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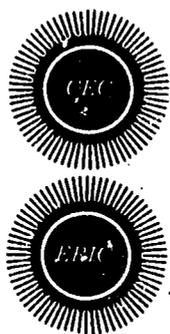
**DESCRIPTORS** \*Abstracts; \*Annotated Bibliographies; Creative Ability; \*Creativity; Creativity Research; \*Exceptional Child Research; \*Gifted; High Achievers

**ABSTRACT**

The selected bibliography of research on gifted children and creativity contains approximately 79 abstracts with indexing information explained to be drawn from the computer file of abstracts representing the Council for Exceptional Children Information Center's complete holdings as of August, 1972. Abstracts are said to be chosen using the criteria of availability of document to user, currency, information value, author's reputation, and classical content. Preliminary information explains how to read the abstract (a sample abstract is included which identifies the different parts of the abstract), how to use the author and subject indexes, how to purchase documents through the Educational Resources Information Center Document Reproduction Service (an order blank is provided), an order blank for Exceptional Child Education Abstracts in which the abstracts are originally published, a list of indexing terms searched to compile the bibliography, and a list of journals from which articles are abstracted for the bibliography. Publication date of documents abstracted ranges from 1926 to 1971. (CB)

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ED 069073



# GIFTED AND CREATIVITY RESEARCH

A Selective Bibliography

August, 1972

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The Council for Exceptional Children  
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Exceptional Child Bibliography Series No. 639

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With a grant from the US Office of Education, the CEC Information Center was established at The Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. The Center functions as the Clearinghouse on Exceptional Children in the Educational Resources Information Centers (ERIC) program and also as a member center in the Special Education IMC/RMC Network. In addition, the CEC Center's program includes a commitment to a concentrated effort towards the development of products which will interpret research results into educational methods and practices.

### How to Use This Bibliography

The *Exceptional Child Bibliography Series* was initiated by the CEC Information Center to answer the need for rapid responses to specific requests for information. The volume of information requests received by the Center is analyzed and used as a guide in preparing special topic bibliographies in the field of exceptional child education. Abstracts contained in the bibliographies are drawn from the computer file of abstracts which represents the CEC Information Center's complete holdings as of the date indicated on each bibliography.

Selective editing by Information Specialists is performed on each bibliography. From the total number of abstracts drawn from the file on a particular topic, selection is made of only those judged to best meet the following criteria: availability of the document to the user, currency, information value, author's reputation, and classical content. The number of abstracts selected to appear in a bibliography may vary from one to 100, depending on the amount of suitable information available. Updating of bibliographies as new material becomes available is accomplished when the volume of new material reaches 25 percent of presently available material on a given topic.

### How to Read the Abstract

Each abstract contains three sections—bibliographic data, descriptors, and a summary of the document. The bibliographic section provides the document's identifying number (ED and/or EC), publication date, author, title, source, and availability. The descriptors indicate the subjects with which a document deals. The summary provides a comprehensive overview of the document's contents and in some cases document availability is announced here.

### How to Use the Indexes

Some bibliographies in *Exceptional Children Bibliography Series* contain author and/or subject indexes. In these bibliographies, readers seeking work on a specific aspect of the general topic may consult the subject index to be referred to specific abstract numbers. Abstracts dealing with several topics may be identified by finding the same abstract number under two or more subjects in the subject index.

### How to Purchase Documents

Documents with an ED number and EDRS availability indicated may be purchased from the ERIC Document Reproduction Service (EDRS). For your convenience an order form is provided on the back cover of this bibliography.

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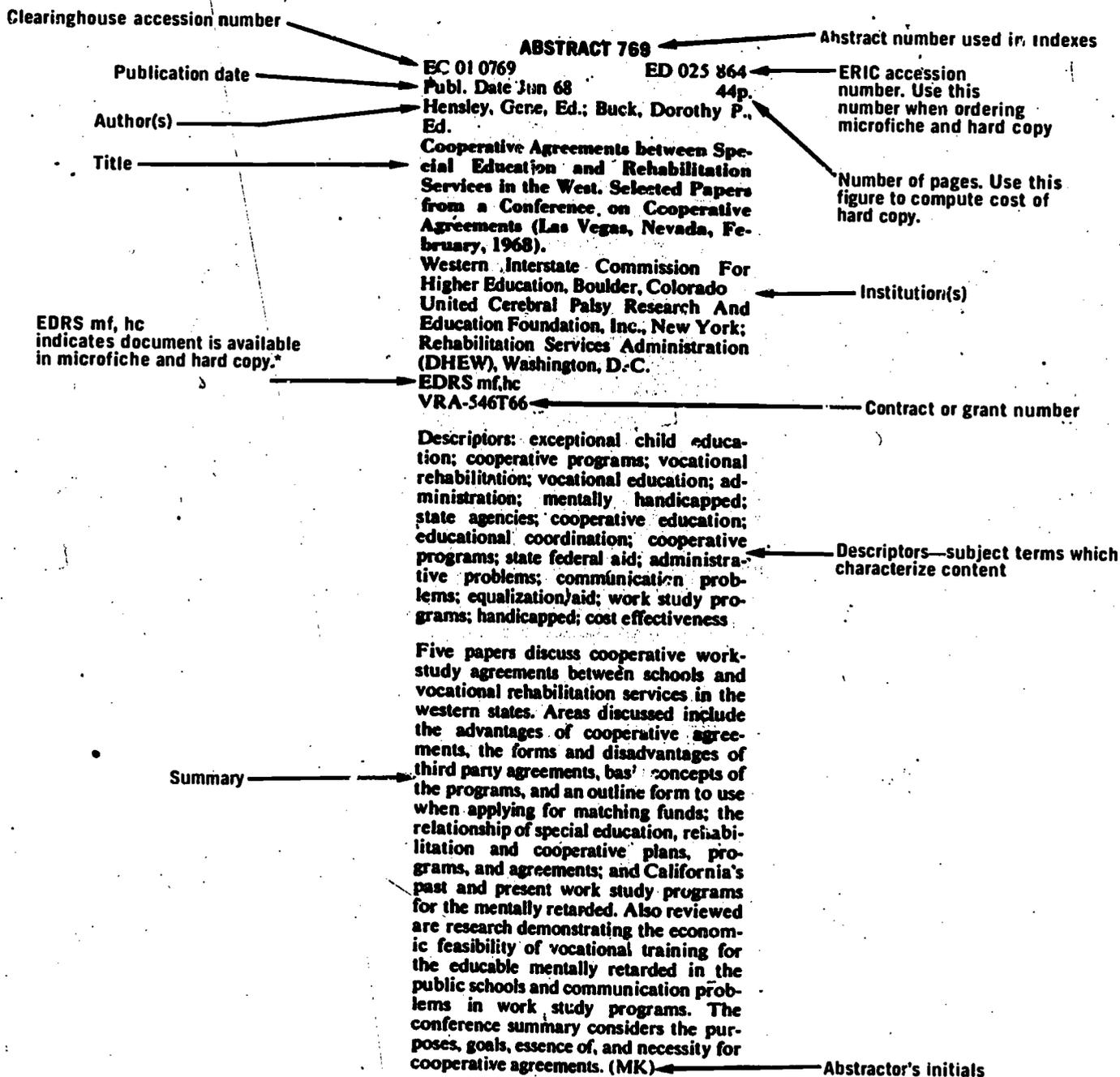
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## INDEXING TERMS SEARCHED

Indexing terms used to retrieve information on *Gifted and Creativity Research* from the Center's computer file of abstracts are listed alphabetically below:

*Able Students*  
*Academically Gifted*  
*Exceptional Child Research*  
*Gifted*  
*Gifted Children*  
*High Achievers*  
*Superior Students*  
*Talented Students*

## JOURNALS USED

Abstracts of articles from the following periodicals appear in this bibliography:

*American Journal of Mental Deficiency*  
*Child Development*  
*Educational and Psychological Measurement*  
*Exceptional Children*  
*Genetic Psychology Monographs*  
*Gifted Child Quarterly*  
*Journal of Consulting and Clinical Psychology*  
*Journal of Creative Behavior*  
*Journal of Educational Psychology*  
*Journal of Research and Development in Education*  
*Journal of School Psychology*  
*Journal of Special Education*  
*Kansas Studies in Education*  
*Psychology in the Schools*

The abstracts in this bibliography were selected from *Exceptional Child Education Abstracts*, Volumes I-III.

## ABSTRACTS

### ABSTRACT 10039

EC 01 0039 ED 010 921  
 Publ. Date Aug 63 49p.  
 Karnes, Merle B. And Others  
**The Effects of Typing Instruction on Creativity and Achievement among the Gifted.**  
 Champaign Community Unit School Dist., Ill.  
 EDRS mf,hc

Descriptors: exceptional child research; gifted; achievement tests; academic achievement; elementary school students; typewriting; creativity research; work study skills; creative writing; creative thinking; reading; spelling; intermediate grades; curriculum enrichment; Iowa Every pupil Tests; Guilford Unusual Uses and Consequences Tests; 1960 Stanford Binet Intelligence Scale; California Achievement Test; Champaign

Two groups of 31 or more fourth grade children, who tested at 115 or higher on the 1960 Stanford-Binet Intelligence Scale, received enrichment in creative thinking and writing. One group received typing instruction. Pretests administered in the fourth grade and again to the same students in the sixth grade included the California Achievement Tests (reading and spelling), work-study skills tests of the Iowa Every pupil Tests of Basic Skills, Guilford Unusual Uses and Consequences Tests, and a creative writing test. Results showed that the use of typing by academically talented intermediate grade children was not harmful to achievement in such areas as work-study skills, reading, and spelling. The experimental group using typewriters showed significantly greater gains in creative writing and creative thinking than did the control group. (JA)

### ABSTRACT 10342

EC 01 0342 ED 013 518  
 Publ. Date 64 86p.  
 Barbe, Walter B.; Horn, R. A.  
**One in a Thousand: A Comparative Study of Moderately and Highly Gifted Elementary School Children.**  
 Ohio State Dept. Educ., Columbus, Div. Spec. Educ.  
 Kent State Univ., Ohio, Dep. Spec. Educ.  
 EDRS mf,hc

Descriptors: exceptional child research; identification; gifted; student characteristics; children; elementary grades; family background; educational experience; physical development; adjustment (to environment); ability identification; talent identification; creativity; personality; socioeconomic background; Iowa Tests of Basic Skills; Stanford Binet Intelligence Scale; Childrens Personality Questionnaire; CPQ; IPAT; Columbus

Gifted and Creativity Research

Moderately gifted and highly gifted children were studied to determine differences in educational development, adjustment, physical development, and family background. School psychology interns nominated potentially capable pupils from grades 3 to 6. From these, 65 matched pairs of moderately gifted (IQ scores of 120 to 130) and highly gifted (IQ scores of 148 and above) were selected. Stanford-Binet Intelligence Test scores, Iowa Every Pupil Test of Basic Skills scores, Institute for Personality and Ability Testing Children's Personality Questionnaire scores, parent ratings of child, autobiographies, Who Is It scores, school records, socioeconomic levels, and home information were obtained. Structured interviews and instruments measuring creativity and self-concept were used with 40 of the subjects. Findings indicated that the highly gifted group came from more affluent backgrounds, had more highly educated parents, and rated higher on creativity measures. Both groups were found to be well adjusted, and there were no outstanding differences of physical development. Teachers did not identify 25 percent of the highly gifted. Large numbers would have been missed through reliance on group tests. The study recommends a state registry of highly gifted children, summer workshops for teachers, and excess cost support. (RM)

### ABSTRACT 10347

EC 01 0347 ED N.A.  
 Publ. Date Nov 67 16p.  
 Allen, Vernon L.; Levine, John M.  
**Creativity and Conformity.**  
 Wisconsin Univ., Madison, Res. Dev. Ctr. Cognitive Learn.  
 OEC-5-10-154  
 EDRS mf,hc

Descriptors: exceptional child research; creativity; environmental influences; children; public schools; conformity; creativity research; visual perception; student attitudes; achievement; grade 5; matched groups; training; social factors; social influences

Conformity to group pressure was compared for 76 fifth grade public school subjects receiving a 4-week program of creativity training and for 88 controls matched on IQ scores, achievement scores, and socioeconomic status. Three weeks after the training period all subjects responded to a series of 24 slides consisting of visual, attitudinal, and achievement items. The children were retested an hour later with the same slides. In addition a fictitious class norm purporting to be the majority response was given orally after each slide on the second presentation. Effects of creativity

training on conformity were quite specific since conformity was reduced on items having correct answers (achievement), but not on subjective items (visual, attitude). Results also showed that the subjects receiving creativity training responded significantly ( $p$  is less than .02) more selectively than controls to items similar in content, agreeing with the group on some items but not on others. In addition, the creativity training reduced overall conformity for the low IQ subjects but not for the subjects of average and high IQ levels. It was concluded that there is a causal relation between creativity and conformity due to the transfer of common skills across the situations. Four tables and a 17-item reference list are included. (AA)

### ABSTRACT 10378

EC 01 0378 ED 019 770  
 Publ. Date 67 72p.  
 Martinson, Ruth A.; Seago, May V.  
**The Abilities of Young Children. CEC Research Monograph Series.**  
 Council For Exceptional Children, Washington, D. C.  
 EDRS mf

Descriptors: exceptional child research; gifted; cognitive processes; creativity; children; creativity research; sciences; social studies; intermediate grades; originality; creative writing; student ability; evaluation criteria; music; art; intelligence tests; Guilford Hoepfner Measures of Intellectual Ability

In order to assess the quality of creative products in art, music, writing, social studies, and science, children attending grades 3 to 6 of the University Elementary School of the University of California, Los Angeles, were divided into two groups on the basis of intelligence. The higher group (49 pupils, IQ of 130 or more) and the low group (57 pupils, IQ of 120 or less) were similar in educational backgrounds, external environment, parental valuing of education, parental level of education, and sex ratio. Three independent judgments of each child's product in each subject were made by experts in the particular field represented. Criteria for creativity included originality and effectiveness of expression. In five out of the eight products evaluated, a significant relationship ( $p$  equals .05) was found between high IQ and high quality of judged product. Findings thus supported the hypothesis that giftedness and creativity are not antithetical. Both groups were also given Guilford and Hoepfner's test for divergent thinking. The only test which significantly separated the high from the low groups was the Association Test ( $t$  test,  $p$  equals .05). Since no significant differences

were found between high and low IQ groups on the four remaining tests, a negligible relationship between intelligence and divergent thinking was indicated. Examples of the children's products in all areas and an 18-item reference list are included. The appendix contains biographical sketches of the judges. This document is available from The Council for Exceptional Children, NEA, 1201 Sixteenth Street, N.W., Washington, D.C. 20036, for \$2.00. (JP)

#### ABSTRACT 10626

EC 01 0626 ED 024 185  
Publ. Date June 68 185p.  
Marrinson, Ruth A.; Wiener, Jean  
The Improvement of Teaching Procedures with Gifted Elementary and Secondary School Students. Final Report.  
California State College, Gardena  
Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
EDRS mf,hc  
OEG-4-6-061244-8948  
BR-6-1244

Descriptors: exceptional child research; gifted; professional education; teaching methods; behavior; teaching models; teacher characteristics; inservice teacher education; teacher improvement; teacher rating; test reliability; behavior rating scales; test results; questioning techniques; teacher selection; teacher behavior

Inservice self-study was utilized to improve the qualitative level of classroom method among teachers of the gifted. Ten judges selected 45 to 75 elementary and secondary teachers by a rating scale of significant behaviors, classroom observation ratings, the Weiner Attitude Scale, and the Terman Concept Mastery Test. The 45 were considered flexible, intelligent, creative, and stimulating. Analysis of the teacher behavior scale indicated four main factors: individualized materials and instruction, art of questioning, encouragement of higher level learning, and communication-interaction. Inservice activities were pupil study (case studies) of gifted characteristics, study of classroom principles for higher level thinking, and discussion and evaluation of a teacher model; teacher-made videotapes of classroom activities, using the principles learned, were also shown and evaluated at the inservice meetings. Interjudge reliabilities of .90 were obtained from audiotape analysis of the teachers' questions and answers at the beginning and end of the project. Significant improvement between the two tapes ( $p$  equals .01) occurred in the application, generalization, and synthesis questions by the teacher (indicating growth in higher cognitive level questions), and growth in open responses by students were noted. (Author/SN)

#### ABSTRACT 10633

EC 01 0633 ED 003 705  
Publ. Date 65 63p.  
Gold, Marvin J.

Effects of Self-Directed Learning on Gifted Elementary School Children.  
Syracuse University, New York, Research Institute  
Office Of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
OEG-5-10-169 CRP-S-174

Descriptors: exceptional child research; achievement; teaching methods; gifted; adjustment (to environment); elementary school students; academic achievement; achievement gains; study skills; critical thinking; personal adjustment; social adjustment; student development; autoinstructional methods; reading; social studies; sciences; test results; self directed classrooms; resource materials; intermediate grades

Gifted school children worked for a period of several months in self directed learning situations in a resource room without teacher imposed direction. They had opportunities to explore areas of interest (during two class periods per day) in reading, social studies, and science in the manner and depth which they chose. Pretests and posttests were administered to measure student growth in academic achievement, study skills, divergent thinking, and personal and social adjustment. Test results were compared with those of a random control sample which had no contact with self directed learning. Other information was gathered through daily logs maintained by resource room personnel. Both the experimental group and the control group were chosen from fourth, fifth, and sixth grade classrooms and were considered to be moderately superior on various intellectual measures. Little difference was noted between the two groups on gains made in academic achievement, study skills, and divergent thinking ability. Personal and social adjustment appeared to be favorably affected when self direction was used. (JH)

#### ABSTRACT 10645

EC 01 0645 ED 024 208  
Publ. Date Jul 68 66p.  
Miles, David T.  
Development of a Test for an Experimental Research Program in Creative Problem Solving. Final Report.  
Southern Illinois University, Carbondale  
Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
EDRS mf,hc  
OEG-3-7-700037-2940  
BR-7-E-037

Descriptors: exceptional child research; creativity; tests; cognitive processes; test reliability; test results; test interpretation; test construction; testing; evaluation; cognitive tests; item analysis; test validity; divergent thinking; problem solving; productive thinking; creative thinking; thought processes; Creative Design Test; CDT

The purpose of this first phase of a continuing research program was the development of a test of creative prob-

lem solving in general design. A design class of 186 members was divided into an experimental and control group; a non-design control group (an educational psychology class) of 45 was also tested. Multivariate interpretation of creative problem solving was developed; five test problems were selected to make up the Creative Design Test (CDT); and solutions were judged for fluency, flexibility, and originality. An acceptable scoring and interproblem reliability was achieved on the instruction, library materials, and school pride problems, but not on the laundromat and paper product problems. No construct validity was obtained from teacher ratings of creativity in class or from a comparison of design and non-design students. Predicted relationships were not supported between performance on the CDT and the amount of problem-related knowledge possessed or whether systematic or non-systematic problem solving procedures were employed. Variations in variety and originality of prior solutions examined before the test made little difference to test performance. (Author/SN)

#### ABSTRACT 10782

EC 01 0782 ED 025 062  
Publ. Date 67 51p.  
Helson, Ravenna  
Effects of Sibling Characteristics and Parental Values on Creative Interest and Achievement.  
California University, Berkeley, Institute Of Personality Assessment And Research  
Office Of Education (DHEW), Washington, D. C., Cooperative Research Program  
EDRS mf,hc  
OEG-4-6-068012-0959 CRP-S-012-66  
BR-6-8012

Descriptors: exceptional child research; gifted; creativity; family (sociological unit); personality; adjustment (to environment); siblings; academic achievement; creative development; family characteristics; family influence; family relationship; personality development; personal values; individual characteristics; rating scales; cognitive tests; interest scales; self concept

In investigating patterns of family relationships conducive to creativity, several inventory-type personality tests and a questionnaire about family relationships and childhood interests were sent to 99 Mills College alumnae 5 years after their graduation and to the siblings of 51 of them. All had been tested, while seniors, for personality and some had been selected as creative by the faculty. The 12 of the 51 who had been picked as creative had nine sisters and eight brothers participating while the comparison 39 had 31 sisters and 28 brothers participating. The creatives had higher verbal aptitude scores and made better grades than the other seniors ( $p$  less than .01) and since graduation had shown a higher level of creative activity ( $p$  less than .001). The brothers and sisters of the creatives consistently made higher scores than siblings of other Mills wom-

en on the indices of creative traits; they had a higher educational level ( $p$  less than .01); and the brothers received more honors for intellectual distinction ( $p$  less than .01). For the creative Mills sisters, support was found for the conceptualized pattern of having the following: dissatisfaction with their relationships in the family, symbolic facility and an approach to the world focused on the potential or intuitive rather than the practical, and confidence that they could intervene in symbolic affairs and could by their efforts and initiative gain a more satisfying set of relationships. (SN)

#### ABSTRACT 10841

EC 01 0841 ED 003 802  
Publ. Date Jan 61 413p.  
Getzels, Jacob W.; Jackson, Philip W.  
**Varieties of Giftedness in the Classroom: Studies of Cognitive and Psychosociological Functioning in Adolescents.**  
Chicago University, Illinois  
Office Of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
CRP-098

Descriptors: exceptional child research; cognitive processes; personality; gifted; creativity; adolescents; cognitive tests; concept formation; creativity research; psychological testing; intellectual development; moral values; testing; academic achievement; achievement; personal values; values; family environment; attitudes; student attitudes

The cognitive and psychosocial functioning of four categories of gifted children was studied. Two groups of adolescents showing different types of cognitive excellence (intelligence and creativity) and two groups exhibiting different types of psychosocial excellence (morality and psychological adjustment) were investigated using a wide variety of measures, some of them especially developed for this research. Traditional methods of evaluating giftedness have divided children into categories of high or low intelligence, but results of this study indicate there are two other useful categories of cognitive functioning: high IQ without concomitant high creativity and high creativity without concomitant high IQ. Those students representing those categories were found to be equally superior in scholastic achievement to the population from which they were drawn; but the two groups differed sharply in value orientations, their effect upon teachers, their fantasy productions, their career aspirations, and in family environments. (AI.)

#### ABSTRACT 10907

EC 01 0907 ED 026 750  
Publ. Date 65 118p.  
Gallagher, James J.  
**The Influence of a Special School on Cognitive Style and Attitudes of Gifted Students.**  
Illinois University, Urbana, Institute For Research On Exceptional Children

Illinois State Office Of The Superintendent Of Public Instruction, Springfield, Department Of Program Planning For The Gifted  
EDRS mf,hc

Descriptors: exceptional child research; gifted; environmental influences; cognitive processes; adjustment (to environment); peer groups; student attitudes; laboratory schools; public schools; self concept; intellectual experience; divergent thinking; convergent thinking; secondary schools; social values; personal values

The study identified what influence university laboratory attendance had upon cognitive and attitudinal dimensions of gifted secondary school students (IQ's above 125). Tests from the Guilford battery, a self concept scale, and an adaptation of the Coleman Attitude Scale were administered to both the laboratory and the secondary school populations (249 students). Results indicated few consistent differences on measures of divergent and convergent thinking, and no significant differences on measures of self concept. The following attitudinal differences in lab school groups were observed: the concept of intellectual self was significantly higher at the senior than the junior high level for boys ( $p$  less than .01); a substantial reduction in the positive image of the family occurred at the senior high level; and being active in school and popular with one's own sex was a better prestige symbol than athletics, heterosexual social activities, or material possessions. Further, in the lab school, a greater number of students expressed negative feelings about school or doubts about their own ability to do well. Sex and age differences are considered; specific results on attitudes and values are discussed. Disadvantages and advantages of both school settings are evaluated. Twenty-eight tables present data; a bibliography cites 23 items.

#### ABSTRACT 10910

EC 01 0910 ED 026 753  
Publ. Date 66 169p.  
Gallagher, James J.  
**Research Summary on Gifted Child Education.**  
Illinois State Office Of The Superintendent Of Public Instruction, Springfield, Department Of Program Development For Gifted Children  
EDRS mf,hc

Descriptors: exceptional child research; gifted; administration; creativity; student characteristics; academic achievement; high achievers; state programs; underachievers; teacher qualifications; personnel needs; identification; teaching methods; administrative organization; research reviews (publications); ancillary services; curriculum development; program evaluation; Illinois

Research is summarized and analyzed in this revision of the author's 1960 Analysis of Research on the Education of Gifted Children, which was used as a guide in the construction and implementation of the Illinois Plan for Program

Development for Gifted Children. Information is provided on identification and definition and on characteristics of gifted children. Also discussed are the highly creative child and the underachieving gifted child (attention is given to talent from culturally different groups). Consideration of intervention includes research design and stresses three areas of intervention: the administrative, instructional, and adjunctive. Needed personnel and research development programs in Illinois are treated. Additional research is cited. The bibliography contains over 200 items, dated from approximately 1925 through 1966, and the reference list annotates 32 items. (JP)

#### ABSTRACT 10915

EC 01 0915 ED 026 758  
Publ. Date 67 113p.  
Gallagher, James J. And Others  
**Productive Thinking of Gifted Children in Classroom Interaction.** CEC Research Monograph Series B, Number B-5.  
Council For Exceptional Children, Washington, D. C.  
Office Of Education (DHEW), Washington, D. C.;  
Elizabeth McCormick Foundation, Chicago, Illinois  
EDRS mf  
The Council For Exceptional Children, N.E.A., 1201 16th Street, N. W., Washington, D. C. 20036 (\$2.00).

Descriptors: exceptional child research; gifted; attitudes; cognitive processes; interaction; tests; academic achievement; high achievers; junior high school students; teacher attitudes; sex differences; student attitudes; family relationship; questionnaires; questioning techniques; cognitive measurement; convergent thinking; divergent thinking; evaluative thinking; participant characteristics; Guilford; Theoretical Model for the Complete Structure of Intellect

A research project attempted to identify and classify productive thought processes of gifted junior high school students and their teachers. Subjects were 176 gifted high achieving students of both sexes with a verbal IQ range of 127.21 to 136.35, a nonverbal IQ range of 122.88 to 134.59, and a chronological age range of 12.50 to 14.63 years. The students were given tests to determine attitudes and divergent thinking abilities and were evaluated for social qualities and class contributions by their teachers. Parents were asked to complete questionnaires independently to determine family relationships. Three judges, working as a team, tape recorded five consecutive sessions of classes in social studies, science, and English conducted by different teachers in the fall and again the following spring; all comments were classified according to levels of thinking defined in Guilford's structure of the intellect. The types of questions asked by teachers strongly influenced the quality of pupil response. More than 50% of questions asked in a class session were cognitive memory questions. The second most frequent category was

convergent-thinking, with a much smaller proportion of divergent and evaluative thinking questions. (BB)

#### ABSTRACT 11171

EC 01 1171 ED 003 828  
Publ. Date 65 59p.  
Rothney, John W. M.; Sanborn, Marshall P.  
Verbal Skills of Superior Students.  
Wisconsin University, Madison  
Office Of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
CRPS-036

Descriptors: exceptional child research; gifted; tests; cognitive processes; cognitive tests; logical thinking; recognition; recall (psychological); thought processes; high school students; grade 10; grade 12; verbal ability; verbal tests; high achievers; learning processes; testing; student improvement

The value of a new procedure for assessing verbal performances of superior high school students was studied. The instrument consisted of two parts. In part A, the student was given an analogy and asked to identify the most logical relationship between the two elements in it. He was then asked to write a description of the relationship identified. Part B required the student to construct an analogy statement comparable to the one given. Part A was designed to study the student's reasoning behind the analogy he produced in part B. It was hypothesized that items of this nature might help differentiate students capable of original performance from those who become skilled in recognition and recall tasks. Experimental analogies items were administered to 143 10th grade and 130 12th grade students (males and females). Mean scores of both sophomores and seniors were almost twice as high on analogy recognition as on production. Mean scores for boys and girls at both grade levels showed negligible differences. It was concluded that scores on both parts of the test were associated with grade in school which in turn is associated with age and experience. However, results in production indicated little improvement from the 10th to the 12th grades. (AL)

#### ABSTRACT 11282

EC 01 1282 ED 022 298  
Publ. Date 59 187p.  
Terman, Lewis M., Ed.  
The Gifted Group at Mid-Life; Thirty-Five Years' Follow-Up of the Superior Child. Genetic of Genius, Volume V.  
EDRS not available  
Stanford University Press, Stanford, California 94305 (\$5.50).

Descriptors: exceptional child research; gifted; family (sociological unit); behavior; health; personality; adjustment (to environment); intellectual development; occupations; educational background; recreation; social attitudes; political attitudes; demography; participant characteristics; personal interests; followup studies

The 35 years' followup of the Terman investigation on the gifted child is presented. In order to describe the gifted group at mid-life, a general information blank was mailed in 1950 (1,437 subjects) and in 1955 (1,424 subjects). The field study, completed in 1952, included personal interviews, the Concept Mastery Test, supplementary questionnaires of subject and spouse, and testing of offspring. Results for 97.5% of the subjects include the following: intelligence increased significantly from 1939 to 1952 (p less than .001); 85% of the group went to college and nearly 70% graduated; two-thirds of the men and three-fifths of the women did graduate work; on the Minnesota Occupational Scale, all subjects were in the first five of the seven groups and 86% were in the first two (professional and executive) and one-half of the women were housewives but many contributed to community and civic activities. The marriage rate and personal adjustment were average for the population. Other results are given for mortality, health, avocational interests, political and social attitudes, marriage, divorce, income, and offspring. Sixty-one tables are provided. The appendixes include the forms used and a 45-item bibliography. (SN)

#### ABSTRACT 11342

EC 01 1342 ED 003 343  
Publ. Date Jul 65 139p.  
Smith, Robert M.  
The Relationship of Creativity to Social Class.  
Pittsburgh University, Pennsylvania,  
School Of Education  
Office Of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
OEC-4-10-070 CRP-2250

Descriptors: exceptional child research; environmental influences; creativity; creative thinking; Caucasian students; creative activities; thought processes; socioeconomic influences; psychological evaluation; measurement instruments; Negro students; social class; grade 5; verbal ability

Environmental factors related to creative production were studied to obtain knowledge of the learning characteristics and educational performance of children from various socioeconomic levels. Children from the fifth grade were selected as subjects and included 395 Negro and 244 white children. Further division was based on four socioeconomic levels. A variety of measuring instruments was employed to gather the data and test the variables. Analyses were accomplished via covariance analysis (with correction for unequal, disproportionate means) and factor analysis. The findings indicated significant differences in creative thought favoring the higher socioeconomic child in most verbal areas. The lower socioeconomic child, however, performed better in the nonverbal areas. Further research was suggested to determine the specific environmental factors which influence performance in creative thought. (KS)

#### ABSTRACT 11641

EC 01 1641 ED 003 440  
Publ. Date 64 179p.  
Walker, William J.  
Creativity and High School Climate.  
Syracuse University, New York  
Office Of Education (DHEW), Washington, D. C.  
EDRS mf,hc  
OEC-4-10-079 CRPS-001

Descriptors: exceptional child research; classroom environment; creativity; creative teaching; creativity research; environmental influences; high schools; high school students

The project studied the characteristics of a highly creative school as opposed to those of a traditional school. Four high schools of comparable socioeconomic and student ability level were involved, two of which were judged to be of the highly creative type. The students were given various tests, and classes were observed. The findings showed the following characteristics of creative schools: high aspiration level and intellectual climate; less authoritarian, but not less rational, teacher direction; and stimulating and original classroom behavior on the part of the teachers. Suggested aims for an extension of the present study include projects for comparison of creative student productivity as well as further investigation into the nature of creativity and of the relationship of the school environment to the development of creativity. (PM)

#### ABSTRACT 11892

EC 01 1892 ED 028 558  
Publ. Date Jul 64 46p.  
Arends, Richard; Ford, Paul M.  
Acceleration and Enrichment in the Junior High School; A Follow-up Study.  
Washington State Office Of Public Instruction, Olympia  
EDRS mf,hc  
RR-03-05

Descriptors: exceptional child research; gifted; acceleration; enrichment; program evaluation; junior high school students; academic achievement; average students; student attitudes; teacher attitudes; sciences; mathematics; reading; student evaluation; testing

To test the effectiveness of a program of acceleration and enrichment, five ninth grade classes of students (25 in each class, IQ's 120 or above) who had been in this program for 2 years were compared to two control (C) classes of academically talented students who had not had the program. All students were given a series of standardized achievement tests and were asked to complete a school attitude questionnaire. Two experimental (E) classes were significantly superior in all comparisons in mathematics, in two of three comparisons in reading, and in one of three comparisons in science (p equals .05). In schools systems A and B the E-groups were significantly superior in only two of six comparisons with C-groups. An analysis of the total performance of all the

experimental classes revealed that they were significantly superior to the controls in only 10 of 21 cases ( $p$  equals .05). The performances of average E-groups from the same schools were significantly different from C's in only four of 33 comparisons. Responses from questionnaires did not indicate a significant difference in attitudes between the groups. Conclusions were that the acceleration and enrichment program did not hurt either academically talented or average students, that the special program could be improved, and that the program was more appealing to students and teachers than a more traditional approach. (RP)

#### ABSTRACT 12003

EC 01 2003 ED 030 989  
 Publ. Date Jun 62 36p.  
 Early Identification of the Gifted Through Interage Grouping.  
 Plainedge Public Schools, New York  
 New York State Education Department,  
 Albany  
 EDRS mf,hc

Descriptors: exceptional child research; gifted; grouping (instructional purposes); program evaluation; multigraded classes; elementary school students; age differences; adjustment (to environment); parent attitudes; student evaluation; experimental programs; grade 1; academic achievement; administration; identification; testing; social adjustment

To determine the advantages of interage grouping, 18 first graders (mean IQ 118.65) were assigned to two interage classes containing first, second, and third graders; 19 first graders (mean IQ 119.60) were assigned to two straight first grade classes. All children selected had been recommended by their kindergarten teachers as their brightest students. Both groups were given the Metropolitan Achievement Test, Primary I Battery in the fall and Primary II Battery in the spring. Students in the interage condition performed at a higher level on all achievement scales; group means were significant on word discrimination and arithmetic ( $p$  less than .01). Students selected as evidencing initial adjustment problems showed greater gains than their controls on all four scales. However, they achieved significantly lower scores on the California Test of Personality. The parents of children in both conditions responded favorably to questions concerning their children's reactions to school, their adjustment in and out of school, and their interest in reading. The parents of children in the interage program provided significantly higher ratings on the richness and variety of classroom experiences and the motivations provided to challenge the child to make use of his talents. The California Test of Personality revealed no significant differences in social adjustment of interage as opposed to straight grade classes. (Author/BB)

#### ABSTRACT 12075

EC 01 2075 ED 010 766  
 Publ. Date 65 69p.  
 Sands, Theodore; Hicklin, Charles R.

The Development and Testing of Instructional Materials for Gifted Primary Pupils. Final Report.  
 Illinois State University, Normal  
 Illinois Office Of Superintendent Of Public Instruction, Normal  
 EDRS mf,hc

Descriptors: exceptional child research; gifted; programed instruction; sciences; instructional materials; elementary school students; elementary school science; parent attitudes; audiovisual instruction; mathematics; education; physical sciences; student evaluation

Self-instructional science materials for gifted primary students were developed and used with first- and second-grade students. Units on atomic structure, the nature of molecules, measurement, and mathematics were developed, used, evaluated, and revised over a 2-year period. Lessons were presented through the use of tape players, illustrative materials, and workbooks. Students were selected on the basis of IQ scores and assigned to two groups. Each group used the materials for one-half of the experimental period. All students were pretested, tested at the end of the fourth week, and post-tested for achievement with instruments developed for the study. Other data were obtained from teacher evaluation forms and questionnaires completed by teachers and parents. Significant gains, at the .05 level, were obtained for the units concerned with mathematics, atoms, and measurement. A majority of the parents favored the use of the materials and indicated that the children developed interest through their studies. (AG)

#### ABSTRACT 20002

EX 02 0002 ED 020 590  
 Publ. Date 66 144p.  
 Gallagher, James J. And Others  
 Educational Problems and Planning for Gifted Students--Selected Papers from Graduate Leadership Training Program on the Gifted.  
 Illinois University, Urbana, Institute For Research On Exceptional Children;  
 Illinois Department Of Program Planning For The Gifted, Urbana  
 EDRS mf,hc

Descriptors: exceptional child research; gifted; disadvantaged youth; leadership training; graduate study; sex differences; racial differences; intelligence differences; social mobility; social structure; honors curriculum; elementary school students; academic achievement; personality; self concept; language development; verbal ability; identification; summer workshops; social studies; curriculum development; values; sociometric techniques; research projects; logical thinking; Institute for Research on Exceptional Children

Seven articles from the Institute for Research on Exceptional Children consider the gifted child. The first article, Leadership Training for the Gifted--A Graduate Program, is by J.J. Gallagher, director of the program. Six research

and development papers by graduate students follow: The Variables of Race, Sex and Intelligence Related to Social Choices of Disadvantaged, Gifted Children by V. Godman; Honors Program Students--Their Academic Attainments, Personality Traits and Self Concepts by W.D. Simmonds; An Analysis of the Verbal Definitions of Elementary School Children--A Pilot Study by M. Weiser; Evaluation of a Summer Workshop on Gifted Children by F. Shaffer; Developing a Social Studies Curriculum for Teaching Values in the Elementary School by M. Schevers; and The Development of a Program of Sentential Logic for Gifted Students by K.A. Retzer. The student papers all provide figures, tables, and reference lists. (JD)

#### ABSTRACT 20022

EC 02 0022 ED 001 979  
 Publ. Date 64 183p.  
 Drews, Elizabeth H.  
 A Study of Non-Intellectual Factors in Superior (Average and Slow) High School Students. The Creative Intellectual Style in Gifted Adolescents. Motivation to Learning--Attitudes, Interests and Values.  
 Michigan State University, East Lansing  
 Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
 EDRS mf,hc  
 OEC-SAE-9101  
 BR-5-0460

Descriptors: exceptional child research; personality; gifted; individual differences; student attitudes; student interests; personal values; high school students; environment; student characteristics; slow learners; East Lansing

A final report was given of a three-part study that was made to determine differences in the attitudes, interests, and values of gifted high school students in relation to their total environment. A research design was developed to delineate the characteristics of these gifted students, especially those characteristics which differentiate the three profile types of creative intellectual, studious, and social leaders. Superior students from the 10th, 11th, and 12th grades were assigned to one of the three profile groups on the basis of self-classification. Comparative analysis was performed throughout the study by drawing a contrast between two 11th grade groups, one average in ability and the other superior. Formal and informal measures were used to acquire the results. It was concluded that the creative intellectuals showed strong, self-directed interest in learning and a great willingness to deal with both the subjective data of the self and the objective data of the larger world. The studious, while also showing a concern for ideas and a desire to learn, mainly confined their efforts to completing teacher-directed assignments. The social leaders preferred to make their impact felt on people rather than in the realm of ideas. It was felt, that on the basis of these findings, new guidelines for educational strategies should be developed to take into account differences among the gifted. A related report is ED 003 182. (GD)

**ABSTRACT-20031**

EC 02 0031 ED 027 652  
 Publ. Date 65 353p.  
 Torrance, E. Paul  
**Rewarding Creative Behavior: Experiments in Classroom Creativity.**  
 Minnesota University, Minneapolis, College Of Education  
 Office Of Education (DHEW), Washington, D. C., Cooperative Research Branch  
 EDRS not available  
 CRP-725  
 Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632 (\$7.95).

Descriptors: exceptional child research; creativity; teaching methods; evaluation; reinforcement; tests; teacher attitudes; research reviews (publications); thought processes; sex differences; rewards; peer relationship; self concept; cultural differences; case studies (education); measurement techniques; effective teaching; originality; educational methods; experimental programs

The need for rewarding creative thinking is asserted; a plan is proposed for studying evaluation and creative behavior; and measurement of creative behavior is discussed. Three groups of studies are presented. The first set considers the ways the intermediate environment rewards creative behavior; aspects treated include applying principles for rewarding creative thinking, creative and critical evaluative attitudes of teachers, creative activities as rewards for creative thinking, and differential rewards for boys and girls. The second set investigates the following issues about the evaluative behavior of the classroom teacher: competition as external evaluation; unevaluated practice and creative behavior; critical and creative peer-evaluated practice; evaluative discussions about creative productions; peer pressures in homogeneous and heterogeneous groups; positive, negative, and trouble-shooting evaluation; and cultural differences in evaluating creative characteristics. The final study concerns helping children value their ideas. Practical applications of the studies are presented; appendixes are provided on the instruments used in the described studies and on developing creative thinking through language arts. (JD)

**ABSTRACT 20164**

EC 02 0164 ED 031 832  
 Publ. Date 69 142p.  
 Wallach, Michael A.; Wing, Cliff W., Jr.  
**The Talented Student: A Validation of the Creativity-Intelligence Distinction.**  
 EDRS not available  
 Holt, Rinehart And Winston, Inc., 383 Madison Avenue, New York, New York 10017 (\$3.95).

Descriptors: exceptional child research; gifted; creativity; intelligence; identification; cocurricular activities; academic achievement; college students; originality; talent identification; productive thinking; individual characteristics; cognitive processes; prediction; college admission

To investigate intelligence level, academic achievement, nonacademic achievement, ideational productivity, and the uniqueness of the ideas produced, a sample of 503 incoming freshman university students was recruited. Intelligence was measured by using students' Scholastic Aptitude Test scores; verbal and visual stimuli were used to elicit ideas. Correlations between intelligence and the number and uniqueness of ideas were low while high productivity and high uniqueness scores tended to go together. Students were divided into groups of high and low intelligence, high and low ideational productivity, and high and low ideational uniqueness. Intelligence was found to exert no effect on the generality of nonacademic accomplishments; however, the number of ideas typically produced by the student and the uniqueness of the ideas had a significant impact on nonacademic accomplishments ( $p$  less than .001 for the total group). Implications were that students who will succeed at creative writing, science, painting, or some other endeavor cannot be predicted by grades or test scores alone. Nonacademic accomplishments should be examined and credited when searching for talented students. (RJ)

**ABSTRACT 20835**

EC 02 0835 ED 032 702  
 Publ. Date Jun 69 21p.  
 Youngs, Richard C.; Jones, William W.  
**The Appropriateness of Inquiry Development Materials for Gifted Seventh Grade Children: Final Report.**  
 Illinois State University, Normal, Metcalf Laboratory School  
 Illinois State University, Normal, University Research Committee;  
 Illinois Office Of The Superintendent Of Public Instruction, Columbus, Department Of Program Development  
 EDRS mf,hc

Descriptors: exceptional child research; gifted; teaching methods; inquiry training; instructional materials; sciences; academic achievement; critical thinking; questioning techniques; teacher behavior

To test the efficacy of inquiry development materials with the gifted, six 7th-graders with IQ's in the top 3% participated in an inquiry science class with specially selected materials twice a week for 40 minutes over 6 months; six children with like IQ's worked on science activities in another room. Pre- and posttests in critical thinking and science achievement were administered; in addition, measures of inquiry and analyses of student questions and teacher interaction were made. Results indicated that the students in the inquiry class asked significantly more questions relating to experimentation and that the teacher, while in the inquiry class, was significantly more likely to clarify pupil questions and to respond to pupils seeking data than he was with the conventional class, to whom he provided data. Other results were nonsignificant, thus failing

to provide evidence for noticeable improvement in the area of inquiry. (JD)

**ABSTRACT 21026**

EC 02 1026 ED N.A.  
 Publ. Date 64 160p.  
 Drews, Elizabeth Monroe  
**The Creative Intellectual Style in Gifted Adolescents: Motivation to Learn: Attitudes, Interests and Values.**  
 Michigan State University, East Lansing, Cooperative Research Program  
 Office Of Education (DHEW), Washington, D. C.  
 EDRS not available  
 OEC-SAE-9101-5-0460-2-1  
 2-1

Michigan State University Press, Box 550, East Lansing, Michigan 48824.

Descriptors: exceptional child research; gifted; student attitudes; student interests; individual differences; personal values; creative ability; social values; student leadership; ability identification; academic achievement; creativity; individual characteristics

To determine differences in the attitudes, interests, and values of gifted high school students in relation to their total environment and to delineate the characteristics of these gifted students, especially those characteristics which differentiate the three profile types of creative intellectual, studious, and social leaders, superior students from the tenth, eleventh, and twelfth grades were assigned to one of the three profile groups on the basis of self-classification. Comparative analysis was performed throughout the study by drawing a contrast between two eleventh grade groups, one average in ability and the other superior. It was concluded that the creative intellectuals showed strong, self-directed interest in learning and a great willingness to deal with both the subjective data of the self and the objective data of the larger world. The studious, while also showing a concern for ideas and a desire to learn, mainly confined their efforts to completing teacher-directed assignments. The social leaders preferred to make their impact felt on people rather than in the realm of ideas. It was felt, that on the basis of these findings, new guidelines for educational strategies should be developed to take into account differences among the gifted. Extensive tables present results. (Author/GD)

**ABSTRACT 21121**

EC 02 1121 ED N.A.  
 Publ. Date Feb 70 11p.  
 Schaefer, Charles E.  
**A Psychological Study of 10 Exceptionally Creative Adolescent Girls.**  
 EDRS not available  
 Exceptional Children, V36 N6 1431-41  
 Feb 1970

Descriptors: exceptional child research; gifted; creativity; adolescents; family background; educational background; self concept; personality assessment; leisure time; student interests

Ten high school girls were identified as exceptionally creative on the basis of

teacher nominations and test scores. Historical, personality, and projective data were collected by means of tests and interviews. Particular emphasis was placed on life history antecedents of creative achievement. The highly creative girls were found to possess a number of common characteristics, particularly in the areas of familial and educational history, leisure time activity, fantasy experience, and self concept. (Author)

#### ABSTRACT 21285

EC 02 1285 ED N.A.  
 Publ. Date Dec 65 214p.  
 Birch, Jack W. And Others  
 A Field Demonstration of the Effectiveness and Feasibility of Early Admission to School for the Mentally Advanced Children.  
 Pittsburgh University, Pennsylvania, School Of Education  
 Office Of Education, Washington, D. C.  
 EDRS mf,lc  
 OEG-2-10-074 CRP-D-010

Descriptors: exceptional child research; gifted; demonstration programs; early admission; early childhood education; kindergarten; academic achievement; social adjustment; personal adjustment

A 4-year study demonstrated the feasibility and effectiveness of early admission to school for mentally advanced children. Approximately 800 children were screened to locate the 36 children who entered kindergarten before the usual time. Criteria for early admission included an IQ of 130 or higher, social maturity at least 1 year advanced, absence of health problems, satisfactory emotional development, approval by kindergarten teachers after observation of a kindergarten visit, and parental approval. Data were collected on the attitudes, costs, and modifications required in activities of professional staff, and on the achievement of pupils. Children admitted early to school on the basis of mental, physical, social, and emotional readiness did as well in academic work as their older classmates, of like ability in kindergarten and first and second grades. On sociometric measures there was no evident difference between early admitted children and others. The process of demonstration was analyzed in terms of innovation and change. Information about the demonstration was disseminated widely through public information media. (JMI)

#### ABSTRACT 21305

EC 02 1305 ED 031 757  
 Publ. Date Jun 69 28p.  
 Check, John F.  
 An Analysis of Differences in Creative Ability Between White and Negro Students, Public and Parochial, Three Different Grade Levels, and Males and Females. Final Report.  
 Wisconsin State University, Oshkosh  
 Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
 EDRS mf,lc  
 OEG-0-8-080117-3725-010  
 BR-8-E-117

Descriptors: exceptional child research; Caucasian students; creative ability; creative development; creativity; creativity research; grade 4; grade 7; grade 12; Negro students; parochial schools; student characteristics; student evaluation; teacher attitudes; public schools; sex differences; age differences

The purposes of this investigation were to determine whether differences in creative ability exist between white and Negro students, between public and parochial school students, between students of different grade levels, and between sexes. A corollary purpose of this study was to determine how well teachers can identify the creative students in their classes by personal contact and by observation. A total of 600 students in grades four, seven and twelve were given the California Test of Mental Maturity and the Torrance Tests of Creative Thinking. The teachers involved with these students were asked to select the five most and the five least creative students in their classes. Significant differences were shown between grades four and twelve, favoring the higher grades. Public school students were more creative than parochial students. No significant differences were found between Negro and white students, between grades seven and twelve, or between the sexes. Results indicate teachers are not able to identify creative students. (Author/KJ)

#### ABSTRACT 21674

EC 02 1674 ED 021 257  
 Publ. Date Dec 67 56p.  
 Welsh, George S.  
 Relationships of Intelligence Test Scores to Measures of Anxiety, Impulsiveness, and Verbal Interests in Gifted Adolescents. Final Report.  
 North Carolina University, Chapel Hill  
 Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
 EDRS mf,lc  
 OEG-1-7-0009-3471  
 BR-7-C-009

Descriptors: exceptional child research; anxiety; correlation; gifted; group intelligence testing; individual characteristics; intelligence tests; personality; self concept; self control; verbal ability; vocabulary

The degree to which potentially useful group intelligence tests were affected by personality characteristics such as anxiety, impulsiveness or caution, and verbal interests was investigated by a battery of intelligence, interest, and personality tests administered to 1,163 gifted adolescents in special summer programs. Intelligence was measured by the D-48 (non-verbal) and the Terman Concept Mastery Test (CMT-Verbal), anxiety by the Minnesota Multiphasic Personality Inventory (MMPI) A-scale, impulsivity by the MMPI Pd- and Ma-scales, verbal interest by the Strong Vocational Interest Blank (SVIB) Lawyer and Author-Journalist (men's) scales, self-concept by Gough's Adjective Check List, and carelessness by errors on easy intelligence items. Significant negative correlations

were found between anxiety and intelligence, impulsivity and intelligence, and carelessness and intelligence. Positive correlations were found between verbal interest and verbal intelligence, non-verbal and verbal intelligence, and counseling readiness and intelligence. Wider use and revision of the D-48, restricted use of the CMT, part and total score-reporting of the CMT, and additional correlational analyses between the MMPI scales and Adjective Check List, and between the SVIB scales and the two intelligence tests are recommended. (WR)

#### ABSTRACT 21688

EC 02 1688 ED N.A.  
 Publ. Date Feb 68 91p.  
 Oden, Melita H.  
 The Fulfillment of Promise: 40-Year Follow-Up of the Terman Gifted Group.  
 Stanford University, California, Department Of Psychology  
 EDRS not available.  
 Genetic Psychology Monographs, V77  
 First Half P3-93 Feb 1968

Descriptors: exceptional child research; gifted; achievement; personal adjustment; individual characteristics; follow-up studies; success factors; adult characteristics; psychological characteristics; political attitudes; social values; social characteristics; personality; professional recognition; educational background; family background

As follow-up, a seventh survey was done in 1960-61 of the 1538 subjects studied by Terman in 1921-22 (857 boys and 671 girls, aged 3 to 19, all scoring in top 1% on intelligence tests). Data were obtained by mail questionnaire for 87% of the 1398 subjects still living (median age 49). Conclusions were as follow: the subjects had become gifted adults, maintained intellectual ability, had lower mortality rates, and good physical and mental health, manifested minimal crime, ranked high in educational and vocational achievements, were active in community affairs, and held moderate political and social views. Two-thirds felt they had lived up to their intellectual ability. To assess correlates of vocational achievement, the 100 most and 100 least successful men were compared. Results indicated that the most successful men came from families having higher socioeconomic status and giving more encouragement to succeed; ranked higher as adolescents in volitional, intellectual, moral, and social traits; and had more self confidence, perseverance, and integration toward goals. In addition, although scholastic achievement had been similar in grade school, half as many of the least successful men had graduated from college; they were also more prone to emotional and social difficulties. (DS)

#### ABSTRACT 21938

EC 02 1938 ED 036 917  
 Publ. Date Jul 68 314p.  
 McGuire, Carson And Others  
 Dimensions and Criteria of Talented Behavior. Final Report.

Texas University, Austin, Research And Development Center For Teacher Education  
Office Of Education (DHEW), Washington, D. C., Bureau Of Research  
EDRS mf,hc  
OEC-5-0743-2-12-1  
BR-1138

Descriptors: exceptional child research; gifted; talent; individual characteristics; prediction; academic achievement; behavior patterns; talent development; intellectual development; cognitive ability; personality; behavior theories; peer relationship; self concept; student evaluation; social values

With a dyadic interaction theory of human development and behavior as the framework, factor and multiple regression analyses were used to determine predictors and criteria of talent (socially or culturally valued behavior). Analyses covered grade point average and scores on standard academic achievement and scholastic aptitude tests; also covered were teacher, peer, and self ratings. Of the resulting 15 underlying criteria of talented behavior in 961 twelfth graders and nine predictors in 1,464 ninth graders, intercorrelations were found between the following (criterion appears first): academic performance and convergent thinking; reputed brain and peer evaluated brain; social poise and peer evaluated brain; also self rated conformist; and (negative) potential delinquent and social isolation. Findings supported the dyadic theory. Discussions are provided on the theory and on teacher evaluation of academic achievement; data, methodology, and dissertation abstracts by staff are appended. (JD)

#### ABSTRACT 22030

EC 02 2030 ED 036 045  
Publ. Date Feb 69 123p  
Freiheit, Susan Gratchen  
The Effects of a Training Program Upon the Creative Performance of Fourth Grade Children: Report from the Project on Task and Training Variables in Human Problem Solving and Creative Thinking.  
Wisconsin University, Madison, Research And Development Center For Cognitive Learning  
Office Of Education (DHEW), Washington, D. C., Cooperative Research Program  
EDRS mf,hc  
OEC-5-10-154 TR-79

Descriptors: creativity research; creative thinking; creative development; workbooks; creative ability; instructional materials; teaching methods; program evaluation; creativity; Stretch Workbook

To determine if use of a creativity training workbook (Stretch) would increase creative performance, 45 fourth grade pupils were studied. The students were divided into control and experimental groups with half high (mean IQ 113) and half normal (mean IQ 101) ability with the controls using a placebo workbook and the experimentals using the Stretch workbook. The data upon

pre- and posttesting with the Torrance Tests of Creative Thinking revealed no significant differences between the two groups. However, the author felt from analysis and informal observation that Stretch did improve verbal originality. Certain scores of the lower ability group improved more than the higher ability group, and all students improved significantly on almost all measures. The author indicates that the workbook has the potential to be helpful in creativity training. (JM)

#### ABSTRACT 22225

EC 02 2225 ED 037 877  
Publ. Date 69 32p  
Duncan, Ann Dell Warren  
Behavior Rates of Gifted and Regular Elementary School Children. National Association for Gifted Children Monograph.  
Kansas University, Lawrence, Bureau Of Child Research  
Office Of Education (DHEW), Washington, D. C.;  
National Institute Of Neurological Diseases And Blindness (DHEW), Washington, D. C.;  
National Institute Of Child Health And Human Development, Bethesda, Maryland  
EDRS mf,hc

Descriptors: exceptional child research; gifted; task performance; timed tests; reaction time; behavior; elementary school students; cognitive processes; performance tests; behavior rates

To determine whether gifted children are faster than average students on all behaviors sampled or only on academic subjects, 46 gifted and 30 average children were tested. The time rates for tapping, walking, reading, answering, and calculating were determined. All children were from grades 4 through 6; median IQ of the gifted was 138, and for the average 110. The results were that some gifted rates were similar to the average performance, but generally the gifted performed significantly faster on both academic and non-academic behaviors. Also the higher the grade level the faster the behavior, and the correlations between academic rates and achievement scores, non-academic rates, and intelligence test scores are all beyond the .005 level of significance. The conclusion is that study should be made to determine whether accelerating behavior rates could increase abilities and giftedness. (JM)

#### ABSTRACT 22790

EC 02 2790 ED 032 085  
Publ. Date Feb 69 142p  
Wallach, Michael A.; Wing, Cliff W., Jr.  
The Talented Student: A Validation of the Creativity-Intelligence Distinction.  
EDRS not available  
Holt, Rinehart And Winston, Inc., 383 Madison Avenue, New York, New York 10017 (\$3.95).

Descriptors: exceptional child research; gifted; creativity; intelligence; achievement; academic achievement; creative

activities; individual activities; science activities; leadership; art activities; creative writing; creative thinking; grades (scholastic); personal adjustment; productive thinking; originality; cocurricular activities

The relationship between intelligence and creativity was studied in 503 college students. Scholastic Aptitude Test scores were averaged to determine intelligence; tasks were designed to measure number and uniqueness of ideas. High school and freshman college grades indicated academic accomplishment; student questionnaires rated talented nonacademic accomplishment in aesthetic, scientific, and social areas. Results indicated that high intelligence was linked with higher grades but was unrelated to nonacademic accomplishment. Ideational output was related to both academic and nonacademic accomplishment generally. Ideational uniqueness was not pivotal in nonacademic accomplishment. In interviews, students with high ideational productivity manifested the highest degree of competence at self-initiated activities. (JD)

#### ABSTRACT 22802

EC 02 2802 ED N.A.  
Publ. Date Mar 70 28p  
Roweton, William E.  
Creativity: A Review of Theory and Research. Theoretical Paper No. 24.  
Wisconsin University, Madison, Research And Development Center For Cognitive Learning  
Office Of Education (DHEW), Washington, D. C.  
EDRS not available  
OEC-5-10-154  
Research And Development Center For Cognitive Learning, University Of Wisconsin, Madison, Wisconsin 53706.

Descriptors: exceptional child education; literature reviews; creativity; creative thinking; creativity research; theories; teaching methods

In this review of literature on creativity, interpretations or explanations of creative thinking are grouped into five categories: definitional approaches, dispositional or personality based theories, psychoanalytic viewpoints, behavioristic theories, and operational approaches. Other programs, procedures, and courses are discussed. Also reviewed is literature concerned with programs and procedures for creativity in the classroom. The current status of theory in creativity is explored. Over 300 references are listed. (MS)

#### ABSTRACT 22867

EC 02 2867 ED 040 519  
Publ. Date 69 208p  
Bent, Leo G. And Others  
Grouping of the Gifted: An Experimental Approach.  
Bradley University, Peoria, Illinois  
Illinois State Office Of The Superintendent Of Public Instruction, Springfield  
EDRS mf,hc

Descriptors: exceptional child research; gifted; grouping (instructional purposes)

es): student development; enrichment programs; enrichment activities; program descriptions; program evaluation; experimental programs

While in 3rd grade, 487 students were selected for placement in special classes for the gifted from grades 4 through 8. Teachers of the special classes were chosen by school administrators. Their teaching experience averaged 9 years, and eight held advanced degrees. Sixteen attended special summer programs on the gifted and were given inservice assistance. Results indicated that the program children equalled or surpassed the controls in academic achievement as measured by standardized tests despite the fact that their supplementary enriching activities reduced by about one half the time spent on regular classroom activities. Further results indicated skill in foreign language, research, and critical thinking as well as growth in social awareness and concern, leadership, creativity, interests, and self reliance in school activities. Approval of the program by both teachers and parents was noted. (Author/ID)

#### ABSTRACT 23180

EC 02 3180 ED N.A.  
Publ. Date 63 32p.  
Torrance, E. Paul

**Creativity. What Research Says to the Teacher.**

National Education Association, Department Of Classroom Teachers, Washington, D. C.

EDRS not available  
National Education Association, 1201 Sixteenth Street, N. W., Washington, D. C. 20036 (\$0.25).

Descriptors: creativity; creative development; creative teaching; teaching techniques

The author drew from over 500 research reports on creative thinking to compile the most valuable items for classroom teachers, emphasizing positive aspects rather than gaps in knowledge. Creativity is defined, and its manifestations and the means of measuring creative thinking abilities at educational levels from preschool to college are mentioned. Patterns of development of creative abilities and creative ways of learning are discussed. Specific ideas offer suggestions to a teacher for providing opportunities for creative behavior. Also considered are common blocks to creative development, how teachers can increase their own creativity, and goals in guiding creativity. (KW)

#### ABSTRACT 23186

EC 02 3186 ED 003 182  
Publ. Date 65 402p.  
Drews, Elizabeth M.

**Being and Becoming: A Cosmic Approach to Counseling and Curriculum, Part 2: The Creative Intellectual Style in Gifted Adolescents.**

Michigan State University, East Lansing Office Of Education (DHEW), Washington, D. C.

EDRS mf,hc

Gifted and Creativity Research

O-E-G-7-32-0410-140  
NDEA-VIIA-647-NO-2-8

Descriptors: exceptional child research; personality; gifted; grade 9; creativity research; critical thinking; critical reading; growth patterns; changing attitudes; student attitudes; student interests; values; audiovisual aids; testing

A study was made to describe and to discover possible ways of influencing intellectual and personality development in ninth grade, gifted youth. The report, second in a three-part study, reviewed the results of an experimental program designed especially to produce changes in attitudes, interests, and values toward creative intellectual norms. The investigation centered on two distinctive patterns: the creative intellectual style and the feminine dimension. Formal and informal measures of creative intellectual attitudes were administered to both experimental and control groups. The experimental group was found to be higher than the control group at post-testing in originality, complexity, aestheticism, theoretical orientation, and philosophical contemplation. It was concluded that attitude change could be brought about through special efforts. (GD)

#### ABSTRACT 23187

EC 02 3187 ED 003 253  
Publ. Date 65 215p.

Wallach, Michael A.; Kogan, Nathan  
**Cognitive Originality, Psychognomic Sensitivity, and Defensiveness in Children. Final Report.**

Duke University, Durham, North Carolina  
Office Of Education (DHEW), Washington, D. C.

EDRS mf,hc  
CRP-1316-B

Descriptors: exceptional child research; creativity; cognitive processes; test construction; observation; personality; cognitive ability; originality; creativity research; sex differences; intelligence level; psychological characteristics; individual differences

An examination was conducted to determine if a child's ability to create (cognitive originality) is independently associated with his general level of intelligence, and if so, to study psychological correlates that distinguish individual differences on the creativity and intelligence dimensions when considered jointly. Instruments, covering both verbal and visual formats, were developed and administered to over 150 fifth grade children in a gamelike context without time pressure. These required the children to generate various kinds of associates with given task requirements. Each child determined uses for particular objects, ways in which particular objects were similar, and things that particular patterns represented to them. Intelligence information was obtained through the use of a standard test battery. Correlations between the creativity and intelligence measures were found to be extremely low. The subjects were

then isolated by sex into one of four groups: high creativity, high intelligence; high creativity, low intelligence; low creativity, high intelligence; and low creativity, low intelligence. Differences among these groups were studied in four areas of cognitive functioning: behavior as observed in school and play settings; activities in categorizing and conceptualizing; sensitivity to psychognomic properties of environment; and personality dispositions, indicated through self description and through fantasy. Abundant and unique associations were found to exist. The research indicated the importance of jointly studying variations in creativity and general intelligence, if understanding of creativity is to be furthered. (JH)

#### ABSTRACT 23188

EC 02 3188 ED 003 829  
Publ. Date 65 139p.

Ringness, Thomas A.  
**Nonintellective Variables Related to Academic Achievement of Bright Junior High School Boys.**

Wisconsin University, Madison Office Of Education (DHEW), Washington, D. C.

EDRS mf,hc  
CRP-S-035

Descriptors: exceptional child research; gifted; personality; achievement; tests; males; low achievers; students; high achievers; psychological patterns; adjustment (to environment); student problems; student research; student motivation; student interests; junior high schools; motivation

In previous studies, personality variables, such as adjustment, motive to achieve, motive to affiliate, acceptance of self and others, and acceptance of adult values, have been studied to determine their relationships to school achievement. Interrelationships among these variables were examined in this study. The California Test of Mental Maturity was used to select boys from grade 8, and the Wechsler Intelligence Scale for Children was used to confirm selection. The 264 students were interviewed and tested with the California Psychological Inventory, Bills Index of Adjustment and Values, and a card sort. Grade point averages were obtained and the Iowa Test of Basic Skills was administered. The high and low thirds of the group were tested using Dunn's Visual Discrimination Task, Thematic Apperception Test, and McClelland's Projective Test. Results showed that low achievers do not have as close ties with home nor do they accept conventional values as much as do high achievers. The various measures tended to confirm each other in measurement of variables. Findings confirmed many findings of earlier studies of nonintellective characteristics of high and low achieving bright pupils. This confirmation suggests that future research should attempt to modify certain student characteristics both in the laboratory and in the field. (AI)

**ABSTRACT 30089**

EC 03 0089 ED N.A.  
 Publ. Date 70 5p.  
 Torrance, E. Paul; Khatena, Joe  
**What Kind of Person are You? A  
 Brief Screening Device for Identifying  
 Creatively Gifted Adolescents and  
 Adults.**  
 EDRS not available  
 Gifted Child Quarterly; V14 N2 P71-5  
 Sum 1970

Descriptors: exceptional child research;  
 gifted; identification; creative ability;  
 talent identification; test validity; ado-  
 lescents; adults; screening tests

The brief screening test described consists of 50 paired characteristics in a forced choice format, one of each pair being more central or essential to creative functioning. Test-retest reliability and validity studies are reported. The validity evidence appears to justify the use of the test as a coarse screening device for identifying creative adolescents and adults and for use in teaching and experimental group situations. (KW)

**ABSTRACT 30091**

EC 03 0091 ED N.A.  
 Publ. Date 70 4p.  
 Jacobs, Jon C.  
**Are We Being Misled by Fifty Years  
 of Research on Our Gifted Children?**  
 EDRS not available  
 Gifted Child Quarterly; V14 N2 P120-3  
 Sum 1970

Descriptors: exceptional child research;  
 gifted; identification; kindergarten children;  
 Wechsler Preschool and Primary  
 Scale of Intelligence

Reported is a study conducted on 19 gifted kindergarten students who were not recognized by their teachers as being gifted. Results show negative growth trends (loss of measured intellectual ability and IQ scores). It is suggested that previous research studies on gifted children, which were conducted on children who were recognized by their teachers as being gifted, were conducted on unrecognized biased groups. It is stated that the conclusions of this previous research, which has generally been optimistic showing positive growth trends, have been improperly applied to all gifted children rather than to those studied (i.e., those recognized by teachers as gifted). (KW)

**ABSTRACT 30158**

EC 03 0158 ED N.A.  
 Publ. Date 62 293p.  
 Getzels, Jacob W.; Jackson, Philip W.  
**Creativity and Intelligence: Explorations  
 with Gifted Students.**  
 EDRS not available  
 John Wiley And Sons, Inc., 605 Third  
 Avenue, New York, New York 10016  
 (\$7.95).

Descriptors: exceptional child research;  
 gifted; creativity; social adjustment; psy-  
 chological characteristics; talented stu-  
 dents; superior students; moral values;  
 social psychology; interpersonal compe-  
 tence; personal adjustment; achievement;  
 family relationship

The study explored varieties of giftedness, determined categories, and concentrated upon gifted students representing the categories of creativity, intelligence, morality, and psychological adjustment. Two groups of students exhibiting cognitive excellence were identified: one group high in intelligence but not creativity, the other high in creativity but not intelligence. Two groups exhibiting psychosocial excellence were identified: one group high in morality but not psychological adjustment, the other high in psychological adjustment but not morality. Each pair of groups was studied in terms of school behavior and achievement, values, and family environment. Procedures and results are reported. Several theoretical formulations in the area of creativity are considered and related to the findings. Several case studies are included. The appendix presents instruments and procedures used in the study. (KW)

**ABSTRACT 30367**

EC 03 0367 ED N.A.  
 Publ. Date 60 210p.  
 Torrance, E. Paul, Ed.  
**Talent and Education: Present Status  
 and Future Directions.**  
 EDRS not available  
 University Of Minnesota Press, 2037  
 University Avenue, S. E., Minneapolis,  
 Minnesota 55414 (\$4.50).  
 Papers Presented At The 1958 Institute  
 On Gifted Children (Minneapolis, Min-  
 nesota).

Descriptors: exceptional child research;  
 gifted; talent identification; educational  
 methods; exceptional child education;  
 enrichment; grouping (instructional pur-  
 poses); acceleration; followup studies;  
 conference reports

Presented are papers from a conference dealing with the identification, development, and utilization of talent. Papers concern Minnesota's interest in the development of talent, the nature of abilities, the psychometric approach to the study of talent, and crucial life experiences or factors in the lives of very gifted persons. Five papers concern the schools as talent-evoking situations, and discuss enrichment, special grouping, acceleration, a psychologist's point of view, and the treatment of individual differences in Russian schools. Five brief reports of exploratory studies with gifted children are presented. The action and research ideas developed by conference participants are summarized. (KW)

**ABSTRACT 30426**

EC 03 0426 ED 043 990  
 Publ. Date Aug 70 62p.  
 Steele, Joe Milan And Others  
**Instructional Climate in Illinois Gifted  
 Classes.**

Illinois University, Urbana, Center For  
 Instructional Research And Curriculum  
 Evaluation  
 Illinois State Office Of The Superintendent  
 Of Public Instruction, Springfield,  
 Department Of Program Planning For  
 The Gifted  
 EDRS mf,hc

Descriptors: exceptional child research;  
 gifted; program evaluation; question-  
 naires; student attitudes; class activities;  
 demonstration projects; affective behavior;  
 cognitive measurement; classroom  
 environment; secondary school students;  
 Illinois; Class Activities Questionnaire

In order to evaluate the Illinois program for the gifted, a study was conducted in which the Class Activities Questionnaire (CAQ) was administered to 3,138 students in Reimbursement Gifted Classes, Demonstration Gifted Classes and Average (Non Gifted) Classes (grades 6 through 12). The CAQ, which assesses both the cognitive domain (levels of thinking needed in class activities) and the affective domain (social and emotional conditions existing in the classroom), contained 30 items evaluating the dimensions of lower thought processes, higher thought processes, classroom focus, classroom climate, and student opinions. The CAQ was found to reveal clear variations in emphasis in both cognitive and affective domains. Results showed significant differences between Average and Gifted classes in the degree of emphases on higher thought processes, classroom focus, and classroom climate. Significant differences were also noted between Average and Gifted classes on the statistical factors of application, synthesis, enthusiasm, independence, memory, and test/grade stress. (RD)

**ABSTRACT 30760**

EC 03 0760 ED N.A.  
 Publ. Date 68 6p.  
 Hoepfner, Ralph; O'Sullivan, Maureen  
**Social Intelligence and IQ.**  
 EDRS not available  
 Educational And Psychological Mea-  
 surement; V28 N2 P339-44 Sum 1968

Descriptors: exceptional child research;  
 gifted; intelligence quotient; interper-  
 sonal competence; correlation; compara-  
 tive statistics; diagnostic tests

The paper discusses social intelligence and IQ, pointing out that giftedness may be used to describe not only the verbal skills measured by IQ tests, but also special aptitudes such as creativity and social intelligence (SI). Correlations reported between IQ and SI are noted. The best test for each of six behavioral-cognition factors was selected to represent its respective SI factor. This SI test battery, along with IQ tests, was administered to 229 high school juniors. Correlations of each SI test with IQ scores are reported (corrected mean correlation was .40). The value of the SI tests in identifying persons gifted in social perception, but with relatively low IQ, is discussed. (KW)

**ABSTRACT 30874**

EC 03 0874 ED N.A.  
 Publ. Date Nov 70 33p.  
 House, Ernest R. And Others  
**Development of Educational Pro-  
 grams: Advocacy in a Non-Rational  
 System.**  
 Illinois University, Urbana, Center For

**Instructional Research And Curriculum Evaluation**

Illinois State Office Of The Superintendent Of Public Instruction, Springfield, Department Of Program Development For Gifted Children  
EDRS mf, hc

Descriptors: exceptional child research; gifted; program development; program evaluation; educational quality; educational programs; Illinois

During the evaluation of the Illinois Gifted Program, the process of program development was also studied. The purpose of the study was to determine the sequence of events necessary to program development, and, based on the judgments of quality about the individual programs, to separate the different patterns of development leading to high and low quality programs. Subjects were 34 school districts (10% of a sample of 340) in Illinois receiving money from the state for gifted programs. Over 25 kinds of data were collected by various methods (director, teacher, and student interviews, class activities questionnaire, classroom observation, documents), on which judgments of program quality were made. Program case histories were also collected. Fifty-five independent variables were identified and quantified. Some variables associated with gifted program quality were found to be larger-sized districts, unit (K-12) districts, recognized need, a teacher or staff administrator (rather than line administrator) as director, high director involvement, consultant services, selection of change-minded teachers, and large budget. (KW)

**ABSTRACT 31055**

EC 03 1055 ED N.A.  
Publ. Date 69 13p.

Blake, Kathryn A. And Others  
**Learning of Basal Reading Skills by Mentally Handicapped and Non-Mentally Handicapped Children.**  
EDRS not available

Journal Of Research And Development In Education; V2 N2 P3-15 Win 1969

Descriptors: exceptional child research; mentally handicapped; gifted; basic reading; reading skills; academic achievement; learning processes; trend analysis; cognitive processes; reading comprehension; word recognition

A 3-year investigation was carried out to study achievement in basal reading skills (word recognition and comprehension skills) by retarded, normal, and superior pupils taught in a basal reading program at reading instructional levels 2, 3, 4, and 5. Subjects totaled 947 students who used the Scott, Foresman New Basic Readers. Data were collected on six categories of basal reading skills, encompassing 50 skills. Extensive data are presented relating to major research objectives: the identification of sequences among basal reading skills, the examination of intellectual processes related to achievement in selected basal reading skills (identification of processes, extent of relationship, relative contri-

butions, differences among skills), the describing of trends in achievement of basal reading skills over reading levels 2, 3, 4, and 5 (presence and nature of trends), the comparison of the retarded and normal groups' achievement and of the normal and superior groups' achievement (level and rate of acquisition of basal reading skills). Reaction papers to the study are included. (KW)

**ABSTRACT 31080**

EC 03 1080 ED N.A.  
Publ. Date 53 288p.

Parkyn, G. W.  
**Children of High Intelligence.**  
New Zealand Council For Educational Research, Wellington

EDRS not available  
Tri-Ocean Books, 62 Townsend Street, San Francisco, California 94107 (\$3.65).

Descriptors: exceptional child research; gifted children; foreign countries; statistical data; national surveys; academic achievement; family influence; curriculum; grouping (instructional purposes); New Zealand

The study of gifted children, the first of its kind to be carried out in New Zealand, was concerned with general intelligence only (not special talents) and, so far as teaching method is concerned, it deals only with general principles (not specific procedures). The first two chapters define high intelligence and present the general characteristics of gifted children. Four chapters then present data from the author's study of New Zealand gifted children (their general characteristics, scholastic achievement, home background, and other factors). Following chapters, discussing school organization, curriculum, and teaching methods, contain suggestions of means whereby the educational needs of gifted children might be better met. Much of the technical material and data has been reserved for the appendixes. (KW)

**ABSTRACT 31084**

EC 03 1084 ED N.A.  
Publ. Date 66 309p.

Isaacs, Susan  
**Intellectual Growth in Young Children.**

EDRS not available  
Schocken Books, Inc., 67 Park Avenue, New York, New York 10016 (\$6.00 HC, \$2.45 PB).

Descriptors: exceptional child research; gifted children; intellectual development; behavior; cognitive development; early childhood; psychoeducational processes; child psychology; thought processes; learning processes

The book is based upon records of observation and study carried on at the Malting House School (Cambridge, England) from 1924 through 1927. Detailed psychological records of the behavior of the group of 20 young children (IQ 114-166) over the 3 years were kept. The data presented illumine the intellectual aspect of mental development. The children, staff, school, equipment, edu-

cational aims, and observation techniques are described. The theoretical analysis of discovery, reasoning, and thought considers the relation between maturation and experience (with references to Piaget's studies of the structure of mental life in children) and the relation between thought and fantasy. Aspects of school life and of the methods used which are especially relevant to these theoretical problems are discussed. This discussion covers applications of knowledge, increase of knowledge, and social interchange of knowledge. Also presented are an examination of biological interests, a description of 4 sample weeks, and a summary of activities. (KW)

**ABSTRACT 31146**

EC 03 1146 ED N.A.  
Publ. Date Dec 70 6p.

Keislar, Evan R.; Stern, Carolyn.  
**Differentiated Instruction in Problem Solving for Children of Different Mental Ability Levels.**

EDRS not available  
Journal Of Educational Psychology; V61 N6 P445-50 Dec 1970

Descriptors: exceptional child research; gifted; ability grouping; problem solving; individualized instruction

During an 8-day instructional program, 82 high-IQ second- and third-grade children, assigned to three levels of mental age (comparable to average fourth, fifth, and sixth graders, respectively), were taught to solve problems based on discovering the rule for matching, using either a simple gambler's strategy or a more complex hypothesis testing approach. On each of the three criteria (posttest, transfer, and retention), children in the high-mental-age group who were taught the complex strategy were superior to those taught the simple strategy; the reverse was true with the low-mental-age group. The disordinal interaction was significant (p less than .05) for both posttest and transfer. (Author)

**ABSTRACT 31164**

EC 03 1164 ED N.A.  
Publ. Date Sep 70 3p.

Williams, Eddie H.  
**Effects of Readiness on Incidental Learning in EMR, Normal, and Gifted Children.**

EDRS not available  
American Journal Of Mental Deficiency; V75 N2 P117-9 Sep 1970

Descriptors: exceptional child research; educable mentally handicapped; gifted; incidental learning; readiness (mental); learning theories

The study investigated the effects of readiness on incidental learning among EMR, normal, and gifted subjects who were equated on CA. The subjects were divided into readiness and nonreadiness treatment groups. The incidental learning stimuli were presented with the intentional learning materials. The criterion measure was based on the incidental learning task. When readiness was

given, EMR, normal, and gifted subjects did not differ in incidental learning; when readiness was not given, they did. Readiness was found to benefit EMR and normal subjects while it had no effect on gifted subjects. (Author)

#### ABSTRACT 31232

EC 03 1232 ED N.A.  
Publ. Date 69 316p.  
Wolfe, Dacl, Ed.  
The Discovery of Talent.  
EDRS not available  
Harvard University Press, 79 Garden Street, Cambridge, Massachusetts 02138 (\$9.50).

Descriptors: exceptional child research; gifted; talent identification; talent utilization; ability; annual reports; Walter Van Dyke Bingham Lectures

The text is a compilation of lectures on the development of exceptional abilities and capacities. The lectures represent a wide-ranging presentation of a number of current ideas concerning talent and are written in such a way as to be accessible to a broad audience of persons extending beyond the professional psychologists. Papers by Lewis Terman, Donald Paterson, Cyril Burt, Edward Strong, Jr., J.P. Guilford, Dacl Wolfe, John Stalnaker, Donald MacKinnon, Edwin Ghiselli, Norman Mackworth, and Philip Vernon are given. (CD)

#### ABSTRACT 31268

EC 03 1268 ED N.A.  
Publ. Date 26 648p.  
Terman, Lewis M., Ed. And Others  
Genetic Studies of Genius: Volume I, Mental and Physical Traits of a Thousand Gifted Children.  
EDRS not available  
Stanford University Press, Stanford, California 94305, (\$15.00).

Descriptors: exceptional child research; gifted; statistical data; physical characteristics; academic achievement; interests; interpersonal competence; socioeconomic background; physical health; family characteristics; child development; recreation; educational background; vocational interests; reading; personality; cognitive ability

A study was conducted to investigate the nature of genius insofar as it is indicated by the mental and physical characteristics of intellectually superior children. Data were collected on over 1,400 children ranking within the top 1% of the unselected school population of corresponding age. Most of the report is devoted to 643 of these children for whom the data is most extensive. Additional, less extensive material is presented for a group of 309 gifted high school subjects. On many points, control data was secured from 600 to 800 unselected children. Statistical results describe the racial and social origins of the gifted students, intellectually superior relatives, vital statistics, anthropometric measurements, health and physical history, medical examinations, school prog-

ress and educational history, performance on tests of school accomplishment and general information, specialization of abilities, scholastic and occupational interests, play interests and knowledge, reading interests, intellectual, social, and activity interests, and character and personality traits. (See EC 031 269 for report of 6-year followup study on these gifted students.) (KW)

#### ABSTRACT 31269

EC 03 1269 ED N.A.  
Publ. Date 30 508p.  
Burks, Barbara Stoddard And Others  
Genetic Studies of Genius: Volume III, The Promise of Youth-Follow-Up Studies of a Thousand Gifted Children.  
EDRS not available  
Stanford University Press, Stanford, California 94305 (\$12.50).

Descriptors: exceptional child research; gifted; followup studies; statistical data; intelligence quotient; academic achievement; interests; vocational interests; personality; interpersonal competence; family characteristics; case studies; writing skills; identification; authors

Presented are the results of a followup study of over 1,000 intellectually superior children who were initially selected and studied to establish their deviation from unselected children in a large variety of physical, mental, and personality traits (see EC 031 268 for original study). The followup study, 6 years later, repeated many earlier tests and made quantitative comparisons to check the correctness of previous conclusions. New data was also obtained to complete the picture of the typical gifted youth. Data reported concern retests of intelligence, educational progress, scholastic achievement as indicated by tests and by grades, scholastic and other interests, vocational plans and achievement, social and personality traits, health, family statistics, and sibling tests. Illustrative case studies document school acceleration and social adjustment, deterioration of IQ or achievement, conquest of obstacles, twins and other siblings, behavior problems, musical ability, and zealotness. Also included is a study of literary juvenilia, with a tentative scale for rating literary juvenilia, results of ratings, and case notes on gifted juvenile writers. (KW)

#### ABSTRACT 31291

EC 03 1291 ED N.A.  
Publ. Date 70 171p.  
Pringle, M. L. Kellmer  
Able Misfits: A Study of Educational and Behaviour Difficulties of 103 Very Intelligent Children (IQs 120-200).  
EDRS not available  
Humanities Press, 303 Park Avenue South, New York, New York 10010 (\$6.00).

Descriptors: exceptional child research; gifted; behavior problems; underachievers; learning difficulties; parent attitudes; academic achievement; personal

adjustment; psychological needs; identification

A descriptive account of intelligent children whose behavior difficulties were severe enough to cause their teachers or parents to seek psychological advice is presented. Illustrative case histories are cited. Statistical information on the 103 children describes how they came to be examined, characteristics, home background, parental attitudes, recommendations made, and subsequent developments. A more theoretical section, concerning the psychology of learning and adjustment, discusses basic psychological needs, learning and emotion, maladjustment, underachievement, and the findings of previous research. Questions of prevention and remedial action are considered in an analysis of practical implications which emphasizes early recognition of giftedness. (KW)

#### ABSTRACT 31384

EC 03 1384 ED N.A.  
Publ. Date 70 5p.  
Torrance, E. Paul  
Dyadic Interaction as a Facilitator of Gifted Performance.  
EDRS not available  
Gifted Child Quarterly, V14 N3 P139-43 Fall 1970

Descriptors: exceptional child research; gifted; creativity research; interaction; creative thinking; creative development; social isolation; grouping (instructional purposes); peer groups

The author discusses the problem of loneliness or isolation of the creatively gifted person and suggests, as a means of solving both this problem and the problem of facilitating creative behavior, dyadic interaction with a compatible peer, i.e., another gifted person. Reviewed are four experiments in dyadic creativity which offer indirect but strong support to the idea of grouping gifted children in dyads to facilitate creative behavior. Study 1 tested the creativity of college students and 5-year-olds, some alone and some in pairs. Those tested in pairs, who were encouraged on the other's ideas, showed greater originality of thinking. Studies 2 and 3 proved the hypotheses arising from the first study, namely that subjects in dyads enjoyed the experience more and were willing to persist longer. Study 4, concerned with the problem of facilitating willingness to attempt difficult tasks, showed that 5-year-olds were more willing to attempt difficult tasks (throwing bean bags into a basket from greater distances) when in pairs than when alone or before their entire class. (KW)

#### ABSTRACT 31386

EC 03 1386 ED N.A.  
Publ. Date 70 4p.  
Krippner, Stanley; Blickenstaff, Ralph  
The Development of Self-Concept as Part of an Arts Workshop for the Gifted.  
EDRS not available  
Gifted Child Quarterly, V15 N3 P163-6 Fall 1970

Descriptors: exceptional child research; gifted; vocational interests; sex differences; role perception; self concept; sciences; art

To determine whether the vocational interests of gifted children were determined by sociocultural influences (i.e., sex stereotypes) as well as by intellectual potential, 27 gifted boys and 13 gifted girls, ages 8-14 years, were tested and interviewed. Vocational preferences were determined and classified as scientific (traditionally considered a masculine field) or artistic (a feminine field). Careers in science were selected by 24 boys and 2 girls, while artistic careers interested 11 girls and 3 boys. Tests of emotional stability, visual-motor skills, neurological organization, and intelligence showed no statistically significant differences between boys and girls, indicating that sex rather than one of these factors was the important variable. A 1-day arts workshop, held to expand the experiential basis for occupational interests, attempted to stimulate originality and self expression while breaking down stereotyped role definitions and expanding self concepts. (KW)

#### ABSTRACT 31411

EC 03 1411 ED N.A.  
Publ. Date Dec 70 9p.  
Kirkendall, Don R.; Ismail, A. H.  
The Ability of Personality Variables in Discriminating among Three Intellectual Groups of Preadolescent Boys and Girls.  
EDRS not available  
Child Development; V41 N4 P1173-81  
Dec 1970

Descriptors: exceptional child research; gifted; average students; slow learners; personality; intelligence level; intellectual development; personality assessment; emotional adjustment; childhood; intelligence differences; academic achievement

Two hundred and five children, ages 10-13 years, were used to study the ability of personality trait variables, as measured by the Children's Personality Questionnaire, in discriminating among three intellectual groups of preadolescent children. Purposes were to determine the relative importance of these variables in the discrimination and to determine the ability of the personality variables in classifying subjects into intellectual groups. In addition, some discussion of the multivariate approach used (discriminant-function analysis) was provided. It was concluded that children of different intellectual levels do in fact differ in their personalities. Furthermore, the results indicated that those children with high intellectual ability tend to be more emotionally well adjusted. (Author)

#### ABSTRACT 31496

EC 03 1496 ED N.A.  
Publ. Date 70 6p.  
Keogh, Barbara K.; Smith, Carol E.  
Early Identification of Educationally

High Potential and High Risk Children.

EDRS not available  
Journal Of School Psychology; V8 N4  
P285-90 Win 1970

Descriptors: exceptional child research; gifted; learning difficulties; academic achievement; prediction; identification; academic aptitude; screening tests; predictive ability (testing); followup studies; student evaluation; elementary school students; Bender Gestalt Test

Early identification of educationally high potential and high risk children was investigated by following 49 children from kindergarten entrance through grades 5 of a regular school program. Kindergarten predictive measures were the Bender Gestalt and teachers' evaluations. Follow-up measures were yearly standard achievement test results. Analyses revealed consistently high and significant relationships between teachers' ratings and subsequent school achievement. Teachers were surprisingly accurate in early identification of both high risk and high potential children. The Bender was more accurate for identification of high potential than high risk children. Findings support the use of these measures for initial screening of children entering formal school programs. Specification of dimensions of teachers' evaluations may provide clues to understanding the complexities of school readiness. (Author)

#### ABSTRACT 31649

EC 03 1649 ED N.A.  
Publ. Date 69 842p.  
Cox, Catharine Morris  
Genetic Studies of Genius: Volume II, the Early Mental Traits of Three Hundred Geniuses.  
EDRS not available  
Stanford University Press, Stanford, California 94305 (\$15.00).

Descriptors: exceptional child research; gifted; genetics; historical reviews; intelligence level; intelligence tests; rating scales; psychological evaluation; prediction

Volume 2 in a series on the genetic studies of genius deals with the early mental traits of 300 geniuses. The investigation was conducted in an effort to discover whether traits characterizing gifted children are paralleled in the childhood traits of individuals who have later achieved eminence due to intellectual, moral or artistic performances. Historical records of heredity, childhood, and youth are examined and psychological indices applied to measure the traits. Methods and results are detailed including the subjects and data, IQ estimate and treatment, a discussion and analysis of the IQ ratings, and an analysis of character ratings. Case studies consisting of brief biographical summaries are provided to give an indication of the nature of the evidence on which the IQ estimates were based. One of the major conclusions drawn by the researchers was that geniuses are not only characterized in childhood by a

superior IQ, but also by traits of interest, energy, will, and character that foreshadow later performance. (CD)

#### ABSTRACT 31740

EC 03 1740 ED 046 471  
Publ. Date 70 6p.  
Golden, Mary Ann Hession  
Cognitive, Behavioral, and Affective Activities in the Classrooms of Gifted Secondary Students.  
EDRS mfhc  
Author's Masters Thesis Submitted To The University Of Southern California.

Descriptors: exceptional child research; gifted; student attitudes; teacher attitudes; high school students; cluster grouping; advanced placement programs

To compare and evaluate the perception of cognitive, behavioral and affective activities in the classroom as determined by gifted students and their teachers, gifted students in two high schools were studied. Two programs, the Advanced Placement Program and the Cluster Grouping Program were selected for the study. It was concluded that the Advanced Placement Program resulted in significantly greater emphasis on cognitive levels occurring in the classroom (higher thought processes), a more active student role, and a more relaxed, open atmosphere. The Cluster Grouping Program (enrichment for gifted students in the normal classroom setting) was felt to be unsuccessful, with classes remaining teacher centered with a passive student role. (CD)

#### ABSTRACT 31874

EC 03 1874 ED N.A.  
Publ. Date 71 10p.  
Welsh, George S.  
Vocational Interests and Intelligence in Gifted Adolescents.  
EDRS not available  
Educational and Psychological Measurement; V31 N1 P155-64 Spr 1971

Descriptors: exceptional child research; gifted; adolescents; vocational interests; verbal ability; intelligence tests

Based on a previous study of gifted adolescents which showed that verbal interests and differential performance on a verbal and nonverbal intelligence test were significantly related, the present study investigated vocational interests and intelligence. Indications were that there was a positive relationship between nonverbal intelligence scores and scientific interests on physical sciences and other vocations stressing rational approaches to their problems. Business interests, and vocations requiring social and personal contact with people showed a negative relationship with nonverbal intelligence scores. (CD)

#### ABSTRACT 32023

EC 03 2023 ED N.A.  
Publ. Date Mar 71 7p.  
Leithwood, Kenneth A.  
Motor, Cognitive, and Affective Relationships Among Advantaged Preschool Children.  
EDRS not available

Research Quarterly; V42 N1 P47-53 Mar 1971

Descriptors: exceptional child research; gifted; culturally advantaged; motor development; cognitive ability; social adjustment; interpersonal relations; preschool children

Motor-cognitive and motor-affective relationships were examined among 60 4-year-old nursery school children advantaged intellectually (mean IQ 125) and socioeconomically. Both simple and complex motor measures were correlated with eight dimensions of intellectual functioning and a multi-dimensional scale of psychosocial adjustment. Several cognitive abilities were identified as having significant relations with motor ability. As well, twice as many significant correlations were found between intellectual measures and complex as compared with simple motor ability. Psychosocial adjustment appeared to be unrelated to either the cognitive or motor spheres. (Author)

#### ABSTRACT 32341

EC 03 2341 ED N.A.  
Publ. Date Apr 71 3p.  
Jacobs, Jon C.

Effectiveness of Teacher and Parent Identification of Gifted Children as a Function of School Level.

EDRS not available  
Psychology in the Schools; V8 N2 P140-2 Apr 1971

Descriptors: exceptional child research; gifted; early childhood; identification; teacher role; parent role; evaluation criteria; student evaluation; kindergarten children

Teacher nomination of the gifted, which was noted as being 50% effective at the secondary level, was investigated to see if it was equally effective at earlier grade levels. Of the 654 kindergarten students evaluated, 19 were considered to be gifted. After 6 months of school the kindergarten teachers were asked to nominate those children in their classes who might possibly be gifted. A total of 46 students, none of whom were the previously located 19 gifted children, were nominated by the teachers. The parents nominated a total of 26 children, 16 of whom were from the original 19 children identified as gifted. Results indicated that teacher identification effectiveness dropped from 50% at the secondary level to 10% at the kindergarten level. It was felt that at the early school level, parents were better able to accurately identify their children as gifted than were teachers. Individual assessment of the children was recommended as more just and possibly more economical than inaccurate identification in the classroom. (CD)

#### ABSTRACT 32457

EC 03 2457 ED N.A.  
Publ. Date 66 174p.  
Durkin, Dolores

Children Who Read Early.

EDRS not available  
Teacher's College Press, Columbia Uni-

versity, 525 West 120th Street, New York, New York 10027 (\$4.25).

Descriptors: exceptional child research; gifted; preschool children; reading ability; basic reading; academic achievement; learning characteristics; family influence; longitudinal studies

Two longitudinal studies of children who learn to read before entering school investigated personality traits, family background, method of learning, why they learn to read early, and whether they have later problems interfering with school achievement. Early readers were identified by testing entering first graders. Subjects were retested yearly with standardized reading tests for several years. Test results were analyzed to relate achievement to IQ, sex, double promotion, and preschool environmental factors, and to compare progress to that of equally bright children who did not learn to read early. Personal characteristics were also compared using data from personality tests, teacher ratings, and parent interviews. Some of the findings were that early readers tended to maintain their lead in achievement; although median IQ's were high in the two studies (121 and 133), IQ's of early readers varied greatly (91-161, 82-170); comparison of equally bright early readers and non-early-readers showed more similarities than differences in personality characteristics; parents of early readers showed greater willingness to give early help; and there was no simple connection between early reading and socioeconomic status. (KW)

#### ABSTRACT 32582

EC 03 2582 ED N.A.  
Publ. Date 70 6p.  
Dewing, Kathleen

Family Influences on Creativity: A Review and Discussion.

EDRS not available  
Journal of Special Education; V4 N4 P399-404 Fall-Win 1970

Descriptors: exceptional child research; gifted; creativity; parent influence; family influence; creative development; research reviews (publications)

Studies of parents of creative individuals are reviewed. The literature is shown to be scattered, frequently only incidental to the main investigation, and often retrospective and therefore modified by what the respondents remember or choose to report. However, the amount of agreement is noted to be impressive, with the findings supporting work carried out in other disciplines. Parental variables of particular importance appear to be an unpossessive relationship with the child which encourages self-reliance and independence, permissive child-rearing methods, and diverse and relatively intellectual interests. Implications for educational practice are considered. (Author/KW)

#### ABSTRACT 32633

EC 03 2633 ED N.A.  
Publ. Date Jan 68 177p.  
Gifted Children and Their Needs in Rhode Island.

Rhode Island State Department of Education, Providence

EDRS not available  
Rhode Island State Department of Education, Roger Williams Building, Hayes Street, Providence, Rhode Island 02908.

Descriptors: exceptional child research; gifted; state programs; state surveys; state legislation; educational needs; Rhode Island

The document defines giftedness, examines legislation pertaining to the education of the gifted (both state legislation pertaining to programs in Rhode Island and federal legislation), and summarizes the nature of gifted programs and provisions available at the state level in the various states. Results of a survey concerning provisions for the gifted in Rhode Island include a compilation of existing programs and comments solicited in the survey from guidance personnel, school administrators, and parents of gifted children regarding needs of gifted children and programs currently offered to meet those needs. Recommendations resulting from the Rhode Island survey are summarized, pointing out particular needs and suggesting initiation of a program for the gifted at the state level. (KW)

#### ABSTRACT 32712

EC 03 2712 ED N.A.  
Publ. Date Sum 71 3p.

Steele, Joe Milan and Others  
Clearinghouse: Cognitive and Affective Patterns of Emphasis in Gifted and Average Illinois Classes.  
Exceptional Children; V37 N10 P757-9 Sum 1971

Descriptors: exceptional child research; gifted; special classes; class activities; cognitive processes; thought processes; class management; student attitudes; Illinois

The systematic processing of low inference student judgments about their classes was used to describe and evaluate classroom transactions. The study was designed to determine the cognitive and affective emphases which exist in the classroom and to determine patterns differentiating classes of gifted and average students. The sample, consisting of 3,138 students in 62 gifted and 69 average Illinois classes in various subjects in grades 6-12, were administered a specially developed Class Activities Questionnaire. Gifted classes were found to have a broader scope of cognitive emphasis, to emphasize higher thought processes, have more opportunity for discussion, less teacher domination, and more enthusiastic students. (Author/KW)

#### ABSTRACT 32731

EC 03 2731 ED N.A.  
Publ. Date 62 100p.

Tannenbaum, Abraham J.  
Adolescent Attitudes Toward Academic Brilliance.

EDRS not available  
Teachers College Press, Columbia University, 525 West 120th Street, New York, New York 10027 (\$3.50).

Descriptors: exceptional child research; gifted; academic ability; adolescents; student attitudes; academic achievement; athletics; peer acceptance; stereotypes; surveys

The focus of the study was an attempt to explore the status of intellect in the adolescent world, to obtain empirical evidence on adolescents' attitudes toward academic brilliance, and to identify some possible influences on these attitudes. A survey instrument was administered to 615 eleventh graders drawn from honor, regular, and modified English classes in an urban school. The teenagers felt that brilliance (as against average ability) had no particular attracting or repelling power. Prejudice against brilliant students was felt to stem from the interaction of brilliance with other personal qualities perceived as objectionable. Moderation in scholastic effort was viewed favorably, and athletes were rated consistently preferable to nonathletes. Replications of the study revealed similar findings in rural New York and Denver communities, but there seemed to be less stigma attached to studiousness in a sample from a middle class Connecticut town. Previous studies, components of the survey, and implications are also discussed. (RJ)

#### ABSTRACT 32749

EC 03 2749 ED N.A.  
Publ. Date 71 8p.  
Torrance, E. Paul  
Developmental Changes in Sources of  
Consensual Validation in Preadolescence.

EDRS not available  
Gifted Child Quarterly; V15 N1 P3-10  
Spr 1971

Descriptors: exceptional child research; gifted; peer relationship; intermediate grades; peer acceptance

Four studies were designed to test the hypothesis that there was an increased tendency for children to consult their peers about problems as they entered fourth grade. A secondary objective was to ascertain the potentiality of gifted elementary school children to participate as experimenters in educational research. Seventy-six third graders, 93 fourth graders, and 81 fifth graders were tested by gifted sixth graders, and by the researcher. Results of the four experiments were felt to indicate that the fourth grade was marked by increased sharing of problems with peers rather than with parents and teachers. The author felt that checking with peers was likely to reduce originality of expression and decrease the output of ideas. Regarding the secondary objective, it was felt that gifted sixth graders could function successfully as experimenters in educational research. Results obtained by the sixth graders were noted as being almost identical to the researcher's results. (CD)

#### ABSTRACT 32750

EC 03 2750 ED N.A.  
Publ. Date 71 6p.  
Gowan, John Curtis

#### Why Some Gifted Children Become Creative.

EDRS not available  
Gifted Child Quarterly; V15 N1 P13-8  
Spr 1971

Descriptors: gifted; creativity; family influence; exceptional child research; personality; research reviews (publications)

The article discusses the variance of creativity in gifted children. Literature and research reviews consider some of the reasons (personality or environment) for the difference. Personality aspects of highly creative gifted children emphasizing preconscious, playful, and phallic explanations are discussed. The author notes that so far as family and environmental stimulation are concerned, it appears that whatever stimulates the three personality components (preconscious, playful, phallic) such as parental encouragement of playfulness, independence, impulsiveness, and sensitivity, is valuable. A study conducted by the author is briefly described in which questionnaires were sent to parents of gifted children. The questionnaire provided data on highly creative as opposed to low creative gifted boys and girls. Tentative conclusions and implications note that high creative children and families show a freer style of family life and higher socioeconomic status, more inclination toward the arts, and more liberal political and social views. The author concludes that the family environment has important effects upon the development of creative propensities in children. (CD)

#### ABSTRACT 32752

EC 03 2752 ED N.A.  
Publ. Date 71 4p.  
Jacobs, Jon C.

Evaluation of Mother Teaching Style  
in High Ability Families.

EDRS not available  
Gifted Child Quarterly; V15 N1 P32-5  
Spr 1971

Descriptors: exceptional child research; gifted; mothers; cognitive development; teaching methods; cognitive measurement; problem solving; evaluation

Investigation of mother child communication interaction (expansive or restrictive) in high ability families was made using a block sorting task that defined the level and mode of abstraction displayed by the mother. Twenty gifted children, aged 4 and 5 were located. The mothers were taught to do a block sorting task which they were later asked to teach to their children. The 20 mothers of gifted children were felt to be varied in their teaching style. Eight of the mothers were noted as being restrictive, nine mothers were expansive, and three too varied in their teaching style to classify. It was concluded that, unlike implications in the literature suggesting expansive teaching styles for such mothers, varying styles were found. The block sorting task was judged to be a reliable instrument in that discrimination in teaching style for high ability families was ascertained just as it was for low ability, low socioeconomic families.

Coping with difficulties in the cognitive environment was felt to exist among all children regardless of ability. (CD)

#### ABSTRACT 32753

EC 03 2753 ED N.A.  
Publ. Date 71 6p.  
Thomas, Susan J. Bahlke; Feldhusen, John F.

To Spark an Interest: Think Creatively.

EDRS not available  
Gifted Child Quarterly; V15 N1 P36-41  
Spr 1971

Descriptors: exceptional child research; gifted; creative thinking; elementary school students; program effectiveness; Purdue Creative Thinking Program

An evaluation of the effectiveness of the components on the Purdue Creative Thinking Program was made. Forty-eight classes were selected randomly from approximately 100 classes of fourth, fifth and sixth graders in a small urban school system. Each of the three parts of the program (presentations, stories, and exercises) were presented separately, in pairs, and all together for a total of seven different groupings. The Program was felt to be most effective for the fourth graders and least effective for sixth graders. Exercises were noted as being the most effective component of the Program. It was concluded that the Program helped children develop thinking abilities, and that having the children write down their creative ideas was the most effective part of the Program. (CD)

#### ABSTRACT 32785

EC 03 2785 ED N.A.  
Publ. Date 71 19p.

Adams, Leslie  
Research in Creativity.

EDRS not available  
Kansas Studies in Education; V21 N1/2  
P60-78 Spr/Sum 1971

Descriptors: exceptional child research; gifted; creativity research; creativity; research reviews (publications)

A synthesis of research in creativity, the article is limited to studies done after 1950 and more to empirical investigations than to discourses. Categories, arranged in chronological order, are concerned primarily with studies carried on independently by diverse personnel, and include music and the arts and music education, education and educational psychology, and visual arts and art education. A summary presents impressions of the different types of research which are most prominent, the areas receiving attention, and the direction in which the research seems to be moving. (RJ)

#### ABSTRACT 32837

EC 03 2837 ED N.A.  
Publ. Date 71 11p.  
Guilford, J. P.

Some Misconceptions Regarding Measurement of Creative Talents.

EDRS not available  
Journal of Creative Behavior; V5 N2  
P77-87 Second Quarter 1971

Descriptors: exceptional child research;

gifted; creativity research; creative ability; test construction; test validity; divergent thinking; research reviews (publications)

The author examines the recent history of creative ability testing to show that creative ability is not a single, comprehensive variable distinct from but parallel to general intelligence, and that tests of divergent thinking abilities have validity. The works of R.L. Thorndike (1966), and M.A. Wallach and N. Kogan (1965) receive primary attention. S.A. Mednick (1961), M. Dellas and E.L. Gaier (1970), W.L. Brittain and K.R. Beittel (1961), C.A. Jones (1960), J.M. Elliott (1964), R. Hoepfner, J.P. Guilford, and P.A. Bradley (1970), and P.R. Merrifield, S.F. Gardner, and A.B. Cox (1964) receive secondary attention. According to the author, various works lack proper test criteria and result validations, raising the need for factor analysis and multiple-regression procedures. Due to the complexity both of creative talent and of creative performance criteria, no one test of creative ability correlates highly with the criteria. (CB)

#### ABSTRACT 32838

EC 03 2838 ED N.A.  
Publ. Date 71 10p.  
Torrance, E. Paul  
Some Validity Studies of Two Brief Screening Devices for Studying the Creative Personality.  
EDRS not available  
Journal of Creative Behavior; V5 N2  
P94-103 Second Quarter 1971

Descriptors: exceptional child research; gifted; screening tests; creativity research; creative ability; test validity; test construction

The author describes two screening devices for studying the person-

ality and some of the validity studies thus far accumulated. The Creative Motivation Scale is a screening device built around seven basic scales: creative motivation, critical motivation, power motivation, quest for certainty, quest for meaning, quest for social relations, and rejection of social relations. Another screening device is the What Kind of Person Are You? test. The present version of the test consists of 50 items arranged in a forced-choice format and takes most subjects 5 to 10 minutes to complete. Evidences of test validity are found in studies using the Sounds and Images Test of Originality (Cunnington and Torrance, 1965), imaginative stories, originality scores on Onomatopoeia and Images Test, Provocative Questions Test (Torrance, 1966), and Runner studies of Attitude Patterns (Runner and Runner, 1965). Immediate feedback is easy to supply, making both devices ideal for audience-involving discussions of the creative person and of creative behavior. (CB)

#### ABSTRACT 32878

EC 03 2878 ED 053 500  
Publ. Date Apr 71 9p.  
Lazar, Alfred L. and Others  
Sex Differences in Attitudes of Young Male and Female Gifted Youngsters Toward Handicapped Individuals.  
California State College, Long Beach  
EDRS mf.hc  
Paper Presented at the Annual Meeting of the California Education Research Association (49th, San Diego, California, April 29, 1971).

Descriptors: exceptional child research; gifted; attitudes; handicapped; sex differences; attitude tests; Attitude Toward Disabled Persons Scale

Fifteen males and 15 females (ages 8.0 to 8.8) who had been identified as gifted were studied to compare their attitudes toward handicapped individuals as measured by the Attitude Toward Disabled Persons Scale (ATDP). Form O of the ATDP Scale was used and a one-way analysis of variance showed a significant difference between males and females, supporting other studies which have found females to be more positive. The adequacy and promise of the ATDP are considered. (RJ)

#### ABSTRACT 32926

EC 03 2926 ED N.A.  
Publ. Date Aug 71 1p.  
Ruschival, M. Lena; Way, John-Gilbert  
The WPPSI and the Stanford-Binet: A Validity and Reliability Study Using Gifted Pre-School Children.  
EDRS not available  
Journal of Consulting and Clinical Psychology; V37 N1 P163 Aug 1971

Descriptors: exceptional child research; gifted; preschool children; intelligence tests; test reliability; test validity; Wechsler Preschool and Primary Scale of Intelligence; Stanford Binet Intelligence Test.

To determine if the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) and the Stanford-Binet, Form L-M, yield comparable test results in intelligence measurement of gifted children, 30 white male and female students (age range 47 to 68 months) attending a private school were given the two tests. The results indicated only a moderate relationship between the WPPSI Full Scale and the Stanford-Binet, and it was concluded that the two scores were not interchangeable for the students. (CB)

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