



**THE NATIONAL  
RESEARCH CENTER  
ON THE GIFTED  
AND TALENTED**

*University of Connecticut*

*City University of New York, City College*

*Stanford University*

*University of Virginia*

*Yale University*



**A Compendium of Research-Based  
Information on the Education of Gifted  
and Talented Students**

Karen S. Logan

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March 1997  
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The Directorate of the NRC/GT serves as an administrative and a research unit and is located at the University of Connecticut.

The participating universities include the City University of New York, City College, Stanford University, University of Virginia, and Yale University, as well as a research unit at the University of Connecticut.

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## **Acknowledgements**

The intent of this document is to provide a single source for a complete listing of all papers, journal articles, book chapters, books, presentations, and videotapes created by and for The National Research Center on the Gifted and Talented. While the scope of the project did not change, the breadth did, expanding like a ripple effect, to encompass all those who contributed to the prolific work of the Center. This document would not have been possible, but for the tireless efforts of the following researchers, editors, and reviewers: M. Katherine Gavin, Valentina Kloosterman, Karen Logan, Mary Rizza, Patricia Schuler, Cathy Suroviak, and Siamak Vahidi.

*E. Jean Gubbins*





## The National Research Center on the Gifted and Talented

Abelman, R. (1992). *Some children under some conditions: TV and the high potential kid* (RBDM 9206). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This monograph examines the relationship between intellectually gifted children and television and summarizes research on this subject, primarily conducted by Project KIDVID at Cleveland (Ohio) State University. After an introduction and discussion of the available scientific literature, research-supported facts and related questions are presented concerning the following: (a) television viewing habits; (b) program comprehension; (c) commercial advertising; (d) program preferences; (e) perceived reality; (f) parental mediation; (g) governmental mediation; and (h) instructional opportunities. Resulting research-based guidelines are offered. First, although young gifted children spend significantly more hours watching television than same-age peers, this does not necessarily warrant parental concern. Second, parents should be sure programming matches the child's capability to follow the story line and is sufficiently challenging. Third, younger children should avoid program-length commercials. Fourth, pay television (cable, video, rentals) currently provides the most reliable supply of quality children's programs. Fifth, prime time commercial television offers inadequate and inappropriate role models for gifted children. Sixth, the most effective forms of parental mediation are purposeful program selection and covieing with the child. Seventh, parents should become involved in influencing the quality and quantity of local children's programming. Eighth, television in the classroom has a place in gifted education. An appendix lists 14 television-related activities. (Contains 33 references.)

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Adams, C. M., & Callahan, C. M. (1993, April). *The reliability of a performance task for identifying students with aptitude in science*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

This paper reports on a study to determine the reliability of an instrument to identify students with aptitude in science. The areas addressed in this study were: interrater reliability, intrarater reliability, equivalent forms reliability and stability. A sample was taken of 176 students from five Collaborative School Districts that expressed interest in participating in The National Research Center on the Gifted and Talented's reliability and validity studies of identification instruments. The reliability of the instrument was sufficiently high to warrant validity studies.

Target Audience: Researchers; Administrators; Practitioners

Availability:

Adams, C. M., & Callahan, C. M. (1994-1995, Winter). Examining a tool for assessing multiple intelligences. *G/T Indiana*, 5(2), pp. 6-7.

This articles discusses a study at the University of Virginia regarding the identification of young gifted children.

Target Audience:            Researchers; Practitioners

Availability:

Adams, C. M., & Callahan, C. M. (1995, Winter). The reliability and validity of a performance task for evaluating science process skills. *Gifted Child Quarterly*, 39(1), 14-20.

The Diet Cola Test was designed as a process assessment of science aptitude. Investigations of the instrument's reliability and validity for that purpose led to the conclusion that the data did not support the use of the instrument for making decisions about aptitude for individual students. Although the instrument was not suited for decision making for the purpose of identification, examination of the reliability and the item content, and further investigation of the validity suggested that it might be a suitable instrument for assessing science process skills as part of program or curricular evaluation.

Target Audience:            Researchers; Practitioners

Availability:

Adams, C. M., Callahan, C. M., Starnes, W. T., & Leibowitz, M. A. (1993, April). *Psychometric properties of a checklist to assess multiple intelligences*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

Many educators have emphasized the need to identify giftedness in young children. The project staff of The Early Childhood Gifted Model Program have developed a Checklist for Identifying Learning Strategies based on Howard Gardner's theory of multiple intelligences. This instrument is a means of searching for the talents of culturally diverse, economically disadvantaged gifted students in kindergarten through second grade. Intrarater reliability was sufficiently high to warrant serious consideration of the instrument. Scores across domains were not highly correlated with each other, supporting Gardner's assertion that the domain appears to be discrete.

Target Audience:            Researchers; Practitioners

Availability:

Alvino, J. (1995). *Considerations and strategies for parenting the gifted child* (RM 95218). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Parents of gifted children are typically the single most important influence in their child's development, outlook, and fulfillment of talent. This monograph offers

practical suggestions for interacting with gifted children at home, for building the kind of foundation to support the edifice of talent, productivity, and self-actualization characterizing gifted adults.

Target Audience: Parents; Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Archambault, F. X., Jr., Reis, S. M., & Westberg, K. L. (1990). The classroom practices study: What instructional practices are currently in use with gifted students in heterogeneously grouped classes? *Communicator: The Journal of the California Association for the Gifted*, 20(5), 30-31.

This article reports on the results of the Classroom Practices Study conducted by The National Research Center on the Gifted and Talented which gathered questionnaire responses from 6 samples totaling about 2,000 third- and fourth-grade teachers. The data were analyzed regarding the extent to which gifted and talented students receive differentiated education in regular classrooms. The study found that teachers made only minor modifications in the regular curriculum, with provision of thinking and questioning activities the most frequently used practice.

Target Audience: Researchers; Practitioners

Availability:

Archambault, F. X., Jr., Westberg, K. L., Brown, S. W., Hallmark, B. W., Emmons, C. L., & Zhang, W. (1993). *Regular classroom practices with gifted students: Results of a national survey of classroom teachers* (Research Monograph 93102). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Classroom Practices Survey was conducted by The National Research Center on the Gifted and Talented to determine the extent to which gifted and talented students receive differentiated education in regular classrooms across the United States. A survey instrument called the Classroom Practices Questionnaire was developed to obtain background information on third and fourth grade teachers, their classrooms, and school districts, as well as their perceptions of teaching behavior related to gifted and average students in their classes. The major finding of this study is that third and fourth grade teachers make only minor modifications in the regular curriculum to meet the needs of the gifted students. This result holds for public school teachers, private school teachers, and for teachers in schools with high concentrations of ethnic minorities. The survey also revealed that the regular classroom services provided to gifted students in schools with formal gifted programs are similar to those provided in schools without formal programs.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Archambault, F. X., Jr., Westberg, K. L., Brown, S. W., Hallmark, B. W., Zhang, W., & Emmons, C. L. (1993). Classroom practices used with gifted third and fourth grade students. *Journal for the Education of the Gifted*, 16(2), 103-119.

Questionnaire responses from 6 samples totaling about 2,000 third- and fourth-grade teachers were analyzed regarding the extent to which gifted and talented students receive differentiated education in regular classrooms. The study found that teachers made only minor modifications in the regular curriculum, with provision of thinking and questioning activities the most frequently used practice.

Target Audience:            Researchers; Practitioners

Availability:

Baum, S. M., Renzulli, J. S., & Hébert, T. P. (1995). *The prism metaphor: A new paradigm for reversing underachievement* (CRS 95310). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The purpose of this multiple case study was threefold. The first objective was to examine the phenomenon of underachievement using creative productivity, specifically Type III enrichment (Renzulli, 1977), as a systematic intervention for reversing the pattern. Type III enrichment provides opportunities for students to become actual investigators of real problems in areas of interest through suitable means of inquiry and to bring their findings to bear on real world audiences. The next goal was to describe and analyze the effects of the intervention on participating students, and last, to develop grounded theory about the dynamics of reversing the underachievement pattern. Twelve teachers who had received training in the *Enrichment Triad Model* (Renzulli, 1977) selected 17 students identified as gifted who were underachieving in their academic classroom settings. The 17 students ranged in age from 8-13 and included five girls and 12 boys. All students were guided through a Type III study by their referring teacher. Interviews with students and teachers, teachers' observational logs, student products, and documents provided information about individual students in the context of pursuing Type III investigations. The findings were numerous. First, a variety of factors were identified as contributing to the underachievement pattern of high ability students including: emotional issues; social and behavior problems; the lack of an appropriate curriculum; and learning and self-regulation difficulties. These contributing factors resulted in the students' demonstrating unique learning needs. The second and most compelling finding of the research was the positive gains made by the students through their involvement in the Type III intervention. Eighty-two percent of the students made positive gains during the course of the year or in the year following the intervention in achievement, attitude, or behavior. Most were no longer underachieving in their school settings at the end of the intervention. Five aspects of the problem evolved as an important focus for different groups of students depending on their unique learning needs: a) the relationship with the teacher, b) the presentation of self-regulation strategies, c) the opportunity to investigate their own issues of underachievement, d) the opportunity to work in an area of interest in their preferred style of learning, and e) the opportunity to interact with an appropriate peer group.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Billingsley, B. S., & Tomchin, E. M. (1992). Four beginning LD teachers: What their experiences suggest for trainers and employers. *Learning Disabilities Research and Practice*, 7(2), 104-112.

This study of the experiences of four beginning teachers of learning-disabled students examines teachers' pedagogical concerns (such as discipline and locating materials); concerns about special education (mainstreaming and consultation with classroom teachers); concerns about organization and time; amount and type of assistance received; and implications for local education agencies and for teacher preparation.

Target Audience: Researchers; Practitioners

Availability:

Bland, L. C., Sowa, C. J., & Callahan, C. M. (1994). An overview of resilience in gifted children. *Roeper Review*, 17(2), 77-79.

This article compares the characteristics of resilience and giftedness and considers the implications these similarities have for understanding the social and emotional adjustment of gifted children.

Target Audience: Parents; Researchers; Practitioners

Availability:

Brandwein, P. F. (1995). *Science talent in the young expressed within ecologies of achievement* (RBDM 9510). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Six interrelated constructs form the body of this study. The first describes a skein of achievement-centered, goal-targeted environments that do—or should—comprise the inspiring teaching and learning that can enhance the endowments of the young. The second presents studies of unfavorable environments that block the goals of equal opportunity, optimum achievement in science, and the discovery of science proneness or talent. The third comprises elements of formal learning in augmenting environments focusing on instruction as an event evoking early discovery through self-identification of gifted children with a particular bent (or proneness) to science. The fourth is based in the conviction that curriculum and instruction are distinct but related fields within present models of instructed learning. The fifth exemplifies curriculum and instruction, focused in special aptitudes and abilities, relevant to science proneness as precursor to self-identification of a science talent. The sixth concerns science talent in practice. It describes a skein of discoveries, one leading to another, and concludes with a definition of science talent.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Burns, D. E. (1993). *The explicit teaching of thinking skills: A six phase model for curriculum development and instruction* [Videotape Set No. V932]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This one hour teacher training videotape explains and highlights strategies that classroom teachers and gifted education specialists in grades K-12 can use to improve students' higher level thinking skills. The tape includes a rationale for the explicit teaching of thinking skills, suggestions for preparing thinking skills lessons, and an explanation of each of six phases of the model for curriculum development and instruction. Included with the videotape is a reproducible handout packet.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$120.00)

Callahan, C. M. (1991). Callahan investigates instruments in gifted education. In D. E. Burns (Ed.), *The Confratute Times*. Storrs, CT: University of Connecticut.

Describes the development of the instrument repository for the NRC/GT.

Target Audience: Practitioners

Availability:

Callahan, C. M. (1991). *A commissioned paper on the performance of high ability students in the United States on national and international tests*. Charlottesville, VA: University of Virginia.

Highly able students in the United States have received little attention in the wide-ranging discussion of poor performance in the American educational system. Unfortunately, ignoring the results of international and national assessments of this group of students has led to the misconception that they are sufficiently challenged by the educational system. Reviews of national assessments of aptitude and achievement reveal that few strides have been made in significantly improving the performance of the most able students in the United States and the findings from international studies provide devastating evidence that the achievements of the most able students in the United States are far behind those of other industrialized nations. In addition, among students who score highest on assessments used for college admission, fewer and fewer are electing careers in mathematics or science—leaving essential fields for progress to languish in this country. Current trends must be reversed if we are to hope to meet the educational goals set by George Bush for the Year 2000.

Target Audience: Researchers; Practitioners

Availability:

Callahan, C. M. (1992). Determining the effectiveness of educational services: Assessment issues. In *Challenges in gifted education: Developing potential and investing in knowledge for the 21st century* (p. 109-114). Columbus, OH: Ohio Department of Education. (ERIC Document Reproduction Service No. ED 344 416)

Various issues in determining the effectiveness of educational services for gifted students are considered in this chapter. First, the limitations of standardized instruments are identified. These include narrowness of assessment (usually only across traditional curricular areas), invalidity in assessing program goals (which may not correspond to test areas), ceiling effects (an insufficient range of items at the upper end of the continuum), and regression to the mean (a statistical phenomenon which may hide actual growth in achievement). Alternative assessment strategies are then proposed such as locally developed assessment instruments, out-of-level assessment, multiple assessment, assessment in nontraditional areas or in traditional areas using nontraditional means. The issue of standards in gifted program evaluation is discussed noting the effect of national achievement standards on assessing gifted student achievement and changes in grade equivalency scores as standards. Finally, both the use of control groups to determine outcomes and the use of qualitative evaluation strategies are considered.

Target Audience: Researchers; Practitioners

Availability: EDRS Price - Microfiche 01/Paper Copy 01 Plus Postage

Callahan, C. M. (1992). Evaluating programs for the gifted. *Update on Gifted Education: Administrative Issues*, 1(4), 45-46.

The National Research Center on the Gifted and Talented at the University of Virginia answers the call for appropriate identification and evaluation instruments for gifted children.

Target Audience: Administrators; Teachers; Counselors

Availability:

Callahan, C. M. (1993). Development of the scale for the evaluation of gifted identification instruments (SEGII). *Gifted Child Quarterly*, 37(3), 133-140.

This article describes the Scale for the Evaluation of Gifted Identification Instruments, developed for use by school decision makers. Development of the scale is reviewed in terms of five areas of assessment: validity, reliability, propriety, respondent appropriateness, and utility. Specific guidelines and cautions in using the scale are also provided.

Target Audience: Administrators; Researchers; Practitioners

Availability:

Callahan, C. M. (1993). Evaluation programs and procedures for gifted education: International problems and solutions. In K. A. Heller, F. J. Monks, & A. H. Passow (Eds.), *International handbook for research on gifted and talented* (pp. 605-618). Oxford: Pergamon Press.

This article reviews the history of evaluation, current practices and problems in program evaluation, along with possible solutions.

Target Audience: Researchers; Practitioners

Availability:

Callahan, C. M. (1994). Foundations for the future: The socio-emotional development of gifted, adolescent women. *Roepers Review*, 17(2), 99-105.

This study investigated the existence of and extent of phenomena which influence gifted, adolescent women. The five participants attended the sixth, seventh, or eighth grade. Over a 12 month period, data were gathered through interviews with the adolescent gifted women both in and out of school; and examination of school records, including grades and test scores. Problem solving ability and family support were identified as factors which may help young women cope with current and future barriers to success.

Target Audience: Practitioners; Parents

Availability:

Callahan, C. M. (1995). Evaluating instructional outcomes for gifted students. In J. L. Genshaft, M. Bireley, & C. L. Hollinger (Eds.), *Serving gifted and talented students* (pp. 83-99). Austin, TX: Pro-Ed.

Determining the effectiveness of education services and programs for the gifted is predicated on the assumptions that school personnel (a) know what to look for as reasonable indicators of success, (b) know how to assess change on those indicators, and (c) know how to interpret that change when it does occur. The lack of direction and the dearth of exemplary practice on these assessment issues continue to plague gifted program administrators, teachers, evaluators, and parents.

Target Audience: Researchers; Practitioners; Parents

Availability:

Callahan, C. M., Adams, C. M., Bland, L. C., Moon, T. R., Moore, S. D., Perie, M., & McIntire, J. A. (1993, April). *Factors influencing recruitment, enrollment and retention of students in special schools of mathematics, science and technology*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

Surveys of students from Schools of Mathematics, Science and Technology were used as a basis for examining the influences on decisions to apply to, attend, and either continue or leave these special schools. Responses were gathered from male and female students from four racial/ethnic groups (Caucasian, African American,



Hispanic, and Asian students) who fell into one of the following categories: (a) students who currently attended the school, (b) students who had attended the school but had withdrawn, (c) students who had been accepted to the school, but elected not to attend, and (d) students who had been referred to the school or expressed an interest but never applied, were compared.

Quantitative analyses resulted in the finding that females had participated in significantly more extracurricular activities; fathers of Asian students had a higher educational level than those of African American and Hispanic students; fathers of Caucasian students had a higher educational level than fathers of Hispanic students; mothers of Hispanic students had a lower educational level than those of all of the other groups. Qualitative analyses of open-ended questions suggest that families are important in the decision-making process related to application and continued enrollment as are peers.

Target Audience:            Researchers; Practitioners; Parents

Availability:

Callahan, C. M., & Caldwell, M. S. (1993). Establishment of a national data bank on identification and evaluation instruments. *Journal for the Education of the Gifted*, 16(2), 201-219.

This article describes the database of the National Repository for Instruments and Strategies Used in the Identification and Evaluation of Gifted Programs (University of Virginia). The Scale for the Evaluation of Gifted Identification Instruments is applied to the Kaufman Assessment Battery for Children. A sample bibliographic reference from the database is also offered.

Target Audience:            Researchers; Practitioners

Availability:

Callahan, C. M., Cornell, D. G., & Loyd, B. H. (1992). The academic development and personal adjustment of high ability young women in an early college entrance program. In N. Colangelo, S. G. Assouline, & D. L. Ambrosio (Eds.), *Talent development: Proceedings from the 1991 Henry B. and Jocelyn Wallace national research symposium on talent development* (pp. 248-260). Unionville, NY: Trillium Press.

For the past five years researchers at the University of Virginia have been collecting data on young women enrolled in a program which allows them to earn their high school and college diplomas within four to six years. The research has been descriptive of the characteristics of the young women in the program, has explored the changes in these young women compared to a group of equally highly able young women not in the program, and has explored variables which are predictive of success in the program. The results of the study thus far indicate that the young women choosing this program are much like a sample of non-accelerants across a variety of personality and adjustment measures upon entry into the program. There is great variability in adjustment to the program and various family and personality measures are predictive of that adjustment. Overall, the young women in the program have demonstrated positive growth across measures of adjustment, but the expected change in interests has not occurred. Achievement of the young women in

the program (as measured by standardized tests) has been outstanding. Analysis of Rorschach profiles indicates that the creativity of gifted young women may result in unusual response patterns on such projective instruments that should be interpreted with caution by clinicians.

Target Audience: Practitioners; Administrators

Availability:

Callahan, C. M., Genshaft, J. L., Biererly, M., & Hollinger, C. L. (1994, February). *Serving gifted and talented students*. Paper presented at the Future Direction for the Education of Gifted Learners Symposium, Texas Education Agency, Austin, TX.

The National Research Center on the Gifted and Talented at the University of Virginia answers the call for appropriate identification and evaluation instruments for gifted children.

Target Audience: Practitioners; Administrators

Availability:

Callahan, C. M., & Hunsaker, S. L. (1990, November). An investigation of identification instruments and evaluation designs. *Communicator: The Journal of the California Association for the Gifted*, 20(5), 27.

The National Research Center on the Gifted and Talented at the University of Virginia answers the call for appropriate identification and evaluation instruments for gifted children.

Target Audience: Practitioners

Availability:

Callahan, C. M., & Hunsaker, S. L. (1992). To accelerate or not to accelerate: Evaluation gives the answer. *Gifted Child Today*, 15(2), 50-56.

This article examines issues of student and program evaluation in determining the appropriateness of acceleration of gifted students. Intellectual and nonintellectual factors in identifying students for acceleration are discussed as are factors in monitoring student success. Specific program evaluation questions and design issues are also addressed.

Target Audience: Practitioners

Availability:

Callahan, C. M., & McIntire, J. A. (1994). *Identifying outstanding talent in American Indian and Alaska native students* (Report No. PIP-94-1219). Washington, DC: Office of Educational Research and Improvement.

This report reviews and synthesizes the most promising practices used to identify exceptionally talented students from the Native American population. Preliminary information includes an Indian Student Bill of Rights, discussion of the problem of talent identification, and discussion of special issues including diversity within the Native American population and cultural assimilation versus accommodation. Eight principles of identification are then presented. These include, among others, using assessments that go beyond a narrow conception of talent; using appropriate instruments with underserved populations; and using a multiple-measure/multiple-criteria approach to identification. Specific practices are then considered, which address: balancing the ideal and the practical; deciding on a concept of talent; recognizing the issues of a particular school; identifying traits that may influence manifestations of talent; recognizing behaviors that distinguish some Native American students from the general population; looking for manifestations of talent potential, alternative behaviors, situations, and interpretations; selecting and constructing appropriate assessment tools; and using the collected student data to make decisions. Recommendations address technical assistance, professional development, assessment portfolios, experimental programs, and program funding. Five appendices include technical information concerning evaluation measures, two sample case studies, and a list of assessment instruments. (Contains 77 references.)

Target Audience: Practitioners; Administrators

Availability:

Clark, G. A., & Zimmerman, E. (1992). *Issues and practices related to identification of gifted and talented students in the visual arts* (RBDM 9202). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This paper offers a critical examination of definitions, issues, and practices relative to identification of students who are gifted and talented in the visual arts. The lack of agreement on the definition of talent in the arts is discussed, along with the role of culture, student characteristics, creativity, skills, cognitive abilities, affective abilities, interest and motivation, potential and processes contrasted with performance and products, art specializations, and distribution of arts talent in the general school population. Identification issues are then examined in relation to the use of outcomes derived from standardized art tests; intelligence, achievement and creativity tests; students' backgrounds, personalities, values, and ages; and use of multiple criteria identification systems. Examination of current practices and critical reviews of their advantages and disadvantages are reported in regard to non-structured nominations, structured nominations, group intelligence quotients, achievement tests, academic records, standardized art and creativity tests, informal art instruments, portfolio and performance reviews, interviews, and observations. These practices are hierarchically arranged as steps in an identification program and in terms of their most appropriate age/grade applications. Conclusions are drawn about future applications of issues and practices. (Contains 142 references.)

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Clark, G., & Zimmerman, E. (1994). *Programming opportunities for students gifted and talented in the visual arts* (RBDM 9402). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Mixed ability grouping, ability grouping and acceleration are programming opportunities generated from a review of art education and gifted and talented literature. This paper provides examples of programming opportunities in each of these categories and recommends topics for further research.

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Clinkenbeard, P. R. (1991). Unfair expectations: A pilot study of middle school students' comparisons of gifted and regular classes. *Journal for the Education of the Gifted*, 15(1), 56-63.

Students in a sixth grade gifted class were asked to write an essay comparing and contrasting their experiences in gifted classes and regular classes. These data were collected as part of a semester-long qualitative study of motivation patterns in middle school gifted classrooms. The specific intent of the essay assignment was to address the special issues in motivation which arise when a child is labeled "gifted" and placed in a classroom full of intellectual peers. Responses were analyzed and clustered into themes via group consensus. A major theme expressed by students was that teachers and peers outside the gifted class seem to have unfair expectations for the gifted students. Specific topics included grading, group work, lack of acknowledgment for effort, treatment by peers, and teacher expectations.

Target Audience: Practitioners

Availability:

Clinkenbeard, P. R. (1994, April). *Motivation and underachievement in urban and suburban gifted preadolescents*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Yale University, through The National Research Center on the Gifted and Talented, investigates three aspects of gifted education—identification, instruction, and assessment using the Triarchic Theory of Intelligence model.

Target Audience: Researchers; Practitioners

Availability:

Clinkenbeard, P. R., & Delcourt, M. A. B. (Eds.). (1995). *What educators need to know about student motivation* [Brochure A9509]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochure provides an overview of intrinsic and extrinsic motivation, along with strategies designed to help increase motivation.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$0.50)

Cognard, A. M. (1996). *The case for weighting grades and waiving classes for gifted and talented high school students* (RM 96226). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Weighted grades or waiving classes are two separate issues. What they have in common is that they affect students, specifically gifted students. Because of that latter point, both of these issues were studied, not as interactive issues associated with gifted students, but as two of many that affect such students. Four approaches to research occurred. First, interviews with teachers, counselors, and administrators were conducted in four high schools. Second, questionnaires that asked for short-essay responses were sent to state and regional high schools. Third, 300 questionnaires that asked for a fill-in response were sent out nationally. Fourth, short-answer questions were sent to college admission directors of selected public and private colleges. This study gives school personnel a preliminary overview on what is currently happening in a sampling of the nation's schools.

Target Audience: Researchers; Practitioners; Administrators

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Cornell, D. G. (1990, November). *What happens to students in gifted programs? The learning outcomes study at the University of Virginia*. Paper presented at the Annual Convention of the National Association for Gifted Children, Little Rock, AR.

This paper introduces the Learning Outcomes Study at the University of Virginia, an ongoing 2-year investigation of over 1,000 elementary school children who entered one of 16 different gifted programs (or no program) in the fall of 1990. The study will compare effects of four examples of four types of program delivery arrangements: (a) within classroom (or mainstream type); (b) pull-out programs; (c) separate classes or ability tracking; (d) and special schools. Special comparisons will be made of program effects on minority and disadvantaged students. Information will also be collected on each program's curriculum, teaching methods and goals, as well as the background and training of program teachers, and student identification criteria. Students will be assessed four times: at the time of entry into a formal gifted program, at the end of their first year in the program, and at the beginning and end of their second year. Multiple outcome measures will assess student achievement, attitudes, and adjustment. Additional questions possibly

examined include the relationship between self-concept and intrinsic motivation; whether these two concepts have a differential impact on achievement; and the behavioral adjustment of high achieving students.

Target Audience: Researchers; Practitioners

Availability:

Cornell, D. G., & Delcourt, M. A. B. (1990). Achievement, attitudes, and adjustment. *Communicator: The Journal of the California Association for the Gifted Newsletter*, 20(5), 28.

Quantitative analysis of the Outcomes Study at the University of Virginia indicate that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners; Parents

Availability:

Cornell, D. G., Delcourt, M. A. B., Bland, L., Goldberg, M. D., & Oram, G. (1994). Low incidence of behavior problems among elementary school students in gifted programs. *Journal for the Education of the Gifted*, 18(1), 4-19.

This report summarizes a comparison of 675 gifted and 322 regular education students (grades 2 or 3) on the incidence of behavior problems as rated by parents using the Achenbach Child Behavior Checklist (CBCL) and by teachers using the Teacher Report Form of the CBCL. After controlling for grade and minority status, there were no significant differences between gifted and regular education students in the incidence of any form of behavior problems as rated by either teachers or parents. The small group of gifted education students rated as having a clinically high level of total behavior problems did not differ from a comparable group of regular education students in the kinds of behavior problems they exhibited. Agreement between parent and teacher ratings was surprisingly low, indicating the need to consider both sources of information in evaluating a child's overall behavioral adjustment.

Target Audience: Researchers; Practitioners

Availability:

Cornell, D. G., Delcourt, M. A. B., Goldberg, M. D., & Bland, L. C. (1991, April). *Achievement and self-concept of minority students entering elementary school gifted programs: The learning outcomes study at the University of Virginia*. Paper presented at the meeting of the American Educational Research Association, Chicago, IL.

Quantitative analysis of the Outcomes Study at the University of Virginia indicates that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners; Parents

Availability:

Cornell, D. G., Delcourt, M. A. B., Goldberg, M. D., & Bland, L. C. (1991, April). *Achievement and self-concept of students entering gifted programs: The learning outcomes study at the University of Virginia*. Paper presented at the annual convention of the Council for Exceptional Children.

Quantitative analysis of the Outcomes Study at the University of Virginia indicates that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners

Availability:

Cornell, D. G., Delcourt, M. A. B., Goldberg, M. D., & Bland, L. C. (1991, October). *Mental health adjustment of elementary school children entering a gifted program*. Paper presented at the First Annual Conference on Multiple Perspectives on Children and Adolescents With Serious Emotional Disturbance, Virginia Beach, VA.

Explores the current practices on evaluation and emotional adjustment issues concerning elementary children in gifted programs for the first time.

Target Audience: Researchers; Practitioners

Availability:

Cornell, D. G., Delcourt, M. A. B., Goldberg, M. D., & Bland, L. C. (1995). *Achievement and self-concept of minority students in elementary school gifted programs*. *Journal for the Education of the Gifted*, 18(2), 189-209.

Despite considerable interest in the identification of minority students for gifted programs, few studies have investigated minority students actually selected for gifted programs. This study reports on the standardized achievement scores and self-concept levels of African American, Hispanic, and White elementary school students placed in a gifted or regular school program. Results indicate that minority students identified for gifted programs scored significantly higher on achievement measures than minority students placed in regular classrooms, although White gifted program students scored significantly higher than both African American and Hispanic gifted program students. There were no minority group differences in academic or social self-concept. Additional analyses suggested that the distinction between academic and social self-concept used with White students may not be applicable to minority students. This article challenges gifted education to address the conceptual problems and methodological difficulties in interpreting the meaning of standardized achievement test scores for minority students in gifted programs.

Target Audience: Researchers; Practitioners

Availability:

Cramond, B. (1994). *The coincidence of Attention Deficit Hyperactivity Disorder and creativity* (RBDM 9508). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

A review of the literature indicates that there are striking similarities between the behavioral manifestations of Attention Deficit Hyperactivity Disorder (ADHD) and creativity. A brief history of ADHD is given tracing the difficulty researchers have experienced in defining and accurately diagnosing this condition. Of particular concern is the fact that the defining characteristics of ADHD, inattention, hyperactivity, and impulsivity, are also key descriptors in biographies of highly creative individuals. The possibility of an overlap in the conditions of high creativity and ADHD is proposed, and some individuals exemplary of both conditions are described. Educators and parents are cautioned to consider the practical implications of mistaking one condition for the other, and warned about the problems with diagnosing ADHD in bright and creative children. Finally, they are advised about appropriate actions to take if a child is suspected of having Attention Deficit Hyperactivity Disorder, referred for psychological screening, or diagnosed with ADHD.

Target Audience:            Researchers; Practitioners

Availability:                The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$6.00)

Delcourt, M. A. B. (1993). Creative productivity among secondary school students: Combining energy, interest, and imagination. *Gifted Child Quarterly*, 37(1), 23-31.

This study of 18 highly creative/productive secondary school students reveals subjects' insights into ways they obtained ideas for their projects, how interest in their investigations was sustained, and what they learned from projects. Data from school documents, students, and parents are examined in terms of demographics, family background, educational experiences, and student perceptions.

Target Audience:            Researchers; Practitioners

Availability:

Delcourt, M. A. B. (Ed.). (1995). *What educators and parents need to know about elementary school programs in gifted education* [Brochure A9508]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochure, which is based on the Learning Outcomes Study, describes the most frequently used program arrangements for elementary school programs in gifted education: within class programs, pull out programs, separate classes, and special schools. Also described are key traits which are consistent across exemplary models of all four program types.



Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Delcourt, M. A. B., Cornell, D. G., Bland, L. D., Dodd, P., & Goldberg, M. D. (1991, November). *The learning outcomes study at the University of Virginia: Year One*. Paper presented at the 38th Annual Convention of the National Association for Gifted Students, Kansas City, MO.

Quantitative analysis of the Learning Outcomes Study at the University of Virginia indicates that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners

Availability:

Delcourt, M. A. B., Cornell, D. G., Bland, L. D., & Goldberg, M. D. (1990, November). *What happens to students in programs for the gifted? The learning outcomes project at the University of Virginia*. Paper presented at the 37th Annual Convention of the National Association for Gifted Students, Little Rock, AR.

Quantitative analysis of the Learning Outcomes Study at the University of Virginia indicate that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners

Availability:

Delcourt, M. A. B., & Evans, K. (1994). *Qualitative extension of the learning outcomes study* (Research Monograph 94110). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This study was a nationwide longitudinal investigation of 1,010 elementary school children who had just entered grades 2 and 3 when the study began. The primary purpose of the study was to assess student changes during their first two years across four types of programs: within class, pullout, separate classes, and special schools. The study was extended by adding a qualitative dimension focusing on an "exemplary" model from each of the four program types. This study was not intended to determine whether one type of program was better than another, but rather to fully comprehend the prevailing circumstances that influence the impact of a certain type of programming arrangement in a given community.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Delcourt, M. A. B., Loyd, B. H., Cornell, D. G., & Goldberg, M. D. (1994). *Evaluation of the effects of programming arrangements on student learning outcomes* (Research Monograph 94108). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This study represents the first major attempt at the national level to assess the effects of programs for the gifted and talented on learning outcomes for elementary school students. The Learning Outcomes Study at the University of Virginia was a two-year investigation of over 1,000 elementary school children in grades 2 and 3. Fourteen Collaborative School Districts in 10 states participated in the study. Academic and affective development were evaluated within four popular types of grouping arrangements: within class, pull out, separate class, and special school. The sample included students from urban, suburban, and rural environments, as well as individuals representing underserved populations. In terms of achievement, gifted children attending special programs performed better than their gifted peers not in pull out programs. Specifically, children in special schools, separate class programs, and pull out programs for the gifted showed substantially higher levels of achievement than both their gifted peers not in programs and those attending within class programs. As far as measures of affect were concerned, there were no differences by program type or ethnic status with respect to social acceptance.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Ellwein, M. C., Graue, M. E., & Comfort, R. E. (1990). Talking about instruction: Student teachers' reflections on success and failure in the classroom. *Journal of Teacher Education*, 41(5), 3-14.

This study examined how 47 student teachers described instructional successes and failures. Interviews identified seven elements of success or failure (student characteristics, implementation, planning, lesson uniqueness, management, student teacher characteristics, and lesson content). Their perceptions of teacher and student role in success or failure are discussed.

Target Audience: Practitioners

Availability:

Fetterman, D. M. (1993). *Evaluate yourself* (RBDM 9304). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This document considers both self-examination and external evaluation of gifted and talented education programs. Principles of the self-examination process are offered, noting similarities to external evaluation models. Principles of self-evaluation efforts include the importance of maintaining a nonjudgmental orientation, soliciting views from the insider's perspective, and triangulating data. The most important techniques in self-evaluation are observation, interviewing, and participation. While self-evaluation maintains an educational program's quality on a daily basis, expert external evaluation is essential to an in-depth and objective understanding.

Important considerations in external evaluation include working with an external evaluator and understanding qualitative and quantitative approaches. Clear communication of evaluation findings is important for both internal and external evaluations. General evaluation guidelines and specific guidelines for evaluating gifted and talented education programs are given. A case study illustrates many of these guidelines, including the importance of context; preparing a program description; the use of verbatim quotations; assessment and analysis; review of the standard program mechanisms (referral, identification, and selection); refinements; analyzing underlying factors; addressing larger sociopolitical concerns; and communicating evaluation findings. Appendices provide further explanation of evaluation components. (Contains 42 references.)

Target Audience: Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Ford, D. Y. (1994). Nurturing resilience in gifted black youth. *Roeper Review*, 17(2), 80-85.

Many children, including the gifted, are at risk for underachievement, school failure, and otherwise not reaching their potential in school and in life. This is most often true of Black youth who face numerous social and cultural barriers to achievement. On the other hand, some youth do adapt to the many barriers to achievement and to the many stressors in their lives. This article explores the concept of resilience as it relates to gifted children, particularly gifted Black children. Also presented are recommendations for fostering resilience in these students and ensuring their success in school and life.

Target Audience: Researchers; Practitioners

Availability:

Ford, D. Y. (1994). *The recruitment and retention of African American students in gifted education programs: Implications and recommendations* (RBDM 9406). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This paper deals with the underrepresentation of minority and economically challenged students, particularly African Americans. It describes the barriers to the successful identification, placement, and retention of African American students in gifted education programs and services, and presents recommendations for ensuring that the recruitment and retention process is successful.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Ford, D. Y. (1995). *Counseling gifted African American students: Promoting achievement, identity, and social and emotional well-being* (RBDM 9506). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The educational and socioemotional status of African Americans is a major concern of educators, counselors, and reformers. Educationally, African Americans have disproportionately high rates of dropout, high representation in special education, and high rates of poor academic achievement; vocationally, they have disproportionately high rates of unemployment and underemployment; and socially, African Americans have disproportionately high rates of incarceration and teen pregnancy.

The purpose of this monograph is to help bridge the fields of education and counseling, focusing in particular on the academic, social and emotional, and psychological concerns of gifted African American students relative to achievement issues, social and emotional issues, and psychological issues. Also discussed are gender issues between African American males and females relative to social and educational variables; barriers to counseling for African American students, including those identified as gifted; and recommendations for counselors who work with these students.

Target Audience:            Researchers; Practitioners

Availability:                The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$6.00)

Frasier, M. M. (1990, Winter). An investigation of giftedness in economically disadvantaged and limited English proficiency students. *Communicator: The Journal of the California Association for the Gifted Newsletter*.

Research conducted at the University of Georgia, The National Research Center on the Gifted and Talented centers around identification and programming for minority populations of gifted students.

Target Audience:            Researchers; Practitioners

Availability:

Frasier, M. M. (1991). President's research profile: Mary M. Frasier. *Annual President's Report 1989-1990*, p. 15. Athens, GA: University of Georgia, Office of Public Information and Office of the President.

This report features the work of Mary M. Frasier, conducted at The National Research Center on the Gifted and Talented at the University of Georgia.

Target Audience:            Practitioners

Availability:

Frasier, M. M. (1991). Response to Kitano: The sharing of giftedness between culturally diverse and non-diverse gifted students. *Journal for the Education of the Gifted*, 15(1), 20-30.

In response to M. Kitano, this article supports her pluralist orientation to gifted education of culturally diverse students and suggests that development of adequate identification procedures require clarification of the gifted construct itself and examination of the relationship between socioeconomic status and being identified as gifted.

Target Audience:            Researchers; Practitioners

Availability:

Frasier, M. M., García, J. H., & Passow, A. H. (1995). *A review of assessment issues in gifted education and their implications for identifying gifted minority students* (RM 95204). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This review examines research and literature that deal with assessment, with the focus on issues related to the identification of potentially gifted students from racial and ethnic minority groups, economically disadvantaged students, and those with limited English proficiency. The review provides background information concerning the issues that affect the identification of gifted minority students, suggests implications for developing more effective identification procedures, and proposes directions for formulating a new approach to the resolution of the problems of identifying gifted minority students—a population that is seriously underrepresented in programs for the gifted. The literature reviewed ranges from research to speculative opinion, from theory to practice, all of which is deemed relevant and important to the discussion of assessment issues and implications for identifying gifted minority students. Although there is consensus that gifted children can be found in every level of society and in every cultural and ethnic group, there is little question that minority and economically disadvantaged students are not found in programs in proportionate numbers. Three major reasons for underrepresentation are discussed: (a) Test bias, (b) Selective referrals, and (c) Reliance on deficit-based paradigms. In addition to proposals for dealing with assessment-related problems by designing strategies for reducing or eliminating test bias, improving the referral process strategies, and stressing cultural strengths rather than cultural deficits, other recommendations for modifying traditional assessment procedures include: (a) the use of multiple criteria and nontraditional measures and procedures, and (b) modifying the selection criteria.

Target Audience:            Researchers; Practitioners; Parents

Availability:                 The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$8.00)

Frasier, M. M., Hunsaker, S. L., Lee, J., Finley, V. S., García, J. H., Martin, D., & Frank, E. (1995). *An exploratory study of the effectiveness of the staff development model and the research-based assessment plan in improving the identification of gifted economically disadvantaged students* (RM 95224). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

A Staff Development Model (SDM) and a Research-Based Assessment Plan (RAP), developed by researchers at the University of Georgia were investigated for their potential to improve the identification and education of gifted students from economically disadvantaged families, some of whom may have limited proficiency in the English language. Overall the models were perceived as an effective way to (a) improve teachers' ability in observing giftedness in target population student groups and (b) facilitate the collection and use of information derived from multiple sources when making decisions for program placement and services. Feedback on the RAP suggested that it is a viable way to systematically consider the interrelationships of information from multiple sources when making gifted program placement decisions.

Target Audience:            Researchers; Practitioners

Availability:                The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$6.00)

Frasier, M. M., Hunsaker, S. L., Lee, J., Finley, V. S., & Martin, D. E. (1995). *Educators' perceptions of barriers to the identification of gifted economically disadvantaged and limited English proficient children* (RM 95216). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This paper presents results from a 10-item survey designed to gain insights into the perceptions that educators hold regarding the problems of identifying gifted minority and economically disadvantaged students. The survey was one component of a larger national field test study being conducted to investigate the effectiveness of a staff development model and an assessment plan to address identification and programming problems. Two major barriers to identification were: test bias and teachers' inability to recognize indicators of potential in certain groups. Five other issues were identified as moderate barriers: students' use of nonstandard English and/or limited English proficiency, deficient language experiences, deficient or limited educational stimulation in the home, narrow screening/selection processes, and teachers' prejudicial attitudes. These perceptions provide important implications for designing staff development programs to address the problems of identifying gifted minority and economically disadvantaged students.

Target Audience:            Researchers; Practitioners

Availability:                The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$5.00)

Frasier, M. M., Martin, D., García, J. H., Finley, V. S., Frank, E., Krisel, S., & King, L. L. (1995). *A new window for looking at gifted children* (RM 95222). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This monograph provides detailed information on how to identify gifted students who have been traditionally underrepresented in programs. An observational approach is outlined for practitioners.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$6.00)

Frasier, M. M., & Passow, A. H. (1994). *Toward a new paradigm for identifying talent potential* (Research Monograph 94112). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This monograph contains six sections. First, a review and critique of traditional identification approaches is provided to highlight the limitations the tests may have for identifying talent potential among currently underrepresented groups, such as racial/ethnic minorities or those of limited English proficiency. Second, the values and environmental influences of several cultures are examined. The third section concerns the results of an exploratory study designed to examine the characteristics of economically disadvantaged and limited English proficient students. In the fourth chapter behaviors that characterize gifted performance are examined. Emerging insights from the Javits Gifted and Talented Students Education Act are addressed in the fifth section. Finally, all insights are synthesized in the last chapter. Five elements that will feature a new paradigm of giftedness are presented and discussed.

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Gavin, M. K., Gubbins, E. J., Guenther, D. R., Neu, T. W., Reis, S. R., Robinson, G. J., Siegle, D., Schuler, P. A., & Vahidi, S. (1994). *Curricular options for "high end" learning* [Videotape Set No. V943]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This one hour teacher training videotape presents several means of differentiating curriculum, including: promoting in-depth learning of a self-selected topic within an area of study; developing productive, complex, abstract and/or higher level thinking skills, and encouraging the development of products that challenge existing ideas and produce "new" ideas. The video features actual classroom lessons with elementary, middle, and high school students involved in communication and spatial skills using math manipulatives; hands-on science investigation with discrepant information; whole classroom participation in a problem-based social studies learning activity; and interest-based learning through enrichment clusters. Also included is a reproducible handout packet.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$120.00)

Gentry, M., Reis, S. M., Renzulli, J. S., Moran, C., & Warren, L. (1995). *Enrichment clusters: Using high-end learning to develop talents in all students* [Videotape Set No. V955]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This videotape and manual provides details about how to organize one component of The Schoolwide Enrichment Model. This component, called enrichment clusters, is designed to provide enrichment opportunities for all students. The six parts of the manual are designed to (a) introduce enrichment clusters, (b) share examples of actual clusters with comments by facilitators, (c) provide a description of the steps for implementing clusters, (d) discuss assessment and evaluation procedures and options, (e) describe the results of research carried out on the effectiveness of enrichment clusters, and (f) address commonly raised concerns in a question and answer format. The goal of the video and manual is to help schools successfully implement enrichment clusters.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$85.00)

Goldberg, M. D., Cornell, D. G., Delcourt, M. A. B., Bland, L. C., & Oram, G. (1991, October). *Self-concept and intrinsic motivation of elementary school children in gifted programs*. Paper presented at the 1st Annual Conference on Multiple Perspectives on Children and Adolescents With Serious Emotional Disturbances, Virginia Beach, VA.

Quantitative analysis of the Outcomes Study at the University of Virginia indicates that gifted students attending special programs had higher achievement rates than gifted peers not in programs.

Target Audience: Researchers; Practitioners; Counselors

Availability:

Grigorenko, E. L., & Clinkenbeard, P. R. (1994). An inside view of gifted education in Russia. *Roeper Review*, 16(3), 167-171.

This paper presents cognitive and social data on 134 gifted students at a Moscow (Russia) residential math/physics high school. Three case studies of students frequently selected by students in a sociometric task are detailed. Discussion focuses on effects of lack of emphasis in humanities and social sciences, and on social and gender issues.



Target Audience: Researchers; Practitioners

Availability:

Gubbins, E. J. (1990, Winter). The National Research Center on the Gifted and Talented. *The Confratute Times*, 12(2), 2.

Provides an overview of the design and implementation of the NRC/GT.

Target Audience: Practitioners

Availability:

Gubbins, E. J. (Ed.). (1991, June/November). NRC/GT: Six year one research studies. *The National Research Center on the Gifted and Talented Newsletter*. (ERIC Document Reproduction Service No. ED 343 331)

This document consists of the first two issues of a newsletter designed to disseminate information about The National Research Center on the Gifted and Talented, to serve as a forum for the research activities of scholars and practitioners in the field, and to reach other interested professional and parent groups. The first issue (which is also the premier issue of the newsletter) highlights the overall organization and mission of the Center. It summarizes research in progress and describes a needs assessment study designed to identify research needs, prioritize them, and develop a list of recommendations. The study resulted in a list of 21 research recommendations on topics including regular classroom practices for gifted students, regular curriculum modification, giftedness in economically disadvantaged and limited English proficient students, ability identification, program evaluation, and theory. The issue also identifies the Center's Collaborative School Districts, defined as those districts across the United States where the Center's research projects will be carried out. Research summaries are provided on the talented and gifted in rural Alaska, gifted education in the world community, scientific hypothesis forming ability of gifted ninth graders, early reading as predictive of giftedness, a longitudinal study of a pullout enrichment program, early assessment, cultural diversity and second language learning, and a statewide (Indiana) model bridging research, theory, and practice. The November issue reports on a learning outcomes project and describes Year 2 research into successful classroom practices, gifted students with learning disabilities, cooperative learning, assessing giftedness in economically disadvantaged students, and motivation and underachievement. Other summaries examine grouping practices, five specific Javits Gifted and Talented Education programs, stage and structure in child development, home environments, social development, and gifted teachers. Commentaries address creativity and young gifted children.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (1992). Promoting educational productivity: A capital investment. *Creativity Research Journal*, 5(4), 349-353.

This commentary reviews factors affecting educational productivity.

Target Audience: Researchers; Practitioners

Availability:

Gubbins, E. J. (Ed.). (1992, Fall). NRC/GT: Destination: So near and so far. *The National Research Center on the Gifted and Talented Newsletter*.

This newsletter presents abstracts of nine Year 3 research studies being conducted by The National Research Center on the Gifted and Talented, including An Ethnographic Description of the High School Experiences of High Ability Students in an Urban Environment (Sally M. Reis and Thomas Hébert); A Longitudinal Study of Successful Practices in the Regular Classroom (Francis X. Archambault, Jr. and Karen L. Westberg); Gifted Program Performance of Students Identified Through the Research-Based Assessment Plan (Mary M. Frasier and Scott Hunsaker); A National Field Test of the Staff Development Model and the Research-Based Assessment Plan (Mary M. Frasier and Scott Hunsaker); Investigation Into Instruments and Designs Used in the Identification of Gifted Students and the Evaluation of Gifted Programs (Carolyn Callahan); Pre-Service Teacher Preparation in Meeting the Needs of the Gifted (Carol Tomlinson and Carolyn Callahan); Social and Emotional Adjustment of the Gifted (Claudia J. Sowa, Kathleen M. May, Carolyn Callahan, and Marcia A. B. Delcourt); Continuation of Motivation and Underachievement in Urban and Suburban Gifted Preadolescents (Pamela Clinkenbeard); and Continuation of a Theory-Based Approach to Identification, Teaching, and Evaluation of the Gifted (Robert J. Sternberg). Also included are commentaries on reading, underachievement among gifted students, and cluster grouping, as well as several book reviews and abstracts of papers.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1992, March). NRC/GT: Six year one research studies. *The National Research Center on the Gifted and Talented Newsletter*. (ERIC Document Reproduction Service No. ED 358 582)

This newsletter focuses on six Year 1 research projects associated with The National Research Center on the Gifted and Talented (NRC/GT). The updates address: Regular Classroom Practices With Gifted Students: Findings From the Classroom Practices Survey (Francis X. Archambault, Jr. and others); The Classroom Practices Study: Observational Findings (Karen L. Westberg and others); The Curriculum Compacting Study (Sally M. Reis); Investigations Into Instruments and Designs Used in the Identification of Gifted Students and the Evaluation of Gifted Programs (Carolyn M. Callahan and Paula Pizzat); The Learning Outcomes Study (Marcia A. B. Delcourt and Lori Bland); and A Theory-Based Approach to Identification,

Teaching, and Evaluation of Gifted (Robert J. Sternberg and Pamela R. Clinkenbeard). Additional commentaries consider the impact of parents on gifted adolescents (Julie L. Sherman) and academic summer camp for gifted minority students (Richard Chandler). Also included are several book and journal reviews and abstracts of papers on: Structure of Intellect Tests and giftedness; longitudinal studies of minority groups; characteristics of exceptionally gifted boys; effects of radical acceleration; problem finding skills and creativity; case studies of disadvantaged gifted adolescents; and artistic development in middle childhood.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1993, Winter). NRC/GT: 50/500/5000. *The National Research Center on the Gifted and Talented Newsletter*.

This newsletter begins with a review of Center accomplishments midway through Year 3 of operation. This issue presents updates on Year 2 research projects in progress, including a theory-based approach to identification, teaching, and evaluation of the gifted; motivation and underachievement in urban and suburban gifted adolescents; an investigation of student learning outcomes, results of a program satisfaction survey; developments in identification and evaluation, databases, new instrument development, and promising practices; and high ability students with learning disabilities. Also included is a review of recent research on the assessment of musical potential and musical performance and several publications which serve as excellent resources for the field of gifted education. The issue ends with a commentary entitled, "But you're a man!" exploring the role of identification in role model and/or mentor relationships.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1993, Spring). NRC/GT: Collaborative researchers and writers wanted for the NRC/GT. *The National Research Center on the Gifted and Talented Newsletter*.

This newsletter outlines three different areas in which the reader can become involved in the work of the Center: the Collaborative Research Studies, the Research-Based Decision Making Series, and the NRC/GT Newsletter. Teacher's attitudes toward curriculum compacting: a comparison of different inservice strategies presents the results of research on what influences factor into teachers' attitudes towards making curricular modifications. Commentary is also provided on the teaching of thinking skills in the regular classroom, research on ability grouping, identification of high ability preschoolers, and the Future Problem Solving Program. Also presented are abstracts of research in progress and recent research.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1993, Fall). NRC/GT: Responding to the written word: Issues in educating gifted and talented students. *The National Research Center on the Gifted and Talented Newsletter*.

This newsletter reviews the dissemination plan under which the Center operates. Articles in this issue include: Assumptions Underlying the Identification of Gifted and Talented Students, A Study of the Status of Programs for High Ability Students, A Schematic Guide to the Assessment and Identification of African American Learners With Gifts and Talents, Creativity Around the World, Dynamic Assessment and its Use With High Ability Students, and Breaking the Barriers: Recently Published Resources on Women in Math and Science (and How to Evaluate Them).

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1994, Winter). NRC/GT: When "differentiated" becomes disconnected from curriculum. *The National Research Center on the Gifted and Talented Newsletter*.

This issue begins with a discussion of the importance of developing and providing individualized, differentiated curricular systems and models for students. Articles reviewing recent research include: High School Experiences of High Ability Males in an Urban Environment, Evaluation Utilization Studies, and Emotional or Behavioral Disorders: Classroom Conflicts. Also provided are two commentaries: Hypercard and Image Processing as Vehicles for Gifted/Talented Students and Post NCTM Standards: Why Continue to Provide Special Programs for High Ability Math Students?

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1994, Spring). NRC/GT: Improving the learner/teacher/curriculum connection. *The National Research Center on the Gifted and Talented Newsletter*.

This newsletter begins with an overview of the Center's work as it relates to students, teachers, and the curriculum. Recent research highlighted includes Exemplary Elementary School Programs in Gifted Education (M. A. B. Delcourt); Peer

Nomination Form Shows Promise with Minority Students (C. M. Cunningham, C. M. Callahan, S. C. Roberson, and A. Rapkin); Identification and Evaluation Databases: Up and Running (L. J. Lutz and C. M. Callahan); Locally Available Opportunities for Rural and Suburban Gifted Students (J. A. McIntire); and Changing the Way We Perceive Creativity (J. A. Plucker).

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (1994, July/August). Thanks to Virginia from The National Research Center on the Gifted and Talented. *Virginia Association for the Education of the Gifted Newsletter*, 15, 3-4.

This article presents the findings of several research studies which have been conducted by The National Research Center on the Gifted and Talented.

Target Audience: Practitioners

Availability:

Gubbins, E. J. (Ed.). (1994, Fall). NRC/GT destination: Around the corner. *The National Research Center on the Gifted and Talented Newsletter*. (ERIC Document Reproduction Service No. ED 388 026)

This issue of the NRC/GT newsletter provides an overview of the status of Center studies as of fall, 1994. There is a description of four new studies the Center is undertaking in Year 5: Implementing Enrichment Clusters, Underachievement Among Black Youth, Instructional Practices in Middle Schools, and Achievement Among American Indian Students. Other articles include: Examining a Tool for Assessing Multiple Intelligences, Guiding the development of Mathematically Talented Students, Three Models of Curriculum for Gifted and Talented Students, Talents Unveiled and Nurtured: Words & Images, and Computers, Creativity, Competition, Conference.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (1995). *The National Research Center on the Gifted and Talented: Reaching the destination* [Videotape No. V954]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This one hour video tape provides an overview of the research which was presented at the national conference, Building a Bridge Between Research and Classroom Practices in Gifted Education, held March 31 and April 1, 1995. Included are quotes from the researchers and a presentation guidebook.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$45.00)

Gubbins, E. J. (Ed.). (1995, Winter). Javits Act: Charting directions. *The National Research Center on the Gifted and Talented Newsletter*. (ERIC Document Reproduction Service No. ED 388 026)

The newsletter begins with a review of the status of the Javits Act of 1994. Recent research presented includes: Identifying Traditionally Underrepresented Children for Gifted Programs (D. P. Saccuzzo and N. E. Johnson); and Gender Differences Between Student and Teacher Perceptions of Ability and Effort (D. Siegle and S. M. Reis). Commentary includes Unique Identification for Unique Talents (B. N. Berube) and Classification Procedures for Gifted/Learning Disabled Students: A Primer for Parents (M. Rizza).

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J. (Ed.). (1995, Spring). NRC/GT: Reaching the destination. *The National Research Center on the Gifted and Talented Newsletter*. (ERIC Document Reproduction Service No. ED 388 026)

This newsletter reviews the "road trip" the NRC/GT has taken over the past five years. It presents an article on research in progress on Multiple Intelligences; and the following articles on recent research by the Center: A Follow-up on the Classroom Practices Survey, Achievement of African American Females, Teacher Training in Self-Efficacy, Classroom Practices in New South Wales, Australia, and Successful Practices. This edition concludes with a commentary on curriculum compacting.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007.

Gubbins, E. J., & Renzulli, J. S. (1996). Evaluating gifted and talented programs: Diving into a quagmire, treading water, or executing the high dive . . . temporarily. In G. C. Brannigan (Ed.), *The enlightened educator* (pp. 242-260). New York: McGraw-Hill.

Program evaluation processes require judgments that are driven by data collected from first hand observations or from the distillation of words and numbers from those who are most closely connected with the program in action. Descriptions of program evaluation experiences are provided, which illustrate the need to address the

abilities of all students on an individual basis and the need to evaluate what teachers are doing and why they are doing it.

Target Audience: Researchers; Practitioners

Availability:

Gubbins, E. J., St. Jean, D., Berube, B. N., & Renzulli, J. S. (1995). *Developing the gifts and talents of all America's students. NRC/GT—1990-1995* (RM 95218). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The primary mission of the NRC/GT has been to conduct quantitative and qualitative research studies, to commission research-based monographs on critical issues, and to disseminate the resulting information to multiple audiences. This paper describes the scope of the NRC/GT, and presents a synthesis of the findings and themes across studies and commissioned papers. The Center's research is placed in the context of the historical and contemporary research and practices in gifted and talented education. Taken together, an extensive body of knowledge about students with high abilities is available to practitioners and researchers. A matrix of the studies by category will aid readers in choosing studies for further review. Following this presentation, abstracts and guidelines, recommendations, or conclusions for specific studies are appended.

Target Audience: Researchers; Practitioners; Administrators; Teachers

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Hartman, H., & Sternberg, R. J. (1993). A broad BACEIS for improving thinking. *Instructional Science*, 21(5), 401-425.

Describes BACEIS (Behavior, Attitudes, Cognition, Environment viewed as Interactive Systems), a comprehensive theoretical model that includes internal and external factors affecting the development, retention, and transfer of thinking and learning skills. Uses of the model in instructional design, to guide research, and to critique existing approaches are discussed. (Contains 62 references.)

Target Audience: Researchers; Practitioners

Availability:

Hawkins, W. A. (1995). *Constructing a secure mathematics pipeline for minority students* (RBDM 9504). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

American myths about mathematics which emphasize innate ability rather than hard work reinforce racial and gender stereotypes about who can do mathematics. The author gives several examples of prominent mathematicians and physicists whose lives contradict the common conception that all prominent contributors to the

progress of mathematics and science were geniuses whose talent was apparent virtually from birth.

International comparisons show that all American students lag behind their foreign counterparts. Details of these comparisons and how they have influenced reform in mathematics education are considered. Focusing on minority students, barriers to achievement in mathematics are discussed as well as statistics on minority underrepresentation.

After a description of efforts of the Mathematical Association of America to increase the representation and participation of minorities in mathematics-based fields, the report closes with suggestions for teachers of mathematics at the precollege and collegiate level.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Hébert, T. P. (1995). Coach Brogan: South Central High School's answer to academic achievement. *The Journal of Secondary Gifted Education*, 7(1), 310-323.

How can one man make a difference for bright, young men? In an ethnographic study of high ability young men in an urban high school, one coach's influence was found to be crucial in motivating gifted males. Coach Brogan developed effective strategies to maintain high academic achievement amongst his championship athletes. This article presents a description of the culture of achievement surrounding the men's swim team at South Central High School and the strategies offered by the successful coach/educator.

Target Audience: Researchers; Practitioners

Availability:

Hébert, T. P. (1995, February). High ability young men in the inner city: Encouraging academic achievement at South Center High School. *Connections: The ASCD Network on Developing Giftedness and Talent*, 3-4.

High ability students from culturally diverse populations have existed in large urban environments for generations, yet many do not achieve at levels appropriate for their ability. This study examined what factors distinguished high ability males who achieved from those who underachieved. In the life stories of the high ability achievers in the study, one trait which consistently appeared was a "strong belief in self." Several qualities merged to form this strong belief: sensitivity, multicultural appreciation, inner will, and aspirations. This article goes on to provide implications of the research results.

Target Audience: Researchers; Practitioners

Availability:



Hine, C. Y. (1994). *Como ayudar a su hijo a tener exito en la escuela: Guia para padres Hispanos* (RM 95402). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This pamphlet is designed to guide parents in helping their children to find success in school. The information provided includes specific strategies for getting the most out of school, along with eight keys to success in school.

Target Audience: Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$3.00)

Hine, C. Y. (1994). *Helping your child find success at school: A guide for Hispanic parents*. (RM 94202). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This pamphlet is designed to guide parents in helping their children to find success in school. The information provided includes specific strategies for getting the most out of school, along with eight keys to success in school.

Target Audience: Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$3.00)

Hoffer, T. (1994, April). Hypercard and image processing as vehicles for gifted/talented students. *South Australia Gifted & Talented Children's Association Newsletter*, 94.

This article, reprinted from The National Research Center on the Gifted and Talented Newsletter (Winter, 1994), explores the use of technology in a curriculum to provide a means to use a variety of intelligences in exploration of information and ideas.

Target Audience: Practitioners

Availability:

Hoge, R. D., & Renzulli, J. S. (1991). *Self-concept and the gifted child* (RBDM 9104). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Three issues are addressed in this research review. First, do gifted and average children differ in their self-concepts? Second, what, if any, are the effects on self-concept of labeling a child as gifted or exceptional? Third, does placing the child in a separate enriched or accelerated classroom have any impact on self-concept? The paper begins with a discussion of issues relating to self-concept and giftedness constructs. This is followed by a review of the research evidence bearing on the

three questions. This research is shown to yield variable results and to exhibit some methodological flaws. Nevertheless, some conclusions are drawn, including the following: (a) gifted students as a group show no major deficits in self-esteem; (b) indirect evidence suggests that labeling a child gifted may have a positive impact on self-esteem; and (c) there is some support, based on social comparison processes, that moving a child from a regular classroom to a homogeneous, highly gifted group may have a negative impact on self-concept. Implications of the results for future research and for the counseling of gifted students are offered, including the recommendation that researchers should pay more attention to treatment of self-concept and giftedness variables and that counseling with gifted and talented students should have a developmental focus. (Contains approximately 100 references.)

Target Audience: Researchers; Counselors; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Hoge, R. D., & Renzulli, J. S. (1993). Exploring the link between giftedness and self-concept. *Review of Educational Research*, 63(4), 449-465.

This meta-analysis with literature review considers whether the self-concepts of gifted and nongifted children differ and explores the effects on self-concept of labeling a child as gifted and placing the child in special programs. Studies indicate a generally higher academic self-concept among gifted students.

Target Audience: Researchers; Practitioners

Availability:

Hoge, R. D., & Renzulli, J. S. (1993). Self-concept and the gifted child. *Communicator: Journal of the California Association for the Gifted*, 23(3).

This article describes the results of research conducted to investigate whether gifted children view themselves differently than average children, what are the effects of being labeled gifted on self-concept, and does placing a child in a separate enriched or accelerated classroom have any impact on self-concept? Research indicates that (a) gifted students as a group show no major deficits in self-esteem; (b) indirect evidence suggests that labeling a child gifted may have a positive impact on self-esteem; and (c) there is some support, based on social comparison processes, that moving a child from a regular classroom to a homogeneous, highly gifted group may have a negative impact on self-concept.

Target Audience: Researchers; Counselors; Practitioners

Availability:

Hunsaker, S. L. (1994). Adjustment to traditional procedures for identifying underserved students: Successes and failures. *Exceptional Children, 61*(1), 72-76.

A survey of 39 school districts serving large numbers of culturally diverse students found that many districts listed gifted students from ethnic/linguistic minorities or economically disadvantaged as important underserved populations. Alternative identification procedures were primarily intended to expand the assessment basis, and factors associated with success included quality school personnel and the assessment practices themselves.

Target Audience: Practitioners

Availability:

Hunsaker, S. L. (1994). Creativity as a characteristic of giftedness: Teachers see it, then they don't. *Roeper Review, 17*(1), 11-15.

This study indicates that there is a marked difference between the ways teachers view giftedness and the official definitions within their school districts. The conceptions of giftedness held by most teachers were more in line with broader conceptions proposed by leading scholars. The following recommendations are made to permit teachers to be a positive influence, feel empowered, and extend the benefits of gifted programming to those who need it: (a) do more to legitimize the teacher as a professional, (b) consider creativity more fully in identification, and (c) allow change to be developed through a climate where experimentation is welcomed.

Target Audience: Researchers; Practitioners

Availability:

Hunsaker, S. L., & Callahan, C. M. (1993). Evaluation of gifted programs: Current practices. *Journal for the Education of the Gifted, 16*(2), 190-200.

In an effort to describe current gifted program evaluation practices, a review of articles, ERIC documents, and dissertations was supplemented by evaluation reports solicited by The National Research Center on the Gifted and Talented at the University of Virginia from public school, private school, and professional sources. Seventy evaluation reports were received. These were coded according to ten variables dealing with evaluation design, methodology, and usefulness. Frequencies and chi squares were computed for each variable. A major concern brought out by this study is the paucity of evaluation reports/results made available to The National Research Center on the Gifted and Talented. This may be due to a lack of gifted program evaluations or to dissatisfaction with evaluation designs and results. Other concerns included lack of methodological sophistication, reporting, and utility concerns. Some promising practices were apparent in the studies reviewed. A large sub-set of the evaluations were done for program improvement and employed multiple methodologies, sources, analysis techniques, and reporting formats with utility practices that produce needed changes. In addition, most evaluations focused on a number of key areas in the gifted program rather than settling for generalized impressions about the program.

Target Audience:            Researchers

Availability:

Hunsaker, S. L., & Callahan, C. M. (1995). Creativity and giftedness: Published instrument uses and abuses. *Gifted Child Quarterly*, 39(2), 110-114.

This article reports a study of schools' assessment of creativity as part of their identification procedures for gifted programs. School districts across the nation were asked to supply information on the published instruments they use to measure creativity. Although many school districts include creativity as part of their assessment, they continue to have difficulty with the complex conceptual and operational definitions of creativity. Districts often select instruments for assessment of creativity without attending to the definition of the construct. Researchers are encouraged to improve the translation of their work to the practitioner so that more valid, reliable, and useful assessment will be possible.

Target Audience:            Researchers; Practitioners

Availability:

Hunsaker, S. L., Frasier, M. M., Frank, E., Finley, V. S., & Klekotka, P. (1995). *Performance of economically disadvantaged students placed in gifted programs through the research-based assessment plan* (RM 95208). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The performance of students identified as gifted through the Research-Based Assessment Plan (RAP) was studied during their first year of placement in gifted programs. Their attitudes and the attitudes of their parents toward gifted program placements were also studied. Performances and attitudes of parents and students identified through traditional criteria were used as a comparison. Results showed that RAP identified students and traditionally identified students displayed significantly different performances and attitudes.

Target Audience:            Researchers; Practitioners

Availability:                    The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$6.00)

Hunsaker, S. L., Frasier, M. M., King, L. L., Watts-Warren, B., Cramond, B., & Krisel, S. (1995). *Family influences on the achievement of economically disadvantaged students: Implications for gifted identification and programming* (RM 95206). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Historically, the study of family influences on the achievement of economically disadvantaged youth has focused on status variables. A moderate, positive correlation has been found between socioeconomic status and children's academic achievement. However, status variables have been criticized for oversimplifying a complex problem. In their stead, family process variables have been studied. Family processes, such as support of education and aspirations for children's

academic attainment, have been shown to influence positively the achievement of children. Studies continue to be done from both a status and a process point of view. More recent studies of status have focused on family structure variables. In lieu of studying status and process variables, more recent studies have begun to investigate the impact of contexts on family processes that affect academic achievement. Studies of these same issues within the field of gifted education have followed the same path as the general achievement research. More recently, researchers have begun to look at the influence of context on the family processes that affect which students are identified for gifted programs and influence how they are served. As indicated here, advances have been made in understanding the relationships among families, academic achievement, and gifted education. However, a general lack of studies focusing on these issues makes apparent the need for further research of this type.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Jackson, N. E., & Roller, C. M. (1993). *Reading with young children* (RBDM 9302). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This report provides research-based answers to questions about literacy development from infancy to age 6, with emphasis on the development of these skills in precocious readers. The question-answer format considers the importance of reading with young children, other activities to help young children learn to read, normal development of reading and writing skills, the precocious reader, and testing a preschooler's reading ability. Conclusions are organized into recommendations for parents and recommendations for teachers and administrators. An executive summary stresses seven conclusions: (a) children acquire important literacy knowledge and behaviors during the preschool years; (b) effective story reading is interactive and responsive to the child; (c) in early reading development, the child's developing knowledge of language is most important while in later reading development, his/her knowledge of the world and expressive skills becomes more critical; (d) early writing skills may develop in parallel with or out-of-step with reading skills; (e) learning letter names and sounds is an important part of early literacy development; (f) reading failure can be prevented by the early identification of reading difficulties followed by appropriate instruction; and (g) precocious reading is an example of giftedness. (Contains 31 references.)

Target Audience: Parents; Teachers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Jarwan, F. A., & Feldhusen, J. F. (1993). *Residential schools of mathematics and science for academically talented youth: An analysis of admission programs* (CRS 93304). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The purpose of this project was to analyze and evaluate the procedures used in selecting youth for state supported residential schools of mathematics and science. Analysis of enrollment data indicate that African Americans and Hispanic students are proportionally underrepresented, while Asian students are proportionally over-represented. White students are underrepresented in some schools and over-represented in others. Male students outnumbered female students in some schools and vice versa. Male students outscore females on the mathematical section of the SAT.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Jarwan, F. A., & Feldhusen, J. F. (1994). Residential schools of mathematics and science in the USA: Overview of the admission process. *European Journal for High Ability*, 5, 178-184.

The admission procedures for identifying and selecting students in special residential schools of mathematics and science in the United States were studied through interviews with school officials and examination of the schools' literature on admissions. The selection criteria included tests of verbal and mathematical aptitudes, home school grade-point averages, ratings of behavioral characteristics, and interviews. The selection stages included recruitment, application file development, file reviews, interviews, and selection decision making.

Target Audience: Researchers; Practitioners

Availability:

Kenny, D. A., Archambault, F. X., Jr., & Hallmark, B. W. (1995). *The effects of group composition on gifted and non-gifted elementary students in cooperative learning groups* (Research Monograph 95116). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This research was undertaken to provide researchers, administrators, and teachers with tangible evidence as to the effectiveness of cooperative learning with gifted students. A controlled field experiment was designed to assess the effects of both heterogeneous and homogeneous grouping in cooperative learning settings on the performance of gifted and non-gifted students, including their achievement, self-concept, and attitude toward school subjects, as well as the feelings that they have toward one another. It was also designed to determine whether different types of cooperative learning arrangements implemented in different content areas yield comparable results. Gifted students experienced no adverse effects as a result of interacting with non-gifted students in cooperative learning groups. At the same

time, the non-gifted student does not experience an increase in achievement due to the presence of a gifted student.

Target Audience: Researchers; Practitioners; Administrators

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Kettle, K. (Ed.). (1995). *What educators need to know about student portfolios* [Brochure A9510]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochures discusses the many uses of portfolios and offers teachers topics for consideration, such as how assemble a portfolio, how to trace talent development, and how to assess portfolio contents.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Kulik, J. A. (1992). *An analysis of the research on ability grouping: Historical and contemporary perspectives* (RBDM 9204). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Meta-analytic reviews have shown that the effects of grouping programs depend on their features. Programs that entail only minor adjustment of course content for ability groups usually have little or no effect on student achievement. In some grouping programs, for example, school administrators group students by test scores and school records and then expect all groups to follow the same basic curriculum. Under this approach, pupils in middle and lower programs learn the same amount as equivalent students do in mixed classes, while students in the top classes outperform equivalent pupils from mixed classes by about 1 month on a grade-equivalent scale. Self-esteem of lower aptitude students rises slightly and self-esteem of higher aptitude students drops slightly. Grouping programs that entail more substantial adjustment of curriculum to ability have clear positive effects on children. In cross-grade and within-class programs that provide both grouping and curricular adjustment, pupils outperform equivalent control students from mixed-ability classes by 2 to 3 months on a grade-equivalent scale. Programs of enrichment and acceleration, which usually involve the greatest amount of curricular adjustment, have the largest effects on student learning, with talented students from accelerated classes outperforming nonaccelerants of the same age and intelligence quotient by almost 1 full year on achievement tests. Talented students from enriched classes outperform initially equivalent students from conventional classes by 4 to 5 months on grade equivalent scales. (Contains over 200 references.)

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Kulik, J. A. (1992). An analysis of the research on ability grouping: Historical and contemporary perspectives (Executive summary). *Communicator: The Journal of the California Association for the Gifted*, 22(5), 29-34.

Meta-analytic reviews have shown that the effects of grouping programs depend on their features. Programs that entail only minor adjustment of course content for ability groups usually have little or no effect on student achievement. In some grouping programs, for example, school administrators group students by test scores and school records and then expect all groups to follow the same basic curriculum. Under this approach, pupils in middle and lower programs learn the same amount as equivalent students do in mixed classes, while students in the top classes outperform equivalent pupils from mixed classes by about 1 month on a grade-equivalent scale. Self-esteem of lower aptitude students rises slightly and self-esteem of higher aptitude students drops slightly. Grouping programs that entail more substantial adjustment of curriculum to ability have clear positive effects on children. In cross-grade and within-class programs that provide both grouping and curricular adjustment, pupils outperform equivalent control students from mixed-ability classes by 2 to 3 months on a grade-equivalent scale. Programs of enrichment and acceleration, which usually involve the greatest amount of curricular adjustment, have the largest effects on student learning, with talented students from accelerated classes outperforming nonaccelerants of the same age and intelligence quotient by almost 1 full year on achievement tests. Talented students from enriched classes outperform initially equivalent students from conventional classes by 4 to 5 months on grade equivalent scales.

Target Audience: Researchers; Practitioners

Availability:

18. Leppien, J. (1993, Summer). Research by and with the gifted. *Tempo*, 13, 1, 17-

This article describes the research process that teachers use to guide their action research and details a case study of two teacher researchers who collaborate on a classroom research project that is of mutual interest. Finally, strategies for creating teacher researcher environments and identifying obstacles are presented.

Target Audience: Researchers; Practitioners

Availability:



Lubart, T. I., & Sternberg, R. J. (1993). Lifespan creativity: An investment theory approach. In C. Adams-Price (Ed.), *Creativity and aging: Theoretical and empirical perspectives*. New York: Springer-Verlag.

This article looks at life span changes in creativity, particularly in quantity, quality, and form. Using an investment theory of creativity, change is then categorized into six areas: Intellectual processes, knowledge, intellectual style, personality, motivation, and environmental context. It is the influence of these six resources as they relate to time and the life span that affect creativity.

Target Audience:            Researchers; Practitioners

Availability:

May, K. M. (1994). A developmental view of a gifted child's social and emotional adjustment. *Roeper Review*, 17(2), 105-109.

This case study provides an in-depth exploration of a family's experiences in raising a gifted child and their concern with his social and emotional adjustment. The intent of this article is to demonstrate this child's early difficulties in adjustment and to describe the change that occurred which enhanced his self-esteem and made his adjustment less compromising. Although social and emotional difficulties have not disappeared magically, the severity has decreased. The family, the child, and school personnel are optimistic regarding further gains in the child's social and emotional adjustment.

Target Audience:            Practitioners; Parents

Availability:

McGrane, P. A., & Sternberg, R. J. (1992). Discussion: Fatal vision—the failure of the schools in teaching children to think. In C. Collins & J. N. Mangieri (Eds.), *Teaching thinking: An agenda for the 21st century* (pp. 333-344). Hillsdale, NJ: Erlbaum.

This book chapter highlights some of the issues and paradoxes in teaching thinking skills. The authors focus on the nation's vision of the purpose of education as the underlying reason for the failure of schools to teach children to think. They state that this vision has institutionalized into a homeostatic (self-correcting) system so that incremental changes that are not in line with the current vision will inevitably fail. Discussion of specific self-correcting mechanisms within the present educational system including personnel, legislation, textbook publishers, and evaluation programs follows. Finally, the authors address how this fundamental vision of the purpose of education can be changed beginning with recognition that the present system is homeostatic and must be dealt with as such.

Target Audience:            Researchers; Practitioners

Availability:

McIntire, J. (1994, July/August). High ability children: Do their adjustment needs and skills differ from those of other children? *Virginia Association for the Education of the Gifted Newsletter*, 15, 6.

This article describes the Social and Emotional Needs Study, which seeks to identify factors which contribute to healthy development or maladjustment within high potential children.

Target Audience: Practitioners

Availability:

National Research Center on the Gifted and Talented. (1991). *Annotated bibliography*. Athens, GA: Author

This annotated bibliography relates to the study conducted by The National Research Center on the Gifted and Talented at the University of Georgia, An Investigation of Giftedness in Economically Disadvantaged and Limited English Proficient Students.

Target Audience: Practitioners; Administrators; Parents

Availability:

National Research Center on the Gifted and Talented. (1991). *The National Research Center on the Gifted and Talented* [Brochure]. Storrs, CT: Author.

Describes the purpose and scope of the NRC/GT.

Target Audience: Practitioners

Availability:

National Research Center on the Gifted and Talented. (1991/1993). *Content area consultant bank directory*. Storrs, CT: Author

These resource books contain listings of 180 people who are interested in conducting workshops for teachers or parents; consulting on policy issues, program development, evaluation, or clinical evaluation and intervention; developing research projects with the Center; and accessing the Research Center results.

Target Audience: Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00 includes both 1991 and 1993 versions)

National Research Center on the Gifted and Talented. (1993). *Annotated bibliography, 1993 supplement*. Athens, GA: Author.

This supplement to the annotated bibliography relates to the study conducted by The National Research Center on the Gifted and Talented at the University of Georgia, *An Investigation of Giftedness in Economically Disadvantaged and Limited English Proficient Students*.

Target Audience: Practitioners

Availability:

National Research Center on the Gifted and Talented. (1993). *Curriculum coach guide*. Unpublished manuscript, University of Virginia, Author.

This curriculum coach guide was developed as part of the Preservice Teacher Preparation Project, conducted by The National Research Center on the Gifted and Talented at the University of Virginia.

Target Audience: Practitioners; Teacher Trainers

Availability:

National Research Center on the Gifted and Talented. (1993). *Preservice intervention workshop facilitator's handbook*. Unpublished manuscript, University of Virginia, Author.

This facilitator's handbook was developed as part of the Preservice Teacher Preparation Project, conducted by The National Research Center on the Gifted and Talented at the University of Virginia.

Target Audience: Practitioners; Teacher Trainers

Availability:

Neu, T. W. (1993, Winter). Case studies of high ability students with learning disabilities: An overview. *Postsecondary LD Network News*, 17, 5.

To investigate how well high ability students with learning disabilities succeed in academic environments, The National Research Center on the Gifted and Talented at the University of Connecticut studied twelve young adults with disabilities who were successful at the college level. Extensive interviews with these young adults and their parents as well as a thorough review of available school records provided a fascinating portrait of the challenges and problems faced by high ability students with learning disabilities.

Target Audience: Researchers; Practitioners

Availability:

Passow, A. H., & Rudnitski, R. A. (1993). *State policies regarding education of the gifted as reflected in legislation and regulation* (CRS 93302). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This study provides an analysis of state policies on the identification and education of the gifted as reflected in legislation, regulations, rules, recommendations, and guidelines provided by 49 of 50 states. The report is not a state by state description of policies, but rather an analysis of the elements which comprise a comprehensive policy for identifying and nurturing talent potential. The elements examined include: State Mandated Services, District Plans for the Gifted, Gifted Education as part of Special Education, Philosophy or Rationale, Definitions of Gifted and Talented, Identification Procedures, Programs for the Gifted, Differentiated Curriculum and Instruction, Counseling and Other Support Services, Program Evaluation and State Funding for the Gifted. A number of suggestions dealing with the elements of components of a comprehensive policy for the education of the gifted and talented are provide for educators and other advocates.

Target Audience:            Researchers; Practitioners

Availability:                The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$10.00)

Plucker, J. A. (1994). Issues in the social and emotional adjustment and development of a gifted, Chinese American student. *Roeper Review*, 17(2), 89-94.

Although Asian American students are among the fastest growing segments of the school age population, the education of gifted Asian Americans is underemphasized in the literature. Of the few publications that deal with this population, a majority focus on identification issues and do not address the socio-emotional issues. This study investigated the socio-emotional adjustment and development of a gifted Chinese American seventh grader to identify areas for future study. Areas for future research include: the nature of resiliency and hardiness in ethnically diverse populations; organization of coping strategies in gifted students; and the impact of ethnic identity development on adjustment and development.

Target Audience:            Researchers; Practitioners

Availability:

Plucker, J. A. (Ed.). (1995). *What educators and parents need to know about fostering creativity* [Brochure A9507]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Recent research shows that creativity is present in all children, regardless of their age, race, socioeconomic status and learning differences. This tri-fold brochure presents research-based suggestions for ways to foster that creativity in every child.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Purcell, J. H. (1993). The effects of the elimination of gifted and talented programs on participating students and their parents. *Gifted Child Quarterly*, 37(4), 177-187.

Parents were interviewed to determine (a) positive and negative effects of special programming for high-ability children, and (b) what happens to children when a program designed to meet their needs is eliminated. Results indicate that when programs were eliminated (a) there was a decline in student motivation at higher levels of functioning, (b) students began to disengage from and underachieve with respect to the traditional curriculum, (c) parents and students questioned the value that society places on the abilities of children, and (d) as many as half the parents considered sending their children to private schools.

Target Audience: Researchers; Practitioners; Parents

Availability:

Purcell, J. H. (1994). *The status of programs for high ability students* (CRS 94306). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Program Status Research Study was designed to examine the status of local programs for students with high abilities and the reasons to which educators and key personnel attributed the status of these programs. The study was completed in a purposive sample of 19 states, divided into four groups, according to economic health and the existence or nonexistence of a state mandate to provide program services. Results indicated that programs in states with mandates and in good economic health are "intact" and "expanded," while programs in all other groups are being "threatened," "reduced," and "eliminated" in high numbers. Advocacy efforts were most frequently associated by key personnel with programs that were intact or expanding, and reductions in funding were associated with programs experiencing jeopardy.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Purcell, J. H., & Siegle, D. (1995). *What policy makers need to know about gifted education* [Brochure A9511]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

All 50 states have formulated policies in the form of legislation, regulations, rules, or guidelines for gifted and talented young people in our schools. This brochure

discusses the status of programs and suggests audiences toward which advocates can direct their messages.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Reid, B. D. (1991). *Research needs in gifted education: A study of practitioners' perceptions*. Unpublished doctoral dissertation, University of Connecticut, Storrs.

The purpose of this study was to conduct a national research needs assessment that determined practitioners' perceptions of the most important research that should be conducted for the education of gifted and talented students. In terms of special populations, the study identified a need for research on underachievement, gifted females, economically disadvantaged, dropouts, and at-risk students. In terms of programs for the gifted, the main results of the study indicated a need for research on the effects of programs for the gifted, curriculum development, personal and social development, identification and student assessment. An additional conclusion of this study was that research needed to be more usable to practitioners and a more effective method of disseminating research results is necessary.

Target Audience: Researchers; Practitioners

Availability:

Reid, B. D., & McGuire, M. D. (1995). *Square pegs in round holes—These kids don't fit: High ability students with behavior problems* (RBDM 9512). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The legacy of Terman may be the creation of a new myth about gifted students. Terman reported that the students identified as gifted for his study ( $IQ \geq 140$ ) were superior in most areas of functioning to those who did not qualify. Terman claimed that gifted students were appreciably superior to unselected children in physique, health, social adjustment, and moral attitudes; a perspective that has become the predominant thinking in the field. This widely held view may be one of the major, underpinning reasons that students with disabilities are routinely overlooked for gifted services. This paper proposes that students with attention and/or behavior problems, in particular, are not considered for gifted services due to overt negative behaviors and conduct problems which conflict with the "Terman perspective." Emphasis is placed on an examination of the similarities among characteristics of high ability/creative children and students identified with emotional or behavioral disorders (EBD) and/or attention-deficit/hyperactivity disorder (ADHD). Credence can be given to the idea that many of the manifestations of these disorders (EBD and ADHD) are similar to, and perhaps are, indicators of creative and/or learning potential. A major premise is that students who appear to have behavior problems may be, in fact, gifted. Further, it is proposed that students identified as EBD or ADHD may be dually qualified for services; i.e., also eligible to be served in programs for the gifted. Important implications for understanding the rationale to include students with behavioral challenges in gifted programs, as well as recommendations for inservice and preservice teacher education, and considerations

regarding interventions, curricula, and adaptations in the general school environment are provided.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Reid, B. D., Renzulli, J. S., Gubbins, E. J., & Imbeau, M. B. (1992, April). *Research needs in gifted education: A study of practitioners' perceptions*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Reviews current practices and research in the field of gifted and talented.

Target Audience: Researchers; Practitioners

Availability:

Reis, S. M. (1992). Advocacy: The grouping issue. *Roepers Review*, 14(4), 225-227.

This article examines recent trends and the literature on grouping with emphasis on possible negative effects of heterogeneous grouping on gifted students. Guidelines from three recent publications all supporting some level of grouping are listed.

Target Audience: Practitioners

Availability:

Reis, S. M. (1994). How schools are shortchanging the gifted. *Technology Review*, 97(3), 38-45.

Because schools have focused for decades on lifting up the lowest achievers, they are shortchanging the brightest students. High ability children are not challenged in most classrooms and endure a steady diet of dumbed-down textbooks and repetition of skills that they have already mastered. They suffer from the elimination of many forms of advanced or accelerated classes because it has become politically incorrect to separate students on the basis of ability.

Target Audience: Practitioners

Availability:

Reis, S. M. (1994-1995, Winter). Year 5: Extending the pedagogy of gifted education to all students. *G/T Indiana*, 5(2), 4-5.

This article reports on a study underway at The National Research Center on the Gifted and Talented about how enrichment opportunities can affect learning outcomes for all students.

Target Audience:

Availability:

Reis, S. M., Burns, D. E., & Renzulli, J. S. (1992). *Curriculum compacting* [Videotape Set No. V921]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This one hour teacher training videotape provides an explanation of curriculum compacting, which is a procedure for modifying the regular curriculum for high ability students; a brief rationale as to why this is necessary; and a discussion of each of eight steps involved in the compacting process. The video focuses on implementing curriculum compacting at the elementary level and emphasizes the distinction between basic skill compacting and content compacting. The video also includes a summary of the results of the Curriculum Compacting Study. Included with the videotape is a facilitator's guide and a teacher's manual.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$118.00)

Reis, S. M., Gentry, M., & Park, S. (1995). *Extending the pedagogy of gifted education to all students* (Research Monograph 95118). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This study was 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. Students in each treatment school attended a pilot and two series of enrichment clusters, and were assessed regarding their attitudes toward school and their content area preferences. Qualitative data were collected from teachers, administrators, students, and parents about the implementation of enrichment clusters.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)



Reis, S. M., Hébert, T. P., Díaz, E. I., Maxfield, L. R., & Ratley, M. E. (1995). *Case studies of talented students who achieve and underachieve in an urban high school* (Research Monograph 95120). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

High ability students who were identified as high achievers were compared with students of similar ability who underachieved in school. Qualitative methods were used to examine the perceptions of students, teachers, staff, and administrators about the reasons that some academically talented students fail to achieve in school, while others who come from similar types of homes and families, achieve at high levels. The findings in this study indicate that achievement and underachievement in this urban high school are not disparate concepts.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$20.00)

Reis, S. M., & Neu, T. W. (1994). Factors involved in the academic success of high ability university students with learning disabilities. *Journal of Secondary Gifted Education*, 5(3), 60-74.

This study investigated the factors which enable some gifted students with learning disabilities to succeed in a university setting. In spite of recent interest, little research has been conducted on gifted students with learning disabilities. No research was found on gifted college-aged students with learning disabilities. The sample of 12 students who participated was selected from a university with a program designed for students with learning disabilities. Extensive interviews with these young adults and their parents, as well as a thorough review of available school records, indicated a diverse series of strategies were individually selected and successfully used by each participant in their postsecondary education. The importance of a learning disability specialist emerged as a critical factor in the academic success of the participants in this study.

Target Audience: Practitioners

Availability:

Reis, S. M., & Neu, T. W. (1994, July/August). A continuing dilemma: High ability students with learning disabilities. *Virginia Association for the Education of the Gifted Newsletter*, 15, 10-11.

This article describes a study by The National Research Center at the University of Connecticut, involving 12 young adults who succeeded in a postsecondary academic environment, despite having a learning disability.

Target Audience: Practitioners

Availability:

Reis, S. M., Neu, T. W., & McGuire, J. M. (1995). *Talents in two places: Case studies of high ability students with learning disabilities who have achieved* (Research Monograph 95114). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

During the last decade, increasing attention has been given to the perplexing problem of high ability students who also have learning disabilities. Although the literature has addressed this topic, problems still exist regarding the identification and provision of support services and programs for this population. To investigate how well high ability students with learning disabilities succeed in academic environments, The National Research Center on the Gifted and Talented at the University of Connecticut studied 12 young adults with disabilities who were successful at the college level. Extensive interviews with these young adults and their parents, as well as a thorough review of available school records, provided a fascinating portrait of the challenges and problems faced by high ability students with learning disabilities.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

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

This study examined effects of three increasing levels of curriculum compacting on the instructional practices of 470 elementary school teachers with gifted students in regular classes. Teachers were able to eliminate between 24% and 70% of the curriculum across content areas for more capable students but required assistance in designing challenging replacement activities.

Target Audience: Researchers; Practitioners

Availability:

Reis, S. M., & Renzulli, J. S. (1991). The assessment of creative products in programs for gifted and talented students. *Gifted Child Quarterly*, 35(3), 128-134.

Development of the Student Product Assessment Form to evaluate formally the products of students in gifted and talented education programs is described. Results from content validation procedures, reliability tests, scoring, and interrater agreement indicate that the assessment tool is both reliable and valid.

Target Audience: Researchers; Practitioners

Availability:

Reis, S. M., & Renzulli, J. S. (1992). Using curriculum compacting to challenge the above-average. *Educational Leadership*, 50(2), 51-57.

A major problem facing schools is lack of curricular differentiation and academic challenge for the most academically able students. Also, contemporary textbooks have been "dumbed down." Curriculum compacting is a flexible, research-based technique enabling high-ability students to skip work they already know and substitute more challenging content. A recent study and program development advice are included. (Contains 12 references.)

Target Audience: Practitioners

Availability:

Reis, S. M., & Westberg, K. L. (1994). An examination of current school district policies. *The Journal of Secondary Gifted Education*, 5(4), 7-18.

This study investigated policies about the use of content acceleration and grade skipping in middle and secondary schools by 105 school districts which are Collaborative School Districts of the NRC/GT. Designated research liaisons in each district completed a questionnaire about current district policies concerning the use of content acceleration and grade skipping in secondary schools. Results indicated that only 15% of the responding districts had formal policies about grade skipping. A much larger percentage, 57%, indicated that while no written policies are in place, informal policies were recognized that resulted in students never being allowed to skip a grade. District research liaisons also provided data about the number of secondary students who skipped a grade in their districts, indicating that only .02% of middle and secondary students were grade skipped during the 1993-1994 school year. Regarding content acceleration, 27% of the respondents indicated that policies existed that enabled content acceleration for secondary students while 73% of the districts had no written policies. Those that did have written policies often indicated that their policies were vague and unclear.

Target Audience: Researchers; Practitioners; Administrators

Availability:

Reis, S. M., & Westberg, K. L. (1994). The impact of staff development on teachers' ability to modify curriculum for gifted and talented students. *Gifted Child Quarterly*, 38(3), 127-135.

In this study, three levels of staff development were provided to elementary teachers to train them in a technique called curriculum compacting. Teachers in 20 school districts across the country were randomly assigned by district to one of three treatment groups that received different levels of staff development. After receiving training in curriculum compacting (a procedure that enables teachers to eliminate previously mastered curriculum and substitute more challenging alternatives), teachers were able to eliminate between 42% and 54% of the content for the high ability students they selected. Teachers in Treatment Group 3, who received the most intensive staff development, completed the highest rated compactor forms. The majority of the teachers in the study were enthusiastic about the process of

modifying curriculum for high ability students, reinforcing Guskey's (1986) model of the process of teacher change.

Target Audience: Practitioners

Availability:

Reis, S. M., Westberg, K. L., Kulikowich, J. K., Caillard, F., Hébert, T. P., Plucker, J., Purcell, J. H., Rogers, J. B., & Smist, J. M. (1993). *¿Por que no dejar a los estudiantes con habilidad superior comenzar la escuela en enero? Estudio de la Compactacion del Curriculum* (Executive Summary 94401). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Curriculum Compacting Study was conducted to examine the effects of a curriculum modification technique called curriculum compacting, designed to meet the needs of gifted and talented students in the regular classroom. The study investigated the types and amount of curriculum content that could be eliminated for high ability students by teachers who received various levels of staff development. It also examined what would happen to students' achievement, content area preferences, and attitudes towards learning if curriculum compacting was implemented. The results of this study indicate that the compacting process can be implemented in a wide variety of settings with positive effects for both students and teachers. Additionally, the results expand previous knowledge about effective and efficient methods for training teachers to make appropriate and challenging curricular modifications for gifted and talented students in regular classrooms.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$2.00)

Reis, S. M., Westberg, K. L., Kulikowich, J. K., Caillard, F., Hébert, T. P., Plucker, J., Purcell, J. H., Rogers, J. B., & Smist, J. M. (1993). *Why not let high ability students start school in January? The curriculum compacting study* (Research Monograph 93106). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Curriculum Compacting Study was conducted to examine the effects of a curriculum modification technique called curriculum compacting, designed to meet the needs of gifted and talented students in the regular classroom. The study investigated the types and amount of curriculum content that could be eliminated for high ability students by teachers who received various levels of staff development. It also examined what would happen to students' achievement, content area preferences, and attitudes towards learning if curriculum compacting was implemented. The results of this study indicate that the compacting process can be implemented in a wide variety of settings with positive effects for both students and teachers. Additionally, the results expand previous knowledge about effective and efficient methods for training teachers to make appropriate and challenging curricular modifications for gifted and talented students in regular classrooms.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

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.

This article on The National Research Center on the Gifted and Talented (a consortium of universities, state departments of education, parent groups, and school districts) addresses problems in research on gifted education, the Center's rationale and mission, its component parts, its research on typically underrepresented populations, and its national research needs assessment study.

Target Audience: Researchers; Practitioners

Availability:

Renzulli, J. S. (1992). A general theory for the development of creative productivity through the pursuit of ideal acts of learning. *Gifted Child Quarterly*, 36(4), 170-182.

This article presents a general theory for developing creative productivity in young learners by examining interactions among: the learner (abilities, interests, learning styles); the curriculum (content and methodology of a discipline, structure of a discipline, appeal to the imagination); and the teacher (knowledge of the discipline, instructional techniques, romance with the discipline).

Target Audience: Researchers; Practitioners

Availability:

Renzulli, J. S. (1993). Introduction: Research and you can make a difference. *Journal for the Education of the Gifted*, 16(2), 97-102.

This introduction to a special issue on the work of The National Research Center on the Gifted and Talented (housed at the universities of Connecticut, Georgia, and Virginia and Yale University) stresses the Center's mission as conducting research that is directly relevant to the teacher/practitioner and information dissemination aimed at consumers.

Target Audience: Researchers; Practitioners

Availability:

Renzulli, J. S. (1993). Schools are places for talent development: Applying "gifted education" know-how to total school improvement. *Queensland Association for Gifted and Talented Journal*, 14(1), 30-41.

This article begins with a review of the reasons for the decline in services for the gifted in recent years. A description of the Schoolwide Enrichment Model follows, along with practical ways to extend the pedagogy of gifted education to the regular classroom.

Target Audience: Researchers; Practitioners

Availability:

Renzulli, J. S. (1994). News around the world: New directions for the schoolwide enrichment model. *Gifted Education International*, 10(1), 33-36.

This article not only proposes new directions for the Schoolwide Enrichment Model, it also analyzes the processes of real and effective curriculum change. The very act of learning is perceived to be at the center of the change process. Developing modifications of existing curricula should also provide appropriate content and skills development which allows all students to develop their full potential. The article is based on Dr. Renzulli's recent book, *Schools for Talent Development: A Practical Plan for Total School Improvement*, published in 1994 by Creative Learning Press.

Target Audience: Researchers; Practitioners

Availability:

Renzulli, J. S. (1994-1995). Teachers as talent scouts. *Educational Leadership*, 52(4), 75-81.

Originally developed for gifted education programs, the Schoolwide Enrichment Model can be used in an inclusive school that wants to be a laboratory for talent development.

Target Audience: Practitioners

Availability:

Renzulli, J. S. (1995). *Building a bridge between gifted education and total school improvement* (RBDM 9502). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

In this time of school restructuring, practitioners, and others in the larger school community are seeking ways to improve the creative productivity and academic achievement of all students. The Schoolwide Enrichment Model (SEM) provides educators with an adaptable framework for bringing the lasting improvements to education that school personnel have sought for so long. This monograph describes three service delivery components (the Total Talent Portfolio, Curriculum Modification Techniques, Enrichment Learning and Teaching) and several

organizational components of the Schoolwide Enrichment Model that can be used to provide high-level learning opportunities for all students.

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Renzulli, J. S., Reid, B. D., & Gubbins, E. J. (1991). *Setting an agenda: Research priorities for the gifted and talented through the year 2000*. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This document reports on a national research needs assessment study which resulted in the identification of research priorities for The National Research Center on the Gifted and Talented (NRC/GT) through the year 2000. The report addresses: the scope, purpose, and mission of the NRC/GT; a rationale for such research, noting six problem areas in program development resulting from limitations of previous research; the design of the needs assessment study; and the needs assessment methodology, which involved surveying 13,749 individuals including teachers of the gifted, representatives of Collaborative School Districts, and members of state research advisory councils. Analysis of the 5,074 returned surveys is reported, including a ranking of 21 recommendations for research. Results suggest a need for future studies in two major categories: (a) the effectiveness of current programs, strategies, and practices; and (b) the cognitive, affective, and motivational needs of students. Specific questions related to each category are listed. Abstracts of 18 current studies for the NRC/GT in these areas are presented. A final section presents the NRC/GT's dissemination model to facilitate the dissemination of research results. (Contains 25 references.)

Target Audience: Researchers; Policymakers

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$5.00)

Renzulli, J. S., & Reis, S. M. (1991). Building advocacy through program design, student productivity and public relations. *Gifted Child Quarterly*, 35(4), 182-187.

Educators are encouraged to build advocacy for gifted education through the program itself by demonstrating the high quality products of participating students, and through continued commitment to public relations. Factors common to programs that have survived the economic downturn in New England are identified, including sustained advocacy efforts, longevity, administrative support, leadership, and prior evaluation reports.

Target Audience: Practitioners

Availability:

Renzulli, J. S., & Reis, S. M. (1991). The reform movement and the quiet crisis in gifted education. *Gifted Child Quarterly*, 35(1), 26-35.

Gifted education faces a quiet crisis as reform movements focus on cosmetic administrative changes in school organization and management rather than interaction among teachers, students, and the material to be learned. Two goals of American education are presented: providing the best possible education to promising students and improving the education of at-risk students.

Target Audience: Practitioners

Availability:

Renzulli, J. S., & Reis, S. M. (1993). Using the schoolwide enrichment triad model to provide programs for underserved gifted and talented students. In B. Wallace & H. B. Adams (Eds.), *Worldwide perspectives on the gifted disadvantaged* (pp. 216-236). Oxon, England: A B Academic Publishers.

This chapter explains the Schoolwide Enrichment Triad Model (SEM), provides examples of Types I, II, and III enrichment, and discusses higher order thinking skills.

Target Audience: Practitioners

Availability:

Renzulli, J. S., & Reis, S. M. (1994). Research related to the schoolwide enrichment triad model. *Gifted Child Quarterly*, 38(1), 7-20.

A series of studies are summarized that examine various aspects of the Schoolwide Enrichment Model (SEM), including the effectiveness of the model, creative productivity, personal and social development, underserved populations, self-efficacy, SEM as a curricular framework, research relating to learning styles, curriculum compacting, and longitudinal research on the model. Research suggests that the model works well for high ability students in a variety of school settings, including those that serve diverse ethnic and socioeconomic populations. It also provides appropriate intervention for LD gifted and those who are identified as underachieving.

Target Audience: Practitioners

Availability:

Renzulli, J. S., Reis, S. M., Hébert, T. P., & Díaz, E. I. (1995). The plight of high ability students in urban schools. In M. C. Wang & M. C. Reynolds (Eds.), *Making a difference for students at risk* (pp. 61-98). Thousand Oaks, CA: Corwin Press.

The study discussed in this chapter examines the differences between high ability students who achieve and those who underachieve; these differences may enable researchers and practitioners to identify strategies to help all able students realize their potential. This chapter also explains the Schoolwide Enrichment Model



(SEM), which was developed to serve the unique needs of high ability students and can also provide enrichment opportunities for all students.

Target Audience: Practitioners

Availability:

Robinson, A. (1991). *Cooperative learning and the academically talented student* (RBDM 9106). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The research base on cooperative learning was examined for its applicability to academically talented students. Common types of cooperative learning are described with highlights of the model characteristics as they apply to academically talented students. The models include: Teams-Games-Tournament (TGT); Student Teams Achievement Divisions (STAD); Team Accelerated Instruction (TAI); Cooperative Integrated Reading and Composition (CIRC); Circles of Learning or Learning Together; Cooperative Controversy; Jigsaw and Jigsaw II; Group Investigation; Co-op and Cooperative Structures; Groups of Four; and Descubrimiento or Finding Out. Advantages and disadvantages of the various models for academically talented students are summarized, and the weaknesses in the cooperative learning literature are identified. Weaknesses fall into two broad categories, namely: (a) lack of attention to academically talented students, and (b) reliance on weak treatment comparisons to demonstrate the effectiveness of cooperative learning. In addition to an examination of the research base, two issues in practice were identified as important for academically talented students. These issues were: curricular coverage and pacing, and group work and motivation. A series of recommendations for practice is included. An appendix provides an overview of cooperative learning models in table form. Fifty references accompany the Executive Summary, and 100 references are included at the end of the report.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Robinson, A. (1992, Fall). Cooperative learning: Recommendations. *MA/AIP Newsletter*, 15(3), 3.

This article provides five recommendations about cooperative learning.

Target Audience: Practitioners

Availability:

Robinson, N. M. (1993). *Parenting the very young, gifted child* (RBDM 9308). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This report provides research-based answers to questions facing families of young, gifted children, questions often asked of preschool teachers, physicians, psychologists, and other professionals who deal with young children. Unfortunately, the data base about these children is sparse and often inconclusive. The most consistent findings point to the strong influence of the home and to the extra investment parents of gifted children make, not so much in securing outside classes, but in reading to and playing with their children, enriching their experience, and helping them focus on potential opportunities for learning. Psychological testing is advised only in special circumstances; parents can, in fact, describe their children's development rather accurately. Their descriptions provide the best basis for responsive parenting, which includes securing and creating an optimal match for children among their readiness, their pace of development, and their environments.

Target Audience: Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Rogers, K. B. (1991). *The relationship of grouping practices to the education of the gifted and talented learner* (RBDM 9102). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Thirteen research syntheses were analyzed to determine the academic, social, and psychological effects upon learners who are gifted and talented of three grouping practices: (a) ability grouping for enrichment; (b) mixed ability cooperative grouping for regular instruction; and (c) grouping for acceleration. 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 that 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. Other conclusions indicated that: academic outcomes of ability grouping vary substantially from effects reported for average and low ability learners; full time, pullout, and within-class grouping can all produce substantial academic gains; and there is little impact on self-esteem and a moderate gain in attitude toward subject in full time ability grouping. A series of guidelines for practices is included. Appendices chart the meta-evaluation of the research syntheses and the research-supported conclusions concerning grouping issues. (Contains 45 references.)

Target Audience: Practitioners; Administrators

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$12.00)

Rogers, K. B. (1991, November/December). Is ability grouping worthwhile? YES! *Foresight*, 1-3.

This article is a review of many in-depth studies on ability grouping in which Dr. Rogers summarizes her techniques and findings. The results show that gifted students are significantly aided by joining peer groups and the basis for strong appeals for reforming gifted education.

Target Audience: Practitioners

Availability:

Rogers, K. B. (1991, December). Research abstract. *World Gifted*, 12(5), 33.

This articles provides a synthesis of the research Dr. Rogers has done on ability grouping.

Target Audience: Practitioners

Availability:

Rogers, K. B. (1992, April). The relationship of grouping practices to the education of the gifted and talented learner. *Communicator: The Journal of the California Association for the Gifted*, 22(1), 1, 32-34.

This article provides a review of the research done by Rogers under the auspices of The National Research Center on the Gifted and Talented.

Target Audience: Practitioners

Availability:

Rogers, K. B. (1992, Spring). The relationship of grouping practices to the education of the gifted and talented learner. *Translations From Theory to Practice*, 2(1), 1-4.

This article provides a review of the research done by Rogers under the auspices of The National Research Center on the Gifted and Talented.

Target Audience: Practitioners

Availability:

Rogers, K. B. (1992, Fall). Grouping practices: Guidelines. *MA/AIP Newsletter*, 15(3), 3.

This article provides six practical guidelines for grouping practices.

Target Audience: Practitioners

Availability:

Runco, M. A. (1992). *Creativity as an educational objective for disadvantaged students* (RBDM 9306). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This paper cites reasons to be optimistic and to be concerned about the creative potential of at-risk and disadvantaged students. Reasons for optimism include the wide distribution of creative potential, the significant role played by motivation in creative performances, and the diverse expression of creativity. Reasons for concern include the difficulty in tolerating in the classroom those traits associated with creative potential, such as nonconformity, independence, and persistent questioning. Fourteen specific recommendations are offered. Six of these describe behaviors to avoid (such as relying on verbal materials and rewards; over-emphasizing structure and curricula with predictable outcomes; and suggesting that one's own way of doing something is the best or only way). The other eight recommendations describe objectives and suggestions; such as being explicit with students about how and when to be original, flexible, and independent; working to value and appreciate what children find for themselves; and remembering that the best creative thinking is at least partly unpredictable. The conclusion describes why some of the recommendations apply to all students and why several apply most directly to economically disadvantaged students. An eight-page Executive Summary is included. (Contains approximately 100 references.)

Target Audience: Parents; Researchers; Administrators; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$8.00)

Sheffield, L. J. (1994). *The development of gifted and talented mathematics students and the National Council of Teachers of Mathematics Standards* (RBDM 9404). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This paper addresses the implications for the development of mathematical talent using the *Curriculum and Evaluation Standards for School Mathematics*, *Professional Standards for Teaching Mathematics*, and *Assessment Standards for School Mathematics*, developed by the National Council of Teachers of Mathematics. Based on these standards, a range of alternative identification measures, curricular options and programming opportunities for mathematically talented students is presented.

Target Audience: Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Siegle, D. (Ed.). (1992). *Lo que los educadores necesitan saber sobre el agrupamiento por habilidad* [Brochure B9201]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This Spanish-language brochure presents information based on the findings of Karen Rogers' and James Kulik's survey of over a half a century of research on ability grouping.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1992). *What educators need to know about ability grouping* [Brochure A9201]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochure presents information based on the findings of Karen Rogers' and James Kulik's survey of over a half a century of research on ability grouping.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1993). *Lo que los educadores necesitan saber sobre la compactacion del curriculum* [Brochure B9302]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This Spanish-language brochure presents an overview of the curriculum compacting process in concise language, which translates into easy application for educators. Research facts are also provided to support the use of the compacting process.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1993). *What educators need to know about curriculum compacting* [Brochure A9302]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

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Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *Lo que los educadores necesitan saber sobre los alumnos dotados y el aprendizaje cooperativo* [Brochure B9404]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Cooperative learning is a widely used instructional strategy for gifted students. This Spanish language brochure provides research-based information about cooperative learning, along with practical implications for the classroom.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *Lo que los padres de alumnos dotados necesitan saber sobre ver televisión* [Brochure B9405]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This Spanish-language brochure provides research-based information about the effects of television viewing on gifted children. Research facts are provided for parents of high ability children, along with implications for the home.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *Lo que los padres necesitan saber sobre los lectores precoces* [Brochure B9403]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This Spanish-language brochure is targeted at parents of early readers. It offers research-based information and suggestions for developing reading ability at an early age, along with practical implications for the classroom and home.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *What educators need to know about gifted students and cooperative learning* [Brochure A9404]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Cooperative learning is a widely used instructional strategy for gifted students. This brochure provides research-based information about cooperative learning, along with practical implications for the classroom.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *What parents need to know about early readers* [Brochure A9403]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

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Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D. (Ed.). (1994). *What parents of gifted students need to know about television viewing* [Brochure A9405]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochure provides research-based information about the effects of television viewing on gifted children. Research facts are provided for parents of high ability children, along with implications for the home.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Siegle, D., & Reis, S. M. (1994-1995). Gender differences in teacher and student perceptions of student ability and effort. *Journal of Secondary Gifted Education*, 5(4), 86-92.

The purpose of this study was to investigate whether gifted female students view the quality of their work, effort, and ability differently than gifted male students. The study also investigated whether teachers perceived male and female students differently with respect to the quality of their work as measured by their grades, effort, and ability in the areas of mathematics, language arts, social studies, and

science. Results indicated that teachers consistently rated female students higher than males on effort and the quality of their work. However, teachers did not believe that males or females had different abilities, nor did they assign different grades to males than they did to females. The female students believed they had higher ability than males in language arts. Male students believed they had higher ability than females in mathematics, science, and social studies.

Target Audience: Practitioners

Availability:

Sowa, C. J., McIntire, J., & May, K. M. (1994). Social and emotional adjustment themes across gifted children. *Roeper Review*, 17(2), 95-98.

This article presents common patterns or means of coping that gifted children used to respond to stressors in their lives. Patterns which applied to all seven gifted children in this study are described as themes in the article and illustrate the social and emotional adjustment of these children in their families, schools, and communities.

Target Audience: Practitioners; Parents

Availability:

Spear-Swerling, L., & Sternberg, R. J. (1994). The road not taken: An integrative theoretical model of reading disability. *Journal of Learning Disabilities*, 27(2), 91-103.

This article describes a theoretical model of reading disability that integrates research findings in cognitive psychology, reading, and education. The model identifies four patterns of reading disability: (a) nonalphabetic readers, (b) compensatory readers, (c) nonautomatic readers, and (d) readers delayed in the acquisition of word recognition skills. Educational implications of the model are discussed.

Target Audience: Practitioners

Availability:

Spear-Swerling, L., & Sternberg, R. J. (1996). *Off track: When poor readers become "learning disabled."* Boulder, CO: Westview Press.

The identification of poor readers as "learning disabled" can be the first of many steps toward consigning students to a lifetime of reading failure. The very label that is meant to help children often becomes a burden that works against effective learning throughout their schooling. In this book, the authors identify the dangers of labeling children as reading or learning disabled, contending that a "reading disability" is not a unitary phenomenon. In order to diagnose and help children, educators and parents need to understand the multiple sources of reading difficulty before they can choose appropriate means to correct it.



Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J. (1990). Crimes of the smart: A reply to Humphreys and Larson. *Intelligence*, 14(2), 239-244.

It is asserted that the statistical arguments proposed by Humphreys are not supported by the formula he presents. The disagreement with Larson is with the contention that there exists one correct theoretical framework in which intelligence research should be posed. The respective viewpoints are seen as complementary, not competing.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1990). Thinking styles: Keys to understanding student performance. *Phi Delta Kappan*, 71(5), 366-371.

The flexible use of the mind for mental self-governance accounts for a variety of thinking styles. Just as the functions of mental self-government resemble those of government branches (legislative, executive, and judicial), the forms of mental self-government have government analogues (monarchic, hierarchic, oligarchic, and anarchic). Teacher flexibility is essential. Includes three references.

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J. (1991). Are we reading too much into reading comprehension tests? *Journal of Reading*, 34(7), 540-545.

Describes a dozen ways in which reading tests are at variance in their demands with the demands of reading as it occurs in everyday life. Suggests that these sources of variance render reading tests considerably less valid as measures of real world reading behavior than most people want to believe.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1991). Death, taxes, and bad intelligence tests. *Intelligence*, 15(3), 257-269.

Bad intelligence tests seem as inevitable as death and taxes. However, new theories of intelligence are resulting in some promising developments. Thirteen approaches to the measurement of intelligence are described, divided into the following categories: classical psychometric; developmental; culture-sensitive; cognitive; biological; and systems.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1991). Giftedness according to the triarchic theory of human intelligence. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (pp. 45-54). Needham Heights, MA: Allyn & Bacon.

The triarchic theory of human intelligence is presented to understand intellectual giftedness. The article describes three specific kinds of giftedness: analytic, synthetic, and practical abilities. It also explains the components of intelligence, and how these components interact with each other. The role of experience and context functions are essential parts for understanding intelligence. Finally, a different way of measuring and developing intellectual excellence is briefly discussed.

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J. (1991). Intelligence applied: A triarchic program for training intellectual skills. In A. L. Costa (Ed.), *Developing minds: Programs for teaching thinking, Vol. 2* (pp. 79-84). Alexandria, VA: Association for Supervision and Curriculum Development.

The triarchic program contains two basic elements for developing the intellectual skills of secondary and college-level students: a student's text, which contains narrative material and exercises for students to complete, and a teacher's guide, which contains material teachers can use to maximize the effectiveness of the program.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1992). A for effort, but . . . . *American Journal on Mental Retardation*, 97(3), 292-294.

This commentary on a paper by Douglas Detterman and others, which tested a model assessing basic cognitive abilities in young adults with and without mental retardation, criticizes the paper for drawing conclusions not justified by the empirical results.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1992). Ability tests, measurements, and markets. *Journal of Educational Psychology* 84(2), 134-140.

Progress, or lack thereof, in the development of ability testing is reviewed. Current tests, though inadequate, respond to the demands of test consumers. Test publishers must look ahead to changing demands and begin to lead the market, rather than follow it, by drawing on basic research in testing.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1992). The thinking cycle. In J. W. Keefe & H. J. Walberg (Eds.), *Thinking—Critical and otherwise* (pp. 111-118). Reston, VA: The National Association of Secondary School Principals.

"The thinking cycle" is an eight-step process created by the author for solving problems and emphasized as practical and user-friendly. Contrary to the notion of thinking as linear, the author proposes that the thinking needed for successful problem solving is a cyclical process. The end of the cycle reverts back to the beginning, not necessarily of the same problem, but of a new problem. Thus, he contends that problems are the normal rather than aberrant state of affairs in everyday living. The eight step cycle is outlined in the practical context of a school administration problem—a new principal, faced with declining test scores and low teacher morale, attempts to turn the school around. Two other examples, a teacher working to reverse underachievement in a particular student and a student faced with writing a term paper, are used to illustrate the practicality of the thinking cycle and its applicability to a variety of domains.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1993). The concept of 'giftedness': A pentagonal implicit theory. In *The origins and development of high ability* (pp. 5-21). United Kingdom: CIBA Foundation.

The origins and development of high ability.

Target Audience: Researchers

Availability:

Sternberg, R. J. (1993). Procedures for identifying intellectual potential in the gifted: A perspective on alternative "metaphors of mind." In K. A. Heller, F. J. Monks, & A. H. Passow (Eds.), *International handbook of research and development of giftedness and talent* (pp. 185-207). Oxford, England: Pergamon Press.

The chapter deals with the questions of how we decide what to assess in the identification of the gifted, and with alternative approaches to such assessment/consider the criteria used to assign the label of "giftedness"/consider

alternative perspectives on intellectual giftedness, and the kinds of measures that derive from each.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1993). Rocky's back again: A review of the WISC-III. In B. A. Bracken & R. S. McCallum (Eds.), *Wechsler intelligence scale for children* (3rd edition, pp. 161-164). Brandon, VT: Clinical Psychology Publishing.

Reviews the characteristics of the WISC-III (Wechsler Intelligence Scale for Children-III).

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J. (1993). Would you rather take orders from Kirk or Spock? The relation between rational thinking and intelligence. *Journal of Learning Disabilities*, 26(8), 516-519.

This response to Stanovich considers the relationship between rationality and intelligence. It sees rationality as a relatively minor part of intelligence and proposes the concept of practical intelligence (or the lack thereof) as an alternative to Stanovich's concept of dysrationalia.

Target Audience: Researchers

Availability:

Sternberg, R. J. (1994). Allowing for thinking styles. *Educational Leadership*, 52(3), 36-40.

A style is a preferred way of using one's abilities. People vary their styles to suit different tasks and situations. According to mental government theory, we organize ourselves according to certain government types. There are 13 styles under 5 categories: functions, forms, levels, scope, and leanings. Students receive more favorable evaluations when their styles more closely match those of their teachers.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1994). Answering questions and questioning answers: Guiding children to intellectual excellence. *Phi Delta Kappan*, 76(2), 136-138.

Parents and teachers help children develop their intelligence by mediating their learning experiences. When children seek such mediation by asking questions, parents and teachers can use one of seven responses. The single most helpful

response is to take children's questions seriously and turn them into golden thinking and learning opportunities.

Target Audience: Practitioners; Parents

Availability:

Sternberg, R. J. (1994). Cognitive conceptions of expertise. *International Journal of Expert Systems: Research and Application*, 7(1), 1-12.

This article reviews nine different cognitive conceptions of expertise: (1) a general process view, (b) a quantity of knowledge view, (c) an organization of knowledge view, (d) an analytical ability view, (e) a creative ability view, (f) an automaticity view, (g) a practical ability view, and (h) a labeling view. The article then proposes a ninth synthetic view, according to which expertise is a prototypical concept, and the person is more expert to the extent that he or she possesses more of these eight qualities.

Target Audience: Researchers

Availability:

Sternberg, R. J. (1994). *Encyclopedia of human intelligence* (Vols. 1 & 2). New York: MacMillan Publishing.

This two-volume work contains over 250 articles of varying lengths dealing with all aspects of human intelligence.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1994). Human intelligence: Its nature, use and interaction with context. In D. K. Detterman (Ed.), *Current topics in human intelligence* (Vol. 4, pp. 361-407). Norwood, NJ: Ablex.

The main thesis of this chapter is that conventional tests are only poorly predictive of life adjustment success. First, the theories of intelligence on which the conventional tests are based are too narrow. To predict beyond school, we need to understand intelligence more broadly. Second, better prediction would require us to take into account not only the levels of various aspects of intelligence, but also how these aspects of intelligence are brought to bear on the world at large through styles of thought. Third, we need to take into account the kinds of contexts in which intelligence is used.

Target Audience: Researchers

Availability:

Sternberg, R. J. (1994). Intelligence. In R. J. Sternberg (Vol. Ed.), *Handbook of perception and cognition: Thinking and problem solving* (pp. 263-288). San Diego, CA: Academic Press.

Few constructs are asked to serve as many functions in psychology as is the construct of human intelligence. The main thesis of this chapter is that the way in which intelligence is conceived depends in a major way on the function that intelligence is viewed as serving. people who are interested in intelligence as a biological construct, for example, are likely to construe it differently from those who are interested in it as a construct created in part by context.

Target Audience:            Researchers

Availability:

Sternberg, R. J. (Ed.). (1994). *Personality and intelligence*. New York: Cambridge University Press.

Motivated by their belief that the most interesting work on intelligence is now being done at the interface of intelligence and personality, the editors have collected a body of essays exploring the interconnections and interdependencies between these two constructs. The essays selected form a history of the fields of intelligence and personality, from the period of "grand theories," in which researchers sought to formulate overarching theories of the constructs as a whole, to the psychometric approach of factor analysis, to the development of situational and domain-specific theories, and, finally, to current research on person-situation interactions.

The chapters in the book have been written in a way that should be comprehensible to students and professionals alike, whether or not they happen to specialize in the topics covered.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J. (1994). PRSVL: An integrated framework for understanding mind in context. In R. J. Sternberg & R. K. Wagner (Eds.), *Mind in context: Interactionist perspectives on human intelligence* (pp. 218-232). New York: Cambridge University Press.

Describes the PRSVL (person-roles-situation-values-luck) model of person-context interaction in the study of human potentials/this model considers the person from a broad perspective, and also considers the multiple facets of context in which the person functions (abilities, knowledge, thinking and learning styles, personality, motivation).

Target Audience:            Practitioners

Availability:

Sternberg, R. J. (1994). Thinking styles: Theory and assessment at the interface between intelligence and personality. In R. J. Sternberg & P. Ruzgis (Eds.), *Personality and intelligence* (pp. 169-187). New York: Cambridge University Press.

Suggests that the interface between personality and intelligence can be found in a construct. The author refers to this as the "thinking style. The basic notion is that such a style is not intelligence itself, but a way of utilizing one's intelligence.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1994). Triarchic theory of human intelligence. In R. J. Sternberg (Ed.), *Encyclopedia of human intelligence* (pp. 1087-1091). New York: MacMillan Publishing.

This chapter details the Triarchic Theory of Intelligence.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1994). What if the construct of dysrationalia were an example of itself? *Educational Researcher*, 23(4), 22-23, 27.

The concept of dysrationalia is intriguing at a dysrationalia level—but the construct needs much better conceptualization and elaboration, a theory, operationalization, convergent and discriminant validation, and safeguards against misuse.

Target Audience: Researchers

Availability:

Sternberg, R. J. (1995). Changing conceptions of intelligence and their impact upon the concept of giftedness: The triarchic theory of intelligence. In J. L. Genshaft, M. Bireley, & C. L. Hollinger (Eds.), *Serving gifted and talented students* (pp. 33-47). Austin, TX: Pro-Ed.

This article offers a description of the Triarchic Theory of Intelligence as it relates to gifted children. Each subtheory, componential, experiential, and contextual, is described and implications for giftedness are explained. Areas covered include general understanding of the theory and its use in assessment and instruction. Examples from research in test construction, as well as a pilot summer program using techniques for teaching analytic, creative-synthetic, and practical skills, are used to highlight the need for understanding the strengths and weaknesses of gifted students.

Target Audience: Practitioners

Availability:

Sternberg, R. J. (1995). The miller's tale: A speculative glimpse into the cognitive psychology of the future. In R. Solso & D. W. Massaro (Eds.), *The science of the mind: 2001 and beyond* (pp. 123-136). New York: Oxford University Press.

In this narrative exposé, the author paints a grim, yet humorous, view of the future of cognitive psychology. Set in a future where the United States have broken up into separate countries, the narrator sets out to discover what is happening in the field. Along his journey he visits academic institutions, each adhering to a different theory of cognitive development with no interaction between colleagues, and finds things have gone outlandishly awry.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J. (1995). Review of the book *Schools for talent development: A practical plan for total school improvement*. *NASSP Bulletin*, 79(568), 117-118.

Dr. Sternberg gives a favorable review of Dr. Renzulli's new book on total school improvement. Highlights key issues of this important work toward educational reform.

Target Audience:            Practitioners

Availability:

Sternberg, R. J. (1996). Styles of thinking. In P. B. Baltes & U. M. Staudinger (Eds.), *Interactive minds* (pp. 347-365). New York: Cambridge University Press.

This chapter presents a theory of thinking styles—the theory of mental self-government—and presents data in support of the theory. The article opens with an introduction as to why styles are important, continues with a discussion of some general characteristics of styles, then offers some alternative theories of styles, next presents the theory of mental self-government, then discusses measurement of thinking styles. The argument is advanced that we need to take thinking styles into account in addition to abilities and achievement in considering the interaction of children with each other, with teachers and with the school.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J., & Clinkenbeard, P. R. (1995). The triarchic model applied to identifying, teaching, and assessing gifted children. *Roeper Review*, 17(4), 255-260.

This article presents a unified model, the triarchic one, for the identification, instruction, and assessment of gifted children. The article considers why a unified model of identification, instruction, and assessment is important, and why this model should be broader than most of the models currently in use. Following a discussion regarding the use of the triarchic model as a potential one for such use, a program of identification, instruction, and assessment for gifted high school students learning



psychology is described based upon the triarchic model. Data from an initial application of this program are introduced as well as claims demonstrating how the triarchic model can be applied in fields beyond psychology. Finally, conclusions are drawn to confirm that a broad unified model such as the triarchic one can be useful in the identification, instruction, and assessment of gifted children.

Target Audience: Practitioners

Availability:

Sternberg, R. J., & Davidson, J. E. (1992). Problem solving. In *Encyclopedia of educational research* (6th ed., pp. 1037-1045). Washington: American Educational Research Association.

Six general problem-solving processes that apply to both well-defined and ill-structured problems are outlined in this chapter. The authors discuss ill-structured problems from traditional (associationist, behaviorist, and Gestalt) viewpoints and alternative perspectives, in particular their own three-process insight theory. Functional fixedness (the inability to adapt to change) is identified as an obstacle to problem solving and ways to avoid it are detailed. Well-structured problems and the use of heuristics are also presented. The authors conclude with a discussion of the characteristics that distinguish expert problem solvers from novice ones, highlighting the role of knowledge in the problem-solving process. Educational implications are considered throughout the chapter.

Target Audience: Practitioners

Availability:

Sternberg, R. J., & Grigorenko, E. L. (1993). Thinking styles and the gifted. *Roeper Review*, 16(2), 122-130.

This article argues that decisions regarding identification, instruction, and programming for gifted students need to take into account not only their abilities but their styles of thinking. The article discusses the theory of mental self-government; data gathered from testing the theory; and relevance of thinking styles to decisions regarding identification, instruction, and programming.

Target Audience: Practitioners

Availability:

Sternberg, R. J., & Horvath, J. A. (1995). A prototype view of expert teaching. *Educational Researcher*, 24(6), 9-17.

This article calls for a reconceptualization of teaching expertise, one grounded in a psychological understanding of how (a) experts differ from nonexperts, and (b) people think about expertise as they encounter it in real-world settings. Recently education researchers have tended either to define teaching expertise restrictively or to describe teaching expertise in an ad hoc fashion. This article seeks a middle ground between definitional and ad hoc descriptions of teaching expertise.

Target Audience:        Researchers

Availability:

Sternberg, R. J., & Lubart, T. I. (1991). Creating creative minds. *Phi Delta Kappan*, 72(8), 608-614.

To restructure schooling and emphasize creative definition and redefinition of problems, teachers need to allow students more responsibility for choosing and solving problems. Problems requiring insightful solution are almost always ill-structured, whereas school-posed problems lead to prescribed answers. Creative persons learn to tolerate ambiguity, take risks, and excel despite mistakes. (Contains 12 references.)

Target Audience:        Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1991). On short-selling the investment theory of creativity: A reply to Runco. *Creativity Research Journal*, 4(2), 200-202.

This article presents a response to Runco's critique of the investment theory of creativity.

Target Audience:        Researchers; Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1992). Buy low and sell high: An investment approach to creativity. *Current Directions in Psychological Science*, 1, 1-5.

Describes alternative approaches to the problem of creativity. Less contextualized approaches are the structurally oriented psychometric and the computational approaches, emphasizing ability and personality. More contextualized approaches (social-psychological, case study, and historiometric) make greater use of laboratory investigations. An investment theory is presented proposing that to be creative is to invest one's abilities and efforts in ideas that are novel and of high quality, and that to be creative, one must buy low and sell high as any good investor. Two studies were conducted to test this theory. Study 1, with 48 community residents, tested the predictive value of internal resources. Results were consistent with the investment theory predictions. Study 2, with 44 Ss, tested the predictive value of risk taking. Results indicate that Ss were risk-averse. These outcomes are consistent with investment theory.

Target Audience:        Practitioners

Availability:

Sternberg, R., & Lubart, T. (1992). Creative giftedness: Theory, speculation, and data. In N. Colangelo, S. G. Assouline, & D. L. Ambrosio (Eds.), *Talent development: Proceedings from the 1991 Henry B. and Jocelyn Wallace national research symposium on talent development* (pp. 66-88). Unionville, NY: Trillium Press.

The authors describe a new theory of creativity characterized as an "investment theory" of creativity. Six facets of this investment theory converge toward generating creative ideas and behavior: aspects of intelligence, intellectual style, knowledge, personality, motivation, and environmental context. Findings of research testing the investment theory are also presented; a longitudinal study is recommended for further study. The authors present suggestions for schools to encourage creativity of students. Some suggestions for teachers include: emphasize ill-structured problems, provide assignments that encourage students to see things in different ways, encourage risk-taking, place more emphasis on intrinsic motivation, and reward creativity in all its forms. The authors conclude that more gifted students would be identified if teachers helped them to unleash their creative potential.

Target Audience: Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1992). The creative mind. *Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden*, 47, 288-300.

Considers approaches to creativity (CR) and assessments of CR generated under these approaches. An investment theory (INT) of CR is proposed that builds on cognitive and social-psychological approaches to CR and combines ideas from economics and psychology. According to INT, pursuing domains, projects, or ideas that are novel or out of favor ("buying low") increases the chance of producing a creative product and eventually "selling high." This involves a confluence of 6 interactive resources: intelligence, knowledge, thinking styles, personality, motivation, and environmental context. Product-oriented semi-structured tasks in 4 domains (drawing, writing, advertising, and science) were constructed to assess CR in terms of INT and were tested on 48 adults. The tasks show adequate reliability and construct validity and offer an easy-to-use alternative to the Torrance Tests of Creative Thinking. (Dutch abstract)

Target Audience: Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1992). Creativity: Its nature and assessment. *School Psychology International*, 13, 243-253.

Describes an investment theory (IT) of creativity and discusses its implications for the understanding and assessment of creativity. The standard psychometric approach to creativity is also examined. According to IT, creativity is thought to involve the resources of intelligence, knowledge, thinking style, personality, motivation, and environmental context. To measure creativity, the authors developed tasks in the domains of drawing, writing, advertising, and science that would enable people to demonstrate their creative talents. Two of these tasks and psychometric

tests were selected by 48 adults (aged 18-65 yrs). Creative products were rated by 15 raters, who rated them on scales including overall creativity, novelty, aptness for the topic chosen, and aesthetic value. The measures used appear to have been assessing the resources in the IT.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1993). Creative giftedness: A multivariate investment approach. *Gifted Child Quarterly*, 37(1), 7-15.

Creatively gifted individuals propose ideas that initially seem odd, but they "invest" in these ideas, bring them to fruition, and convince other people of their worth. Creatively gifted individuals display a combination of six resources that function interactively: intelligence, knowledge, styles of thinking, personality, motivation, and environment.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1993). Investing in creativity. *Psychological Inquiry*, 4(3), 229-232.

Develops an investment theory of creativity that is based on the notion that the greatest creative contributions can generally be made in areas or with ideas that at a given time are undervalued. Six resources that combine interactively to yield creative performance are postulated: intelligence, knowledge, thinking styles, personality, motivation, and environment. When this theory is compared with H. J. Eysenck's proposed theory of creativity, several differences are noted. One of these is that the investment theory focuses on elevated levels of certain personality attributes for creativity rather than on pathologically high levels of these same attributes. Another difference is that Eysenck's theory has an emphasis on psychoticism and on the abnormal personality, which can lead to an unfortunate association in the mind of the public between creativity and mental abnormality.

Target Audience:            Researchers; Practitioners

Availability:

Sternberg, R. J., & Lubart, T. I. (1995). *Defying the crowd: Cultivating creativity in a culture of conformity*. New York: The Free Press.

This book is about creativity, both as it applies to famous people and, more importantly, as it applies in everyday life to all of us. There is a discussion of what creativity is, how it can be understood, how it can be measured, and how it can be enhanced in each of us.

Target Audience: Researchers; Practitioners; Parents

Availability:

Sternberg, R. J., & Lubart, T. I. (1995). An investment perspective on creative insight. In R. J. Sternberg & J. E. Davidson (Eds.), *The nature of insight* (pp. 534-558). Cambridge, MA: MIT Press.

This article presents a look at creative insight and the specific attitude it requires, in addition to cognitive abilities.

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J., Okagaki, L., & Jackson, A. (1990). Practical intelligence for success in school. *Educational Leadership*, 48(1), 35-39.

Teachers have many expectations for students that are never explicitly verbalized. The Yale Practical Intelligence for School curriculum is based on three kinds of tacit knowledge necessary for adapting to any environment: managing oneself, managing tasks, and working with others. Includes 16 references.

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J., & Others. (1993). Theme issue: Experiential education and practical intelligence. *Journal of Cooperative Education*, 28(2), 6-67.

Includes Intelligence Is More than IQ (Sternberg); In Search of Intraterrestrial Intelligence (Wagner); On Changing Fundamental Conceptions of Undergraduate Experience (Guskin); Experience and Intelligence (Gotlieb); Assessing the Value of Cooperative Education (Williams et al.); and Adult Learning as a Recursive Process (Sheckley et al.).

Target Audience: Researchers; Practitioners

Availability:

Sternberg, R. J., & Zhang, L. (1995). What do we mean by giftedness? A pentagonal implicit theory. *Gifted Child Quarterly*, 39(2), 88-94.

This article presents a pentagonal implicit theory of giftedness and a set of data testing the theory. The exposition is divided into five parts. First we discuss what an implicit theory is and why such theories are important. Second we describe the pentagonal theory, specifying five conditions claimed to be individually necessary and jointly sufficient for a person to be labeled as gifted. These conditions help us understand not only why some people are labeled as gifted but also why some others are not. Third we consider the relation of the pentagonal theory to explicit

theories of giftedness. Fourth we present data supporting the theory. Finally, we discuss some implications of the pentagonal theory for gifted education.

Target Audience:            Researchers; Practitioners

Availability:

Taylor, L. A. (1995). *Undiscovered Edisons: Fostering talents of vocational-technical students* (RM 95214). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Enrichment Triad Model was adapted to include an integrated career development model called Focus On (Taylor, 1993) which proposes a broadened implementation process that takes into account the needs of students as they travel through the stages of career development. Students are provided with enrichment opportunities which broaden their exposure to fields of endeavor (modified Type I); process skills, including critical and creative thinking, specific methodological skills to a field of endeavor, and career development skills (modified Type II); and creative productive investigations (modified Type III) which can be used to explore potential career interests and allow students to see themselves in the role of practicing professionals and begin to visualize a different sense of self. In this study using the Focus On Model, significantly heightened career aspirations were found for students who had participated in creative productivity.

Target Audience:            Researchers; Practitioners

Availability:                    The National Research Center on the Gifted and Talented,  
University of Connecticut, 362 Fairfield Road, U-7; Storrs,  
CT 06269-2007 (\$5.00)

Thomas, L. S. (1991). *A survey on the attributes of bright students from economically disadvantaged families and areas: How teachers describe these students*. Athens, GA: University of Georgia, The National Research Center on the Gifted and Talented.

This study explored ways in which teachers describe students whom they consider gifted, from economically disadvantaged backgrounds and areas. Since teachers tend to be the first line in identifying students for gifted programs, it was believed that their perceptions concerning attributes of giftedness in economically disadvantaged students would have important implications for identification practices. A nationwide survey on the attributes of gifted economically disadvantaged students was sent to 225 school districts affiliated with The National Research Center on the Gifted and Talented. Responses were analyzed through the constant comparative method. Major findings included: (a) teachers tended to describe the students by means of traditional characteristics of gifted students, even though economically disadvantaged students are not typically described in this manner; and (b) in contrast to the proficiency statements above, teachers made a significant number of comments regarding personal and familial deficiencies.

Target Audience:            Practitioners

Availability:

Tomlinson, C. A. (Ed.). (1992). Educating the gifted. *Journal of Educational Psychology*, 82(3), 399-478.

Eight articles are presented, which examine the following issues defining current research in education of the gifted: (a) identification of separate areas of giftedness; (b) stability and predictability of precocity; (c) fulfillment of potential; (d) socioemotional adjustment of gifted individuals; and (e) sex differences in giftedness.

Target Audience: Practitioners

Availability:

Tomlinson, C. A. (1992). Gifted education and the middle school movement: Two voices on teaching the academically talented. *Journal for the Education of the Gifted*, 15(3), 206-238.

Comparison of the fields of gifted education and middle school education indicates some major differences in such areas as organizing for instruction, how students learn, mainstreaming, delivery of instruction, affective needs, and the concept of giftedness.

Target Audience: Practitioners

Availability:

Tomlinson, C. A. (1993). Independent study: A flexible tool for encouraging academic and personal growth. *Middle School Journal*, 25(1), 55-59.

Independent study is actually a range of strategies involving student participation in selecting topics to investigate; designing investigative plans, procedures, and products; establishing and employing evaluative criteria; conducting the investigation; and sharing its findings. This article shows how to gauge student readiness for structured- or shared-independent investigations and provides classroom examples.

Target Audience: Practitioners

Availability:

Tomlinson, C. A. (1994). Gifted learners: The boomerang kids of middle school? *Roeper Review*, 16(3), 177-182.

A variety of beliefs and practices central to middle schools may cause special difficulties for gifted learners. Such practices often focus on potentially competing goals of student competencies versus student excellence and include such practices as heterogeneous grouping, cooperative learning, and an absence of clearly defined middle school curricula.

Target Audience: Practitioners

Availability:

Tomlinson, C. A. (1994). Middle school and acceleration. *Journal of Secondary Education*, 5(4), 42-51.

Because preadolescents probably differ more than any other group in intellectual, social, emotional, and physical development, it is especially important that schools not be concerned with rigid policy, but attempt to match learners with appropriate learning experiences. Seven different types of acceleration methods are explained through a case study approach. A series of questions is posed which should be considered when determining if a student should be accelerated. The more radical the option being considered, the more necessary it is to determine the student's social emotional, physical, and intellectual readiness.

Target Audience: Researchers; Practitioners; Parents

Availability:

Tomlinson, C. A. (1994, July/August). Learning how new teachers relate to diverse learners. *Virginia Association for the Education of the Gifted Newsletter*, 15, 5.

This article describes the Preservice Teacher Preparation Project, which was designed to study how new teachers become aware of different students' needs, develop assessment strategies for probing those needs, devise methods of adapting instruction in response to the needs, and establish management procedures for diverse classrooms.

Target Audience: Practitioners

Availability:

Tomlinson, C. A. (1994, July/August). Using multiple intelligences to help teach culturally diverse learners. *Virginia Association for the Education of the Gifted Newsletter*, 15, 7-8.

This article describes a unique university-school district collaboration between the University of Virginia and Charlotte-Mecklenburg Public Schools to conduct project START, a three year study to determine the efficacy of using a multiple intelligence model to identify and teach primary age, low socioeconomic, and/or minority learners.

Target Audience: Practitioners

Availability:



Tomlinson, C. A. (1995). Deciding to differentiate instruction in middle school: One school's journey. *Gifted Child Quarterly*, 39(2), 77-87.

As many schools move toward serving a broad range of students in heterogeneous settings, it is important to assist teachers in developing classrooms responsive to the needs of academically diverse learners. Understanding what impedes and what facilitates appropriately differentiated instruction is essential for educational leaders if schools are to move away from one-size-fits-all teaching and if heterogeneous classrooms are to become viable for "academic outliers" such as gifted, struggling, and special education learners. This case study examines the experience of one middle school confronted with a district mandate for differentiated instruction and presents the factors which impeded or facilitated their movement toward appropriately differentiated classrooms.

Target Audience: Practitioners

Availability:

Tomlinson, C. A., Bland, L. C., & Moon, T. R. (1993). Evaluation utilization: A review of the literature with implications for gifted education. *Journal for the Education of the Gifted*, 16(2), 171-189.

Although evaluations of education programs are conducted for a variety of reasons, there is always the expectation that findings will be used in some way. However, the utility of evaluation findings may be affected by factors related to evaluation context which are out of the evaluator's control (such as economic and political concerns), and by factors which may be at least to some degree within the control of the evaluator (such as evaluator competence, evaluation design, identification of and communication with audiences, and clarity and quality of the evaluation report). Unique goals of programs for gifted learners provide special challenges to evaluators. Findings from the general literature of evaluation utilization offer guidance to evaluators of gifted programs regarding factors which may increase the likelihood that evaluation findings will be used to produce program change, but there is a clear need for research delineating specific factors which may facilitate or impede utilization of findings from evaluations of programs for the gifted.

Target Audience: Researchers

Availability:

Tomlinson, C. A., Bland, L. C., Moon, T. S., & Callahan, C. M. (1994). Case studies of evaluation utilization in gifted education. *Evaluation Practice*, 15, 153-168.

This article presents the findings of a study conducted on how the evaluation of gifted programs is used in further program development, enhancement, or improvement.

Target Audience: Practitioners

Availability:

Tomlinson, C. A., & Callahan, C. M. (1992). Contributions of gifted education to general education in a time of change. *Gifted Child Quarterly*, 36(4), 183-189.

Educators in gifted education should be involved in the School Reform Movement because of the need of gifted learners for positive changes in education and because of the potential of the field to contribute to improved education for all students. Philosophical contributions, instructional contributions, and pedagogical contributions of gifted education are examined.

Target Audience: Practitioners

Availability:

Tomlinson, C. A., & Callahan, C. M. (1993). A planning guide for evaluating programs for gifted learners. *Quest*, 4(2), 1-4.

This guide is based on research and best practices both in the field of general education evaluation and evaluation of programs for the gifted. It poses questions intended to facilitate the thinking and planning of individuals and groups charged with evaluating programs for gifted learners. Those using the guide are encouraged to modify it in ways which make the evaluation process better tailored to address local needs and concerns.

Target Audience: Practitioners

Availability:

Tomlinson, C. A., & Callahan, C. M. (1994). Planning effective evaluations for programs for the gifted. *Roeper Review*, 17(1), 46-51.

This article presents a framework for conducting effective evaluations of programs for gifted students, reflecting current best practice. The evaluation framework proceeds through four stages: preparing for the evaluation, designing data collection and analysis, conducting the evaluation, and reporting findings and follow-up. A planning matrix is provided.

Target Audience: Practitioners

Availability:

Tomlinson, C. A., Tomchin, E. M., Callahan, C. M., Adams, C. M., Pizzat-Tinnin, P., Cunningham, C. M., Moore, B., Lutz, L., Roberson, C., Eiss, N., Landrum, M., Hunsaker, S., & Imbeau, M. (1994). Practices of preservice teachers related to gifted and other academically diverse learners. *Gifted Child Quarterly*, 38(3), 106-114.

Preservice teachers face formidable tasks of planning and management as they enter the classroom for the first time as professionals. They also bring with them mental imprints of what teaching and learning are like, images gained not from their professional preparation programs, but from their years as students. Once in the role of teacher, those views may be reinforced by the circumstances of their apprenticeship. This qualitative study reports five themes in the preservice teaching

experience of 10 preservice teachers which may reinforce traditional views of schooling and discourage understanding and addressing unique learning needs of academically diverse learners such as gifted, remedial, and special education learners.

Target Audience: Researchers; Practitioners

Availability:

Westberg, K. L. (1995). Meeting the needs of the gifted in the regular classroom. *Gifted Child Today*, 18(1), 27-41.

Presents an overall review of effective classroom strategies and practices for working with high ability students in the classroom.

Target Audience: Researchers; Practitioners

Availability:

Westberg, K. L., & Archambault, F. X., Jr. (Eds.). (1995). *Profiles of successful practices for high ability students in elementary classrooms* (Research Monograph 95122). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

The Successful Practices Study was an investigation of schools and classrooms that had a reputation for effective implementation of curriculum differentiation practices to meet the individual needs of high ability students. The researchers present their findings in the site profiles in this monograph. A synthesis of the findings and themes across the 10 sites are included in the final chapter.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$15.00)

Westberg, K. L., & Archambault, F. X., Jr. (1995, February). A national study of classroom practices used with high ability students. *Connections: The ASCD Network on Developing Giftedness and Talent*, 1-2.

Systematic observations in 46 third- or fourth-grade classrooms found little differentiation in instructional and curricular practices, grouping arrangements, and verbal interactions for gifted and talented students in regular classrooms. Across 5 subject areas and 92 observation days, the observed students experienced no instructional or curricular differentiation in 84% of their instructional activities.

Target Audience: Researchers; Practitioners

Availability:

Westberg, K. L., Archambault, F. X., Jr., Dobyns, S. M., & Salvin, T. J. (1993). The classroom practices observations study. *Journal for the Education of the Gifted*, 16(2), 120-146.

Systematic observations in 46 third- or fourth-grade classrooms found little differentiation in instructional and curricular practices, grouping arrangements, and verbal interactions for gifted and talented students in regular classrooms. Across 5 subject areas and 92 observation days, the observed students experienced no instructional or curricular differentiation in 84% of their instructional activities.

Target Audience: Researchers; Practitioners

Availability:

Westberg, K. L., Archambault, F. X., Jr., Dobyns, S. M., & Salvin, T. J. (1993). *An observational study of instructional and curricular practices used with gifted and talented students in regular classrooms* (Research Monograph 93104). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

Systematic observations in 46 third- or fourth-grade classrooms found little differentiation in instructional and curricular practices, grouping arrangements, and verbal interactions for gifted and talented students in regular classrooms. Across 5 subject areas and 92 observation days, the observed students experienced no instructional or curricular differentiation in 84% of their instructional activities.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

Whitton, D., & Siegle, D. (Eds.). (1994). *Lo que los educadores necesitan saber sobre la actividad tutorial* [Brochure B9406]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This Spanish language brochure provides information on the topic of mentoring and its implications for the learning environment. Educators need to consider a variety of educational experiences as they develop programs to meet the diverse needs of all their students; mentorships are a flexible way to develop individual talents and interests outside the regular curriculum and timetable.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Whitton, D., & Siegle, D. (Eds.). (1994). *What educators need to know about mentoring* [Brochure A9406]. Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This brochure provides information on the topic of mentoring and its implications for the learning environment. Educators need to consider a variety of educational experiences as they develop programs to meet the diverse needs of all their students; mentorships are a flexible way to develop individual talents and interests outside the regular curriculum and timetable.

Target Audience: Researchers; Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$.50)

Willard-Holt, C. (1994). *Recognizing talent: Cross-case study of two high potential students with cerebral palsy* (CRS 94308). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This study explores the experiences of gifted students who have cerebral palsy and are not able to communicate with speech. Qualitative cross case methodology was employed to investigate the following questions: In what ways do these students indicate their intellectual abilities? What instructional strategies or techniques are especially beneficial in developing these abilities? Four assertions emerge from the analysis: (a) the difficulty in expressing and recognizing indicators of giftedness; (b) the differential impact of classroom atmosphere, structure, and instructional activities; (c) integration into regular classrooms; and (d) barriers which must be overcome in order for these students to meet their goals.

Target Audience: Researchers; Practitioners

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$6.00)

Winebrenner, S. (1993, Summer). Cluster grouping fact sheet: How to provide full-time services for gifted students on existing budgets. *A Different Drummer Newsletter for the Oregon Association for the Talented and Gifted*.

This article presents the concept of cluster grouping and explains its benefits. Reprint from NRC/GT Newsletter.

Target Audience: Practitioners

Availability:

Wright, A. L., & Olszewski-Kubilius, P. (1993). *Helping gifted children and their families prepare for college: A handbook designed to assist economically disadvantaged and first generation college attendees* (RM 93201). Storrs, CT: University of Connecticut, The National Research Center on the Gifted and Talented.

This handbook is a step-by-step guide to the activities and timelines that are needed in order to apply for college and financial aid. It provides up-to-date information, convenient resources, adequate technical and moral support, and recommends open communications during the college admissions process.

Target Audience: Practitioners; Parents

Availability: The National Research Center on the Gifted and Talented, University of Connecticut, 362 Fairfield Road, U-7; Storrs, CT 06269-2007 (\$10.00)

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