



# The National Research Center on the Gifted and Talented NEWSLETTER

November 1991

THE UNIVERSITY OF CONNECTICUT • THE UNIVERSITY OF GEORGIA • THE UNIVERSITY OF VIRGINIA • YALE UNIVERSITY

## NRC/GT: Update of Year 2 Activities

*E. Jean Gubbins, The University of Connecticut*

Year 2 of The National Research Center on the Gifted and Talented has begun with as much energy and speed as our initial "jump start" on the research projects in Year 1. So much happened during the first year of operation that it is hard to believe that several research projects described in our June NRC/GT Newsletter are ending, others are continuing, and seven projects are being initiated. Right now, we are completing or starting fourteen national studies. Applied research of this scope is incredible! Results from Year 1 are being interpreted everyday and most Center hallway conversations revolve around:

"Did you hear about the effects of the treatment in this study?"

"Do you think we should analyze the data another way?"

"How soon will another few pages of the analyses be written?"

"Students involved in the treatment groups for the Curriculum Compacting Study outperformed the control group students on the post achievement tests in science and in math concepts."

"During the observations for the Classroom Practices Study, we found that teachers posed a small number of higher-level questions (application, analysis, synthesis, and evaluation) to elementary school students."

Such comments are heard throughout the Center at The University of Connecticut. Questions are raised, responses are entertained, and then it is back to our respective offices to see if the data should be distilled another way.

We are stretched because of all the research activity. But the excitement surrounding the studies provides the motivation to keep pushing. We can't wait to release the results from the Curriculum Compacting Study and the Classroom Practices Study at The University of Connecticut. We have already shared the results of the Needs Assessment Study in the June newsletter. Now, we are preparing a monograph entitled *Setting an Agenda: Research Priorities for the Gifted and Talented Through the Year 2000*. When the monograph is available, we will let you know.

Our research would not be possible without the funding from the Jacob K. Javits Gifted and Talented Students Education Act from the United States Department of Education, Office of Educational Research and Improvement. The money, however, only makes the researchers available for what they do best. Where the Year 1 research was implemented would have been a major problem without the network of Collaborative School Districts. Our network has grown to 277 districts as of November 1, 1991. Since our March listing of the districts in our Center brochure, we have added the following sites:

Ashford Public Schools  
Ashford, CT

Harford County  
Schools  
Bel Air, MD

Glendive Public Schools  
Elementary District #1  
Glendive, MT

Contoocook Forks  
Central Schools  
Peterborough, NH

Chenango Forks  
Central Schools  
Binghamton, NY

Meigs County Schools  
Decatur, TN

Donna Independent  
School District  
Donna, TX

Williamsburg-James City  
Country Schools  
Williamsburg, VA

Fort Dodge Catholic Schools  
Fort Dodge, IA

Montgomery County Public  
Schools  
Rockville, MD

School District #30  
Four Winds Elementary School  
Fort Totten, ND

Zuni Public School District #89  
Zuni, NM

Hamilton County  
Department of Education  
Chattanooga, TN

Sevier County Schools  
Sevierville, TN

Ector County Independent  
School District  
Odessa, TX

Wetzel County Schools  
New Martinsville, WV

There are only two states that are not represented in the Collaborative School District network: South Dakota and Delaware. Also, we have not been able to recruit schools in the following territories: Puerto Rico, Virgin Islands, American Samoa, and Trust Territory. We will keep trying to get the word out.

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# What Happens to Students in Programs for the Gifted?

## The Learning Outcomes Project

*Marcia A.B. Delcourt, Dewey G. Cornell, Lori C. Bland, Marc D. Goldberg*  
*The National Research Center on the Gifted and Talented, University of Virginia*

Why do we place students in programs for the gifted? According to educators, theorists, and other authorities in gifted education, we place high ability students in special programs for several reasons. First, we believe that special programs will help them to learn more and to achieve their potential. Second, we believe that challenging and enriching programs will stimulate creativity and foster positive attitudes toward learning. Finally, we believe that placement in a gifted program will have a beneficial effect on socio-emotional adjustment, enhancing self-concept or ameliorating problems stemming from lack of challenge and absence of contact with peers of similar ability and interests. Broadly speaking, we might say that the reasons for instituting programs for the gifted are Achievement, Attitudes, and Adjustment: the three A's.

Although these reasons make sense, and we may believe them to be true, there has been no large-scale research study focusing on both cognitive and affective learning outcomes of high ability students from different types of programs. The need to investigate learning outcomes leads to another important question arising from discussions of gifted programs-- "Which type of program for the gifted has the greatest impact on students?" The Learning Outcomes Study is one study conducted by The National Research Center on the Gifted and Talented and is a two-year longitudinal study of student achievement, learning attitudes, and general interest in over 1,100 2nd, 3rd, and 4th grade students from 16 districts in 10 states. School districts were selected to represent rural, urban, and suburban communities. They were also selected so that we could examine the effects of programs on students from minority populations and disadvantaged backgrounds. The researchers will investigate the relationship between four general strategies for delivering services to high ability students: within-class programs, pull-out programs, special classes, and special schools. The purpose of the study is also to compare the

achievement, attitudes and adjustment of students in these programs to non-gifted students and to students of high ability who do not attend gifted programs.

In the fall of 1990, the researchers completed the first round of data collection by administering a series of educational and attitudinal tests to a sample of elementary school students across the country. These students had either just started their involvement in one of the programs listed above or were students not in programs. Teachers and parents completed questionnaires assessing the children's learning characteristics, interests, and behavioral adjustment. More specifically, to assess student achievement, scores from a group achievement test were collected, as were grades. In addition, attitudes about learning, self-concept and self-motivation are being assessed in all students. Teachers completed surveys about each student's creativity, learning, motivation and adjustment while parents indicated the types and frequency of student activities and completed a survey of student adjustment. All tests and surveys were administered in the spring of 1991 and will be administered during 1991-92 to assess what changes have taken place.

What happens when elementary school students are first placed in gifted programs? Does achievement or do attitudes change over time? How does placement influence self-concept or behavioral adjustment? How are students from minority groups affected by different types of programs? These are some of the key questions we are addressing. The researchers are also collecting information on each program's identification criteria, curriculum, teaching methods, and goals, as well as the background and training of program teachers. The long-term effects of participating in different types of gifted programs and program characteristics associated with positive learning outcomes will be examined.

## NRC/GT: Update of Year 2 Activities

*E. Jean Gubbins, The University of Connecticut*

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Our Content Area Consultant Bank is expanding. We are in the process of preparing a directory which contains listings of 134 consultants interested in providing workshops for teachers or parents; consulting on policy issues, program development, evaluation, or clinical evaluation and intervention; or conducting projects with the NRC/GT. We would like to welcome the following Consultant Bank Members as of November 1, 1991:

Dr. Susan Demirsky Allan  
Dearborn Public Schools  
Dearborn, MI

Dr. Donald L. Beggs  
Southern Illinois University  
Carbondale, IL

Dr. Gilbert A. Clark  
Indiana University  
Bloomington, IN

Dr. Nicholas Colangelo  
Connie Belin National  
Center/Gifted Education  
Iowa City, IA

Dr. Dorothy Armstrong  
Grand Valley State University  
Grand Rapids, MI

Dr. Jeanne M. Burns  
Southeastern Louisiana  
University  
Hammond, LA

Dr. Robert E. Clasen  
University of  
Wisconsin-Madison  
Madison, WI

Dr. Nancy R. Cook  
RMC Research Corporation  
Hampton, NH

Ms. Sally M. Dobyns  
Mary Baldwin College  
Staunton, VA

Dr. Shelagh A. Gallagher  
Illinois Mathematics &  
Science Academy  
Aurora, IL

Dr. Leslie Garrison  
San Diego State University  
Calixico, CA

Dr. Barry Grant  
Center for Talent & Development  
Evanston, IL

Dr. M. Gail Hickey  
Indiana-Purdue University  
Fort Wayne, IN

Dr. Marcia B. Imbeau  
University of Arkansas  
Fayetteville, AR

Dr. Elyse S. Fleming  
Cleveland State University  
Cleveland, OH

Dr. Leonore Ganschow  
Miami University  
Oxford, OH 45056

Dr. David Goldstein  
Duke University  
Durham, NC

Dr. Howard Gruber  
Columbia University  
New York, NY

Dr. Steven Hoover  
Saint Cloud State University  
Saint Cloud, MN

Dr. David F. Lohman  
The University of Iowa  
Iowa City, IA

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# What is the Research Agenda of the Center for Year 2?

The Research Center is initiating seven new studies based on the priorities that emerged from the National Research Needs Assessment Process. In addition to those described below, three Year 1 studies are continuing: *Investigations into Instruments and Designs Used in the Identification of Gifted Students and the Evaluation of Gifted Programs*, *Evaluation of the Effects of Programming Arrangements on Student Learning Outcomes* (The University of Virginia), and *A Theory-Based Approach to Identification, Teaching, and Evaluation of the Gifted* (Yale University).

## A Study of Successful Classroom Practices

*The University of Connecticut*  
*Implementation: 1991-92*

*Principal Investigators: Dr. Karen L. Westberg and Dr. Francis Archambault, Jr.*



This study will provide a description of the conditions necessary to meet the needs of the gifted and talented and the strategies used to modify instructional approaches and regular curriculum materials in the classroom. The research questions that will guide this study include: (1) What factors contribute to classroom teachers' effective use of differentiated teaching strategies? (2) What environmental factors within the classroom and school contribute to effective use of differentiated teaching strategies? (3) How does the presence of a gifted education specialist affect the instructional strategies and materials used in the regular classroom? (4) How does the presence of a resource room or pull-out program affect the students' need for instructional and curricular differentiation in the regular classroom?

This research will be an ethnographic study of a few classrooms identified as exemplary in their implementation of curriculum modification and curriculum differentiation. Purposive sampling will be used to identify classrooms that are outstanding examples of this approach while also providing maximum variation in types of districts, such as a predominately white middle-class area, a multi-ethnic area, and, if the data permit, an economically disadvantaged area. Participant observation will be the major data-gathering technique for this study. Additionally, in-depth, open-ended, tape recorded interviews will be conducted with the classroom teachers observed, the principals of the schools, the curriculum coordinators, the teachers of the gifted and talented students, and possibly other interested parties, such as parents.

## Longitudinal Study of Successful Practices

*The University of Connecticut*  
*Implementation: 1991-95*

*Principal Investigator: Dr. Francis X. Archambault, Jr.*



This study will formulate plans for a longitudinal assessment of the impact of "most successful practices." These practices will be gleaned from other studies conducted by the NRC/GT. We envision that the study will be implemented in Years 3 through 5 (and beyond if funding can be secured) and that it will employ a true experimental design (i.e., students or classes will be randomly assigned to treatment conditions). One or more Collaborative School Districts and schools within them will be selected to ensure ethnic and economic diversity. The study will be conducted in both regular classroom and resource room settings.

During the planning year the data from the Classroom Practices Study, the Compacting Study, the Successful Practices Study, the Cooperative Learning Study, and the Learning Outcomes Study will be reviewed to determine the most successful practices and how they can be integrated into regular classroom and resource room environments. Other studies funded by OERI will also be reviewed, literature reviews will be conducted, and, where necessary, position papers will be written by University of Connecticut site staff and distinguished researchers at other institutions not directly involved in the NRC/GT. Instructional materials will be selected or produced, instruments will be adopted, adapted or developed, and procedures for implementing the experimental design will be formalized.

## Case Studies of Gifted Students with Learning Disabilities Who Have Achieved

*The University of Connecticut*  
*Implementation: 1991-92*

*Principal Investigators: Dr. Sally M. Reis and Dr. Joan McGuire*



This study will investigate the factors that enable some gifted students with learning disabilities to succeed in an academic setting. The perceptions of the persons investigated in this study may provide information that helps to identify this population and suggest specific educational interventions designed to meet the unique needs of this group. Specifically, we will investigate the following areas with college students or recent college graduates who were identified as having a learning disability:

- The self-perceived strengths and weaknesses of gifted students with learning disabilities;
- The specific educational intervention and assistance necessary to succeed in an academic environment;
- The types of counseling strategies necessary to help gifted students with learning disabilities realize their potential;
- The collective view of this population regarding their treatment by others and others' perception of them (parents, teachers, peers, guidance counselors);
- Whether modifications were made in the instructional practices and educational programs designed for this population;
- The positive and/or negative effects of labeling (either gifted and/or learning disabled) on this population; and,
- The specific nature of the learning disability of the individuals in this study.



# What is the Research Agenda of the Center for Year 2?

## Cooperative Learning and the Gifted

*The University of Connecticut  
Implementation: 1991-92*

*Principal Investigators: Dr. David A. Kenny and Bryan W. Hallmark*



The study is designed to assess the effects of cooperative learning methods on gifted students, and their non-gifted peers. Outcome measures will include achievement, attitudes towards self and school, and students' perceptions of others' ability, support, appreciation, leadership, likability and acceptance. Both boys and girls representing various ethnic groups will be included. The researchers will work with intact classes selected from a single grade level, grade 4. Students will be assigned to four-person learning groups of Gifted (G) and Non-Gifted (N) students. Three group compositions will be analyzed: a gifted homogeneous group (GGGG), a non-gifted homogeneous group (NNNN), and a heterogeneous group (GNNN). All groups will work on two types of cooperative learning tasks: a group oriented math task and a more traditional cooperative learning task in science. For each of the tasks, students will participate in multiple one-hour learning sessions in the regular classroom environment.

Three measurement periods will be used. The first will occur immediately after group assignment and prior to any group interaction; the second will be after the first series of learning sessions; and the third will occur after the second series of learning sessions. During measurement period one, students will complete a peer rating questionnaire, an attitude toward school questionnaire, an attitude toward session-specific subject questionnaire, and a self-efficacy measure. Measurement periods two and three will repeat the measures taken during period one, but will also involve the evaluation of task-specific achievement. The following questions will be addressed: Do gifted students learn more than children who are non-gifted? Do gifted children assist the learning of the other children in the group? Does achievement differ in homogeneous versus heterogeneous grouping? These effects can be investigated separately for different ethnic groups, as well as for males and females.

## A Research-Based Assessment Plan (RAP) for Assessing Giftedness in Economically Disadvantaged Students

*The University of Georgia  
Implementation: 1991-92*

*Principal Investigator: Dr. Mary M. Frasier*



The major objective of this study will be to determine the effectiveness of a research-based assessment plan (RAP) in increasing the identification of gifted students from economically disadvantaged populations. To accomplish this objective, two models will be developed and piloted: (a) the RAP and (b) a Staff Development Model (SDM). A secondary objective will be to conduct follow-ups on selected case study students from the first year study. Data from these follow-up case studies will be used to enrich the development of the RAP and the SDM.

Content for the RAP and the SDM will be based on the identification paradigm developed during the first year of The University of Georgia research study to describe giftedness within and across a variety of cultural groups. Additional input on content and procedure will be provided by a panel of expert members and collaborative researchers who participated in the Georgia Study; National Research Center Needs Assessment Survey results; and State Research and National Research Center Advisory Council members. Relevant literature on assessment and staff development will also be used to formulate the models.

## Extension of the Learning Outcomes Project

*The University of Virginia  
Implementation: 1991-92*

*Principal Investigator: Dr. Marcia A. B. Delcourt*



Learning outcomes are broadly defined to include both academic and affective effects of participating in a program for the gifted and talented. For the purposes of this study, academic effects include: performance on standard achievement tests, grades, teacher ratings of student learning behaviors, and student attitudes toward learning. Affective outcomes include: student self-concept and self-motivation, and both parent and teacher ratings of behavioral adjustment. Data will be collected at four stages. Approximately 1,100 2nd, 3rd, and 4th grade students will be assessed upon their entrance into one of the four types of programs, at the end of their first year in the program, and at the beginning and end of their second year.

Researchers among the participating universities in the NRC/GT agree that a need exists to add a qualitative dimension to the study of the four types of programming arrangements [(1) within classroom programs; (2) pull-out classroom programs; (3) separate class programs; and (4) special school programs] in the Learning Outcomes Project. This need has evolved during the first year implementation. More specifically, what characterizes a program that is identified as an "exemplary" model of a given program type? What are the influences of such exemplary programs on student achievement and effort? What distinguishes an exemplary representative model in terms of its ability to serve diverse populations of students? A qualitative study to address these questions has been proposed in which one district from each of the four types of programming arrangements will be selected for a thorough investigation. Observing classroom practices, and receiving responses from state-level administrators, selected classroom teachers, parents and students about characteristics and overall effects of the program will serve as the sources of data.



# Motivation and Underachievement in Urban and Suburban Gifted Preadolescents

Yale University

Implementation: 1991-95

Principal Investigator: Dr. Pamela R. Clinkenbeard



What creates or inhibits a "gifted" level of performance, both in those who have been identified as gifted and in those who have not? This project will address two important factors in the gap between potential and performance: motivation and disadvantage. This project will describe in qualitative fashion the motivational patterns found in both suburban and economically disadvantaged urban classrooms of gifted preadolescents. Research on achievement motivation has been moving toward discovering and developing more methods for fostering learning goals, or task commitment: that is, a love of learning for its own sake and a desire to persevere on tasks of interest. The goal is equally important for those who have been overlooked in the identification process.

This project will directly address several of the important topics for research on the gifted, as selected by the National Research Center Advisory Council, including motivation; effectiveness of differentiated program for economically disadvantaged, underachieving and other special populations; self-efficacy; and assumptions/stereotypes of underachievement. It would indirectly address many other items, since motivation and underachievement were concerns that arose within the discussions. Expected knowledge includes some answers to these questions: Do suburban classrooms for gifted preadolescents reveal different motivational patterns from those in urban classrooms? Are motivational patterns of students identified as gifted different in kind and/or degree from motivational patterns of other students? Does the experience of being labeled "gifted" cause a shift in motivation-related behavior?

## NRC/GT: Update of Year 2 Activities

E. Jean Gubbins, The University of Connecticut

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Dr. Ann E. Lupowski  
University of North Texas  
Denton, TX

Dr. Marian Matthews  
Eastern New Mexico University  
Portales, NM

Dr. James A. Middleton  
University of Wisconsin-Madison  
Madison, WI 53706

Dr. Kevin R. Rathunde  
University of Utah  
Salt Lake City, UT

Mr. Brian D. Reid  
University of Alabama  
Birmingham, AL 35294

Dr. Robert N. Sawyer  
Northwestern State University  
Natchitoches, LA

Dr. Isaiah Sessoms  
Clarion University  
Clarion, PA

Dr. Carolyn Yewchuk  
University of Alberta  
Edmonton, Alberta, Canada

Dr. Anne J. Udall  
Tucson, AZ

Joseph S. Renzulli, Identification of Art Students and Programming for Art Students (Dr. Gilbert Clark and Dr. Enid Zimmerman), we have commissioned papers on the following topics:

- Creativity  
Dr. Mark Runco  
California State University
- Mathematics  
Dr. William H. Hawkins  
Mathematical Association of America
- Reading  
Dr. Nancy Jackson  
University of Iowa
- Science  
Dr. Paul Brandwein  
Science Consultant  
New York

Several Content Area Consultant Bank members have been commissioned to write papers in our Research-Based Decision Making Series. The abstract of Dr. Karen Rogers' paper entitled, *The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner* is featured in this newsletter. A complimentary copy of the Executive Summary for this paper and future papers will be mailed to Collaborative School Districts, Consultant Bank members, State Departments of Education, National Research Center Advisory Council members, Regional Educational Laboratories, Educational Research and Development Centers, Parent Organizations and Javits Grants Recipients. A copy of the full-length paper is available on a cost-recovery basis (see the newsletter message).

In addition to the papers listed in our last newsletter on Ability Grouping (Dr. James Kulik), Self-Concept (Dr. Robert Hoge and Dr.

We are excited about this Research-Based Decision Making Series. The series extends the range of topics of interest to practitioners involved in the NRC/GT. More topics will be announced in the future.

The United States Department of Education, Office of Educational Research and Improvement, our funding agency, recently requested information on the relationship of The National Research Center on the Gifted and Talented mission to The National Education Goals, America 2000, and Core Subject Areas. The major elements of each research study were analyzed and recorded in a matrix. Two examples of studies and their major elements follow:

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# The National Research Center on the Gifted and Talented

## National Education Goals

## America 2000

## Core Subjects

	National Education Goals						America 2000					Core Subjects			
	Goal 1 Ready To Learn	Goal 2 School Completion	Goal 3 Achievement/ Citizenship/ Prob. Solving	Goal 4 Science Math	Goal 5 Literacy/ Learning	Goal 6 Safe/ Disciplined/ Drug-free	Track 1 Improve Schools	Track 2 New Schools	Track 3 Post- School Learning	Track 4 Communities Families	Mathematics	Science	English	History	Geography
1 National Needs Assessment	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-
2 Classroom Practices	-	-	X	X	X	-	X	X	-	-	X	X	X	X	-
3 Curriculum Compacting	-	X	X	X	X	-	X	X	-	-	X	X	X	X	-
4 Investigation of Giftedness	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-
5 Learning Outcomes	-	X	X	X	X	-	X	X	-	X	X	X	X	X	-
6 Investigations into Instruments and Designs	-	X	X	-	-	-	X	X	-	-	X	X	X	X	-
7 Theory-Based Approach - Identification, Teaching, Evaluation	-	-	X	-	X	-	X	X	-	-	-	-	-	-	-
8 Successful Classroom Practices	-	-	X	-	-	-	X	X	-	-	X	X	X	X	-
9 Longitudinal Study of Successful Practices	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-
10 Gifted Students with Learning Disabilities	-	X	-	-	X	-	X	X	-	X	-	-	-	-	-
11 Cooperative Learning and the Gifted	-	X	X	X	X	-	X	X	-	-	X	X	X	X	-
12 Research-Based Assessment Identification of Gifted Students	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-
13 Qualitative Extension of Learning Outcomes Study	-	-	X	-	-	-	X	X	-	X	-	-	-	-	-
14 Motivation and Under- achievement in Gifted Preadolescents	-	X	X	-	-	-	X	X	-	-	-	-	-	-	-



# The Collaborative School Districts: What did it mean for us?

Jann Leppien, Stuart Omdal and Del Siegle have served as Collaborative School District contacts during the past year. They recently met to discuss how the impact of their involvement with The National Research Center's Needs Assessment Survey and Curriculum Compacting Study affected their districts.

Collaborative School District contacts provide the link between the Center and the research sites. Over 270 districts from 48 states and 1 territory are currently enrolled. Leppien worked with the Lockwood School educators in Billings, Montana. Omdal participated with the staff of Minter Bridge Elementary School in Hillsboro, Oregon and Siegle was involved with the teachers at Lincoln Elementary School in Glendive, Montana. A transcript of their conversation follows:

**Jann:** One of the major benefits of being a Collaborative School District is that it keeps us up to date and knowledgeable about current research in the field. We were contacted and had the opportunity to participate in the initial Needs Assessment Survey in which we indicated our preference of research topics chosen for future study.

**Stuart:** The survey provided a link between the university "ivory tower" and the people in the trenches. Sometimes people would ask, "Why should our district take the time? What is in it for us?" Sometimes all we see are the forms to fill out and we fail to see ourselves as being a part of the bigger picture. The educational technology and curriculum in use today are all a result of somebody's past research. Participation in current research is important.

**Jann:** Being a Collaborative School District also gives us an opportunity to have a working relationship with the university. We have a direct link to what is happening and there is a place to go to have our questions answered and concerns voiced.

**Del:** Our district was part of the Curriculum Compacting Study which gave us the initiative to try something different. Compacting was something the district had been wanting to implement and the study provided us with the impetus we needed. The staff voted overwhelmingly to participate in the research.

**Stuart:** Yes, being involved as a research site can open doors of opportunity.

**Del:** The teachers felt their participation in the Curriculum Compacting Study was important and they were making a contribution toward effective teacher training in curriculum compacting. They were anxious to hear how other sites were progressing and looked forward to hearing the results of the study. They wanted feedback.

**Jann:** Feedback was important on the surveys, as well. The teachers completing the survey enjoyed hearing from the Center and learning the results.

**Stuart:** Teachers realized that their concerns were significant. They discovered that what they viewed as important issues were also the concerns of other teachers, as well as researchers.

**Jann:** By inviting a variety of personnel in the district to participate in the Needs Assessment Survey, I became aware of staff concerns which could be addressed through inservice. The National Research Center Needs Assessment helped me gather information about the concerns of the staff.

**Del:** The students were also excited about being part of a nationwide effort. When I explained to them what compacting involved, one looked at me rather puzzled and said, "Well, it only makes sense not to do the work I already know how to do." She wondered why this hadn't happened earlier in her life.

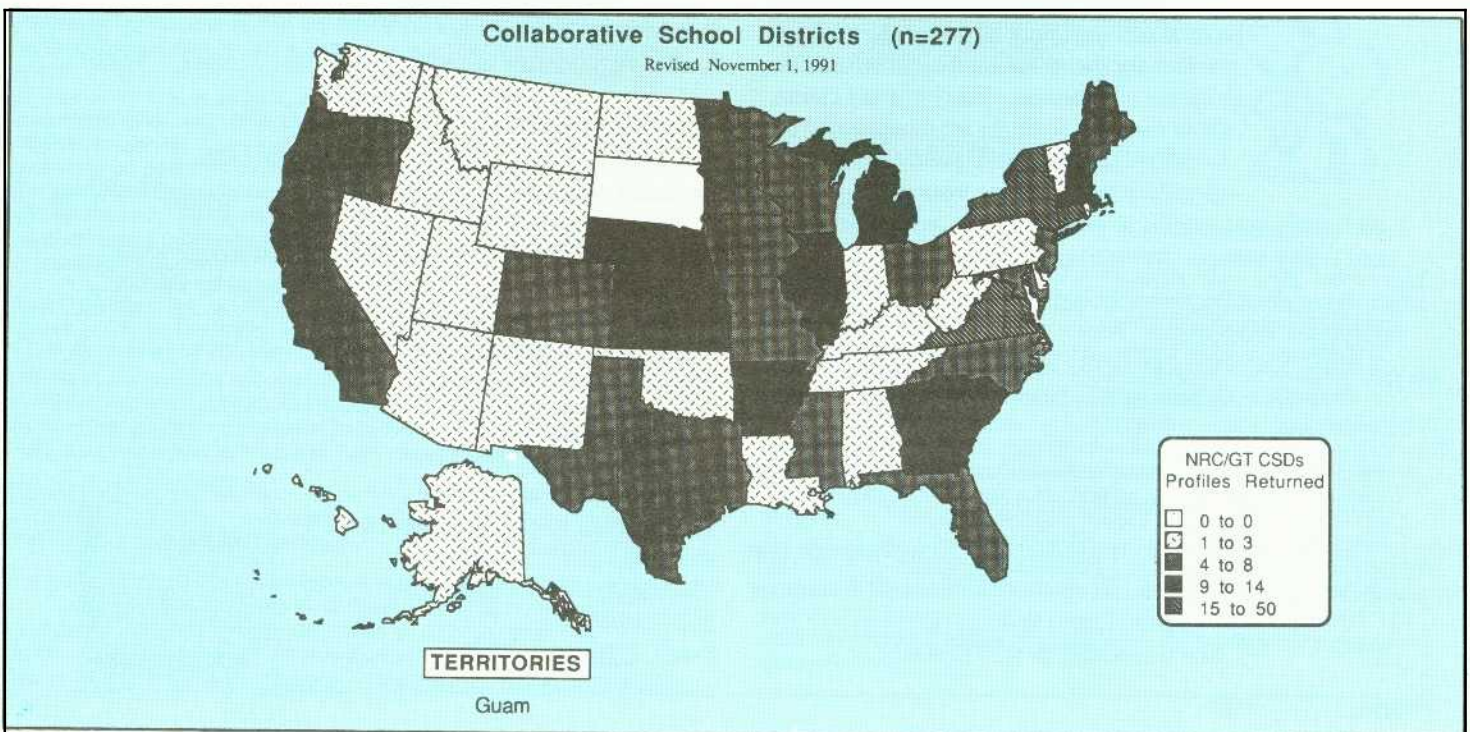
**Jann:** It is important to feel that what we do is important to someone else and that the work we are doing in the public schools is being recognized.

**Stuart:** That's right, we are hoping that our efforts will have an impact in schools throughout the country.

**Del:** Our classroom teachers viewed the study beyond the field of gifted education. They considered it a contribution to quality education as a whole.

**Jann:** When those official letters arrive from the Center, the importance of gifted education is recognized. I recall when our superintendent came down to my office and said, "I think this is something important and we need to be part of it." This helped give the gifted education movement a sense of validity.

We would like to have every state and territory involved with some aspect of our work over the next four years. If you know of a school district that might be interested in joining our growing family, contact the Center.





# The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner: Research-Based Decision Making

## Abstract

Karen B. Rogers, University of St. Thomas, St. Paul, Minnesota

In this paper 13 research syntheses were described, analyzed, and evaluated to determine the academic, social, and psychological effects of a variety of grouping practices upon learners who are gifted and talented. Three general forms of grouping practices were synthesized: (1) ability grouping for enrichment; (2) mixed-ability cooperative grouping for regular instruction; and (3) grouping for acceleration. Across the five meta-analyses, two best-evidence syntheses, and one ethnographic/survey research synthesis on ability grouping, it was found that: (a) there are varying academic outcomes for the several forms of ability grouping that have been studied (i.e., tracking, regrouping for specific instruction, cross-grade grouping, enrichment pull-out, within-class grouping, and cluster grouping); (b) the academic outcomes of these forms of ability grouping vary substantially from the effects reported for average and low ability learners; (c) full-time ability grouping (tracking) produces substantial academic gains; (d) pullout enrichment grouping options produce substantial academic gains in general achievement, critical thinking, and creativity; (e) within-class grouping and regrouping for specific instruction options produce substantial academic gains provided the instruction is differentiated; (f) cross-grade grouping produces substantial academic gains; (g) cluster grouping produces substantial academic effects; and (h) there is little impact on self-esteem and a moderate gain in attitude toward subject in full-time ability grouping options.

For the two meta-analyses and one best-evidence synthesis on mixed-ability cooperative learning there was no research reported below the college level to support academic advantages of either

mixed-ability or like-ability forms. Although no research had been directed specifically to these outcomes for gifted and talented students, there was some evidence to suggest sizeable affective outcomes. Across one meta-analysis and one best-evidence synthesis on acceleration-based grouping options, several forms of acceleration produced substantial academic effects: Nongraded Classrooms, Curriculum Compression (Compacting), Grade Telescoping, Subject Acceleration, and Early Admission to College. Moderate academic gains were found for Advanced Placement. Either small or trivial effects were found for these six options for socialization and psychological adjustment.

It was concluded that the research showed strong, consistent support for the academic effects of most forms of ability grouping for enrichment and acceleration, but the research is scant and weak concerning the socialization and psychological adjustment effects of these practices. Claims for the academic superiority of mixed-ability grouping or for whole group instructional practices were not substantiated for gifted and talented learners. A series of guidelines for practice, based upon the research synthesized was included.

*The work reported herein was supported under the Javits Act Program (Grant No. R206R00001) as administered by the Office of Educational Research and Improvement, U.S. Department of Education. The findings do not reflect the position of the Office of Educational Research and Improvement or the U.S. Department of Education.*

## What Does the National Controversy on Ability Grouping Mean for the Gifted?



Several anti-grouping advocates have placed services for the gifted on their "hit list" for program elimination. Many of their claims about research findings are exaggerated or untrue. Unfortunately, policy makers are already acting on these inaccurate

portrayals of research. We need to share with advocates and policy makers answers to questions such as:

- What does the research really say about ability grouping?
- How does ability grouping affect self-esteem?
- Do gifted students benefit from cooperative learning?

Find the answers to these and other critical questions about ability grouping research by writing for a copy of:

### The Relationship of Grouping Practices to the Education of the Gifted and Talented Learner

By Dr. Karen B. Rogers  
The University of St. Thomas

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# Profiles of Javits Gifted and Talented Education Programs

## Project STREAM (Support, Training, and Resources for Educating Able Minorities)

Project STREAM is a collaborative effort between three Wisconsin universities and six school districts for the purpose of improving identification and programming options for gifted and talented students with major focus on students from minority populations. STREAM has five principal goals: (1) To develop multiple ways to identify the diverse talents and abilities of minority students; (2) To promote a conceptualization of giftedness which embraces the idea of multiple intelligences; (3) To increase the representation of minorities in gifted programs to the level proportionate to their representation in the population; (4) To help provide systematic and continuous programming for students in the program during middle and senior high school; (5) To increase the likelihood that students will stay in school through high school and subsequently elect to start and complete a baccalaureate degree.

STREAM is based on seven basic assumptions:

1. Talents and abilities are distributed equally without regard for gender, race or nationality.
2. Multiple talents and intelligences exist.
3. Early identification of talents and abilities is necessary.
4. Systematic and continuous attention to students is required.
5. Psychological components are as important as the academic.
6. Universities need to link with minority students, their teachers and their parents when students are at an early age.
7. Parents need to be involved in their children's education.

**The Process.** Each spring a number of sixth grade students in Beloit, Delavan-Darien, Kenosha, Waukesha, Racine, and Milwaukee are identified for the program. Identification is done in several ways: Traditional ways of identifying students may be used (grades, achievement scores, etc.), but focus is on developing nontraditional means of finding abilities such as creativity, problem solving, leadership, and the arts. Observational analyses are of special interest. Once in the program, students stay throughout middle and senior high school. Each year a new group is added, thus enlarging the STREAM. As talents and abilities are identified, students are integrated into existing gifted and talented school programs which meet their needs.

**Student Programming.** During the school year, students come to the UW-Whitewater and UW-Parkside campus at least once a semester. Emphasis during the day is on skills and psychosocial factors. One visit includes a cultural event. During the school year special programs are offered for students in their school districts. When necessary, academic assistance is provided. Mentoring is also made available. In summer, students come on campus for a week's residency. They work on skills such as writing, speech, math and on psychosocial dimensions such as self-esteem and confidence. Special talents are fortified through offerings in dance, art and theater. Students work with both minority and non-minority staff, including university faculty, live in the dorm, and learn to use university resources.

**Staff Development.** STREAM also sponsors staff development opportunities and provides special assistance to teachers of STREAM and other minority students. A practicum-oriented class is offered in conjunction with the Summer Institute and a class is given in Milwaukee once a year. Curriculum for meeting the needs of gifted students in the classroom is being developed, and material resources are made available to both students and staff.

**Parent Programs.** Programs for parents of STREAM students are also offered. Emphasis is on meeting the needs of parents with the belief that a major way to assist students is through the parents.

For more information on UW-Whitewater STREAM, please contact Dr. Donna Rae Clasen at 6038 Winther Hall, UW-Whitewater, Whitewater, WI 53190 (414-472-1960 or 472-5379) or Eve Johnson (414-475-8459). At UW-Parkside contact Dr. Barbara Shade at Box 2000, UW-Parkside, Kenosha, WI 53141 (414-553-2376).

## The Gifted Education Policy Studies Program

James J. Gallagher

University of North Carolina at Chapel Hill

The Gifted Education Policy Studies Program, under the direction of James J. Gallagher at the Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill, was established to analyze and seek solutions to two major issues which interfere with providing full educational services to gifted students. These issues are: (1) state and local policies regarding eligibility for gifted programs which tend to reduce the participation of some gifted students (minority, disabled, and underachievers); and (2) educational reform efforts (cooperative learning and the middle school movement) which may reduce services designed for gifted learners.

In examining the first issue, underserved gifted students, an analysis of existing state policies is being conducted to identify specific policy barriers to identification, as well as states with model policies. A case study of three states which seem to have policies that enable broader identification of gifted students to take place will be conducted to determine how this goal was accomplished. As a result of this work, legislative designs will be developed as models for states wishing to address this issue.

The second study, an examination of the impact of school reform on gifted students, will investigate ways which reform efforts and gifted programs can work together successfully to enhance services to gifted students. A survey designed to identify the current obstacles to this cooperation, and suggested strategies to combine efforts will be conducted. Further investigation will involve the identification of sites where school reform efforts and gifted programs have been successfully interfaced to enhance services for gifted students. From this investigation a paradigm for successful collaboration between school reform initiatives and gifted programs will be developed.

Any one with information regarding cooperative learning or middle school programs which have been designed with particular attention to the needs of gifted students, please contact us:

James J. Gallagher, Director  
Mary Ruth Coleman, Associate Director  
Gifted Education Policy Studies Program  
CB 8040, NCNB Plaza, Suite 301  
Chapel Hill, NC 27599-8040

## Javits 7+ Gifted Program

Joyce Rubin, Joel Rubinfeld

Community School District 18, Brooklyn, New York

Community School District 18 in Brooklyn, New York, was funded by the United States Department of Education under the Jacob K. Javits Gifted and Talented Students Education Act to develop a demonstration project that would explore ways to identify and provide appropriately differentiated curriculum for students who are usually not identified as gifted through the use of traditional assessment methods, and are often overlooked in the classroom. This includes the economically disadvantaged, students with limited English proficiency, and individuals with handicapping conditions. The theoretical foundation for District 18's project, the Javits 7+ Program, is Howard Gardner's Theory of Multiple Intelligences. District 18 created an early childhood program designed to discover and develop multiple intelligences identified by Gardner's research. Under the leadership of Joyce Rubin, Director of Gifted Programs, and Joel Rubinfeld, Project Coordinator, a team of teachers and staff developed a series of intelligence-fair performance based assessments.

Continued on page 10



# Profiles of Javits Gifted and Talented Education Programs

## Identifying Underrepresented Disadvantaged Gifted and Talented Children: A Multifaceted Approach

*Dennis P. Saccuzzo, San Diego State University, University of California, San Diego*

A series of studies and statistical analyses are being conducted to develop the fairest possible method for selection of gifted and talented education (G.A.T.E.) students. These analyses are expected to lead to the development of a selection model that will increase the numbers of underrepresented disadvantaged gifted children in proportion to the ethnic populations enrolled in the San Diego City School District, grades 3-12. Anonymous data consisting of information on gender, ethnic background, various ability and achievement test scores and disposition concerning giftedness are being provided by the seven G.A.T.E. psychologists of the San Diego Unified School District. Approximately 5,000 children from a variety of ethnic backgrounds including African-American, Caucasian, Asian, Filipino, and Hispanic will be tested each year for three years. A major focus of the study will be to test the efficacy of the Raven Progressive Matrices Test and Locus of Control Scales in providing unbiased data pertaining to giftedness. A selection model tailored to each ethnic group will be determined utilizing both breadth and depth models. At the end of Year One, a

report detailing the fairest and most equitable model will be presented. Year Two will consist of the implementation of the model. In Year Three, the model by which the giftedness in underrepresented disadvantaged children is identified and nurtured will be subject to cross-validation.

In addition, selected gifted and non-gifted African-American, Caucasian, Filipino, and Hispanic children will be given the opportunity to respond to a set of microcomputerized information-processing tasks. These tasks evaluate abilities that cannot be measured by traditional paper and pencil or standard IQ tests.

Archival data from approximately 15,000 gifted students of various ethnic backgrounds will be evaluated. The primary focus of the archival data analyses will be to determine the unique cognitive strengths and weaknesses of children of various ethnic backgrounds.

## Javits 7+ Gifted Program

*Joyce Rubin, Joel Rubinfeld, Community School District 18, Brooklyn, New York*

*Continued from page 9*

The project director, coordinator and curriculum specialists conduct workshops where the teachers are presented with a variety of strategies, such as using learning centers and contracts to individualize instruction. Supervisors, teachers and visual and performing artists work collaboratively to create an appropriately differentiated curriculum which is presented through conceptual themes. These interdisciplinary units of instruction provide opportunities for students to develop their multiple intelligences, as well as their critical and creative thinking skills. The Javits 7+ teachers create a supportive learning environment, which values all intelligences equally, and enables students to recognize and appreciate their own uniqueness and that of their peers. A team of artists from Young Audiences/New York works cooperatively with

program teachers to develop interdisciplinary activities. Because parents are partners in the education of their children, workshops are provided enabling parents to develop strategies which nurture their children's multiple intelligences at home.

There are four pilot classes this year: a first grade at P135; a first grade at P268; a first grade class and a first/second grade bilingual bridge class at P219. Next year the funding will serve ten classes: first and second grade at P135; first and second grade at P268; two first grade classes, a second and a third grade class at P219; and two special education classes in early childhood for youngsters with handicapping conditions (MIS IV) at P279. Additional classes will open at other schools (first grade at P233, kindergarten and first grade at P279), although they are not included in the funding for this project.

## Contricipation: The Creative Process for Everyone

*Morris I. Stein, New York University*

CONTRICIPATION is a term I coined to call attention to the fact that everyone is or can be involved in the creative process. A person either *contributes* to the process or *appreciates* the process. Contributors *need* appreciators and appreciators *need* contributors. All too often attention is focused solely on the problems of contributors--the creative person has difficulty getting financial support; the creative person has difficulty being recognized, etc. But appreciators have problems also. Can you imagine what the world would be like without creativity? Imagine having insomnia some night and wanting to read a good book but no one had written it! Imagine wanting to listen to a symphony, but no one had composed it! Imagine needing medicine for a loved one who is ill but no one had discovered/developed it! Appreciators also would have problems in a world without creativity.

For the past several years I have been involved in studying

creative adults. A group of particular interest in my study consists of those who have been exposed to both cognitive complexity and emotional security. This would involve doing research on a larger population where one could study parent-child relationships. I don't have access to a gifted population at present. Nor do I have research funds. But, if anyone is interested and where funds would not be a barrier please write to me.

Also I am bringing my 1986 book on *Gifted, Talented and Creative Young People* up-to-date. I would appreciate it very much if anyone who has published since 1986 in the gifted area would send me copies of their papers.

All communication should be sent to Prof. Morris I. Stein, Dept. of Psychology, 6 Washington Place, NY, NY 10003. Or, call: (212)-998-7825 and if no response, call (212) 475-2428.

## Commentary



Carol Story, Johnson State College

**Giftedness** - There are as many definitions for giftedness as there are researchers in the field. The two more popular ones in current usage are the Federal definition and the Renzulli definition. The Federal Office of Education issued the Marland Report in 1972 which defines the gifted as those youngsters possessing intellectual ability, scholastic aptitude, creativity, leadership, talent in the visual and performing arts, and/or psychomotor ability. The Renzulli definition (1978) describes gifted behavior as the interaction of above average ability, creativity, and task commitment as brought to bear upon a special area of interest. Variations of these definitions occur from state to state and ultimately they suggest the need for special programming for the top 2 to 20% of the population.

**Characteristics** - Gifted children make themselves known by their observable behaviors at an early age. These behaviors include using a large vocabulary and creating metaphors and analogies, demonstrating a long attention span, beginning reading at an early age, exhibiting curiosity, sharing a sense of humor with others, learning rapidly and easily, attending to detail, and displaying a good memory. These children may also have superior physical coordination and at the same time become easily frustrated by their lack of fine motor coordination. They often have many mature, in-depth interests, a strong sense of moral values, and highly developed imaginations which allow them to create stories and songs. The children may be unusually sensitive to changes in their environments, have a heightened awareness of their own differences, and make mental connections between the past and the present. They are also sensitive to other children's needs and feelings and are often effective and efficient problem solvers in both social and academic settings.

**Identification** - Giftedness in young children is currently being identified through teacher and parent observations and rating scales, self-nomination via a tangible product, psychometrics, or creativity testing. An example of an observational scale for teachers is the Renzulli-Smith Early Childhood Checklist (Renzulli & Smith, 1981) and, for parents, Things My Child Likes to Do checklist (Delisle, 1979). Teachers should also note who other children follow or who directs activities, children who exhibit the characteristics mentioned above, or children who are advanced on developmental scales (see Beaty, 1986; Cohen & Stern, 1983). The most commonly used testing devices are the Stanford-Binet, the WISC-R, and the Goodenough-Harris Draw-A-Person Test (Harris, 1963). The Slosson Intelligence Test or the Peabody Picture Vocabulary Test are often initial screening measures, but are less valid. Creativity measures include the Torrance Test of Thinking Creatively in Action and Movement (1981) and the Wallach and Kogan Creative Battery (1965). Caution should be exercised in using creativity tests as a measure for giftedness because of concerns about their validity. Multiple criteria are recommended in the identification process.

**A Few Examples** - Young gifted children do not come wrapped in colorful paper nor do they all exhibit the musical abilities of the young Mozart sharing his first composition at the age of four or five. The following cases are more typical.

At age three, Zachary was content to spend hours experimenting with the various types of equipment available at the science table. He observed the ball rolling through the elaborate tunnel structure hundreds of times and made the water flow through the water wheel hour after hour. He tried to understand what was happening and figure out how and why these things occurred. He used his problem solving skills in social situations, also. When Dominic stumbled into the cars and elaborate road structure in the block corner, Zach simply moved the structure out of Dominic's pathway and helped Dominic begin his own building in another area.

Four-year-old Margaret sat with earphones perched on her head listening intently to a pre-recorded story. While this is not an uncommon activity in many preschool settings, Margaret's eyes followed the words on the page. Later, she read some of the book to a younger school chum. Margaret demonstrated her writing skills when she produced a complete story unassisted and with very little

invented spelling. She showed her leadership abilities when she told another child, "Make a capital A like this" because he was struggling with making the lower case letter modeled on the board.

On the first day of school, Miles bounded into the first grade classroom reporting that, "At home we have a telescope and watch the stars and Mom and I feed the birds and would you like me to read to you from my book?" Test results revealed that Miles had an above average intelligence and had mastered most of the first grade curriculum. The teacher modified the regular classroom program for Miles and allowed him to work independently at his own level. During the year, among many other activities, Miles wrote and illustrated a book about area birds, set up a bird feeding station outside the classroom windows, and made presentations to other classes about his area of interest. He also became an occasional peer tutor for less able classmates, often lead small group activities, and enjoyed the rough and tumble of the playground like any other six-year-old child.

**Programming** - Early childhood educators working with gifted children are often asked, "What is the best program for young gifted children?" The answer to this question is that no one program is best for every child. Finding the best program suggests developing one to meet a child's individual needs and interests which also meets parental philosophies for educating children, as well as a program that is developmentally appropriate for young children. Several options exist for meeting the special needs of the young gifted child. One choice is between homogeneous and heterogeneous grouping. Heterogeneous grouping is usually recommended since children are not generally gifted in all areas and should be with age-mate peers, as well as intellectual peers. This type of grouping allows for the development of positive self-concepts more than homogeneous grouping does, but this is not often a problem for young gifted children. A second programming choice is for acceleration and/or enrichment. Grade acceleration is effective for children who are maturationally ready. Part-time acceleration (within specific content areas, i.e. math or reading) can also be appropriate if support is given to that concept by teachers throughout schooling. Enrichment encourages the broadening or deepening of curricular content. It can be a successful way to provide for heterogeneous grouping and, at the same time, meet the particular needs of the gifted child. One concern, however, is that one classroom teacher may not be able to meet the needs of the young gifted child within the classroom setting and, at the same time, deal with all of the other children without additional assistance (aides, administrators, parents). Recommended curricular content for young gifted children includes teaching basic skills, building knowledge, developing creative and critical thinking skills, and providing for affective development (Kitano, 1986). These curricular strategies are appropriate for all children. More differentiated content includes opportunities for creative productivity as previously illustrated by Miles' bird book and feeding station described above or Mozart's early compositions (Kupferberg & Topp, 1978; Sloan & Stednitz, 1984).

**Common concerns** - There are some concerns which surround young gifted children. They are addressed briefly in the following statements.

1. Early identification of giftedness is important in order that the young child will be nurtured to his/her fullest potential and does not become an underachiever.
2. Parents need to value and carefully nurture the whole child, not just the part of the child that achieves academically. Parents must also be careful not to pressure their child and create problems with perfectionism or with affective development (see also Elkind, 1987).
3. Comparisons with other children should be avoided. Caution must be used when employing the "gifted" label lest siblings or peers be made to feel "ungifted" as a result.

*Continued on page 15*



## ***Gifted: Challenge and Response for Education***

Joe Khatena, Mississippi State University

The intent of the book is to put into one place a representative sample of the most significant theory and practice on the subject. The book is solidly based on research and practice. It gives appropriate attention to subjects such as:

- the need to understand and identify the abilities of gifted children
- to get to know their developmental characteristics
- to be aware of the problems they face and how they may be assisted to overcome them
- the nature of their intellectual processes and methods that have effective productivity
- to survey various educational models designed for better learning
- to consider several of the most pertinent motivational approaches and their relevance for gifted education
- and to regard their education in terms of the past, present and future.

An unusually comprehensive treatment of diverse contributions to the field, the book captures the essences and essentials of the most

innovative ideas, instructional materials, measurement approaches, theories in historical perspective, and modern technological correlates of giftedness. Rich in both psychological theory and educational philosophy and technology, the book fairly represents the many ideas and issues that have made gifted education an exciting one in recent years.

In addition, the book gives meaningful and significant examples and case studies of gifted children, guides identification of talent, provides strategies for developing creative imagination, and presents various checklists that focus attention on characteristics and attitudes, identification procedures of underachievement, and the like.

F. E. Peacock Publishers, Inc.  
P. O. Box 397, Itasca, IL 60143-0397  
(708) 350-0777

## ***Stage and Structure in the Development of Children With Various Types of Giftedness. In R. Case (Ed.), The Mind's Staircase: Exploring the Conceptual Underpinnings of Children's Thought and Knowledge***

**Abstract**

Marion Porath, University of British Columbia

This study investigated the cognitive development of gifted children from a neo-Piagetian perspective. Case's (1985) theory of intellectual development provided a model of executive functioning within stages of development. This model was seen as appropriate for addressing issues raised in the literature concerning the need for a process analysis of gifted children's thinking and the need to clarify to what extent a young gifted child's thinking can be considered similar to that of an older, less intelligent child. The study also sought to account for the results of Piagetian studies which are equivocal about the degree of developmental advancement evidenced by gifted children.

Children identified as gifted on both verbal and performance measures were compared to chronological and mental age control groups on measures chosen to provide a comprehensive description of gifted children's thinking within a developmental context. A group of verbally gifted children was compared to chronological and mental age control groups to test the hypothesis that the inconsistent results of Piagetian studies may be due to a disparity between verbal ability and the more spatially-loaded Piagetian tasks. In addition, a small group of spatially gifted children was compared to chronological and mental age control groups. Six-year-old gifted children were chosen for the study. Mental age controls were, on average, eight years old.

On measures which confounded learning with developmental level, gifted children performed like their MA peers. On measures which reflected development more exclusively, performance was not significantly different from their CA peers. In the case of children gifted on both verbal and performance measures, MA-equivalent abilities were demonstrated on the balance beam and letter series tasks, measures which would appear to require both verbal and spatial/performance abilities. Verbally gifted children told MA-equivalent stories and spatially gifted children drew MA-equivalent pictures. This finding suggests an alternative explanation for the

findings of Piagetian studies, namely that some Piagetian tasks are learning confounded and some are not. Performance on tasks believed to be learning confounded was, however, limited to advancement of one substage. This suggests that there is an "optimal level" of development (Fischer & Pipp, 1984) which can be expected in certain problem solving situations, even for bright children.

A model of gifted children's thinking within Case's neo-Piagetian framework provided knowledge of structural level and processing capacities. Some specific abilities were also identified, such as linguistic and graphic maturity. These appeared to be independent of a general/developmental model and were much farther in advance of age expectations. Further research will address the nature of the relationship between these two types of knowledge and the implications for educational planning.

I would be pleased to hear from anyone with interest in developmental approaches to giftedness. Please contact:

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Case, R. (1985). *Intellectual development: Birth to adulthood*. New York: Academic Press.

Fischer, K. W., & Pipp, S. L. (1984). Processes of cognitive development: Optimal level and skill acquisition. In R. J. Sternberg (Ed.), *Mechanisms of cognitive development* (pp. 45-80). New York: W. H. Freeman.



## Gifted Child Registry Home Environment Study

Ray H. Swassing, Ohio State University

The purpose of the Home Environment study is to apply a systems approach for understanding the influences of home life on the development of talent, particularly in homes where there are children who are both gifted and have physical and/or sensory disabilities (hearing and vision). A second group of families will include a gifted child or children and a sibling with a disability. The current experimental instrument, The Gifted Child Registry Home Environment Survey (GCRHES) (in fourth revision) is composed of 180 items divided among two forms (A and B). The items were developed from the literature using the concept of "presses" or environmental factors that promote abilities (Marjoribanks, 1972). To define a scale that is efficient and conceptually sound, data gathered with the two sets of forms will be analyzed and one form of 40 to 60 items will be developed. The final scale will be used as the basis for home training materials and activities for fostering abilities within family life settings. Given the limited number of children that meet these criteria, the Home Environment study is seeking a national and international database. For information and participation contact the author at Ohio State University, 356 Arps Hall, 1945 North High Street, Columbus, OH 43210. Telephone requests at (614) 292-8787.

Marjoribanks, K. (1972). Environment, social class, and mental abilities, *Journal of Educational Psychology*, 63, 103-109.

## A Case Study of the Childhood Art Work of An Artistically Talented Young Adult

Enid Zimmerman, Indiana University

This case study focuses on the graphic development of a highly talented art student through retrospective accounts of his reactions to his spontaneous art work done from age 3 until he was in the tenth grade. Data from this case study appear to support claims that interactions among factors of biology, culture, skill mastery, personal disposition, and modeling after images of others can be used to explain insights into talented children's development in art.

In this study, ability to depict the world realistically is viewed as only one indicator of art talent. Some artistically talented young people's depiction of objects is influenced by Western spatial conventions; others depict visual narratives using details, theme and variations, humor, paradoxes, puns, metaphors, and deep emotional involvement. It is hypothesized that artistically talented young people may choose to work in one mode or another at different phases of their art development.

I am seeking information from others who might be conducting case studies of the work of artistically talented young people to compare with this one to substantiate or refute generalizations generated in this research. It is hoped that through such case studies an understanding of how art talent develops and new ways of identifying artistically talented students may emerge.

## Study of Precocious Youth

Cheryl E. Sanders, Iowa State University of Science and Technology

The Study of Mathematically Precocious Youth at Iowa State University (SMPY at ISU) is conducting a longitudinal study of individuals identified as verbally, but especially mathematically, gifted. SMPY officially started under Dr. Julian C. Stanley's leadership in 1971 at Johns Hopkins University; the longitudinal study continues under the direction of Dr. Camilla P. Benbow at Iowa State University. Youth who reason extremely well mathematically and verbally are identified in 7th and 8th grade via talent searches using tests designed for college-bound high school students, the SAT and more recently the ACT. Selected samples from these talent searches, which will cover a 20 year period, are being studied through their adult lives. The purpose of this follow-up study is to characterize the process whereby childhood potential unfolds into adult achievement and then identify the factors that impact upon that process. Investigated are the development, needs, and characteristics of intellectually able students. In addition, the longitudinal study helps evaluate the impact of various educational options upon gifted children's development. SMPY's ultimate goal is to utilize the knowledge gained through research to improve both the quality and speed of gifted students' education, as well as to gain a better understanding of the nature, nurture, and consequences of mathematical and verbal precocity.

## But What About the Prom

Kathleen Noble, University of Washington

Many adults consider radical educational acceleration to be detrimental to adolescents, largely because of the perceived social benefits of attending high school. But many young people consider these benefits to be dubious, at best, and are quite happy to forego them. How do students who elect to skip high school in favor of early university entrance evaluate their choice? This study investigated the perceptions and experiences of 25 students who are currently enrolled in the University of Washington through participation in the Early Entrance Program (EEP). All entered the UW before the age of 15 without attending high school. The principal investigator, Dr. Kathleen Noble, and her research assistant, Julie Drummond (a UW junior and "EEP'er"), conducted interviews with a large sample of EEP students and all members of their preparatory faculty to answer a number of questions (e.g., why students and their families chose this option, what characteristics are needed to succeed within the EEP, how important is the presence of a peer group, how do professors and regular-age classmates relate to their presence, and what are the advantages and disadvantages of radical educational acceleration?). Data from these interviews are currently being analyzed and will be published upon completion.



## A Comparison of Two Painting Teachers of Talented Early Adolescent Art Students

Enid Zimmerman, Indiana University

The purpose of this study was to describe, analyze, contrast, and compare characteristics of two painting teachers to determine what factors might be crucial in successful teaching of talented early adolescent art students. In on-site case studies in the art classrooms, observations, interviews with students and their teachers, time sampling, analysis of student application forms, observer journals, and group conversations with students and observers were used to collect data.

Although art work produced in both classes was at a high level, and students evaluated both teachers positively, one teacher appears to have presented a more coherent and complete experience than the other. This conclusion is based on the observation that success in an art class is the result of more than simply teaching talented young people technical skills. The proactive teacher was able to develop an environment conducive to active learning, make significant curricula and instructional decisions, and generate an interest in learning and thinking among his students.

These case studies call into question established methods of evaluating success of teachers of talented young people through student products and interviews. I am interested in contacting others who are conducting similar research to determine if generalizations from this study might be accepted or refuted.

## Scoring Divergent Thinking Tests Using Total Ideational Output and a Creativity Index

Mark A. Runco, Wayne Mraz  
California State University, Fullerton

Several educational theorists have suggested that divergent thinking should be encouraged in the classroom. There are, however, various problems with the scoring techniques currently used with tests of ideational creativity. The present investigation tested two possible improvements in scoring procedures. The first potential improvement involved ratings of total ideational output. This procedure is in direct contrast to the conventional scoring of single ideas. The second improvement was to score ideational sets specifically for creativity rather than for the conventional indices (e.g., originality, flexibility, and fluency). The utility of these potential improvements was determined by calculating the reliability and discriminant validity of scores based on examinees' total ideational output. Ideational output was judged by 30 college students (mean age of 27 years). The ideas that were rated were given by 24 adolescents who had received two Uses tests (shoe and tire) and two Instances tests (strong things and things on wheels). Results indicated that the ratings of total output had high inter-rater reliabilities and moderate inter-item reliabilities. There was, however, poor discriminant validity between judges' ratings of creativity and ratings of intelligence. The results are interpreted in the context of theories of creativity.

## Improving the Parental Evaluation of Children's Creativity

Mark A. Runco, Diane Johnson  
California State University, Fullerton

This investigation is a simple extension of social validation research reported by Runco (1989). He developed the Parental Evaluation of Children's Creativity (PECC). We intend to modify that measure, using much the same methodology as before. In particular, we plan to administer the Adjective Check List (ACL) (Gough & Heilbrun, 1980) to several groups of adults. The adults will be asked to complete the ACL once to describe a creative child, and once to describe an uncreative child. Half of the group will receive the "creative child" instructions first, and the other instructions for completing the ACL will be taken from Gough and Heilbrun (1980), with the only change being the specification of "creative" or "uncreative child." The intent is to find 20-30 adults in each of the four groups: parents who have never taught; teachers who are not parents; parents who have taught; and adults who are neither teachers nor parents. This will improve upon the earlier measure in that only experienced parents (with no teaching experiences) will be used. (Teachers' ratings can be obtained with the "socially valid" Teachers' Evaluation of Students' Creativity (TESC; Runco, 1984, 1987).) Additionally, as it stands, the PECC only contains indicative items. Theoretically, it should also include contraindicative items. Hence the questions about uncreative children.

## NRC/GT: Update of Year 2 Activities

From page 5

Learning Outcomes Study - The University of Virginia

- Self-concept assessment
- Content assessment
- Motivation assessment
- Behavioral adjustment assessment by teachers and parents

Theory-Based Approach to Identification, Teaching, and Evaluation - Yale University

- High school psychology text
- Triarchic abilities test
- Assessment of intelligence
- Problem solving/thinking skills
- Product development
- Curriculum match to intellectual style

The resulting matrix is several pages and it really illustrates how our studies reflect the educational issues of interest at the national level. An abbreviated version of the matrix, listing the studies without the major elements, is displayed in this newsletter.

Future issues of the NRC/GT Newsletter will summarize more findings from our Year 1 studies. We will also keep you apprised of the NRC/GT publications at national conventions.



# The National Center for Research on Evaluation, Standards, and Student Testing (CRESST)

Eva L. Baker, Robert L. Linn, University of California, Los Angeles

The National Center for Research on Evaluation, Standards, and Student Testing (CRESST) marks its first anniversary this October. CRESST, whose primary offices are located on the UCLA campus, is involved in the improvement of educational quality through advanced assessment research and development. CRESST is committed to serving educational policymakers, practitioners, and the public through a variety of services, including an extensive research database of over 340 assessment reports, monographs, and papers. Copies of these reports are available through the Center by calling (213) 206-1512.

For other types of assistance on current CRESST assessment programs or if you would like to discuss your current program with a CRESST project director, please call the Center at (213) 206-1532. Or write to CRESST/UCLA, Graduate School of Education, 145 Moore Hall, 405 Hilgard Avenue, Los Angeles, California 90024-1522. CRESST is committed to serving anyone involved or interested in assessment research and is happy to help you in any way possible.

## Congratulations to a G/T Colleague

Special congratulations go out to Dr. Gwendolyn Cooke from her friends and colleagues at The National Research Center on the Gifted and Talented and The University of Connecticut. Gwendolyn is a graduate of the Teaching the Talented Program and she has been named urban services director at the National Association of Secondary School Principals (NAASP).

Gwendolyn's role at the NAASP will be to develop programs to strengthen the leadership skills of principals and assistant principals in urban schools. As a former principal in Baltimore, Maryland, we know that she will bring her multiple talents and experiences to the nation's largest organization of school administrators.

## Young Gifted Children

From page 11

4. Parents and teachers must listen to gifted children. They should allow them time to think and to play and provide the opportunities for children to expand to their fullest potential as they indicate their specific interests and abilities.
5. Gifted children need the guidance and wisdom of adults; they may possess a greater degree of ability in a given area, but they do not know everything.
6. Gifted children have the right to an education that meets their special needs; well-informed advocacy is the role of both parents and teachers.

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