NRC/GT Destination: Around the Corner

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It seems like a few months ago, rather than years ago, that I penned an article for the *NRC/GT Newsletter* entitled "NRC/GT Destination: So Near and So Far." We have accomplished so much since the fall of 1992 that it always amazes us. The level of productivity and the ability to get the word out about the emerging research results have been remarkable feats. We could only accomplish this by the cooperation of many of you in our network. There have been so many times when we have provided you with documents that you have reproduced through your local newsletters or journals. We truly appreciate your involvement in the NRC/GT dissemination plan.

FALL 1994

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I rifle through my files and note an article by Joe Renzulli for *Gifted Child Quarterly* (Spring 1991). In the article entitled "The National Research Center on the Gifted and Talented: The Dream, the Design, and the Destination," Joe captured the essence of what the Research Center could become over five years. We have been fulfilling the dream designed several years ago and this fulfillment has been possible because of the quality of the research studies implemented across the four universities, as well as through the help of our Consultant Bank Members. Our Consultant Bank Members have prepared commissioned papers and

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The National Research Center on the Gifted and Talented

NRC G/T

Newsletter

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conducted Collaborative Research Studies. In the *Gifted Child Quarterly* article, Renzulli stated:

> A major conviction underlying NRC/GT is that research in an applied field must be grounded in the realities of schools and classrooms and must be accessible and meaningful to those people who work and study in them. A guiding principle for the Center; therefore, is that all research and dissemination activities must have derived benefits for practitioners and must result in some kind of direct impact upon educational policy, management, or practice. At the same time we recognize the essential need for research to be theory based and empirically sound. (p. 73)

We have focused on this conviction, and we will continue to do so as we complete our final year of the Center. Our final year should prove to be as productive as earlier years. We have embarked on a new series of studies that will look at various research questions using qualitative and quantitative methodologies. We hope to gather information on learning, teaching, staff development techniques, and achievement and underachievement issues. Abstracts of the four new studies that are being implemented in Year 5 of the NRC/GT are summarized in this newsletter.

While we are engaged in the new studies, we continue to implement and finalize other projects. Everything that has reached its completion is shared with you. Several projects have been disseminated recently. I'd like to highlight some of the more recent products to draw your attention to some practical information that may be of interest to you in your present educational position.

Linda Jensen Sheffield, in her monograph entitled *The Development of Gifted and Talented Mathematics Students and the National Council of Teachers of Mathematics Standards,* has concluded the following:

> Teachers should encourage students to construct their own mathematical understanding and talented students should be encouraged to reach the highest levels of construction.

We also like to take the findings of various projects and apply them to everyday activities and situations in the classroom. One of our most popular approaches to translating theory into practice has been the series of practitioners' guides developed by Del Siegle, Editor. There are a few new ones that are available and more are in production. Some of the more popular ones at this point in time are:

- What Parents Need to Know About Early Readers
- What Educators Need to Know About Gifted Students and Cooperative Learning
- What Educators Need to Know About Mentoring

All of you on our newsletter list will, of course, be receiving these practitioners' guides and you may choose to reproduce them for interested parties. Some highlights of the practitioners' guides are:

> ***What Parents Need to Know About Early Readers—***
> Precocious readers almost always remain at least average in their reading ability and most stay well above average as they progress through school. For later reading development, the most important aspect of language acquisition is a wide ranging knowledge of the world and the ability to express that knowledge through language.

> ***What Educators Need to Know About Gifted Students and Cooperative Learning—***
> Having gifted students in a cooperative group neither helps nor hinders other group members' academic performance. A variety of cooperative learning models have been developed and some are more appropriate for gifted students than others.

> ***What Educators Need to Know About Mentoring—***
> The benefits of a mentor relationship for a student are both personal and academic. The relationship encourages students to pursue their interests at advanced levels. In a 22-year study of 212 adults, E. Paul Torrance found that those who worked with mentors completed a larger number of years of education and earned more adult creative achievements than persons who did not have mentors.

Having concise formats, such as the practitioners' guides, allows people in our network to get the word out to others who may raise questions about various topics and would like a brief overview of the topic that is supported by research facts. The guides have been very popular handouts at conferences and meetings.

We have used a variety of media to deliver the messages from research and continue to explore other alternatives. Whether you prefer words, numbers, visual images, or sound bites, you can access our findings. If verbal presentations are your preferred style of learning, you will have another opportunity to become involved in learning about the findings of the NRC/GT. We will organize a conference highlighting all of our work from March 31 to April 1, 1995. We are currently in the process of finalizing plans for the

exact location, but we know it will be held in Connecticut. The conference entitled "Building a Bridge Between Research and Classroom Practices in Gifted Education" will feature findings from the research studies, as well as invited presentations from those who have been involved with our Research-Based Decision Making Series, Collaborative Research Series, or those who are members of our Consultant Bank.

We hope that you will consider attending the NRC/GT conference, and we are sure that it will be well received. We look forward to distilling our work to such an extent that common themes will emerge across all of our studies that can be translated to practical applications to improve the educational environment for all children. This conference will be an additional way to meet the guiding principle that was set in the article "The Dream, The Design and the Destination," which stated that all of our work should have derived benefits for practitioners and must result in some kind of educational policy, management, or practice. That is our goal and we continue to hit the mark because of an incredible network of researchers and practitioners.

Reference:

Renzulli, J. S. (1991). The National Research Center on the Gifted and Talented: The dream, the design, and the destination. Gifted Child Quarterly, 35(2), 73-80.

Building a

BRIDGE

between

Research and Classroom Practices in Gifted Education

An educational opportunity from

The National Research Center on the Gifted and Talented

The University of Connecticut • The University of Georgia
The University of Virginia • Yale University

Hartford, Connecticut Area
Friday and Saturday – March 31 and April 1, 1995

(plan for a Sunday departure to economize on airfares)

– Featuring –

- ***Invited presentations by major researchers in gifted education and related areas***
- ***Highlights of all of the research findings of NRC/GT across the five years of the Center***
- ***Summaries of the NRC/GT commissioned papers***
- ***Practical suggestions for implementing research findings in the classroom***

Additional conference information will be sent early in January

Year 5

Extending the Pedagogy of Gifted Education to All Students

Principal Investigator:
Sally M. Reis

For the last four years, many of our research efforts at the NRC/GT have concentrated on the use of various techniques with gifted and talented students across the country. In the course of this research, questions have arisen about whether these types of techniques and strategies can be used with a broader range of students than those normally identified for participation in gifted programs. This study addresses these questions and the challenges presented in the recently released report by the United States Department of Education, Office of Educational Research and Improvement, entitled *National Excellence: A Case for Developing America's Talent*. Consistent with the priorities of the Jacob Javits Act, this study is designed to assess the impact of providing gifted education pedagogy, specifically, a series of enrichment clusters, to the entire population of two schools in economically disadvantaged urban settings with a high percentage of minority students. Enrichment clusters provide a regularly scheduled time for students and adults who share a common interest and purpose to come together. They are based on the acquisition of advanced content through an inductive approach to the pursuit of real-world problems and provide opportunities for multi-age, cross-grade student participation in open-ended investigations of student interest. Central office administrators in two districts have already agreed to participate in the study. One school from each district will serve as the treatment in which enrichment clusters will be implemented and one school will serve as the control site for comparative purposes. Students in each treatment school will attend two series of enrichment clusters. All students in all four schools will be assessed on their attitudes toward school and learning, and on a number of other teacher and student outcomes. Data will also be collected from parents and teachers related to school satisfaction, use of enrichment strategies, and other related variables. Qualitative data will also be collected on the attitudes of teachers, students, and parents about the implementation of enrichment clusters.

New NRC/GT Studies for Year Five

- Implementing Enrichment Clusters
- Underachievement Among Black Youth
- Instructional Practices in Middle Schools
- Achievement Among American Indian Students

RESEARCH IN PROGRESS

Correlates of Underachievement Among Gifted and Nongifted Black Youth

Principal Investigator:
Donna Ford-Harris

Underachieving gifted and nongifted Black students (n=200) in grades 7 through 9 will be surveyed regarding their perceptions of factors that negatively or positively affect their achievement. Issues related to self-concept (academic, social, physical appearance, and global), racial/ethnic identity, and test anxiety will be examined, as well as the influence of other social and cultural factors affecting underachievement.

The Relationship Between Policy, Beliefs, and Instructional Practice in Middle Schools:

How Do Schools Implement the Philosophy and Recommendations of the Leaders in Middle School Education

Principal Investigators:
Carol Tomlinson
Carolyn Callahan
Ellen Tomchin

The primary objective of this study is to probe the ways in which the current middle school literature on meeting the needs of diverse learners, including the talented, is reflected in the policies, beliefs, and practices of administrators and teachers in those settings. In addition, the literature and the policies, beliefs, and practices will be compared to the research findings of cognitive and developmental psychologists, educators, and sociologists regarding the learning and development of students in the transition years.

The Paradox of Academic Achievement in High Ability, American Indian High School Students

Principal Investigator:
Jann Leppien

Gifted students from culturally diverse populations exist in high schools across the country, yet many do not achieve at a level commensurate with their abilities. It has been suggested that underachievement may be one reason that many young people are excluded from educational programs for high ability students. Despite a call to researchers to investigate the "untapped resources" in children from racial and ethnic minority groups, a paucity of research exists about high ability, American Indians living on or near reservations, and the factors identified by these students that influence their patterns of achievement or underachievement.

This ethnographic study will identify the patterns of achievement and underachievement experienced by high ability, American Indian, high school students. By examining differences between those who achieve and those who underachieve, factors which mediate the achievement of these students will be identified, through participant observation, ethnographic interviews, and document review. Descriptions of how the school experience is perceived by two samples of American Indian high school students, those who achieve, as well as those who underachieve will emerge, as will the factors which influence their beliefs regarding this phenomenon.

Examining a Tool for Assessing Multiple Intelligences

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While many educators have emphasized the need to identify giftedness in young children, there is seldom a concerted effort to identify primary level children for gifted programs (Clark, 1988; Kitano, 1989; Rubenzer, 1979; Shaklee, 1992; Whitmore, 1986, 1988). One often-cited reason for not acting to identify young children is the inadequacy of identification procedures to evaluate and assess giftedness currently in use in most school systems. The National Association of the Education of Young Children (NAEYC, 1988) has adopted a position statement on Developmentally Appropriate Practices in Early Childhood Programs Serving Children from Birth through Age 8, which expresses concern about the use of standardized testing for placing young children in special programs and the practice of making decisions based on a single score or measure. The position of the NAEYC is based on agreements that instruments used for such selection are not reliable and valid when used with very young children. Further, teachers are often unable to recognize signs of giftedness in young children and continue to select only students who are high achievers in the classroom (Roedell, 1985; Whitmore, 1982).

Another problem facing educators that cuts across identification of gifted students of all ages stems from the failure of traditional assessment instruments to identify gifted students from the population of economically disadvantaged, limited English proficient, and minority children. Educators have been making recommendations for change to address these issues for two decades and agree that direct observations are useful in identification of disadvantaged and culturally diverse learners. Yet, little has been done to validate new forms of assessment. Clearly, there is a need to identify other reliable and valid methods to assess giftedness in young children, particularly those who are culturally different or economically disadvantaged.

Howard Gardner (1983) expands the definition and assessment of intelligence to include seven separate intellectual domains: linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. The major thrust of Gardner's theory is that individuals tend to have strengths in specific cognitive functions. According to his theory, individuals are capable of exceptional development in any one or a combination of these seven discrete intelligences. Gardner (1989) further cautions that "intelligences must always be conceptualized and

assessed in terms of their cultural manifestation in specific domains of endeavor" (p. 6). For example, to assess spatial skills a child might be given a small kitchen appliance or tool from his or her environment to take apart and put back together. One NRC/GT Collaborative School District in Maryland, the Montgomery County Schools, was awarded a Javits grant to pilot an application of Gardner's theory. The project staff of The Early Childhood Gifted Model Program has developed a *Checklist for Identifying Learning Strengths* based on the theory of multiple intelligences, a means of searching for the talents of culturally diverse, economically disadvantaged gifted students. Classroom teachers have been trained to use particular tasks to elicit behaviors relating to the specific intelligences and to use the checklist to identify gifted young children for the program. The checklist consists of seven sections, each corresponding to one of the seven intelligences identified by Gardner. Each section is comprised of seven to eleven statements describing ways that intelligence may be manifested in the child. For example, under the verbal-linguistic heading are statements such as, "Enjoys word play;" "Expresses ideas easily, either orally or in writing;" and "Is a good storyteller or writer." Students high in visual-spatial ability may exhibit characteristics such as, "Chooses to express ideas through visual media;" "Takes things apart and puts them back together again;" or "Can organize and group objects." The observer gives each domain an overall rating of one ("You have not observed these behaviors") to four ("You almost always or always observed them"). A five indicates "No opportunity to observe these behaviors" (during data analysis, these scores were dropped). The observer may also check any of the descriptors that may be particularly strong indicators for the child. An overall rating is obtained for each intelligence. There is also a section for the observer to add comments that might help another teacher plan for the child.

The NRC/GT staff has been collaborating with the staff of the Early Childhood Gifted Model Program in establishing the psychometric properties of the checklist. First, a reliability study was undertaken to establish intrarater reliability and stability for the checklist. In Round One all 365 students in kindergarten through second grade in the schools participating in a pilot study were rated by teachers who had received training in the use of the scales. One month later the names of 10 students were randomly selected from each classroom. These students were rated again by the rater who had observed them previously. One hundred thirty-six students were included in this process.

When the same teacher rated the same child after a one-month interval, the intrarater reliability for kindergarten students were moderately high (ranging from .713 on the logical-mathematical scale to .782 on the spatial scale). Correlations across the two ratings for first grade scores ranged from .496 (music) to .775 (interpersonal). At the second grade level, intrarater reliability ranged from .681 (bodily-kinesthetic) to .811 (linguistic).

These intrarater reliabilities are not high enough to warrant placement decisions about individual children on the basis of the checklist scores alone, but they are reasonable for considering modification of instruction in conjunction with other data a teacher has about the child's achievement. The reliabilities are also sufficiently high to warrant further investigation. We, therefore, looked to see if the seven domains were independent. As expected, and as preliminary evidence of construct validity, scores across domains were not highly correlated with each other. Each domain appeared to be measuring attributes that were unique.

Currently, we are analyzing additional data to establish inter-rater reliability as well as the relationship between this instrument and other measures of intelligence.

The results of the study support Gardner's assertion that the domains appear to be discrete. At this time, teachers in the project are using the results to focus activities for the children by differentiating the curriculum according to an individual child's identified strengths.

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For further information about the checklist contact: Dr. Waveline Starnes, Montgomery County Public Schools, 850 Hungerford Dr., Rockville, MD 20850

Guiding the Development of Mathematically Talented Students

A review of *Windows of Opportunity: Mathematics for Students With Special Needs*

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In *Windows of Opportunity: Mathematics for Students with Special Needs*, the National Council of Teachers of Mathematics (NCTM) has furnished a professional resource for both regular classroom teachers and teachers of students with special needs, including students who are gifted and talented in mathematics. The educators who collaborated in writing the chapters impart the philosophy of the NCTM Standards (National Council of Teachers of Mathematics, 1989) and share practical, effective instructional strategies for implementation. A particular focus that binds the chapters together is a nurturing of mathematical thinking through relevant, problem-centered instruction. This focus is important to note since teachers, in interpreting the Standards, often zero in on the need for students to "do" mathematics, but are less aware of the Standards' emphasis on the mathematical reflection required for true discovery and understanding. All the authors in the text agree that a classroom environment based on the Standards is one that creates opportunities to discover mathematically talented students. They recognize the importance of a constructivist approach to mathematical investigations and offer many practical examples with extensions focusing on differentiation. The text is divided into three major sections: current issues relating to equitable programs for students with special needs, major curriculum thrusts in mathematics, and promising practices of several existing programs that include, or are designed for, students with special needs.

Focusing specifically on the attention and information given to students who are mathematically talented, let us begin by looking at the chapter "Issues of Identification" by Downs, Matthew, and McKinney. Writing for the regular classroom teacher, these authors present a concise and accurate overview of the major issues in the definition and identification of talented students. Concerns centering around the disparity in defining giftedness by leading theorists in the field and varying interpretations of the federal definition at the state and local levels are discussed. The practical tips offered to teachers to help them recognize talent in their students, especially students who do not fit the stereotype, including economically disadvantaged and underachieving

A Review of
Windows of Opportunity: Mathematics for Students With Special Needs
C.A. Thornton & N.S. Bley (Eds.)

National Council of Teachers of Mathematics, 1906 Association Drive, Reston, VA 22091-1593

COMMENTARY

gifted students, are a breath of fresh air. The authors caution against the sole use of standardized tests in identification, stressing the cultural and gender bias that may be inherent in these tests. Although they list other good alternatives for identification, I found peer, self, and parent nominations unfortunate omissions. Overall, this section is well done and, in summary, the authors offer some excellent advice: "Schools should be oriented toward collecting and analyzing data that will be used for instructional planning as opposed to simply collecting data to justify a label" (p. 69).

Drawing courtesy of the Iowa Department of Education

Another chapter on planning for instruction introduces the idea of developing a Mathematics Individualized Learning Plan (MILP) for all talented math students. Similar to an Individualized Education Plan (IEP) for special education students, this plan would be a year-long program with individualized goals, objectives, instructional materials, and assessment techniques designed by a team including the classroom teacher, the math specialist, the enrichment specialist, and the parent. A detailed MILP for a second-grade girl is included in the appendix with a list of 25 objectives including materials and activities. The numerous resources stress differentiation and high-end learning. The links to other subject areas are interesting and encourage independent projects. However, there should be a greater focus in this chapter, as well as the entire book, on assessing the interests of students and using these interests in program planning. I also think there should be more emphasis on real-world applications, i.e. creating useful products for a specific audience.

Perhaps the chapter that best illustrates what the authors in this text believe and promote as appropriate math instruction for talented students is "Flexible Pathways: Guiding the Development of Talented Students." In this chapter, Eddins and House state "...our responsibility as educators is to offer flexible pathways along which gifted students can encounter rich ideas through challenging, nonstandard learning experiences" (p. 313). They recognize that there are different types of mathematically talented students and they make the important distinction between students who are experts at arithmetic and algorithmic applications and those who are creative problem solvers. They also emphasize that "although... much of what is good for gifted students also is good for their less-talented peers, the fact remains that gifted students have special needs that require both an enriched curriculum and a challenging delivery system" (p. 312). The chapter outlines an excellent unit for a secondary math gifted program which relates geometry transformations to matrices. It is filled with challenging activities and extensions in a variety of directions to stimulate mathematical thinking and creativity.

I recommend this text as a good resource for teachers seeking to understand how to meet the needs of gifted and talented math students within the context of the Standards. However, I offer a word of caution. Although there is a focus in many of the chapters on meeting the needs of talented math students in the regular classroom through extension activities, the actual unit of instruction presented as appropriate curriculum for gifted students is designed for an entire class of students in a special school or summer program. The reader must determine how to adapt this instruction to mathematically talented students in a heterogeneous classroom. This is **not** an easy task. In conclusion, since the heterogeneous classroom is becoming increasingly common at all grade levels, I would like to see a chapter added that would specifically deal with instructional strategies beyond extension activities for talented math students in the regular classroom at the elementary, middle school, and secondary levels. The MILP could be included as part of this curriculum. Key features that regular classroom educators should be made aware of include curriculum compacting, cluster grouping, interest centers, independent research projects based on student interest, mentoring, alternative assessment, and classroom management techniques.

Reference:

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Three Models of Curriculum for Gifted and Talented Students

A review of *Comprehensive Curriculum for Gifted Learners*

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A Review of
Comprehensive Curriculum for Gifted Learners, 2nd ed.
Joyce VanTassel-Baska
©1994
Allyn and Bacon,
Boston, MA

Comprehensive Curriculum for Gifted Learners (2nd ed.), by Joyce VanTassel-Baska, is an excellent resource in helping teachers develop challenging curriculum for gifted and talented students in their classroom. The book is unique in that it focuses exclusively on curriculum development and is geared toward all grade levels. Three curriculum models are emphasized throughout the book and each is explained in detail in the first chapter.

The emphasis of the *"content mastery model"* is on the acquisition of knowledge and skills that pertain to a particular subject area. The curriculum is determined in advance, and the goal is to have gifted students progress through that curriculum at their own accelerated pace. With the content mastery model, students are often pre-tested on a particular unit of study to determine what they already know. The information that the student has already mastered is usually eliminated from the unit, and the student is left to pursue the topics that he or she does not fully understand. There are several reasons why the content mastery model has not been implemented to challenge gifted learners. It is often difficult for a teacher to manage a classroom in which many students are progressing at their own pace. Also, educators often oppose using the model because the only modification that is made focuses on the pace of instruction, not the content that is taught. Gifted students do not examine an area of study more fully, they simply do it faster. Although there are some drawbacks to the content mastery approach, many excellent programs have been developed based on its key premises. A good example of this model is the Center for Talented Youth program (CTY) at Johns Hopkins University. The emphasis of this program is on recognizing students with outstanding talents in the field of mathematics. Beginning in the seventh grade, those students who score within the top three percent on standardized achievement tests are invited to take the Scholastic Aptitude Test (SAT) to determine their mathematical precocity. Those who score at or above 500 on the math section of the SAT are allowed to register for a 3-week summer program in which they study advanced topics in mathematics that suit their interests.

The *"process/product model,"* as the name suggests, is geared toward developing the skills necessary for students to conduct first-hand investigations of topics that are of interest to them. Emphasis is placed

on developing solutions to real-world problems and concerns. The student produces a product that reflects what he or she has learned about a topic and usually presents the results to an interested audience. This approach is different from the content mastery model in that what is investigated is determined by the student, based on his or her interests. There is no set curriculum. As opposed to having students move quickly through material, emphasis is placed on in-depth study of a particular topic. The basic format involved in such an investigation would be as follows: 1) selection of a topic of interest and a problem related to that topic, 2) review of literature related to the problem, 3) acquisition of the skills necessary to investigate the problem fully, 4) development of tentative solutions to the problem, and 5) the creation and presentation of a product which reflects these tentative solutions and what the student has learned.

The third approach, known as the *"epistemological model"* or the *"concept-based model,"* places primary emphasis on the understanding of systems of knowledge as opposed to particular factual information. The themes and principles that have influenced human thought throughout history are given primary attention. The importance of relating these key issues to a variety of subject areas across the curriculum is stressed. The function of the teacher is to pose questions to the students that will stimulate discussion and lead to higher levels of understanding. An example of this approach is Lipman's *Philosophy for Children* program.

I have spent a significant amount of time describing these three models because they form the foundation of each of the chapters that focuses on particular subject areas. A question that immediately arises after reading about the three models is: "What model is appropriate for each subject area?" The answer to this question is both simple and complex. No one model is appropriate for a subject area to the exclusion of the others, although one model may work particularly well. For example, because the skills in mathematics are often taught in a sequential manner, the content model, with its emphasis on acceleration, may be the appropriate model for most learning situations. On the other hand, the epistemological model might be emphasized in social studies or the humanities where the importance of the key social and philosophical ideas that have shaped history are to be found. The author's primary goal is to incorporate all three models into each subject area so that they form a cohesive whole. As she states, "The synthesis of the content, process/product, and concept models has provided a clear direction for new curriculum work" (p. 12). In the following paragraphs, I will describe how a synthesis of the three areas developed by the author has been incorporated into the area of science.

The science curriculum discussed below was designed to meet the needs of students in grades K-8. The first step in developing the curriculum was to focus on the important concepts that are interwoven into many fields of science. The concepts selected by the author include: scale, systems, change, models, evolution, and reduction. The author uses the "system" concept to illustrate her point. The next step is to elaborate on the important generalizations that are involved in the concept. Such generalizations for the concept of systems include: "All systems have identifiable elements and boundaries" and "All systems experience input and provide output" (p. 203). The generalizations are then applied to particular fields of science such as biology or geology. Units are constructed on particular topics in these fields such as ecosystems or rocks and minerals. During the actual lessons of each unit, scientific processes are developed through hands-on experimentation. Particular content also is covered in each unit. Finally, the main concept is applied to nonscience areas such as economic systems in which particular processes and content are once again taught.

It may at first seem a bit overwhelming for a teacher to develop units that incorporate all three models of teaching in an effective manner. Before jumping into the particular subject areas, the author presents an in-depth outline of how curriculum is best developed. The plan is divided into seven stages which include such important subjects as assessing needs, establishing curriculum development teams, and evaluating what has been developed. One aspect I found to be particularly useful was a description of the steps needed to modify present curriculum to meet the needs of the gifted. Also, suggestions on how to create original units are included. Make no mistake about it, the process of developing curriculum, as envisioned by the author, is no easy task. It would take many hours of hard work and preparation to construct the type of curriculum the author is suggesting. The rewards of developing such a curriculum, however, would be many.

One of the few drawbacks of the book is that it is geared toward experienced teachers who are familiar with curriculum development. I would have liked to have seen more suggestions for inexperienced teachers about how they could attempt to modify the curriculum. Also, very little emphasis is placed on developing a challenging curriculum for all students. Many of the suggestions that are presented could be used with the majority of students, which the author does not stress. Overall, the book is excellent and a "must read" for those teachers who are concerned with making significant changes in the curriculum to provide for the talents and gifts of their students.

Talents Unveiled and Nurtured: Words & Images

A review of *Reach for the Moon*

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The talents of young students are unveiled in many different ways. Students may have remarkable strengths, accompanied by weaknesses in one or more academic areas. Sometimes we greet this information with questions, and other times we just look at the strength areas and believe that the person will be able to succeed on his or her own as new challenges are brought forth by the school system. It is not uncommon for people to look at a person's talents to compensate for anything that can't be done easily. Over and over we see examples of this happening throughout the school system. Although we think that there are protections built into identifying the strengths and weaknesses of students through various diagnostic and screening tools, it all comes down to a decision made by one or more persons as to what, if anything, should be done to intervene in the child's educational program. If a young student cannot manipulate simple numbers, most times you would seek further assessment of a broader range of skills. This, of course, is not always true.

Let me introduce you to Samantha Abeel, teenage author of Re*ach for the Moon* published by Pfeifer-Hamilton. As a young student, Samantha's parents realized that she was very bright. However, she often came home from school very unhappy. When a child enters school we realize that there are many new adjustments that have to be made. Some students are able to meet the requirements of the school day very easily, and others are mystified by the challenges in the educational environment. Repeated unhappiness related to school attendance is usually a marker that something is amiss. Steps are sometimes taken at the early stages, and sometimes they are not. For Samantha, the years went by and still there were some problems. The problems became more apparent in mathematics. She could memorize almost anything and some of her compensation strategies and memorization techniques masked her problems in understanding mathematical concepts. As school got harder and harder, it was clear that Samantha would have a difficult time without outside help. Sometimes that help, of course, is not easy to obtain. Even though Samantha's parents were eager to support her any way they could, a solution was not readily available. Although an evaluation revealed that there were difficulties in Samantha's ability to work with numbers, special help was not recommended. The comment was

A Review of
Reach for the Moon
Poems and Stories by
Samantha Abeel

Watercolors by Charles R. Murphy

Pfeifer-Hamilton Publishers
210 West Michigan, Duluth, MN 55802

COMMENTARY

"she is so bright, she'll be fine." It was further exclaimed that "be glad it's not a problem with reading. She can always use a calculator."

Such a dismissal of findings from a diagnostic evaluation causes us to question how students and their parents are protected against the educational system. If it weren't for Samantha's mother, who was going to persevere no matter what, Samantha's future would not have turned out as it has at this point in time. Her mother, obviously, was a teacher at heart and realized intuitively that it was important for Samantha to have opportunities to work on her strengths. She was also someone who was willing to go to the next step of contacting the teacher and encouraging her to plan a special program within the regular classroom. Samantha's parents approached the school once again. They were confident that their personal assessment of their daughter's abilities was quite accurate. They insisted that she be assessed and reassessed until a very clear picture of Samantha's abilities emerged. They also invited the involvement of the teacher of students with learning disabilities, the math teacher, the guidance counselor, and, finally, they were given help for their daughter. But, of course, the diagnosis was controversial for some of the people involved.

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The controversy surrounded the idea that Samantha was indeed gifted, as well as learning disabled. The existence of these two exceptionalities was questioned. Sometimes people thought that they were paradoxical traits. Other times people referred to them as dual exceptionalities that needed attention; recognizing one without the other was not enough.

Ignoring the talents and remediating the disability has been the focus of recent research. Reis, Neu, and McGuire (1994) conducted a qualitative study for The National Research Center on the Gifted and Talented at The University of Connecticut that centered on the accomplishments of 12 college-aged students who were bright, but also had a disability. Most of these students were not identified as having a disability at a young age. Oftentimes it became clear that the students had some learning problems in middle or high school. The ultimate recognition of the disability in later years was quite surprising, given the force of the law behind special education.

Samantha's mother approached the teacher with a plan that was based on her personal insightfulness and intuitiveness. The weaknesses that Samantha revealed in mathematics were not to be the focus of her future educational program. The parents listened to their child; the school listened to the parents. Samantha was finally involved in special services. Samantha participated in an advanced writing class. Now her strengths were the centerpiece of her school experience. The image of school as a horrible place to be was going to change.

Samantha's writing talents were nurtured by her teacher, and further stimulated by a family friend's art work. Samantha's writing ability was extremely creative, and she captured images through words. When Samantha described herself in a section of a poem entitled "Self Portrait," she said the following:

To show you who I am
I crawled inside a tree, became its roots, bark, and leaves,
listened to its whispers in the wind.
When fall came and painted the leaves red and gold
I wanted to shake them across your lawn
to transform the grass into a quilt, a gift spread at your feet,

(continued on page 14)

(continued from page 13)

but their numbers eluded me,
so I turned a piece of paper into my soul
to send to you so that you might see
how easily it can be crumpled and flattened out again.

Samantha creates images for our eyes as we decode the words. The words are reactions to incredible paintings by Charles R. Murphy. Murphy's palette and images became the lifeline for Samantha to continue her poetry and prose and unveil her talents. *Reach for the Moon* by Samantha Abeel and Charles R. Murphy is an incredible book that must be read by all parents who find themselves in a similar situation to the Abeel's. A young child who struggles day to day and views school as a terrible place to be cries out for help. If those cries are not answered at first, the parents have to speak for their child and approach the school until the answer is in everyone's best interest.

The research of Reis, Neu, and McGuire mirrors some of the experiences of Samantha's parents. They described the pathways of creating academic success by outlining several factors that are reflective of Samantha's journey. The continued presence of maternal support was critical. Samantha had family members who were always there for her. A second factor also mirrors the qualities of young Samantha, determination, perseverance, ethics of hard work, and sheer stubbornness. In the research by Reis, Neu, and McGuire, the 12 students learned from their experience of dealing with adversity. Samantha, too, may have had several negative situations that she confronted. She may have come out of the experiences as a stronger person; however, no one would want to have a child experience such pain for so many years without available solutions.

The idea of the creative writing project for Samantha supports another research finding by Reis, Neu, and McGuire. The writing project was really a personal plan for academic success. Samantha had a lot of potential in writing. Compensation strategies that helped her with her writing were part of the package for academic success. Samantha developed her talents, instead of just focusing on any deficits. Her talents were recognized more and more by several people. Initially, her book of prose and poetry was published locally under the title *What Once was White*. The self-published book gained notoriety and Pfeifer-Hamilton redesigned, updated, and published it as *Reach for the Moon*.

Samantha is now a teenager, and she may encounter difficult experiences throughout her lifetime. She has probably gained a self-awareness of her talents that will aid her in dealing with adversity. Anyone who picks up the book *Reach for the Moon* will be astounded by the story of Samantha Abeel. The art, poetry, and prose make a complete package—a marriage of talents of an artist (who also may have had struggles with school) and a young woman whose words were set free because of the intricacies of Charles Murphy's paintings.

As you read Samantha's story, and passages from her mother and teacher, you are touched by the path that Samantha took throughout her early years to reach such a successful point. Samantha is now sixteen, and she may look back on her accomplishments with sadness and joy. You will cherish the beauty of Samantha's words as you read each passage. Her gifts of poetry and prose are remarkable. She makes us look at ourselves, and she projects who she will become. She has a view of the world that makes us realize where we have been and where we are going. The poem entitled *If You Want to See* illustrates Samantha's view of the world:

If you want to see the past,
look around you
for everything you do is
living out the legacy of those
who came before you...

Feathers, the open plain
a life following
the heartbeat of a drum.
Peace. Simplicity.
The eyes of a people
looking with hope,
to the future.

If you want to see the present,
look around you
for it is what you are building
for those who will come
after you...

Poverty, not enough room,
the dreams have ended.
Feathers float to the ground, and
drums no longer beat their rhythm.
The eyes of a people
look on with misgiving
to the future.

If you want to see the future,
look inside you
for it is where all the building
begins.

Samantha's life is still building; her talents are still emerging. As educators, we hope that Samantha Abeel's talents will continue to be nurtured and expressed through ways that promote a love of learning.

References:

Reis, S. M., Neu, T. W., & McGuire, J. (1994). Talents in two places: Case studies of high ability students with learning disabilities who have achieved (Report No. 94110). Storrs, CT: The National Research Center on the Gifted and Talented.

Computers Creativity Competition Conference

The Educational Program for Gifted Youth (EPGY) and the Special Program for Elementary School Students (SPESS) at Stanford University offer computer-based courses in mathematics and mathematical sciences to high achieving students in grades K-12. Because the programs are computer based, students can participate from any region of the country. Advanced students are able to complete several years of college level mathematics and physics while still in high school. For more information about the program, including software and video demonstration material, contact EPGY, Ventura Hall, Stanford, CA 94305-4115, phone: 415-723-4117, fax: 415-725-7992

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Lawrence Erlbaum Associated has assumed publication of the *Creativity Research Journal*, according to journal editor Mark A. Runco. *CRJ* is a quarterly publication dedicated to printing scholarly research encompassing a full range of approaches to the study of creativity. Journal submission information is available from Mark A. Runco, Editor, *Creativity Research Journal*, EC 105, California State University, Fullerton, CA 92634, phone: 714-773-3376, fax: 714-773-3314. Subscription information is available from Lawrence Erlbaum Associates, Inc., 365 Broadway, Hillsdale, NJ 07642, phone: 201-666-4110, fax: 201-666-2394.

Abstracts of select publications of The National Research Center on the Gifted and Talented are now available from *Husky Gopher* at The University of Connecticut. Any computer user with access to the Internet and a gopher client can use the service. Point your gopher client at *gopher.uconn.edu* (ask the person responsible for your Internet host what gopher client is available and how to use it). From the *Husky Gopher* main menu, access *Academics*, then *Education, School of,* then *Gifted and Talented*, and finally *NRC/GT*. Within the *NRC/GT* section you will be presented with a menu of abstracts.

* * *

ExploraVision is an innovative science competition that gives students of all grade levels (K-12) an opportunity to use their imaginations to create a vision of a technology of the future. Students are encouraged to combine research, writing, and artistic skills with their knowledge of science and technology. More than $300,000 in savings bonds and prizes will be awarded. Rules and entry material for the February 1, 1995 deadline are available from Toshiba/NSTA *ExploraVision* Awards, 1840 Wilson Blvd., Arlington, VA 22201, phone: 800-397-5679.

* * *

The Connie Belin National Center for Gifted Education will host the third biennial Wallace National Research Symposium on Talent Development. This symposium provides an opportunity for researchers and theorists from around the world to present their current work on talent development, creativity, and gifted education. The symposium will be held at The University of Iowa in Iowa City on May 18-20, 1995. Symposium proposals should be postmarked no later than December 15, 1994. For further information call or write: The Connie Belin National Center for Gifted Education, 210 Lindquist Center, The University of Iowa, Iowa City, IA, 52242-1529, phone: 800-336-6463, fax: 319-335-5151

NEWSLETTER STAFF

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