circle of life.

(from COOPER, page 11)

Classroom Observation Instrument for the Identification of Emergent Giftedness in E.S.L. Students

Directions for scoring this instrument:

1. Enter the students' names in the appropriate column.
2. Place a tally-mark in the columns next to the student's name each time the indicated characteristics are observed.

Students' Names	INDICATORS • adds details	• compares ideas and objects	• demonstrates unexpected use of dimension	• puts new twist on ideas	TOTAL	LANGUAGE ACQUISITION • number of languages spoken	• date that 3-4 word sentence use began (month/day/year)
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							

Teacher's Name: _____ **Date:** _____

School District: _____

Campus: _____ **Grade Level:** _____

approach using the key elements of materials, classroom set-up and gifted strategies. They will apply what they learn in order to look at LEP student work in a global, non-traditional way.

If the underrepresented gifted LEP students are to be identified and served, it is imperative for researchers and educators to understand that the use of non-traditional methods needs immediate attention. They must be willing to embrace non-traditional ways to identify and serve the LEP population. Many LEP students are gifted. Given the opportunity to achieve, eventually they could contribute greatly to our society. This can only happen if they are adequately identified and properly served. Educators who are concerned with providing the best educational opportunities for all must raise questions about how to find giftedness in the LEP population.

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(from GALLAGHER, page 5)

sample responses reflecting a 5 score, a 4 score, etc. were provided (Gallagher & Bray, 2000).

Another procedure, record reviews can be indicative of the intellectual efforts of these students as they try to produce a creative or well-reasoned product. So how can this quality judgment be done? We surely should be responsible for the validity of our instructional goals and for attaining our objectives linked to those goals. For many years we have produced Individual Education Programs (IEPs) for a variety of exceptional children with special needs. These IEPs were designed to generate goals and objectives together with attempts to measure how well the students met those objectives.

Such IEPs have been considered a mixed blessing in special education because of the enormous amount of time it takes to create one for each student and the endless meetings that are required about them (Gallagher & Desimone, 1995). But with more differentiated program goals for gifted students that are designed as a link to the regular curriculum, either in pull-out classes or inclusion in regular classes, then there is a possibility of developing a group education plan that would state what we expect of gifted students beyond the mastery of the normal curriculum.

Table 2 shows a sample group education plan for a group of gifted students in a middle or secondary school history class. These students could be in an honors section or as a subgroup in a larger inclusive class where this assignment could be considered a tiered assignment.

History, as it is often taught, can be a mad chronological dash through sequential events, without much time to think about the significance of the events. For those who have already mastered these historical events (perhaps determined through curriculum compacting) such an assignment as understanding the causes of World War I could be an important addition to the gifted student's understanding of history. But what evidence can we use besides our own observations to demon-

strate that the student has met the objectives of the plan? Here we can rely upon portfolios of student products and the use of rubrics or rating scales, such as shown in Table 1, to judge effectiveness.

One should not underestimate the difficulties of designing such rating scales in order that we can distinguish 'excellent' from 'good,' and 'good' 'from 'pedestrian' but this is a fundamental teacher responsibility anyway in giving grades. In program evaluation these judgments are made more visible and systematic.

We should also share with the students those dimensions upon which the judgment will be done. If 'comprehensiveness' is one such dimension, then some prior discussion with the students as to just what 'comprehensiveness' means can help the students shape their products. The first task is to take evaluation as a serious task worthy of our attention. In many circles of education, program evaluation is still seen as an obnoxious, if necessary, requirement.

Table 2. Group Education Plan

GOAL: Understand the multiple causes of World War I

OBJECTIVES

1. Students should be able to report specifics about economic, political, geographic, and social forces leading to the war.
2. Students should reveal competent search skills in identifying sources.
3. Students should be able to write convincingly about how the conflict might have been avoided, or alternatively, how the conflict was inevitable.
4. Students should speculate on whether such causes might underlie other similar conflicts.

EVIDENCE OF MEETING OBJECTIVES

1. Oral report on multiple causes of WWI (video tape) (ratings on presentation skills, comprehensiveness, accuracy).
2. Summary papery on prevention or inevitabiity (ratings on relevance, insight, comprehensivness).
3. Ability to generalize to other situations (judgment on reasonableness, linkage to other conflicts).

There seems to have been a number of myths accepted by many educators about program evaluation. Some of these are:

- **It is cheap**. (Not really. When a comprehensive program evaluation is done it is moderately expensive, yet schools rarely budget for it.)
- **It is easy, most any intelligent adult can be assigned to these tasks.** (No, a good program evaluation requires some well-trained people who know about design, instrumentation, etc.)
- **It is meaningless. No one will care about the results.** (Perhaps true at one time but no longer. Thefate of special programs may depend on the evaluation being done well.)
- **It is instructionally useless.** (Probably true of statewide tests. Definitely not true of the proposed evaluation here.)

If we can develop group education plans and the rating scales or rubrics to describe student performance, we can be in a position to demonstrate the program excellence that we have previously just talked about. Further, the products themselves, whether poetry or a report on an experiment, or a videotaped presentation, are eloquent testimony to the quality of the student's work, and of our instruction.

In short, program evaluation should play an integral role in our programs instead of being considered an extraneous duty forced upon us by some outside authority.

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(from MOON & CALLAHAN, page 7)

objectives of Texas). One such example of this type assessment for high end learners is "Analysis of Oppression." In this assessment, students are placed in an authentic role-that of an advisor to the Secretary of State-and asked to prepare a 10-minute presentation (with an accompanying paper) to advise the President, the Secretary of State, and other political advisors of events occurring in current world conflicts. The specific context is that of similarities to events leading to Hitler's rise in Nazi Germany focusing on the big idea, or concept of oppression.

The Standards Addressed by the Task

In looking at outcome standards that dictate what is taught in many states, this task has the potential to address several different standards that cut across several grade levels (upper elementary to high school) and several disciplines. The following standards directly address World War II (WWII) events, influences, and outcomes and language arts standards as they spiral in increasing complexity across grade levels from upper elementary through high school. For example, the following world history and language arts standards are embedded in the assessment:

Standard 1: Students understand the influences on the outcome of WW II. (upper elementary)

Standard 2: Students understands the human costs of WW II. (upper elementary)

Standard 3: Students understand the impact of WW II on civilian populations. (middle school)

Standard 4: Students understand the Holocaust and its impact on Jewish culture and European society. (high school)

Standard 5: Students understand the overall effect of WW II on various facts of society. (high school)

Standard 6: Students understand the rise of Nazism and how it was received by society. (high school)

Standard 7: Students will make and listen to oral presentations and reports.

Standard 8: Students write for a variety of audiences and purposes.

Other conceptual history standards for high end learners that teachers find in their curriculum guides that have connections with the outcomes listed above include:

Standard: Students will understand the role of political ideology, religion, and ethnicity in shaping modern governments.

Standard: Students will understand the role of ethnicity, cultural identity, and religious beliefs in shaping economic and political conflicts across the globe.

Standard: Students will understand the common arguments of opposition groups in various countries around the world, common solutions they offer, and the position of these ideas with regard to Western economic and strategic interests.

Essential Questions

The importance of focusing on essential questions and content is paramount given the exploding knowledge and information base. For this assessment, essential questions that students might be exploring as they prepare their presentation and policy brief include

- How does oppression affect the oppressed?
- How does power lead to oppression?
- How do Nazi German and current examples of oppression compare?
- Why do groups of people allow themselves to be

oppressed?
- How can acts of oppression lead to public policy changes?
- What do we learn from historical and current examples of oppression?

Key Generalizations

The essential questions, in turn, lead to the following key generalizations that can be supported during instructional time by using Kaplan's model of Interdisciplinary Thematic Instruction:

- The struggle for power can lead to oppression thus affecting the economic, social, and political life of the oppressed.
- The social-psychological effects of Nazi German are often visible and predictable in other current conflicts.
- Public policy changes are results of individual recommendations.

The Importance of Assessment Tasks in Today's World and Today's Classrooms

Examination of the task above should suggest to you that there is less on "knowing the facts" and far greater emphasis on discovering evidence, in interpreting events and in moving beyond isolated recall to seeing the meaning of history. And yet the students must study and understand the chronology of events in order to interpret the events and must also integrate knowledge from other disciplines (sociology, economics and political science) to succeed. If we really believe the two old adages "Those who forgot the past are condemned to repeat it" and "The more things change, the more they stay the same", one can see that tasks like the one described above are more likely to help students know and understand the past than are tasks like those on multiple choice or true-false tests that demand recall of specific dates of events. In today's world of easy access to the Internet, where dates can be found in less than a minute of time, memorization of facts is less critical than knowing how and where to locate facts and the importance of facts in supporting big ideas. It should also be apparent that such tasks still require students to do in-depth study that goes beyond the usual project of creating a costume, or diorama, or report.

Performance assessment is also a tool that teachers can use to provide the necessary framework for instruction while at the same time assessing students' understanding. That is, by having the end in mind as it will be demonstrated by the performance task, teachers can create a chronology of instructional 'events' for a given period of time that support, as well as lead up to the culminating performance assessment. Within a period of instructional time, mini activities can be used to gather information about individual students to suggest the next appropriate instructional steps that will lead to success on the task. Also by using performance assessments as the guide for instruction, teachers can address a variety of student differences. In the assessment described above, several strategies for differentiation of instruction to address student diversity could occur. Examples of differentiation might include a teacher using a variety of texts or other resources ranging from secondary accounts to primary sources can be used to support varying reading levels of students. Or teachers may allow students to select a conflict in a country of interest to study. A different form of differentiation addressing varying levels of ability might occur in the definition of the in the area that a student might study. For example, students could study concrete examples of oppression, e.g., Nazi Germany, or students could study other forms of oppression, e.g., apartheid, or even more subtle issues of oppression such as self-imposed oppression or the glass ceiling effect that certain groups face in the work force.

Designing and Using Performance Assessments

Although not a panacea or quick fix for the many educational woes teachers face, the use of performance assessment has the potential to assist teachers in addressing student academic diversity as well as making the interconnections between and among disciplines. In attempting to implement these type assessments, teachers should:

- start small and with a clear sense of the types of outcomes best measured by performance assessment,
- have a colleague to share ideas and experiences with, and
- be willing to take risks and learn from mistakes keeping in mind that the best assessments are developed over time and with repeated use.

Administrators can assist teachers in implementing per-

formance assessment by

- encouraging and supporting the incorporation of this type of assessment in their classrooms,
- by finding ways to support collaboration among teachers, and
- by constantly identifying resources (not only commercial products but also community 'products'- e.g., parents).

For more information on the assessment described in this article and others that have been developed contact the authors at the National Research Center on the Gifted and Talented at the University of Virginia.

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Standards taken from *A compendium of standards and benchmarks for K-12 education* (www.mcrel.org/standards) and Texas Education Agency Objectives and Measurement Specifications.

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(from HIATT & PHEMISTER, page 1)

the pioneer in the area of advanced level education.

In developing the legislative report, several options were considered. Adding additional questions or components to TAAS was one possibility. Creating another test for students identified as gifted was another. However, both of these options were rejected. For more than a decade, Texas has been committed to a student assessment system in gifted education that uses both quantitative and qualitative measures. If this was the method recommended for assessment, the evaluation system should mirror this approach.

A Call for Excellence, the report submitted by TEA to the 76th Legislature in 1999, included several recommendations, all of which were strongly endorsed by TAGT. The major recommendation called for by the report was the development of performance standards of student work at the fourth grade, eighth grade, and exit level (11th /12th grades). TAGT was committed to the concept that students should not be given a more difficult or longer version of TAAS-like test. While TAAS serves its purpose, the association wanted students to be able to demonstrate that the services they had been provided offered them the opportunity to work at advanced levels and led to the development of sophisticated products. TAGT-led efforts resulted in a legislatively funded project to develop an assessment system that included performance standards for student products and performances at the exit-level in the four foundation areas of the curriculum: language arts, social studies, science, and mathematics. These standards were to be piloted in districts by August 31, 2000.

For the past year, high school teachers and coordinators of services for gifted students have been working on the development of pilot standards. These talented and committed educators represented the four foundation curricular areas and created criteria that could be used to assess student work. Their efforts were coordinated by chairs Karen Phillips from Round Rock (Language Arts), Judy Bridges from Ector County (Mathematics), Suzy Hagar from Carrollton-Farmer's Branch (Social Studies), and B. K. Dean from Region 18 in Midland (Science). The committees used the State Goal for Services for Gifted Students that is included in *The Texas State Plan for the Education of*

Gifted Students as the basis for its work. That goal states:

> Students who participate in services designed for gifted students will demonstrate skills in self-directed learning, thinking, research, and communication as evidenced by the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experience, or environment. High school graduates who have participated in services for gifted students will have produced products and performance of professional quality as part of their program services.

Over the course of their meetings, committee members came to consensus over what critical components were essential to sophisticated student work. The standards established are exceptionally high; they will not be appropriate for all students. However, committee members believed that gifted students who were provided with the appropriate instruction and services during their school career could develop products of the caliber indicated by the standards.

Performance standards were only one part of the assessment system that was required by the legislative rider. The committee also created an administrative guide to complement the standards and to provide uniformity in procedures used in various districts throughout the state. These procedures are designed to properly implement the performance standards and to give students a fair opportunity to demonstrate their areas of strength. In August, a technical advisory committee, composed of state and national assessment experts, will review the performance standards and procedures and make additional recommendations and modifications prior to the actual pilot.

Earlier in the year, districts throughout the state were invited to participate in the pilot and currently 14 districts will be involved in the project during the 2000-2001 school year. Professional development will be provided to participating teachers in the fall and students will be asked to develop projects and performances based on the standards during the fall and spring semesters. Recommendations on the use of the performance standards will be submitted only after careful review of the pilot results.

The creation of this exciting project is a good example of what can be accomplished when state agencies and associations work collaboratively to enhance student services. Hopefully, the standards will provide an opportunity for young scholars to use their considerable talents to produce sophisticated, professional quality products. This new assessment system is a vast undertaking for a state the size of Texas and many issues must be resolved before the performance standards would be ready for statewide dissemination. However, as in so many areas, TAGT, TEA, Texas educators, and the state's talented students will not shy away from the challenge. More information on the project will be available both at the TAGT annual conference in December and through regular updates on the TEA webpage.

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What the Research Says About Accountability and Program Evaluation

Susan K. Johnsen

Accountability requires reporting, explaining or justifying to some audience what is occurring and/or what was accomplished. Evaluation is closely linked to accountability. Its major focus is judging the worth or merit of something. It may include the identification of defensible standards for judging quality, the collection of relevant information, and the application of the standards to determine the value, quality, usefulness, effectiveness or significance of the program. Therefore, school districts have an opportunity to use program evaluation not only as a means for explaining or justifying the presence of a gifted program (i. e., accountability) but also improving its overall quality. This review, therefore, addresses program evaluation since it is so closely related to accountability. Articles published in *Gifted Child Quarterly, Journal for the Education of the Gifted,* and *Roeper Review* during the past ten years were examined. To be included, the article needed to focus on program evaluation methods such as the creation of standards, the description of a design or model, application of the results, or recommendations. It did not include any studies that examined only administrative arrangements such as grouping instead of program quality. Using these criteria, only 27 articles were discovered. Of these, 15 (55.5%) actually reported results from evaluations of programs. And of these 15, the same author generated 5 of them. The literature on evaluation is indeed limited. As Tomlinson and Callahan (1994) remark, "Educational accountability is a popular topic in political circles, but in practice effective evaluation of school programs is sporadic at best" (p. 46).

The overall purpose for the majority of these program evaluations was improvement of either the program or the curriculum. In improving the program, researchers examined key program areas, the relationship of the program to its mission, the differences between gifted and regular classrooms, the degree to which the program was being implemented, and its effects on students and their families. Some evaluators identified very specific goals—the cognitive complexity of teacher-student interaction among gifted models (Friedman & Lee, 1996) and noted improvements in problem solving or literary analysis using instruments that were especially aligned with the program (Maker, Roger, Nielson, & Bauerle, 1996; VanTassel-Baska, Johnson, & Boyce, 1996). Purcell (1993) even examined the effects on gifted students when their program is eliminated.

One of the frequently cited problems in evaluating gifted programs is the creation of a standard that will actually measure improvements in gifted students' performance. Since gifted students possess many of the cognitive qualities of expert performers, Baker and her colleagues (1996) suggest that the performance of high-performing students be used as criteria for assessments. Similarly, Wiggins (1996) believes that these high levels of performance may serve as "anchors" in establishing scoring scales. Unfortunately, performance-based assessment has a limited research base and may not be useful for high-stakes assessment (Baker, O'Neil, Jr., & Linn, 1994). The authors who actually conducted program evaluations used a variety of standards: national curriculum standards, higher level questions, accelerated content, problem-centered curriculum, the transfer of thinking strategies to other classrooms, the development of independent learning, improved self-concept, enhanced motivation, interactions with gifted peers, and attitudes toward learning. Coleman (1995) suggests that it is important to study the social context of gifted programs, particularly from the insider's viewpoint. Evaluators may want to use new types of indicators

that look for changes in students' sense of who they are, of finding peers and adults who get as excited as they do about abstract and ethical topics, and of being a minority of one and still surviving.

To gather information related to the purposes and standards, all of the researchers used or recommended multiple techniques, a variety of formats and sources. The majority of the evaluators used observations, interviews, documents, and surveys or questionnaires. A few used focus groups, videotapes, and standardized tests. These data were collected from gifted students, parents, teachers, principals and other administrators in both gifted and regular classrooms. For example, in evaluating the implementation of curriculum, Van Tassel-Baska, Avery, Little, and Hughes (2000) used individual interviews with the gifted program coordinator or principal, reviewed written documents and videotapes; made classroom observations, and held focus group meetings with administrators, teachers, parents, and students. On the other hand, Ferrell (1992) primarily analyzed lesson plans to determine the degree to which a differentiated program was being implemented in the regular classroom.

These common themes emerged from the researchers' recommendations to practitioners and evaluators:

1. Select a trained evaluator.
2. Define clearly program outcomes and degrees of implementation.
3. Use evaluation for not only examining the program's effectiveness but also for improving it.
4. Use contrast groups in designing an evaluation.
5. Use multiple data gathering methods, formats, and techniques.
6. Select quality instruments.
7. Allow diverse opinions to emerge.
8. Collect data over time.
9. Frame recommendations so administrators have flexibility in implementing them.
10. Provide the necessary time needed for evaluation among administrators and faculty.

While evaluation is generally not at the top of most administrators' list of priorities, it is frequently important to the survival of a program for gifted students. As VanTassel-Baska, Avery, Little, and Hughes (2000) emphasize, "No matter how popular an innovation is with key stakeholders, we believe that the demand for accountability can potentially override long-term success" (p. 267).

Avery, L. D., Van Tassel-Baska, J., & O'Neill, B. (1997). Making evaluation work: One school district's experience. *Gifted Child Quarterly, 41*, 124-132. This evaluation incorporated three components: collecting data for program improvement; identifying key program areas; and increasing utility by formulating action plans within the recommendations. The design included (a) observations of gifted and regular classrooms; interviews with building principals and other key administrators, teachers of the gifted, and parent groups; (c) educator and parent surveys focusing on priorities for re-definition and expansion of the program, and (d) student, teacher, and parent questionnaires. The researchers found little difference between the gifted and regular classrooms; although more accelerated content and problem- centered curriculum was used in the gifted program. Both teachers and students perceived the gifted program as affecting students' ability to think about complex ideas, to listen to others, to problem solve, and to be more creative. All but one of the recommendations were incorporated into the district's plan of action. The authors conclude by making recommendations for other evaluators: (a) link the evaluation to a practical, not an ideal level; (b) allow diverse opinions to emerge in the evaluation process; (c) frame recommendations so that administrators have flexibility in their implementation.

Baker, E. L., O'Neil, Jr., & Linn, R. L. (1994). Policy and validity prospects for performance-based assessment. *Journal for the Education of the Gifted, 17*, 332-353. This article describes the characteristics and purposes of performance-based assessments. One of the identified purposes is accountability. Although interest in performance-based assessment is high, these authors suggest that their technical quality is still too low to use in high-stakes as-

sessment. Difficulty arises from the lack of standardization in their administration, limited content sampling, extended time, and expense. They conclude that a better research base is needed to evaluate the degree to which these assessments measure higher order thinking skills and deep understanding.

Baker, E. L., & Schacter, J. (1996). Expert benchmarks for student academic performance: The case for gifted children. *Gifted Child Quarterly, 40*, 61-65. These authors discuss the problems of using "expert-based criteria" for younger students. They suggest that the performance of high- performing students be used as criteria for assessments. The believe that gifted students possess many of the cognitive qualities of expert performers such as self-monitoring, a large knowledge structure, strategy selection, and process evaluation. "The performance of gifted students would be used as a source of benchmarks and then studied in order to infer scoring criteria" (p. 63). The authors conclude by citing weaknesses in this approach.

Carter, K. R. (1992). A model for evaluating programs for the gifted under non-experimental conditions. Journal for the Education of the Gifted, 15, 266-283. The author describes an evaluation model for assessing programs for the gifted under non-experimental conditions. The model uses ex post facto designs that include intact groups, comparative evaluation, examines the strength of relationships, identifies the degree of implementation, and requires multiple assessment measures, flexible data sources, and regression analysis. The author concludes his article by providing an example.

Coleman, L. (1995). The power of specialized educational environments in the development of giftedness: The need for research on social context. *Gifted Child Quarterly, 39*, 171-176. The author argues that the special environment of gifted programs offers "something" that gifted children "crave" and should be studied. Evidence for the effectiveness of specialized environments should be gathered from objective outside measures and from persons inside the program. In addition, while cognitive outcomes such as standardized tests and rating scales provide information, insider indicators of quality should also be considered. These indicators may include a change in the students' sense of who they are, of what they might be capable of doing, of being able to associate with strangers and be successful, of being liked by others whom they see as significant, of expressing themselves and still be accepted, of finding peers and adults who get as excited as they do about abstract and ethical topics, and of being a minority of one and still surviving. Some factors in the social context that may be studied are company and competition, personal attention, time, content, and program objectives.

Ferrell, B. G. (1992). Lesson plan analysis as a program evaluation tool. *Gifted Child Quarterly, 36*, 23-26. This study examined evaluating the degree to which a program is being implemented. Along with other data sources, a Lesson Plan Evaluation Form was used to review 18 lesson plans 6 from each of 3 general education teachers. Teachers were asked to highlight the areas of the lesson plan that were designed for gifted students. Each of the lesson plans were assigned a number and separately rated by two evaluators who conducted the program evaluation. The lesson plans showed continuity, substantive learning, and the use of principles of learning in classroom activities. The authors conclude that the lesson plan may be used to indicate the minimum degree to which a program is being implemented.

Friedman, R. C., Lee, S. W. (1996). Differentiating instruction for high-achieving/gifted children in regular classrooms: A field test of three gifted-education models. *Journal for the Education of the Gifted, 19*, 405-436. This study compared the effects of three models on the cognitive complexity of teacher-student interactions. They found that the Cognitive-Affective interaction Model demonstrated the best results when compared to the Enrichment Triad Model and the Multiple Talent Model. They also found a strong relationship between higher order thinking teacher queries and higher order thinking student queries.

Hertzog, N. B. & Fowler, S. A. (1999). Perspectives: Evaluating an early childhood gifted education program. *Roeper Review, 21*, 222-227. This article describes the evaluation process used in evaluating an early childhood gifted education program. Using the Responsive Evaluation Model by Robert Stake, a plan was developed that illuminated stakeholders and decision-maker issues. A matrix was developed and included six groups (i.e., students, parents, teachers, administrators, university personnel, and university students), questions and issues, and sources of data. Using the matrix, four domains for evaluation emerged: cost-effectiveness of the program, congruity with the mission of the university, educational outcomes and benefits for students, and validity of program format. External evaluators (an early childhood evaluator and a gifted education evaluator) observed in classroom, talked with the teachers and support staff, met with administrators, and met with a focus group of parents. While specific recommendations varied, both evaluators focused on making changes in the screening process, changes in the curriculum, prioritizing professional development and strengthening the ties between the University and the program. The authors describe the impact of the evaluation which included specific changes in the screening process, the curriculum, parent education, research, staff retention and development, and ties to the university.

House, E. R., & Lapan, S. (1994). Evaluation of programs for disadvantaged gifted students. *Journal for the Education of the Gifted, 17*, 441-466. This article describes the most effective methodologies for evaluating programs for students who are economically disadvantaged, limited English proficient, and handicapped. These methodologies include testing surveys, developing special indicators, quasi-experiments, and qualitative studies. They make these recommendations for evaluating programs: more authentic assessment, more multiple indicator use, more qualitative studies, combining quantitative and qualitative, focusing on program definition, more longitudinal studies, more cost analyses, higher expectations, more sensitivity to culturally different students, and more balance between summative and formative evaluation. They conclude with providing sample questions for an evaluation.

Hunsaker, S. L., & Callahan, C. M. (1993). Evaluation of gifted programs: Current practices. *Journal for the Education of the Gifted, 16*, 190-200. This article summarized 70 evaluation reports/results made available to the NRC G/T. The majority of the evaluations were summative, addressing concerns raised by administrators, with information gained through questionnaires only. The information was primarily disseminated through simple data tables with limited focus on program outcomes. Some promising evaluations focused on formative evaluation that attempted to improve the program, used multiple data-gathering methodologies, multiple data analysis techniques, and reported through multiple formats.

Johnsen, S. K., & Ryser, G. R. (1996). An overview of effective practices with gifted students in general education settings. *Journal for the Education of the Gifted, 19*, 379-404. This article summarizes the literature that addresses effective classroom practices with gifted students in the general education classroom. Of the 675 citations in journals, only 39, or 5%, were databased. Almost half of these studies related to the effectiveness of specific instructional strategies such as problem finding, problem solving and transfer strategies. Few examined the effects of instructional practices on both gifted and nongifted samples in general education classrooms. The authors conclude by making four recommendations for program evaluators: identify program outcomes; identify the important attributes of program components and of instructional practices; determine the degree to which the program or practice is implemented; and select quality instruments.

Johnson, D. T., Boyce, L. N., & Van Tassel-Baska, J. (1995). Science curriculum review: Evaluating materials for high-ability learners. *Gifted Child Quarterly, 39*, 36-43. This National Science Curriculum Project for High-Ability Learners is intended to

specify appropriate science standards for high ability learners. Existing science materials were assessed using national science standards and needs of high ability learners. In addition, a curriculum framework was designed along with curriculum units. The authors found that many of the curricula lacked clear program goals, limited evidence of the effectiveness of the curricula, and offer some form of teacher training. The authors provide the assessment criteria used in evaluating the curriculum. They conclude that a "one size fits all" curricula must be balanced with training and support for teachers who must implement it with gifted learners.

Maker, C. J., Roger, J. A., Nielson, A. B., & Bauerle, P. R. (1996). Multiple intelligences, problem solving, and diversity in the general classroom. ***Journal for the Education of the Gifted, 19*****, 437-460.** Two teachers' classrooms were used to compare the teacher's level of implementation of the DISCOVER approach on problem solving behaviors. They found that a significant relationship existed between the level of implementation and positive changes in student problem on math activities and mean math performance on PABLO®.

Moon, S. M. (1995). The effects of an enrichment program on the families of participants: A multiple-case study. ***Gifted Child Quarterly, 39*****, 198-208.** Ten families of high school seniors who had participated in the Purdue Three Stage Model program for at least three years in elementary school participated in this study. The researcher interviewed each of the families regarding the various effects of the program. Moon also used supplementary data sources including student identification information, progress reports, special accomplishments, previously completed questionnaires, and future plans. She discovered four general categories of effects: the family shared many of the enrichment program activities; the structure (communication, perceptions, relationships) of the family changed; linked the family to the school; and reinforced existing talents.

Moon, S. M. (1996). Using the Purdue three-stage model to facilitate local program evaluation. ***Gifted Child Quarterly, 40*****, 121-128.** The author describes the Purdue Model and its use as a framework for evaluation. Moon provides an example of how the Purdue Model was used to evaluate a staff development program whose topic was the design of Self-Evaluations. The inservice training incorporated a needs assessment; goals; opportunities for interaction among participants; a trained consultant; differentiated instruction; and formative and summative evaluation. The goals helped participating coordinators (a) improve their evaluation knowledge and skills; (b) plan systematic, longitudinal, self evaluations of the short- and long-term effects of their gifted programs on cognitive, affective, and social students outcomes; (c) systematize the collection and storage of relevant student data; and (d) design and implement a micro-evaluation of one component of their gifted program. The author reported that the training helped the coordinators improve their program evaluation skills; however, only three districts completed their micro-evaluation plans. Eight districts partially completed their plans; two, revised their plans; and four made no progress. Moon concludes that program administrators have limited resources and may need to collaborate with universities in planning and implementing evaluations.

Moon, S. M., Feldhusen, J. F., & Dillon, D. R. (1994). Long-term effects of an enrichment program based on the Purdue three-stage model. ***Gifted Child Quarterly, 38*****, 38-48.** This study examined the effectiveness of an elementary program for gifted students by surveying and interviewing high school students and who had participated in the enrichment program. The authors also surveyed all of the parents and conducted in-depth interviews with 10 families. The participants and their parents reported the program's positive effects as including the development of basic thinking abilities, transferring thinking strategies to secondary classrooms, the development of independent learning, the improvement of self-concept, enhancing motivation, and interacting with gifted peers. Negative effects included the missed instruction while in the pull-out program, an increas-

ing boredom with the regular curriculum, and some jealousy from students who were not in the program.

Olenchak, F. R. (1990). School change through gifted education: Effects on elementary students' attitudes toward learning. ***Journal for the Education of the Gifted, 13*****, 66-78.** This study examined the effectiveness of the Schoolwide Enrichment Model (SEM) on middle school student attitudes toward learning. Using the Arlin Hills Attitude Survey Toward School Learning Process, the author found improved student attitudes for students enrolled in the SEM. When comparing pre and post student interviews, the author reported that students reported greater amount of teacher-supported school time to pursue self-selected interest-based studies and that the general population felt they had some involvement with the gifted program.

Purcell, J. H. (1993). The effects of the elimination of gifted and talented programs on participating students and their parents. ***Gifted Child Quarterly, 37*****, 177-187.** After a gifted program was eliminated, the author conducted phone interviews with 19 parents of students who had been identified and served. She also surveyed nonrespondents to the requests for interviews, reviewed documents that related to the elimination process, viewed videotapes of board meetings, and conducted interviews with teachers. The author found that students motivation declined, disengaged from the traditional curriculum, and were becoming underachievers.

Ryser, G. R., & Johnsen, S. K. (1996). Toward more research on effective practices with gifted students in general-education settings. ***Journal for the Education of the Gifted, 19*****, 481-496.** This article suggests some criteria for defining worthwhile effects: examining its contribution to the program or the field of gifted education, matching the student effect with the desired practices, and examining the short and long-term effects of the practice. They make three recommendations for future research: establishing the important critical attributes of the effective practices, including ways to determine if the practices is actually implemented, and developing and using technically adequate measurement instruments and procedures to gather data.

Shore, B. M., & Delcourt, M. A. (1996). Effective curricular and program practices in gifted education and the interface with general education. ***Journal for the Education of the Gifted, 20,*** **138-154**. This article describes the results of a review of recommended practices in gifted education. The authors identify 5 practices that are uniquely appropriate to gifted education and receive strong research support: acceleration; career education, especially for girls; ability grouping; high-level curricular materials; and program arrangements such as pull-out, separate class, special school programs, and cluster grouping in mathematics. The authors identify 8 practices that need further research to confirm that they are uniquely appropriate for gifted students. They identify 13 practices effective with gifted students but generally applicable to all students such as enrichment, creative abilities, problem solving, individual programming, mentor or apprenticeship programs. They identify 13 practices that have insufficient evidence to make a case for their uniqueness for gifted students such as multidisciplinary curriculum, thinking skills, in-depth investigation of subject matter. They conclude that solid evidence exists to support a core of practices that appears to enhance the affective and cognitive growth of very able children and another group of practices that they can share with general education.

Silky, W., & Readling, J. (1992). REDSIL: A fourth generation evaluation model for gifted education programs. ***Roeper Review, 15*****, 67-69.** "Fourth generation evaluations" are qualitative inquiry with the main data source being the natural setting. The evaluator attempts to describe the setting. As data are collected, they are analyzed inductively and shared with the stakeholders. The evaluator's primary concern is how the program may be impacted by the evaluation. The authors conclude by providing an example of the model. They conclude that REDSIL is a highly labor intensive model but is useful for program enhancement.

Tomlinson, C., Bland, L., & Moon, T. (1993). Evaluation utilization: A review of the literature with implications for gifted education. ***Journal for the Education of the Gifted, 16,*** **171-189.** These authors discuss the limited use of evaluation findings. First, they suggest that evaluating programs for gifted is challenging because of vague goals, difficult constructs to measure such as creativity, and low ceilings on specific measures. With these challenges, evaluations tend to rely on attitude surveys that may not be reliable, valid, or related to program content. They recommend quasi-experimental designs that use contrast groups or GT students as their own controls, trained evaluators, technically sound test instruments, adequate program structures and goals, clear program description, involving important stake holders, focusing on program improvement, multiple sources of data.

Tomlinson, C. A., & Callahan, C. M. (1994). Planning effective evaluations for programs for the gifted. ***Roeper Review, 17,*** **46-51.** The authors discuss four stages in conducting an effective evaluation of programs for the gifted: preparing for the evaluation, designing data collection and analysis, conducting the evaluation, and reporting findings and follow-up. They provide a checklist for each of these stages with specific questions that are intended to facilitate the evaluation. For example, they suggest specific sources of "process" data such as attendance records, communications, observation data, teacher and/or student journals, lesson plans, observer checklists, interviews, surveys, and committee reports.

Van Tassel-Baska, J., Avery, L. D., Little, C., & Hughes, C. (2000). An evaluation of the implementation of curriculum innovation: The impact of the William and Mary units on schools. ***Journal for the Education of the Gifted, 23,*** **244-272.** This study investigated how curricular and instructional change impacts learning. The sample included schools that had adopted the William and Mary curriculum units, received staff development, and used them in classrooms over a three-year period. The authors used four sources of data: individual interviews with the gifted program coordinator or principal, review of written documents and videotapes; classroom observations, and focus group meetings with administrators, teachers, parents, and students. They found that the stakeholders were positive about the implementation of the William and Mary units; that teachers, parents, administrators, and students believed that the units were benefiting the students; that teachers noted increased competence in their abilities to teach; and that teachers were becoming more facilitators rather than lecturers. While the stakeholders identified many unit strengths, they noted that teachers may not have had the needed time to learn how to implement more hands-on and action oriented science units. Indeed, the observers noted that there was unevenness in the implementation of the units. In one school district, they found that the teachers had the greatest role in effecting other teachers' use of the units. However, the authors were concerned that the student assessment component of the curriculum was not used. ""empirical assessment process was virtually absent at all levels of discussion, and no evaluation reports tied to student learning were produced at the time of the study" (p. 266).

Van Tassel-Baska, J., Bass, G., Ries, R., Poland, D., & Avery, L. D. (1998). A national study of science curriculum effectiveness with high ability students. ***Gifted Child Quarterly, 42,*** **200-211.** This study examined the effects of a William and Mary Unit "Acid, Acid Everywhere." The curriculum uses the national science standards and stresses advanced content, high level process and products, and a concept dimension. The authors found that students who used the units made small, but significant gains on the Diet Cola Test when compared to students who did not use the units. The teachers cited that the hands-on, problem-based and student-centered aspects of the units supported their teaching.

Van Tassel-Baska, J., Johnson, C. E., & Boyce, L. N. (1996). A study of language arts curriculum effectiveness with gifted learners. ***Journal for the Education of the Gifted, 19,*** **461-480.** The authors

examined the effectiveness of language arts curriculum on high ability learners in various grouping contexts. The sample was gifted students in grades four through six. The instrument was a performance-based reading assessment that was developed by study researchers and modeled on the NAEP assessment in reading. They found significant growth gains in literary analysis, persuasive writing, and linguistic competency in seven experimental classes using the curriculum.

Wiggins, G. (1996). Anchoring assessment with exemplars: Why students and teachers need models. *Gifted Child Quarterly, 40*, 66-69. Grant Wiggins discusses the use of an "anchor" in establishing scoring scales. These anchors are samples of work that set standards at the highest level of performance. While critics suggest that such standards will depress some students, inhibit creative talent, and create wide gaps, Wiggins believes that a "standard is a standard whether or not anyone in the school can meet it" (p. 67). Such standards help performers improve, raises expectations, and provide a means for feedback.

Susan Johnsen is Associate Dean of Scholarship and Professional Development 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 a past President of the Texas Association for the Gifted and Talented*

TEXAS ASSOCIATION FOR THE GIFTED AND TALENTED

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 SERVICES TO MEET THESE NEEDS.

TAGT EXECUTIVE BOARD LONG RANGE GOALS

- Advocate appropriate services and accountability standards for all gifted and talented students.
- Provide current information and research about gifted and talented learners and the field of gifted education to the TAGT membership and general public.
- Develop an effective advocacy network.
- Increase and diversify membership.
- Develop strategic alliances with the Texas Education Agency, Education Service Centers, higher education, and others.
- Support quality professional development for educators of gifted and talented students

Adopted by the TAGT Executive Board: 2.5.00

Q&A ANSWERS TO YOUR QUESTIONS

Donna Corley

Question: Does the state of Texas require evaluations of programming for gifted in public school districts?
Answer: Chapter 89. Adaptations for Special Populations, Subchapter A. Gifted and Talented Education, Section 89.5. Program Accountability states, "School districts shall ensure that student assessment and services for gifted/talented students comply with accountability standards defined in the *Texas Plan for the Education of the Education of the Gifted/Talented Students*." All districts are subject to a District Effectiveness and Compliance (DEC) team visit lead by the Accountability and Accreditation Department of TEA.

Question: Our district just went through a DEC visit that included gifted programming. How often does this occur?
Answer: If there are no indicators that might alert the state to concerns that would require frequent visits, typically you should expect a DEC review once in a five to seven year cycle.

Question: We just found out that our district is scheduled for a DEC visit this year. Would you please suggest some things that we can do to prepare for this visit?
Answer: There are several things that you can do to prepare for a DEC visit. If not already in use in your program in areas of planning, implementation, and self-evaluations, secure a copy of the District Effectiveness and Compliance Reference Guide found at http://www.tea.state.tx.us/gted/gtdec.htm. This document will prove to be invaluable to you in your planning for the visit. It is organized into 20 components. Under each component you will find sources of documentation and evidence that might need to be gathered. Check with your Region Education Service Center. Many of them offer a consultation and walk-through visit. Using the above mentioned reference guide in your program planning, implementation, and district evaluations will help ensure that your district's GT program is in compliance before, during, and after DEC visits.

Question: I noticed that the *Texas State Plan for the Education of Gifted/Talented Students* is organized around three columns that read Acceptable, Recognized, and Exemplary. What does that mean?
Answer: Those columns identify what an entire district (K-12) or a K-12 vertical team within the district can do so that their services for gifted and talented students are in compliance with the law (acceptable) or enhanced as reflected in the criteria listed under acceptable and the recognized category or exemplary by doing all that is suggested in all threeof the categories.

Question: How can the gifted program in my school apply for recognized status?
Answer: You need the Quality of G/T Services Program Review Application. You will find the application process explained and the forms that you need at http://www.tea.state.tx.us/gted/stplan/. Your school may not apply for recognized status as an isolated campus. You must be part of the entire district that is applying or a vertical team (K-12) within a district. That vertical team may come within a feeder system but does not have to include every campus within that feeder system. In other words, you must include one school from each level across the span of K-12 representing a district or feeder

system in order to apply for recognized or exemplary status. The Self-Assessment Guide that is provided helps guides you as what to look for and suggests evidence to gather for support.

Question: Who ultimately decides the recognized or exemplary status?
Answer: The Commissioner's Advisory Council will review the application and make a recommendation to the Commissioner.

Question: What kinds of evaluations should occur within a district's gifted programming?
Answer: Overall formative and summative evaluations at the campus and the district level should be made along the lines defined in the state law and Texas State Plan for the Education of Gifted/Talented Students. One district committee and/or specific area committees need to monitor and develop plans in the areas of Student Assessment, Program Design, Curriculum and Instruction, Professional Development, and Family and Community Involvement.

Question: Is anything being done about accountability standards for GT programming in Texas schools?
Answer: In 1999, TEA submitted "A Call to Excellence" to the Texas Legislature. The legislature has asked Advanced Academics Services Division of TEA to develop an assessment system and statewide standards for gifted and talented students across the grades levels in the four core academic areas. The project is beginning with exit level performance standards which means they will be working first at the high school level. A technical advisory committee has completed work on identifying tasks to measure objectives and student performance in the four core content areas that will pilot in the 2000-2001 school year. Pilot schools have been selected from a pool of volunteers. During the summer and fall of 2000, the teachers serving in this pilot will be trained in the performance standards with the pilot beginning this 2000-2001 school year.

Question: I have a copy of the District Effectiveness and Compliance (DEC) Reference Guide that is dated 1998-1999. Is there a newer version? Have any changes been made?
Answer: Yes, there is a newer version that is dated 2000-2001. The changes occur in GT 11, GT 14, GT 16, and GT 20. In GT 11(The array of learning opportunities in Grades 1-12 emphasizes content in the four core academic areas and is commensurate with the abilities of gifted/talented students.), the term "experimental" becomes "innovative" in reference to courses offered at the secondary level. It is noted under this component that extracurricular activities alone such as UIL are not enough to meet the expectation of an array of services. and extracurricular activities are NOT enough to meet this indicator. GT 14 (A continuum of learning experiences is provided that leads to the development of advanced-level products and/or performances), states that evidence must be present that vertical teaming occurs and that teachers are working together with an aligned curriculum that allows for skill development that leads to professional products. GT 16 (Professional development) refers to the new requirement that GT teachers must have the necessary training completed prior to the assignment or within one semester. GT 20 (Program evaluation and improvement plans) now states that evaluation of at least one different feature of the GT program must be done annually with evidence that this evaluation has caused modification to campus and district plans.

Donna J. Corley, Ph.D., coordinates gifted programs for Conroe Independent School District. She is also a member of the TAGT Executive Board. Submit questions relating to gifted education directly to Donna Corley, 702 N. Thompson, Conroe, TX 77301, or by e-mail: dcorley @conroe.isd.tenet.edu

BOOK REVIEWS

***Gifted Books, Gifted Readers: Literature Activities to Excite Young Minds.* by Nancy J. Polette. Englewood, CO: Libraries Unlimited. 2000.**

Nancy Polette has once again created an invaluable resource for teachers. *Gifted Books, Gifted Readers* is an annotated booklist combined with the sort of creative activities for which Dr. Polette is so well known.

The book is divided by genre, beginning with Picture Books for Gifted Programs. The books in this chapter are grouped according to particular needs of gifted children including the need to belong; to achieve and feel self-esteem; the need for beauty, order and harmony; the need for laughter, nonsense, and expanded vocabulary, among others. Also included are units built around particular concepts such as rocks, robots, and Africa. Other chapters include Fairy Tales and Fantasy, Classics and Poetry, Exploring Diversity, Learning from the Past, and Heroines and Heroes.

In each chapter, a short summary of the book is followed by a variety of activities. The activities are varied, with a wealth of options including vocabulary, group work, open-ended projects, sentence starters ("Treating others with respect means. . ."), and a number of poetry models.

The Classics and Poetry chapter also has background information on selected authors. For several books, there are extension activities that relate a topic from the story to other disciplines. For example, the novel *Heidi*, with its setting in the Alps, has an activity for students to investigate other mountain ranges. This chapter also has a section introducing Shakespeare and a thematic unit on ocean voyages with connections to classic and contemporary literature.

Chapter 5, Exploring Diversity, has sections for Native American, African American, Hispanic, and Asian Americans with picture books, folktales, novels, and nonfiction works. Historical fiction, in chapter 6, is represented primarily with books on the middle ages and U.S. history. The final chapter on heroines and heroes lists outstanding picture books and novels featuring both real people and fictional characters.

Classroom teachers and librarians will find the books listed and the activities useful in themselves and as models for the type of activities to be used with other titles. Parents will find this book a useful guide to excellent literature for their gifted children.

***You Know Your Child is Gifted When. . . A Beginner's Guide to Life on the Bright Side.* by Judy Galbraith. Minneapolis: Free Spirit Publishing. 2000**

Quality books for parents of gifted children are always welcome and this new title by Judy Galbraith is particularly useful. In simple, easy to understand language, she presents the basic characteristics of gifted children and ideas that parent and teachers will find immediately useful. Ken Vinton's illustrations are an excellent complement to the text.

The book is arranged by characteristics of gifted children: Advanced Intellectual Ability; Verbal Proficiency; Curiosity; Creativity; High Energy; Focus, Passion, Intensity; Logical Thinking Sensitivity; and Sense of Humor.

Each chapter has a bulleted list of descriptors explaining the designated characteristic, paragraphs titled "Good Things," "Not So Good Things," "Ways to to Help your ----- child," and then a discussion of one or more questions about gifted children. Other features include Myth and Fact boxes and highlighted sections about actual children. The book concludes with ideas for effective advocacy techniques, warning signs that your child's needs are being ignored, tips for talking to teachers, and a list of parental rights. A list of books, ogranizations, and websites is also included.

This book will be a helpful source of information for parent education meetings and teacher training.

G/T Standards Project: Passport to the Future

Michael Cannon

It started with a vague feeling of discomfort, followed by a nameless dread, and then an overwhelming feeling that I didn't have a clue what was going on. Cold sweat, confusion, and a desire to run and run and run and never look back.

A visit to the dentist for a root canal? The first day of the school year? No, the beginning of the G/T Standards Project. And if the task of developing standards was not daunting enough, there were the other members of the committee. As I looked around the room, I realized that I was in the middle of an exceptional group of brilliant and articulate educators. I felt like a stray mutt at the Westminster Dog Show.

If you have ever worked on a "messy" project, you know what I mean. You may have even seen the poster, Six Stages of a Project:

- Enthusiasm
- Disillusionment
- Panic
- Search for the Guilty
- Punishment of the Innocent
- Praise and Honors for Non-Participants

The messy part of the project was not due to a lack of direction or planning. Evelyn Hiatt from the Division of Advanced Academic Services at the Texas Education Agency and Dr. Susan Barnes and her staff from Region XIII ESC provided excellent leadership and support. The lack of initial focus is inherent in the process of developing something for which there are literally no models. We couldn't look to other states for ways to assess the products and performances of gifted individuals. We were on our own, with excellent guides, but essentially in uncharted territory.

Our guiding documents were the legislation (Rider 69), the goal from the *Texas State Plan for the Education of Gifted Students,* especially the last sentence,

> "High school graduates who have participated in services for gifted students will have produced products and performance of professional quality as part of their program services;"

and also from the state plan, the overarching statement for section 3, Curriculum, "Curriculum and instruction meet the needs of gifted students by modifying the depth, complexity, and pacing of the general school program." During the course of the project, we would come back to these texts again and again to maintain our focus.

The committee had to wrestle with a series of questions that were deceptively simple-sounding, but were in fact maddeningly complex.

- What are standards?
- How do content standards differ from process standards?
- How should the standards be established?
- What is "professional quality"?
- How can standards be developed that will be appropriate across all content areas?
- How can levels of excellence be differentiated?
- How can consistency be established in the use of the scoring guide?
- How can a level playing field be assured from district to district?

Were these questions conclusively answered? Not entirely, but there is now a plan, a set of standards, a scoring rubric, and administrative guidelines. There will almost certainly be changes and adjustments after the pilot, but in spite of my initial misgivings, this is an incredible beginning.

This just may be the passport to the future of gifted education in Texas.

Spring 2001

Where Are They?
Other Possibilities for Gifted Learners

After elementary school, gifted programming often changes dramatically, in content and structure. What type of programs exist for gifted students in middle and high school and at the university level? Where are the gifted adults? Articles may address the topic in different ways, including descriptions of programs, speculation on models, or portrayals of student experiences.

The deadline for submission of articles is **December 1, 2000.**

Summer 2001

Early Childhood:
Gifted Children in Primary Grades

There are specific issues in identification and programming for the youngest gifted students. Articles are requested that address these issues, as well as related topics. Original research, theoretical responses, descriptions of successful programs, and experiences of gifted individuals are other possibilities.

The deadline for submission of articles is **March 1, 2001.**

Guidelines for Article Submissions

***Tempo* welcomes manuscripts from educators, parents, and other advocates of gifted education.**
***Tempo* is a juried publication and manuscripts are evaluated by 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. Attach a100—150 word abstract of the article.
5. 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

Texas Association for the Gifted and Talented Membership Application

Member Name(s)_____Telephone:(H)_____(W)_____
Mailing Address_____City_____State_____Zip_____
School District & Campus Name/Business Affiliation_____ESC Region_____
Email address:_____

PLEASE CHECK ONE: ❑ Teacher ❑ Administrator ❑ Parent ❑ School Board Member ❑ Other_____

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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.*

In addition to your regular Membership, you are invited to join a TAGT Division for an *additional* fee.
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