

ED 025 443

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Descriptors- \*Bibliographies, \*College Mathematics, Elementary School Mathematics, \*Mathematics Education, Newsletters, \*Secondary School Mathematics

Identifiers- Pacesetters in Innovation, Research in Education, Science Education Information Analysis Center

This newsletter lists references to 88 research reports in mathematics education. Of these, 36 were published in United States Office of Education Research Reports over the period 1956-65, 39 in "Research in Education," and 13 in "Pacesetters in Innovation." Titles, pertinent descriptors, and cost of the document in both microfiche and hardcopy are listed. (GR)

# SEIAC

ERIC

## Center Comments

The ERIC Information Analysis Center for Science Education has been involved in developing a number of information analysis products related to science education. We are pleased to announce that the ERIC Information Analysis Center for Science Education and the National Science Teachers Association are cooperating to present a series of articles related to the teaching of science at the elementary school and the secondary school levels.

*The Science Teacher* will begin carrying the series related to the secondary school in the January 1969 issue. Articles will also be included in the March and May issues. Scheduled topics are "An Analysis of Research Related to the Education of Secondary School Science Teachers," "An Analysis of Research Related to Instructional Procedures for Teaching Secondary School Science," and "An Analysis of Research Related to Instructional Materials for Teaching Secondary School Science." The articles will present an analysis of pertinent investigations and will provide a selective bibliography for each topic.

Similar articles analyzing research pertinent to the teaching of elementary school science will be carried in *Science and Children*. The elementary series will begin with the February 1969 issue.

Other information analysis materials are being developed for publication and will be announced in future issues of the SEIAC Newsletter.

## Descriptions of Outdoor Education Programs

Many requests have been received for copies of the SEIAC Newsletter (Volume 1, Number 3) which described 90 outdoor education programs that included science education in their activities. A limited number of the newsletters are still available.

The Center is attempting to maintain a listing of current outdoor education programs which include science education activities. If you are responsible for such a program we would appreciate receiving a description of your program and also copies of instructional materials.

## Science Education Documents Available through EDRS

A previous issue of the SEIAC Newsletter (Volume 1, Number 4) listed documents related to science education that are available through the ERIC Document Reproduction Service (EDRS). All documents related to science education and available through EDRS as of January 1, 1968 are listed. Copies of the newsletter are available on request.

## Mathematics Education Documents Available through EDRS

Many requests have been received for documents related to mathematics education that are available through the ERIC Document Reproduction Service (EDRS). Information analysts have reviewed all issues of *Research in Education* through December, 1967, U.S. Office of Education Research Reports, 1956-1965, and *Pacesetters in Innovation, Fiscal Year 1966*. This issue of the SEIAC Newsletter contains a listing of documents related to mathematics education from these three sources. The documents are listed according to the publication in which they were announced.

Author, title, descriptor information and prices are provided for each document. Prices listed are current EDRS prices. When ordering documents, be certain to include the ERIC document number of each document and indicate whether you desire microfiche (MF) or hard copy (HC). If your order does not exceed \$3.00, a 50¢ handling charge should be included. Requests for documents should be addressed to EDRS, The National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION

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SE 006 264



# MATHEMATICS EDUCATION REPORTS

IN

## U.S. OFFICE OF EDUCATION RESEARCH REPORTS, 1956—1965

ED 002 781

AN ANALYSIS OF LEARNING EFFICIENCY IN ARITHMETIC OF MENTALLY RETARDED CHILDREN IN COMPARISON WITH CHILDREN OF AVERAGE AND HIGH INTELLIGENCE.

KLAUSMEIER, HERBERT J. AND OTHERS  
WISCONSIN UNIV., MADISON

EDRS PRICE MF-\$0.75 HC-\$7.12 178P.

PUB DATE AUG 59

DESCRIPTORS- \*ARITHMETIC, \*LEARNING, \*MENTAL RETARDATION, \*PHYSICAL DEVELOPMENT, \*RETARDED CHILDREN, ACHIEVEMENT, COMPARATIVE ANALYSIS, ELEMENTARY SCHOOL STUDENTS, MADISON, MILWAUKEE, PUBLIC SCHOOLS, RETENTION, WISCONSIN.

ED 002 866

A TRANSLATION OF RUSSIAN FIRST-GRADE ARITHMETIC.

CALANDRA, ALEXANDER  
WASHINGTON UNIV., ST. LOUIS, MO.

EDRS PRICE MF-\$0.75 HC-\$5.80 145P.

PUB DATE 59

DESCRIPTORS- \*ARITHMETIC, \*GRAPHS, \*MATHEMATICS INSTRUCTION, \*RUSSIAN, MISSOURI, ST. LOUIS, TEACHING METHODS.

ED 002 974

PROBLEM-SOLVING PROFICIENCY AMONG ELEMENTARY SCHOOL TEACHERS, IV. FURTHER INVESTIGATIONS OF TEACHERS OF ARITHMETIC, GRADES 3-6.

TURNER, RICHARD L.  
INDIANA UNIV., BLOOMINGTON  
INST. OF EDUC. RES.

EDRS PRICE MF-\$0.25 HC-\$2.08 52P.

PUB DATE FEB 61

DESCRIPTORS- \*ARITHMETIC, \*ELEMENTARY SCHOOL TEACHERS, \*PROBLEM SOLVING, \*TEACHER EVALUATION, \*TEACHING TECHNIQUES, ALLPORT VERNON LINDZEY STUDY OF VALUES, BLOOMINGTON, EFFECTIVE TEACHING, INDIANA, INTELLIGENCE, MINNESOTA TEACHER ATTITUDE INVENTORY (MTAI), TEACHER CHARACTERISTICS.

ED 003 038

ABILITIES OF FIRST-GRADE PUPILS TO LEARN MATERIALS IN TERMS OF ALGEBRAIC STRUC-

TURES BY TEACHING MACHINES.

KEISLAR, EVAN R. CRAWFORD, ROBERT C.  
CALIF. UNIV., LOS ANGELES

EDRS PRICE MF-\$0.50 HC-\$4.76 119P.

PUB DATE DEC 61

DESCRIPTORS- \*AUDIOVISUAL INSTRUCTION, \*AUTO-INSTRUCTIONAL AIDS, \*GRADE 1, \*MATHEMATICS INSTRUCTION, \*TEACHING MACHINES, CALIFORNIA, COMPARATIVE ANALYSIS, CONVENTIONAL INSTRUCTION, CUISINAIRE BLOCKS, GRADE 4, GROUP TESTS, INSTRUCTIONAL PROGRAMS, INTERVIEWS, LOS ANGELES, PROGRAMED INSTRUCTION, SANTA MONICA, VIDEOSONIC TEACHING MACHINE (HUGHES AIRCRAFT CO.).

ED 003 053

EVALUATION OF THE MADISON PROJECT METHOD OF TEACHING IN ARITHMETIC SITUATIONS, GRADES 4, 5, AND 6.

BROWN, WM. F.  
N.Y. STATE EDUC. DEPT., ALBANY.

EDRS PRICE MF-\$0.25 HC-\$2.20 55P.

PUB DATE 63

DESCRIPTORS- \*ARITHMETIC, \*EFFECTIVE TEACHING, \*MODERN MATHEMATICS, \*PROGRAM EVALUATION, \*TEACHING TECHNIQUES, CALIFORNIA TEST OF MENTAL MATURITY, CURRICULUM PLANNING, EDUCATIONAL EXPERIMENTS, IOWA TEST OF BASIC SKILLS, LEARNING READINESS, MADISON PROJECT, MATHEMATICS CURRICULUM, MATHEMATICS MATERIALS, NEW YORK, STUDENT IMPROVEMENT, STUDENT INTERESTS, SYRACUSE, SYRACUSE TEST OF ALGEBRAIC FLUENCY.

ED 003 128

A PROJECT FOR THE IMPROVED USE OF NEWER EDUCATIONAL MEDIA IN ELEMENTARY SCHOOL MATHEMATICS.

ZANT, JAMES H. AND OTHERS  
OKLAHOMA STATE UNIV., STILLWATER  
AGRIC.-APPL. SCI.

EDRS PRICE MF-\$0.25 HC-\$2.12 53P.

PUB DATE 31 AUG 65

DESCRIPTORS- \*CONFERENCES, \*ELEMENTARY EDUCATION, \*INSTRUCTIONAL MATERIALS, \*MATHEMATICS MATERIALS, \*PROGRAMED INSTRUCTION, CONSULTANTS, COURSE OBJECTIVES

EDUCATIONAL PROBLEMS, EVALUATION METHODS, MEDIA SPECIALISTS, OKLAHOMA, PROGRAM DEVELOPMENT, STILLWATER.

ED 003 162

RESEARCH MEMORANDUM, EVALUATION OF AN INSERVICE TELEVISION TRAINING PROGRAM IN MATHEMATICS FOR ELEMENTARY TEACHERS. MILLS, DONALD F. KOPSTEIN, FELIX F. EDUCATIONAL TESTING SERVICE, PRINCETON, N.J.

EDRS PRICE MF-\$0.75 HC-\$6.68 167P.

PUB DATE APR 65

DESCRIPTORS- \*ACHIEVEMENT TESTS, \*ELEMENTARY SCHOOL TEACHERS, \*INSERVICE TEACHER EDUCATION, \*INSTRUCTIONAL TELEVISION, \*MODERN MATHEMATICS, \*TEACHER ATTITUDES, EDUCATIONAL TELEVISION, EDUCATIONAL TESTING SERVICE (ETS), ETS COOPERATIVE STRUCTURE OF THE NUMBER SYSTEM TEST, ETS COOPERATIVE ARITHMETIC TEST, MATHEMATICS, NEW JERSEY, PRINCETON, SPECIAL INSIGHTFUL ARITHMETIC TEST, TEACHER SEMINARS.

ED 003 178

COMPARATIVE RESEARCH ON METHODS AND MEDIA FOR PRESENTING PROGRAMED COURSES IN MATHEMATICS AND ENGLISH.

CARPENTER, C. R. GREENHILL, L. P. PENNSYLVANIA STATE UNIV., UNIVERSITY PARK

EDRS PRICE MF-\$0.50 HC-\$3.36 84P.

PUB DATE MAR 63

DESCRIPTORS- \*ENGLISH INSTRUCTION, \*MATHEMATICS INSTRUCTION, \*MEDIA RESEARCH, \*METHODS RESEARCH, \*PROGRAMED INSTRUCTION, CLOSED CIRCUIT TELEVISION, COMPARATIVE ANALYSIS, GROUP INSTRUCTION, PACING, PENNSYLVANIA, PROGRAMED MATERIALS, TIME FACTORS (LEARNING), UNIVERSITY PARK.

ED 003 197

THE TEACHER, PROGRAMED MATERIALS, AND INSTRUCTIONAL INTERACTION, SUPPLEMENTAL MANUAL.

ARCHER, N. SIDNEY AND OTHERS WEST CHESTER STATE COLL., PA.

COOP. RES. CENTER  
EDRS PRICE MF-\$0.50 HC-\$3.32 83P.

PUB DATE 64

DESCRIPTORS- \*ALGEBRA, \*INSTRUCTIONAL MATERIALS, \*MATHEMATICAL ENRICHMENT, \*MATHEMATICS MATERIALS, \*PROGRAMED INSTRUCTION, \*STUDENT TEACHER RELATIONSHIP, FILMS, FILMSTRIPS, INSTRUCTIONAL AIDS, MANUALS, MODERN MATHEMATICS, PENNSYLVANIA, READING MATERIALS, RESOURCE MATERIALS, WEST CHESTER.

ED 003 203

RESEARCH WITH A PROGRAM ON GEOMETRIC INEQUALITIES.

COULSON, JOHN E. SYSTEM DEVELOPMENT CORP., SANTA MONICA, CALIF.

EDRS PRICE MF-\$0.50 HC-\$3.40 85P.

PUB DATE 26 JUN 64

DESCRIPTORS- \*AUTOINSTRUCTIONAL AIDS, \*GEOMETRY, \*INDIVIDUAL STUDY, \*LEARNING PROCESSES, \*PROGRAMED INSTRUCTION, CALIFORNIA, EDUCATIONAL RESEARCH, HIGH SCHOOL STUDENTS, INDIVIDUAL DIFFERENCES, LEARNING DIFFICULTIES, PROGRAM DESIGN, PROGRAM IMPROVEMENT, PROGRAMED UNITS, SANTA MONICA, TUTORING.

ED 003 217

NONPROGRAM VARIABLES IN THE APPLICATION OF PROGRAMED INSTRUCTION.

COULSON, JOHN E. AND OTHERS SYSTEM DEVELOPMENT CORP., SANTA MONICA, CALIF.

EDRS PRICE MF-\$0.25 HC-\$1.56 39P.

PUB DATE 21 JUL 65

DESCRIPTORS- \*COMPUTER ASSISTED INSTRUCTION, \*EDUCATIONAL EXPERIMENTS, \*GEOMETRY, \*HIGH SCHOOL STUDENTS, \*LEARNING, \*PROGRAMED INSTRUCTION, CALIFORNIA, INSTRUCTIONAL MATERIALS, PERFORMANCE FACTORS, SANTA MONICA, TEACHER ROLE.

ED 003 234

NEW MEDIA FOR IMPROVEMENT OF ALGEBRA INSTRUCTION.

CHURCH, JOHN G. AND OTHERS STATE UNIV. OF N. Y., ALBANY

EDRS PRICE MF-\$1.75 HC-\$17.64 441P.

PUB DATE JUN 64

DESCRIPTORS- \*ALGEBRA, \*AUDIOVISUAL INSTRUCTION, \*PROGRAMED INSTRUCTION, \*VISUAL LEARNING, ALBANY, AUDIOVISUAL AIDS, GRADE 9, INSTRUCTIONAL FILMS, INSTRUCTIONAL MATERIALS, NEW YORK, PROGRAM EVALUATION.

ED 003 237

THE TEACHER, PROGRAMED MATERIALS, AND INSTRUCTIONAL INTERACTION, SUPPLEMENTAL MANUAL.

ARCHER, N. SIDNEY AND OTHERS WEST CHESTER STATE COLL., PA.,

COOP. RES. CENTER  
EDRS MF-\$0.50 HC-\$3.32 83P.

PUB DATE 64

DESCRIPTORS- \*ALGEBRA, \*INSTRUCTIONAL MATERIALS, \*MATHEMATICAL ENRICHMENT, \*MATHEMATICS MATERIALS, \*PROGRAMED INSTRUCTION, \*STUDENT TEACHER RELATIONSHIP, FILMS, FILMSTRIPS, INSTRUCTIONAL AIDS, MODERN

MATHEMATICS, PENNSYLVANIA, READING MATERIALS, RESOURCE MATERIALS, WEST CHESTER.

ED 003 238

THE TEACHER, PROGRAMED MATERIALS, AND INSTRUCTIONAL INTERACTION, TESTS AND FINAL EXAMINATION WITH ANSWERS.

ARCHER, N. SIDNEY

WEST CHESTER STATE COLL., PA.

COOP. RES. CENTER

EDRS PRICE MF-\$0.50 HC-\$3.92 98P.

PUB DATE 64

DESCRIPTORS- \*ALGEBRA, \*TESTS, INSTRUCTIONAL INTERACTION, MATHEMATICS INSTRUCTION, PENNSYLVANIA, PROGRAMED INSTRUCTION, WEST CHESTER.

ED 003 255

ITEM ANALYSIS, TEST DESIGN, AND CLASSIFICATION.

SOLOMON, HERBERT

STANFORD UNIV., CALIF.

EDRS PRICE MF-\$1.50 HC-\$15.40 385P.

DESCRIPTORS- \*DATA ANALYSIS, \*MATHEMATICAL APPLICATIONS, \*MEASUREMENT INSTRUMENTS, \*MODELS, \*TEST CONSTRUCTION, CALIFORNIA, FACTOR ANALYSIS, MATHEMATICAL CONCEPTS, MATHEMATICS, PROBABILITY, QUESTIONNAIRES, RESEARCH METHODOLOGY, STANFORD, STATISTICAL ANALYSIS, TEST SELECTION, TESTS.

ED 003 257

DETERMINATION OF "STRUCTURE-OF-INTELLECT" ABILITIES INVOLVED IN NINTH-GRADE ALGEBRA AND GENERAL MATHEMATICS.

PETERSEN, H. AND OTHERS

UNIV. OF S. CALIF., L. A.

EDRS PRICE MF-\$0.25 HC-\$1.68 42P.

PUB DATE OCT 63

DESCRIPTORS- \*ACADEMIC APTITUDE, \*FACTOR ANALYSIS, \*MATHEMATICS INSTRUCTION, \*PREDICTIVE ABILITY (TESTING), \*TEST VALIDITY, ACHIEVEMENT TESTS, APTITUDE TESTS, CALIFORNIA, LEARNING PROCESSES, LOS ANGELES, NINTH GRADE.

ED 003 299

ARITHMETICAL ABSTRACTIONS--THE MOVEMENT TOWARD CONCEPTUAL MATURITY UNDER DIFFERING SYSTEMS OF INSTRUCTION.

BROWNELL, WM. A.

CALIFORNIA UNIV., BERKELEY

EDRS PRICE MF-\$1.50 HC-\$14.64 366P.

PUB DATE JUL 64

DESCRIPTORS- \*ARITHMETIC, \*COMPARATIVE EDUCATION, \*CONCEPT FORMATION, \*INSTRUCTIONAL PROGRAMS, \*MATHEMATICAL CONCEPTS, \*MATHEMATICS INSTRUCTION, BERKELEY,

CALIFORNIA, COMPARATIVE ANALYSIS, ELEMENTARY EDUCATION, ENGLAND, INTERVIEWS, SCOTLAND.

ED 003 345

THE DEVELOPMENT OF DIFFERENTIATION AND CONSERVATION OF NUMBER.

ZIMILES, HERBERT AND OTHERS

BANK STREET COLL. OF EDUCATION,

NEW YORK, N. Y.

EDRS PRICE MF-\$0.50 HC-\$3.24 81P.

PUB DATE 65

DESCRIPTORS- \*COGNITIVE PROCESSES, \*GRADE 1, \*KINDERGARTEN CHILDREN, \*LOGICAL THINKING, \*NUMBERS, ATTITUDES, COGNITIVE MEASUREMENT, DRAW A MAN TEST, INTELLIGENCE, NEW YORK, NEW YORK CITY, NUMBER CONCEPTS, PICTURE VOCABULARY TEST.

ED 003 346

SEQUENCE CHARACTERISTICS OF TEXT MATERIALS AND TRANSFER OF LEARNING. PART I-EXPERIMENTS IN DISCOVERY LEARNING.

DELLA-PIANA, GABRIEL M. AND OTHERS

UTAH UNIV., SALT LAKE CITY

BUREAU OF EDUC. RES.

EDRS PRICE MF-\$1.00 HC-\$8.12 203P.

PUB DATE DEC 65

DESCRIPTORS- \*COMPARATIVE ANALYSIS, \*INSTRUCTIONAL MATERIALS, \*LEARNING PROCESSES, \*MATHEMATICS INSTRUCTION, \*PROGRAMED TEXTS, ALGEBRA, GRADE 5, GRADE 6, GRADE 9, SALT LAKE CITY, SEQUENTIAL PROGRAMS, TEACHING TECHNIQUES, UTAH.

ED 003 347

SEQUENCE CHARACTERISTICS OF TEXT MATERIALS AND TRANSFER OF LEARNING, PART 2 APPENDICES--TASKS AND TESTS.

DELLA-PIANA, GABRIEL M. AND OTHERS

UTAH UNIV., SALT LAKE CITY

BUREAU OF EDUC. RES.

EDRS PRICE MF-\$1.25 HC-\$11.20 280P.

PUB DATE DEC 65

DESCRIPTORS- \*INSTRUCTIONAL MATERIALS, \*MATHEMATICS INSTRUCTION, \*PROGRAMED TEXTS, \*REFERENCE MATERIALS, \*TEACHING TECHNIQUES, LEARNING PROCESSES, SALT LAKE CITY, SEQUENTIAL PROGRAMS, UTAH.

ED 003 348

SELF-SELECTED MATHEMATICS LEARNING ACTIVITIES.

FITZGERALD, WM. M.

MICHIGAN UNIV., ANN ARBOR

EDRS PRICE MF-\$0.50 HC-\$4.20 105P.

PUB DATE 65

DESCRIPTORS- \*AUTOINSTRUCTIONAL PROGRAMS, \*EXPERIMENTAL PROGRAMS, \*INTER-

MEDIATE GRADES, \*MATHEMATICS MATERIALS, \*MEASUREMENT INSTRUMENTS, ANN ARBOR, GRADE 7, GRADE 8, JUNIOR HIGH SCHOOLS, MICHIGAN.

ED 003 367

EXPERIMENTAL TEACHING OF MATHEMATICAL LOGIC IN THE ELEMENTARY SCHOOL.

SUPPES, PATRICK BINFORD, FREDERICK STANFORD UNIV., CALIF.

EDRS PRICE MF-\$0.25 HC-\$2.24 56P.

PUB DATE 64

DESCRIPTORS- \*DECISION MAKING SKILLS, \*ELEMENTARY EDUCATION, \*LOGICAL THINKING, \*MODERN MATHEMATICS, \*TEACHER EDUCATION, CALIFORNIA, GRAMMAR, MATHEMATICAL CONCEPTS, MATHEMATICS, MATHEMATICS CURRICULUM, MATHEMATICS INSTRUCTION, STANFORD, TEACHER IMPROVEMENT, TRANSFER OF TRAINING.

ED 003 369

A MODERN MATHEMATICS PROGRAM AS IT PERTAINS TO THE INTERRELATIONSHIP OF MATHEMATICAL CONTENT, TEACHING METHODS AND CLASSROOM ATMOSPHERE (THE MADISON PROJECTS).

DAVIS, ROBT. B. SYRACUSE UNIV., N.Y.

EDRS PRICE MF-\$0.50 HC-\$3.16 79P.

PUB DATE 63

DESCRIPTORS- \*DEMONSTRATION PROGRAMS, \*DEMONSTRATION PROJECTS, \*MATHEMATICS CURRICULUM, \*MATHEMATICS INSTRUCTION, \*MATHEMATICS MATERIALS, FILMS, INSTRUCTIONAL FILMS, INSTRUCTIONAL INNOVATION, MADISON PROJECT, MISSOURI, NEW YORK, SYRACUSE, TAPE RECORDINGS, TESTING, WEBSTER GROVES.

ED 003 371

A MODERN MATHEMATICS PROGRAM AS IT PERTAINS TO THE INTERRELATIONSHIP OF MATHEMATICAL CONTENT, TEACHING METHODS, AND CLASSROOM ATMOSPHERE, (THE MADISON PROJECT)

DAVIS, ROBT. B. SYRACUSE UNIV., N. Y.

EDRS PRICE MF-\$0.75 HC-\$6.08 152P.

PUB DATE 65

DESCRIPTORS- \*CURRICULUM ENRICHMENT, \*EDUCATIONAL THEORIES, \*ELEMENTARY EDUCATION, \*MATHEMATICS CURRICULUM, \*MODERN MATHEMATICS, CLASSROOM ENVIRONMENT, DEMONSTRATION PROJECTS, FILMS, MADISON PROJECT, MASS MEDIA, MATHEMATICS, MISSOURI, NEW YORK, SYRACUSE, TAPE RECORDINGS, TEACHER EDUCATION, TEACHING METHODS, WEBSTER GROVES.

ED 003 462

TEACHER-PUPIL INTERACTION DIFFERENCES BETWEEN SCHOOL MATHEMATICS STUDY GROUP AND TRADITIONAL MATHEMATICS.

SLOAN, FRED A. PATE, ROBERT T. OKLAHOMA UNIV., NORMAN

RESEARCH INSTITUTION

EDRS PRICE MF-\$0.50 HC-\$2.60 65P.

PUB DATE 64

DESCRIPTORS- \*CURRICULUM DEVELOPMENT, \*MODERN MATHEMATICS, \*TEACHER IMPROVEMENT, \*TEACHING METHODS, DISCOVERY PROCESSES, GRADE 4, NORMAN, OKLAHOMA, PROVO CODE FOR ANALYSIS OF TEACHING, STUDENT TEACHER RELATIONSHIP.

ED 003 538

EXPERIMENTATION IN THE ADAPTATION OF THE OVERHEAD PROJECTOR UTILIZING 200 TRANSPARENCIES AND 800 OVERLAYS IN TEACHING ENGINEERING DESCRIPTIVE GEOMETRY CURRICULA.

CHANCE, CLAYTON W.

TEXAS UNIV., AUSTIN

EDRS PRICE MF-\$0.25 HC-\$2.12 53P.

PUB DATE 60

DESCRIPTORS- \*CONVENTIONAL INSTRUCTION, \*ENGINEERING DRAWING, \*GEOMETRY, \*OVERHEAD PROJECTORS, \*PROGRAM EVALUATION, \*TRANSPARENCIES, AUSTIN, COMPARATIVE ANALYSIS, LECTURE, PROBLEM SOLVING, TEXAS.

ED 003 558

MATHEMATICS INDIVIDUAL LEARNING EXPERIMENT.

CROSBY, GLADYS AND OTHERS

CITY UNIV. OF N. Y.,

QUEENS COLL., FLUSHING, N. Y.

EDRS PRICE MF-\$0.50 HC-\$4.56 114P.

PUB DATE 60

DESCRIPTORS- \*ACHIEVEMENT, \*ALGEBRA, \*GRADE 9, \*GROUP INSTRUCTION, \*INDIVIDUAL INSTRUCTION, DIFFERENTIAL APTITUDE TEST, FLUSHING, INSERVICE TEACHER EDUCATION, JUNIOR HIGH SCHOOLS, MATHEMATICS INSTRUCTION, NEW YORK, NEW YORK CITY, QUEENS COLLEGE.

ED 003 562

TELEVISION AND CONSULTANT SERVICES AS METHODS OF INSERVICE EDUCATION FOR ELEMENTARY SCHOOL TEACHERS OF MATHEMATICS. DEVAULT, VERE M. AND OTHERS

TEXAS UNIV., AUSTIN

EDRS PRICE MF-\$0.75 HC-\$5.56 139P.

PUB DATE 62

DESCRIPTORS- \*ACHIEVEMENT, \*INSTRUCTIONAL TELEVISION, \*MATHEMATICS, \*TEACHER EDUCATION, \*TEACHING METHODS, AUSTIN, TEXAS.

ED 003 573

THE COMPARATIVE EFFECTIVENESS OF SOUND MOTION PICTURES AND PRINTED COMMUNICATIONS FOR THE MOTIVATION OF HIGH SCHOOL STUDENTS IN MATHEMATICS.

TIEMENS, ROBT. K.

IOWA UNIV., IOWA CITY

EDRS PRICE MF-\$0.50 HC-\$3.08 77P.

PUB DATE 62

DESCRIPTORS- \*FILMS, \*HIGH SCHOOL STUDENTS, \*MATHEMATICS, \*STUDENT ATTITUDES, \*STUDENT MOTIVATION, ALGEBRA, IOWA, IOWA CITY, TEXTBOOKS.

ED 003 579

PROGRAMED MATERIALS IN MATHEMATICS FOR SUPERIOR STUDENTS IN RURAL SCHOOLS.

SMITH, WENDELL I. MOORE, J. WM.

BUCKNELL UNIV., LEWISBURG, PA.

EDRS PRICE MF-\$0.50 HC-\$3.40 85P.

PUB DATE 62

DESCRIPTORS- \*MATHEMATICS INSTRUCTION, \*PROGRAMED INSTRUCTION, \*PROGRAMED TEXTS, \*RURAL SCHOOLS, \*SUPERIOR STUDENTS, AUTOINSTRUCTIONAL PROGRAMS, LEWISBURG, PENNSYLVANIA, TEACHING MACHINES.

ED 003 585

PRINCIPLES OF PROGRAMING MATERIAL FOR TEACHING MACHINES AND THEIR RELATION TO TRANSFER OF TRAINING.

LEVIN, GERALD R.

BROWN UNIV., PROVIDENCE, R. I.

EDRS PRICE MF-\$0.25 HC-\$0.96 24P.

PUB DATE 61

DESCRIPTORS- \*AUTOINSTRUCTIONAL PROGRAMS, \*GEOMETRY, \*GRADE 2, \*PROGRAMING, \*TEACHING MACHINES, ACHIEVEMENT TESTS, AUTOINSTRUCTIONAL METHODS, PROGRAMED UNITS, PROVIDENCE, RHODE ISLAND.

ED 003 605

THE INFLUENCE OF NOVELTY EFFECT UPON TEACHING MACHINE LEARNING.

POPHAM, W. JAMES

SAN FRAN. STATE COLL., CALIF.

EDRS PRICE MF-\$0.25 HC-\$0.72 18P.

PUB DATE AUG 62

DESCRIPTORS- \*ALGEBRA, \*GEOMETRY, \*GRADE 6, \*PROGRAMED INSTRUCTION, \*TEACHING MACHINES, AUTOINSTRUCTIONAL AIDS, CALIFORNIA, CALIFORNIA TEST OF MENTAL MATURITY, COMPARATIVE ANALYSIS, CONVENTIONAL INSTRUCTION, ELEMENTARY GRADES, PERFORMANCE, PROGRAM EVALUATION, SAN FRANCISCO, SRA ARITHMETIC ACHIEVEMENT TEST.

ED 003 614

REQUIREMENTS FOR GRAPHIC TEACHING MA-

CHINES.

HICKEY, ALBERT AND OTHERS

NORTHEASTERN UNIV., BOSTON, MASS.

EDRS PRICE MF-\$0.50 HC-\$3.08 77P.

PUB DATE 31 DEC 62

DESCRIPTORS- \*AUDIOVISUAL AIDS, \*GRAPHIC ARTS, \*MATHEMATICAL CONCEPTS, \*TEACHING MACHINES, \*TEXTBOOK EVALUATION, ALGEBRA, BOSTON, EXPERIMENTAL PROGRAMS, HIGH SCHOOLS, INSTRUCTIONAL MATERIALS, LEARNING PROCESSES, MASSACHUSETTS, STIMULUS BEHAVIOR, TEACHING TECHNIQUES, TEXTBOOKS.

ED 003 636

A STUDY CONCERNING THE EFFECT OF AN AURAL INCREMENT IN PROGRAMED AUTOINSTRUCTIONAL MATHEMATICAL MATERIAL FOR COLLEGE STUDENTS.

SOWELL, KATYE OLIVER

FLORIDA ST. UNIV., TALLAHASSEE

EDRS PRICE MF-\$0.50 HC-\$2.76 69P.

DESCRIPTORS- \*AUTOINSTRUCTIONAL AIDS, \*COLLEGE STUDENTS, \*MATERIAL DEVELOPMENT, \*MATHEMATICS INSTRUCTION, \*TAPE RECORDERS, FLORIDA, INSTRUCTIONAL MATERIALS, PROGRAMED MATERIALS, PROGRAMED TEXTS, PROGRAMED UNIT, TALLAHASSEE.

ED 003 654

A COMPARISON OF AUTOMATED TEACHING PROGRAMS WITH CONVENTIONAL TEACHING METHODS AS APPLIED TO TEACHING MENTALLY RETARDED STUDENTS.

PRICE, JAMES E.

PARTLOW STATE SCHOOL,

TUSCALOOSA, ALA.

EDRS PRICE MF-\$0.25 HC-\$0.52 13P.

PUB DATE 61

DESCRIPTORS- \*ARITHMETIC, \*AUTOINSTRUCTIONAL METHODS, \*COMPARATIVE ANALYSIS, \*MENTALLY HANDICAPPED, \*PROGRAMED INSTRUCTION, ALABAMA, ANSWER CONSTRUCT (AC), MULTIPLE CHOICE (MC), PROBLEM SOLVING, TEACHING MACHINES, TUSCALOOSA.

ED 003 669

INTELLECTUAL PROCESSES RELATED TO MATHEMATICS ACHIEVEMENT AT GRADE LEVELS 4, 5, AND 6.

WESTBROOK, HELEN R. AND OTHERS

GEORGIA UNIV., ATHENS

EDRS PRICE MF-\$1.25 HC-\$12.88 322P.

PUB DATE 65

DESCRIPTORS- \*ACHIEVEMENT, \*INTELLIGENCE, \*MATHEMATICS INSTRUCTION, \*PSYCHOLOGICAL STUDIES, \*THOUGHT PROCESSES, ACADEMIC ACHIEVEMENT, ATHENS, ELEMENTARY EDUCATION, GEORGIA, INSTRUCTIONAL IMPROVEMENT,

INTELLECTUAL DEVELOPMENT, PSYCHOLOGICAL PATTERNS, STUDENT CHARACTERISTICS.

ED 003 827

SYSTEMATIC OBSERVATION OF VERBAL INTERACTION AS A METHOD OF COMPARING MATHEMATICS LESSONS.

WRIGHT, E. MURIEL J. PROCTOR, VIRGINIA H.

WASHINGTON UNIV., ST. LOUIS, MO.

EDRS PRICE MF-\$1.50 HC-\$15.20 380P.

PUB DATE JUN 61

DESCRIPTORS- \*MATHEMATICS INSTRUCTION, \*MEASUREMENT INSTRUMENTS, \*OBSERVATION, \*TEACHING METHODS, \*VERBAL COMMUNICATION, COLLEGE INSTRUCTION, MISSOURI, SECONDARY EDUCATION, ST. LOUIS, TEACHER EVALUATION, TEACHER IMPROVEMENT, WRIGHT PROCTOR OBSERVATIONAL INSTRUMENT.

**MATHEMATICS EDUCATION REPORTS**  
*IN*  
**RESEARCH IN EDUCATION**

ED 010 003

A FIRST STEP TOWARDS THE IMPLEMENTATION OF THE CAMBRIDGE MATHEMATICS CURRICULUM IN A K-12 UNGRADED SCHOOL.

FOSTER, GARRETT R.

FLORIDA STATE UNIVERSITY, TALLAHASSEE

EDRS PRICE MF-\$0.50 HC-\$3.76 94P.

PUB DATE 66

DESCRIPTORS- \*CONFERENCES, \*CURRICULUM RESEARCH, \*MATHEMATICS CURRICULUM, \*SYSTEMS ANALYSIS, \*UNGRADED SCHOOLS, ABILITY GROUPING, BROWARD COUNTY, EXPERIMENTAL PROGRAMS, FLORIDA, INDIVIDUALIZED CURRICULUM, INSERVICE TEACHER EDUCATION, NOVA SCHOOL, PROGRAM DEVELOPMENT, TALLAHASSEE, TEACHING METHODS.

ED 010 014

THE PRODUCTION AND VALIDATION OF EDUCATIONAL SYSTEMS PACKAGES FOR OCCUPATIONAL TRAINING OF DEPRESSED AREA STUDENTS, FINAL REPORT.

BUSHNELL, DON D.

BROOKS FOUNDATION,

SANTA BARBARA, CALIFORNIA

EDRS PRICE MF-\$0.25 MC-\$1.64 41P.

PUB DATE 30 MAR 66

DESCRIPTORS- \*INSTRUCTIONAL IMPROVEMENT, \*INSTRUCTIONAL MATERIALS, \*MATHEMATICS INSTRUCTION, \*TEACHING TECHNIQUES, CALIFORNIA, SANTA BARBARA, TENTH GRADE, TUTORING, VOCATIONAL EDUCATION.

ED 010 039

ORGANIZATION OF MATHEMATICS IN GRADES 4, 5, AND 6.

BLAKE, KATHRYN A. AND OTHERS

UNIV. OF GEORGIA, ATHENS

EDRS PRICE MF-\$0.75 MC-\$6.64 166P.

PUB DATE 66

DESCRIPTORS- \*COURSE ORGANIZATION, \*HORIZONTAL ORGANIZATION, \*MATHEMATICS INSTRUCTION, \*SEQUENTIAL APPROACH, \*VERTICAL ORGANIZATION, ATHENS, CLARKE COUNTY, ELEMENTARY GRADES, GEORGIA, MATHEMATICS CURRICULUM.

ED 010 056

A COMPARISON OF MATHEMATICS PROGRAMS FOR ABLE JUNIOR HIGH SCHOOL STUDENTS, VOLUME 1 - FINAL REPORT.

GOLDBERG, MIRIAM L. AND OTHERS

COLUMBIA UNIV.

EDRS PRICE MF-\$1.25 HC-\$12.44 311P.

PUB DATE MAY 66

DESCRIPTORS- \*JUNIOR HIGH SCHOOL, \*MATHEMATICS CURRICULUM, \*MATHEMATICS INSTRUCTION, \*TEACHING METHODS, COMPARATIVE ANALYSIS, LEARNING PROCESSES, LORGE-THORNDIKE VERBAL INTELLIGENCE TEST, MATHEMATICAL ENRICHMENT, MATHEMATICS, NEW YORK, NEW YORK CITY, STEP MATHEMATICS TESTS, STEP READING TESTS.

ED 010 057

A COMPARISON OF MATHEMATICS PROGRAMS FOR ABLE JUNIOR HIGH SCHOOL STUDENTS.

GOLDBERG, MIRIAM L. AND OTHERS

COLUMBIA UNIV.

EDRS PRICE MF-\$0.50 HC-\$4.96 124P.

PUB DATE 66

DESCRIPTORS- \*COMPARATIVE ANALYSIS, \*JUNIOR HIGH SCHOOL, \*MATHEMATICS CURRICULUM, \*TABLES (DATA), NEW YORK, NEW YORK CITY.

ED 010 109

BRIDGING THE GRADE SIX TO SEVEN GAP WITH CONTINUOUS PROGRESS.

KELLETT, JEREMIAH J.

WESTON JUNIOR HIGH SCHOOL, MASS.

EDRS PRICE MF-\$0.25 HC-\$1.32 33P.

PUB DATE 66

DESCRIPTORS- \*AUTOINSTRUCTIONAL PROGRAMS, \*COMPARATIVE STUDIES, \*ELEMENTARY EDUCATION, \*LEARNING LABORATORY, \*MATHEMATICS INSTRUCTION, MASSACHUSETTS, PERFORMANCE FACTORS, STUDENT ATTITUDES, WESTON.

ED 010 110

UTILIZATION OF COMPUTER FACILITIES IN THE MATHEMATICS AND BUSINESS CURRICULUM IN A LARGE SUBURBAN HIGH SCHOOL.

RENO, MARTIN AND OTHERS

CASE INST. OF TECHNOLOGY, CLEVELAND

EDRS PRICE MF-\$0.25 HC-\$1.04 26P.

PUB DATE 66

DESCRIPTORS- \*COMPUTER PROGRAMS, \*COMPUTERS, \*DATA PROCESSING, \*HIGH SCHOOL STUDENTS, \*MATHEMATICS CURRICULUM, CLEVELAND, DIGITAL COMPUTERS, EUCLID, INFORMATION RETRIEVAL, INFORMATION SYSTEMS, INSTRUCTIONAL INNOVATION, OHIO, PROGRAMING, STUDENT PARTICIPATION.

ED 010 184

A STUDY OF PSYCHOLOGICAL PATTERNS IN LEARNING ELEMENTARY MATHEMATICS.

RESTLE, FRANK

INDIANA UNIV., BLOOMINGTON

EDRS PRICE MF-\$0.50 HC-\$4.04 101P.

PUB DATE 66

DESCRIPTORS- \*COLLEGE STUDENTS, \*MATHEMATICS, \*PSYCHOLOGICAL STUDIES, \*SECONDARY SCHOOL STUDENTS, \*THOUGHT PROCESSES, BLOOMINGTON, ELEMENTARY SCHOOL STUDENTS, INDIANA, LEARNING PROCESSES, PROBLEM SOLVING.

ED 010 208

STUDIES OF THE USE OF PROGRAMED INSTRUCTION IN THE CLASSROOM.

GLASER, ROBERT AND OTHERS

UNIV. OF PITTSBURGH

EDRS PRICE MF-\$0.75 HC-\$7.76 194P.

PUB DATE MAY 66

DESCRIPTORS- \*ARITHMETIC, EDUCATIONAL RESEARCH, \*ELEMENTARY SCHOOL STUDENTS, \*PROGRAMED INSTRUCTION, \*SPELLING, ACHIEVEMENT, CLASSROOM RESEARCH, CLASSROOM TECHNIQUES, CLASSROOMS, EVALUATION METHODS, EVALUATION TECHNIQUES, INDIVIDUAL INSTRUCTION, INDIVIDUALIZED PROGRAMS, MANAGEMENT, PENNSYLVANIA, PITTSBURGH, PROGRAMING, RESEARCH AND DEVELOPMENT CENTERS, TESTS.

ED 010 209

MEASURES OF LEARNING RATES FOR ELEMENTARY SCHOOL STUDENTS IN MATHEMATICS AND READING UNDER A PROGRAM OF INDIVIDUALLY PRESCRIBED INSTRUCTION.

YEAGER, JOHN L.

UNIVERSITY OF PITTSBURGH

EDRS PRICE MF-\$0.50 HC-\$3.68 92P.

PUB DATE

DESCRIPTORS- \*INDIVIDUALIZED PROGRAMS, \*LEARNING LABORATORY, \*MATHEMATICS INSTRUCTION, \*RATING SCALE, \*READING INSTRUCTION, ELEMENTARY SCHOOL STUDENTS, INDIVIDUALIZED CURRICULUM, LEARNING EXPERIENCES, MEASUREMENT TECHNIQUES, PENNSYLVANIA, PERFORMANCE FACTORS, PITTSBURGH, PROGRAMED INSTRUCTION.

ED 010 210

THE EFFECT OF AN INDIVIDUALLY PRESCRIBED INSTRUCTION PROGRAM IN ARITHMETIC ON PUPILS AT DIFFERENT ABILITY LEVELS.

DEEP, DONALD

UNIVERSITY OF PITTSBURGH

EDRS PRICE MF-\$0.50 HC-\$4.16 104P.

PUB DATE 66

DESCRIPTORS- \*ABILITY GROUPING, \*ARITHMETIC, \*ELEMENTARY SCHOOL STUDENTS, \*PERFORMANCE FACTORS, \*PROGRAMED INSTRUCTION, ACHIEVEMENT TESTS, COMPARATIVE

ANALYSIS, HIGH ACHIEVERS, INDIVIDUAL INSTRUCTION, INDIVIDUALLY PRESCRIBED INSTRUCTION (IPI), LOW ACHIEVERS, PENNSYLVANIA, PITTSBURGH.

ED 010 211

SEQUENTIALLY SCALED MATHEMATICS ACHIEVEMENT TESTS--CONSTRUCTION METHODOLOGY AND EVALUATION PROCEDURES.

BRAHAM, GLENN T.

UNIVERSITY OF PITTSBURGH

EDRS PRICE MF-\$0.75 HC-\$5.40 135P.

PUB DATE 66

DESCRIPTORS- \*ACHIEVEMENT TESTS, \*MATHEMATICS, \*SEQUENTIAL APPROACH, \*TEST CONSTRUCTION, \*TEST VALIDITY, ELEMENTARY EDUCATION, GUTTMAN'S SCALOGRAM, METROPOLITAN ACHIEVEMENT TESTS, PENNSYLVANIA, PITTSBURGH, RATING SCALE.

ED 010 261

A STUDY OF DEVELOPMENT OF CONSERVATION OF QUANTITY.

MUKTARIAN, HERBERT H.

THOMPSON, GEORGE G.

OHIO STATE UNIVERSITY, COLUMBUS

RESEARCH FOUNDATION

EDRS PRICE MF-\$0.50 HC-\$2.76 69P.

PUB DATE 1 JUN 66

DESCRIPTORS- \*COGNITIVE DEVELOPMENT, COLUMBUS, CONCEPT FORMATION, MATHEMATICAL MODELS, OHIO, PERCEPTUAL DEVELOPMENT.

ED 010 306

RANDOMIZATION PROCEDURES FOR THE ANALYSIS OF EDUCATIONAL EXPERIMENTS.

COLLIER, RAYMOND O.

UNIV. OF MINNESOTA, MINNEAPOLIS

EDRS PRICE MF-\$0.75 HC-\$6.08 152P.

PUB DATE 65

DESCRIPTORS- \*COMPUTER PROGRAMS, \*MATHEMATICAL MODELS, \*RESEARCH METHODOLOGY, \*STATISTICAL ANALYSIS, EDUCATIONAL EXPERIMENTS, MINNEAPOLIS, MINNESOTA.

ED 010 329

DEMONSTRATION OF A NONGRADED PLAN OF AN ELEMENTARY SCHOOL, UTILIZING TEAM TEACHING AND PROGRAMED INSTRUCTION TO FACILITATE LEARNING IN READING AND MATHEMATICS.

LEWIS, WILLIAM F.

TROY STATE COLLEGE, ALA.

EDRS PRICE MF-\$0.50 HC-\$3.48 87P.

PUB DATE OCT 66

DESCRIPTORS- \*DEMONSTRATION PROJECTS, \*ELEMENTARY EDUCATION, \*MATHEMATICS INSTRUCTION, \*NONGRADED CLASSES, \*PROGRAMED INSTRUCTION, \*READING INSTRUCTION,

\*TEAM TEACHING, ALABAMA, TEACHING TECHNIQUES, TROY.

ED 010 378  
CHARACTERISTICS OF MATHEMATICS TEACHERS THAT AFFECT STUDENTS' LEARNING.  
TORRANCE, E. PAUL AND OTHERS  
UNIV. OF MINNESOTA, MINNEAPOLIS  
EDRS PRICE MF-\$0.75 HC-\$6.76 169P

PUB DATE SEP 66

DESCRIPTORS- \*EFFECTIVE TEACHING, \*LEARNING EXPERIENCE, \*MATHEMATICS INSTRUCTION, \*STUDENT TEACHER RELATIONSHIP, \*TEACHER CHARACTERISTICS, INSTRUCTIONAL MATERIALS, MINNEAPOLIS, MINNESOTA, SCHOOL MATHEMATICS STUDY GROUP (SMSG), STUDENT ATTITUDES.

ED 010 393  
AN ADVANCED PLACEMENT COURSE IN ANALYTIC GEOMETRY AND CALCULUS (MATHEMATICS XV X AP).  
MIENTKA, WALTER E. DEROLF, JOHN J.  
UNIVERSITY OF NEBRASKA, LINCOLN  
EDRS PRICE MF-\$0.75 HC-\$5.28 132P.

PUB DATE 64

DESCRIPTORS- \*ADVANCED PLACEMENT, \*ANALYTIC GEOMETRY, \*CALCULUS, \*CORRESPONDENCE COURSES, \*TEXTBOOKS, ADVANCED STUDENTS, COLLEGE PLACEMENT, CURRICULUM GUIDES, HIGH SCHOOL STUDENTS, LESSON PLANS, LINCOLN, NEBRASKA, STUDY GUIDES.

ED 010 420  
ANALYSIS OF MATHEMATICAL ABILITIES REQUIRED FOR SUCCESS IN NINTH-GRADE MATHEMATICS.  
LETON, DONALD A. KIM, SHARON  
UNIVERSITY OF HAWAII  
EDRS PRICE MF-\$0.50 HC-\$4.48 112P.

PUB DATE DEC 66

DESCRIPTORS- \*ABILITY IDENTIFICATION, \*APTITUDE TESTS, \*COGNITIVE TESTS, \*MATHEMATICAL CONCEPTS, \*PREDICTIVE ABILITY (TESTING), FUNDAMENTAL CONCEPTS, GRADE 9, HAWAII, HONOLULU, IDENTIFICATION TESTS, MATHEMATICS CURRICULUM.

ED 010 515  
SECONDARY SCHOOL PUPILS' PERCEPTION OF THE PLANE SECTIONS OF SELECTED SOLID FIGURES.  
BOE, BARBARA L.  
WISCONSIN UNIV., MADISON  
EDRS PRICE MF-\$0.25 HC-\$1.72 43P.

PUB DATE NOV 66

DESCRIPTORS- \*COGNITIVE MEASUREMENT, \*CONCEPT FORMATION, \*GEOMETRY, \*PERCEPTION TESTS, \*RESPONSE MODE, GRADE 10, GRADE 12, GRADE 8, MADISON, MATHEMATICAL CONCEPTS, MATHEMATICS INSTRUCTION, PERFORMANCE, PREDICTIVE VALIDITY, WISCONSIN.

ED 010 535  
THE PROBLEMS OF UNDER ACHIEVEMENT AND LOW ACHIEVEMENT IN MATHEMATICS EDUCATION.  
SMALL, DWAIN E. AND OTHERS  
FLORIDA UNIV., GAINESVILLE  
EDRS PRICE MF-\$0.50 HC-\$3.52 88P.

PUB DATE NOV 66

DESCRIPTORS- \*LOW ACHIEVERS, \*MATHEMATICS INSTRUCTION, \*PROBLEM SOLVING, \*REMEDIATIONAL MATHEMATICS, \*UNDERACHIEVERS, ABILITY IDENTIFICATION, ACADEMIC ACHIEVEMENT, CASE STUDIES (EDUCATION), DIAGNOSTIC TESTS (EDUCATION), ELEMENTARY SCHOOL STUDENTS, FLORIDA, GAINESVILLE, GRADE 4, GRADE 5, GRADE 6, MATHEMATICAL CONCEPTS, TEST CONSTRUCTION.

ED 010 574  
THE ORGANIZATION OF INTERRELATED INDIVIDUAL PROGRESS AND ABILITY LEVEL COURSES IN MATHEMATICS AT GARBER HIGH SCHOOL- -AN INTRODUCTION.  
BRATTEN, JACK E.  
SYSTEM DEVELOPMENT CORP.,  
SANTA MONICA, CALIFORNIA  
EDRS PRICE MF-\$0.25 HC-\$0.72 18P.

PUB DATE 4 JAN 66

DESCRIPTORS- \*INDIVIDUALIZED INSTRUCTION, \*INSTRUCTIONAL INNOVATION, \*MATHEMATICS CURRICULUM, \*SCHOOL ORGANIZATION, \*STUDENT NEEDS, CALIFORNIA, ESSEXVILLE, CONTINUOUS PROGRESS PLAN SCHOOLS, HIGH SCHOOLS, MICHIGAN, SANTA MONICA, SIMULATION, SYSTEMS ANALYSIS.

ED 010 575  
THE ORGANIZATION OF INTERRELATED INDIVIDUAL PROGRESS AND ABILITY LEVEL COURSES IN MATHEMATICS AT GARBER HIGH SCHOOL- -DESCRIPTIVE ANALYSIS.  
BRATTEN, JACK E.  
SYSTEM DEVELOPMENT CORP.,  
SANTA MONICA, CALIFORNIA  
EDRS PRICE MF-\$0.25 HC-\$0.80 20P.

PUB DATE 27 JAN 66

DESCRIPTORS- \*COURSE ORGANIZATION, \*CURRICULUM DEVELOPMENT, \*INSTRUCTIONAL DESIGN, \*MATHEMATICS CURRICULUM, \*SYSTEMS ANALYSIS, CALIFORNIA, CONTINUOUS PROGRESS PLAN SCHOOLS, ESSEXVILLE, INDIVIDUAL INSTRUCTIONAL, INNOVATION, MICHIGAN, PROGRAMED INSTRUCTION, SANTA MONICA, STUDENT NEEDS.

ED 010 576  
THE ORGANIZATION OF INTERRELATED INDIVIDUAL PROGRESS AND ABILITY LEVEL COURSES IN MATHEMATICS AT GARBER HIGH SCHOOL- -SYSTEM ANALYSIS AND STIMULATION.  
BRATTEN, JACK E.

SYSTEM DEVELOPMENT CORPORATION,  
SANTA MONICA, CALIFORNIA  
EDRS PRICE MF-\$0.25 HC-\$1.20 30P.

PUB DATE 28 FEB 66

DESCRIPTORS- \*COMPUTER PROGRAMS, \*MATHEMATICS INSTRUCTION, \*MODELS, \*SIMULATION, \*SYSTEMS ANALYSIS, CALIFORNIA, CONTINUOUS PROGRESS PLAN SCHOOLS, ESSEXVILLE, MICHIGAN, SANTA MONICA.

ED 010 586

RULE GENERALITY AND CONSISTENCY IN MATHEMATICS LEARNING.

SCANDURA, JOSEPH M.

FLORIDA STATE UNIVERSITY, TALLAHASSEE

EDRS PRICE MF-\$0.50 HC-\$3.60 90P.

PUB DATE 66

DESCRIPTORS- \*MATHEMATICAL APPLICATIONS, \*MATHEMATICAL EXPERIENCE, \*PROBLEM SOLVING, \*PSYCHOLOGICAL STUDIES, \*TESTING PROBLEMS, EDUCATIONAL STRATEGIES, FLORIDA, LEARNING EXPERIENCE, MATHEMATICS MATERIALS, PERFORMANCE FACTORS, TALLAHASSEE.

ED 010 599

A STUDY OF AN EXPLORATORY TECHNIQUE USED IN EDUCATIONAL RESEARCH.

DARROCH, JOHN N.

MICHIGAN UNIVERSITY, ANN ARBOR

EDRS PRICE MF-\$0.25 HC-\$1.08 27P.

PUB DATE 66

DESCRIPTORS- \*CALCULATION, \*EDUCATIONAL RESEARCH, \*FACTOR ANALYSIS, \*MATHEMATICAL APPLICATIONS, \*MATHEMATICAL MODELS, ANN ARBOR, MATHEMATICAL CONCEPTS, MEASUREMENT TECHNIQUES, MICHIGAN.

ED 010 609

THE PROBLEM OF CLASSIFYING MEMBERS OF A SINGLE POPULATION INTO GROUPS. STATISTICAL MODELS FOR THE EVALUATION AND INTERPRETATION OF EDUCATIONAL CRITERIA, PART II.

SAW, J. G. FLORA, R. E.

VIRGINIA POLYTECHNIC INSTITUTE,

BLACKSBURG

EDRS PRICE MF-\$0.50 HC-\$3.36 84P.

PUB DATE 65

DESCRIPTORS- \*EDUCATIONAL RESEARCH, \*MATHEMATICAL MODELS, \*PREDICTIVE ABILITY (TESTING), \*PREDICTIVE MEASUREMENT, \*STATISTICAL ANALYSIS, BLACKSBURG, CALCULATION, MATHEMATICAL APPLICATIONS, MEASUREMENT TECHNIQUES, PREDICTIVE VALIDITY, VIRGINIA.

ED 010 628

IDENTIFICATION AND DEFINITION OF SUBJECT-MATTER CONTENT VARIABLES RELATED TO HUMAN APTITUDES, VOLUME II, APPENDICES.

KROPP, RUSSELL P. AND OTHERS

FLORIDA STATE UNIVERSITY, TALLAHASSEE,  
INSTITUTE OF HUMAN ENG

EDRS PRICE MF-\$1.25 HC-\$11.12 278P.

PUB DATE JAN 67

DESCRIPTORS- \*INSTRUCTIONAL MATERIALS, \*MATHEMATICS INSTRUCTION, \*REDUNDANCY, \*SET THEORY, \*VOCABULARY DEVELOPMENT, APTITUDE, COGNITIVE ABILITY, FLORIDA, INDIVIDUALIZED PROGRAMS, INSTRUCTIONAL DESIGN, LEARNING DIFFICULTIES, LEARNING THEORIES, TALLAHASSEE.

ED 010 659

MATHEMATICS CLUSTERS IN SELECTED AREAS OF VOCATIONAL EDUCATION, REPORT NUMBER 8.

RAHMLOW, HAROLD F.

WINCHELL, LEONARD

WASHINGTON STATE UNIV., PULLMAN

EDRS PRICE MF-\$0.25 HC-\$0.60 15P.

PUB DATE 30 NOV 66

DESCRIPTORS- \*JOB ANALYSIS, \*MATHEMATICAL APPLICATIONS, \*MATHEMATICS INSTRUCTION, \*OCCUPATIONAL INFORMATION, \*VOCATIONAL EDUCATION, JOB SKILLS, JOB TRAINING, OLYMPIA, PULLMAN, WASHINGTON.

ED 010 839

EFFECTIVENESS OF AUTOMATED VISUAL PROGRAMED INSTRUCTION WITH PARAPLEGIC AND OTHER SEVERELY HANDICAPPED STUDENTS.

COSS, JOE G. AND OTHERS

DOWNEY UNIFIED SCHOOL DISTRICT, CALIF.

EDRS PRICE MF-\$0.25 HC-\$1.96 49P

PUB DATE DEC 66

DESCRIPTORS- \*ARITHMETIC, \*INDIVIDUAL INSTRUCTION, \*PHYSICALLY HANDICAPPED, \*PROGRAMED INSTRUCTION, \*TEACHING MACHINES, CALIFORNIA, DOWNEY, RANCHO LOS AMIGOS HOSPITAL, SECONDARY SCHOOL STUDENTS, VISUAL LEARNING.

ED 010 989

THE READING-ARITHMETIC-SKILLS PROGRAM, A RESEARCH PROJECT IN READING AND ARITHMETIC.

CORLE, CLYDE G. COULTER, MYRON L.

PENNSYLVANIA SCHOOL STUDY COUNCIL,  
UNIVERSITY PARK

EDRS PRICE MF-\$0.50 HC-\$2.40 60P.

PUB DATE 64

DESCRIPTORS- \*ACHIEVEMENT RATING, \*ARITHMETIC, \*ELEMENTARY SCHOOL STUDENTS, \*READING SKILLS, CALIFORNIA ARITHMETIC TEST, CALIFORNIA READING TEST, CORRELATION, GRADE 4, GRADE 5, GRADE 6, TESTS OF SIGNIFICANCE, UNIVERSITY PARK, VERBAL READING ARITHMETIC SKILLS PROGRAM (RASP), WORD PROBLEMS.

ED 011 013  
TELEWRITER STUDY, SPRING SEMESTER, 1966.  
BISBEY, GERALD D. AND OTHERS  
STATE COLL. OF IOWA, CEDAR FALLS  
EDRS PRICE MF-\$0.25 HC-\$0.52 13P.

PUB DATE 4 JAN 67

DESCRIPTORS- \*COLLEGE I N S T R U C T I O N,  
\*ELECTRO-MECHANICAL AIDS, \*MATHEMATICS,  
CEDAR FALLS.

ED 011 045  
PROBLEM SOLVING PROFICIENCY AMONG ELE-  
MENTARY SCHOOL TEACHERS. II, TEACHERS OF  
ARITHMETIC, GRADES 3-6.  
TURNER, RICHARD L.  
INDIANA UNIV., BLOOMINGTON,  
INST. OF EDUC. RES.  
EDRS PRICE MF-\$0.50 HC-\$2.88 72P.

PUB DATE JUN 60

DESCRIPTORS- \*ARITHMETIC, \*PROBLEM SOLV-  
ING, \*TEACHER CHARACTERISTICS, \*TEACHING,  
\*TESTING, BLOOMINGTON, ELEMENTARY SCHOOL  
TEACHERS.

ED 011 057  
EXPLORATORY TYPE OF EVALUATION OF TV  
TRAINING OF ELEMENTARY MATHEMATICS  
TEACHERS. FINAL REPORT.  
DWIGHT, LESLIE A. AND OTHERS  
SOUTHEASTERN STATE COLL., DURANT, OKLA.  
EDRS PRICE MF-\$0.25 HC-\$0.56 14P.

PUB DATE 66

DESCRIPTORS- \*COMPARATIVE ANALYSIS, \*CON-  
VENTIONAL INSTRUCTION, \*MATHEMATICS EDU-  
CATION, \*TEACHER EDUCATION, \*T E A C H I N G  
T E C H N I Q U E S, \*TELEVISED INSTRUCTION,  
DURANT, ELEMENTARY SCHOOL TEACHERS,  
TELEVISION RESEARCH.

ED 011 059  
A COMPARISON BETWEEN TWO KINDS OF SEC-  
ONDARY MATHEMATICS COURSES WITH RESPECT  
TO INTELLECTUAL CHANGES.  
VAN HORN, CHARLES  
ILLINOIS UNIV., URBANA  
EDRS PRICE MF-\$0.50 HC-\$2.76 69P.

PUB DATE OCT 66

DESCRIPTORS- \*ACHIEVEMENT GAINS, \*ALGE-  
BRA, \*COURSE CONTENT, \*INTELLECTUAL DE-  
VELOPMENT, \*MATHEMATICS I N S T R U C T I O N,  
COMPARATIVE A N A L Y S I S, EXPERIMENTAL  
GROUPS, SECONDARY EDUCATION, STRUCTURE  
OF INTELLECT, TESTING, URBANA.

ED 011 081  
TEACHING OF ADVANCED MATHEMATICAL CON-  
CEPTS TO CULTURALLY DISADVANTAGED ELE-  
MENTARY SCHOOL CHILDREN.  
RUPLEY, WILLIAM H.  
CALIFORNIA UNIV., BERKELEY  
EDRS PRICE MF-\$0.50 HC-\$3.56 89P.

PUB DATE 66

DESCRIPTORS- \*CULTURALLY DISADVANTAGED,  
\*DISCOVERY LEARNING, \*ELEMENTARY EDUCA-  
TION, \*LEARNING MOTIVATION, \*MATHEMATICS  
INSTRUCTION, ADVANCED PROGRAMS, BERKELEY,  
MATHEMATICAL CONCEPTS.

ED 011 517  
FOUNDATIONS OF MATHEMATICS FOR ELEMEN-  
TARY TEACHERS.  
GIBB, E. GLENADINE  
STATE COLLEGE OF IOWA, CEDAR FALLS  
EDRS PRICE MF-\$0.25 HC-\$0.20 5P.

PUB DATE 19 APR 66

DESCRIPTORS- \*ELEMENTARY SCHOOL TEACH-  
ERS, \*INSERVICE PROGRAMS, \*INSTRUCTIONAL  
MATERIALS, \*MATHEMATICS, \*MATHEMATICS  
CURRICULUM, DES MOINES, FILMS, GEOMETRY,  
M A T H E M A T I C S I N S T R U C T I O N, SECONDARY  
SCHOOL TEACHERS, VIDEO TAPE RECORDINGS.

ED 011 760  
STUDY OF VARIABLES ASSOCIATED WITH FINAL  
GRADES IN MATHEMATICS COURSES.  
RISSER, JOHN J. DAVIS, ELTON C.  
PASADENA CITY COLL., CALIF.  
EDRS PRICE MF-\$0.25 HC-\$0.24 6P.

PUB DATE OCT 65

DESCRIPTORS- \*ACADEMIC PERFORMANCE, \*JUN-  
IOR COLLEGES, \*MATHEMATICS, \*PREDICTION,  
\*TESTING, MEASUREMENT INSTRUMENTS, PASA-  
DENA, PLACEMENT, PREDICTIVE MEASUREMENT,  
STUDENT EVALUATION.

ED 011 778  
THE PREDICTION OF GRADES IN COLLEGE ALGE-  
BRA--A CONTINUATION AND EXTENSION.  
GELSO, CHARLES J.  
EDRS PRICE MF-\$0.25 HC-\$0.56 14P.

PUB DATE 23 MAR 67

DESCRIPTORS- \*ACADEMIC ABILITY, \*ALGEBRA,  
\*COUNSELING, \*GRADE PREDICTION, \*JUNIOR  
COLLEGES, ACADEMIC ACHIEVEMENT, DOUGLAS,  
GEORGIA, MATHEMATICS, PREDICTIVE VALIDITY,  
SCHOLASTIC APTITUDE TEST, SEQUENTIAL TESTS  
OF EDUCATION PROGRESS, SOUTH GEORGIA COL-  
LEGE.

ED 011 941  
EFFECTS OF EXPERIMENTAL PROGRAMS FOR  
SECONDARY MATHEMATICS ON PUPIL INTEREST  
IN MATHEMATICS AS INDICATED BY AN OVERT  
PARTICIPATION INDEX OF INTEREST.  
RYAN, JAMES J. RISING, GERALD R.  
MINNESOTA STATE DEPT. OF EDUCATION,  
ST. PAUL  
EDRS PRICE MF-\$0.25 HC-\$1.08 27P.

PUB DATE JUL 66

DESCRIPTORS- \*COMPARATIVE ANALYSIS, \*CON-  
VENTIONAL INSTRUCTION, \*EXPERIMENTAL PRO-  
GRAMS, \*MATHEMATICS CURRICULUM, \*STUDENT

MOTIVATION, BEHAVIOR RATING SCALES, GRADE 10, GRADE 11, GRADE 9, ST. PAUL.

ED 011 942

PARTICIPANT TEACHER JUDGMENTS OF EXPERIMENTAL PROGRAMS IN SECONDARY MATHEMATICS.

RYAN, JAMES J. RISING, GERALD R.  
MINNESOTA STATE DEPT. OF EDUCATION,  
ST. PAUL

EDRS PRICE MF-\$0.25 HC-\$1.24 31P.  
PUB DATE AUG 66

DESCRIPTORS- \*EXPERIMENTAL PROGRAMS, \*INSTRUCTIONAL MATERIALS, \*MATHEMATICS INSTRUCTION, \*PROGRAM EFFECTIVENESS, \*TEACHER ATTITUDES, COMPARATIVE ANALYSIS, FACTOR ANALYSIS, GRADE 10, GRADE 11, GRADE 7, GRADE 8, GRADE 9, ITEM ANALYSIS, QUESTIONNAIRES, ST. PAUL.

ED 011 977

A STUDY OF THE EFFECTS OF EXPERIMENTAL PROGRAMS ON PUPIL ACHIEVEMENT OBSERVED DURING FIRST THREE YEARS OF THE PROJECT, SECONDARY MATHEMATICS EVALUATION PROJECT. INTERIM REPORT.

ERICKSEN, GERALD L. RYAN, JAMES J.  
MINNESOTA STATE DEPT. OF EDUCATION,  
ST. PAUL

EDRS PRICE MF-\$0.25 HC-\$2.00 50P.

PUB DATE NOV 66

DESCRIPTORS- \*ACADEMIC ACHIEVEMENT, \*CURRICULUM EVALUATION, \*MATHEMATICS INSTRUCTION, \*STUDENT ABILITY, \*TEACHER EXPERIENCE, SECONDARY EDUCATION, ST. PAUL, TEACHER CHARACTERISTICS.

# MATHEMATICS EDUCATION REPORTS

IN

## PACESETTERS IN INNOVATION FISCAL YEAR 1966

ES 000 052  
NEW SHOREHAM TELE-LECTURE MATH PROJECT.  
R.I., NEW SHOREHAM, SCHOOL COMMITTEE  
EDRS PRICE MF-\$0.25 HC-\$1.16 29P.

DESCRIPTORS- \*EDUCATIONAL EQUIPMENT,  
\*ELECTRO-MECHANICAL AIDS, \*GRADES 1-6,  
\*GRADES 7-12, \*KINDERGARTEN, \*MODERN  
MATHEMATICS, ADULT EDUCATION.

ES 000 235  
ADVANCED MATHEMATICS TELEVISION SERIES.  
VA., HAMPTON, CITY SCHOOL BOARD  
EDRS PRICE MF-\$0.25 HC-\$0.64 16P.

DESCRIPTORS- \*ACCELERATED PROGRAMS, \*CUR-  
RICULUM PLANNING, \*GRADES 7-12, \*HIGH  
SCHOOLS, MATHEMATICS, \*TELEVISED INSTRU-  
CTION, CALCULUS, INSERVICE TEACHER EDUCA-  
TION, SUMMER WORKSHOPS, VIDEO TAPE RE-  
CORDINGS.

ES 000 529  
USE OF CALCULATORS IN TEACHING MATHE-  
MATICS. ARK., WYNNE, PUBLIC SCHOOLS  
EDRS PRICE MF-\$0.25 HC-\$1.16 29P.

DESCRIPTORS- \*GRADES 7-12, \*MATHEMATICS,  
\*MECHANICAL TRAINING AIDS, \*UNDERACHIEV-  
ERS, CURRICULUM DEVELOPMENT.

ES 000 559  
TEACHING MATHEMATICS THROUGH THE USE OF  
A TIME SHARED COMPUTER.  
VT., SHELBURNE, CHAMPLAIN VALLEY UNION H.S.  
EDRS PRICE MF-\$0.25 HC-\$1.44 36P.

DESCRIPTORS- \*COMPUTER ORIENTED PRO-  
GRAMS, \*CONTROL GROUPS, \*GRADES 7-12,  
\*MATHEMATICS.

ES 000 618  
USE OF COMPUTER ASSISTED INSTRUCTION FOR  
MATHEMATICS IN-SERVICE EDUCATION OF ELE-  
MENTARY SCHOOL TEACHERS.  
PA., WILLIAMSPORT, AREA SCHOOL DISTRICT  
EDRS PRICE MF-\$0.50 HC-\$3.08 77P.

DESCRIPTORS- \*CONTROL GROUPS, \*GRADES 1-6,  
\*INSERVICE TEACHER EDUCATION, \*MODERN  
MATHEMATICS, \*PROGRAMED INSTRUCTION,

CURRICULUM PLANNING, INDIVIDUAL INSTRU-  
CTION, LECTURE, SEMINARS, TEACHER IMPROVE-  
MENT.

ES 000 658  
WORTH CURRICULUM DEVELOPMENT CENTER  
AND SERVICES.  
ILL., WORTH, SCHOOL DISTRICT 127  
EDRS PRICE MF-\$0.75 HC-\$5.20 130P.

DESCRIPTORS- \*CURRICULUM DEVELOPMENT,  
\*GRADES 7-12, \*GRADES 1-6, \*KINDERGARTEN,  
\*LANGUAGE ARTS, \*MATHEMATICS, \*SOCIAL  
STUDIES, INSTRUCTIONAL MATERIALS, PRO-  
GRAMED INSTRUCTION.

ES 000 729  
FLINTRIDGE CENTER.  
OHIO, HEATH, CITY SCHOOL DISTRICT  
EDRS PRICE MF-\$0.25 HC-\$1.60 40P.

DESCRIPTORS- \*CULTURAL CENTERS, \*DEMON-  
STRATION CENTERS, \*GRADES 1-6, \*GRADES 7-12,  
\*INTERDISCIPLINARY APPROACH, \*KINDERGAR-  
TEN, \*MATHEMATICS, \*READING, CLOSED CIR-  
CUIT TELEVISION, CONCERTS, FINE ARTS, SOCIAL  
STUDIES, STUDENT GROUPING, TEAM TEACHING.

ES 000 745  
MATHEMATICS COMPUTER CENTER.  
NEV., LAS VEGAS, CLARK COUNTY SCHOOL  
DISTRICT  
EDRS PRICE MF-\$0.25 HC-\$1.68 42P.

DESCRIPTORS- \*COMPUTER ASSISTED INSTRU-  
CTION, \*GRADES 7-12, \*MATHEMATICS, COMPUTER  
CENTERS, INSERVICE PROGRAMS, PROGRAMING.

ES 000 812  
PROGRAM FOR MATHEMATICALLY UNDERDE-  
VELOPED PUPILS.  
FLA., WEST PALM BEACH, PALM BEACH COUNTY  
BD. OF EDUCATION  
EDRS PRICE MF-\$0.25 HC-\$2.00 50P.

DESCRIPTORS- \*GRADES 7-12, \*MATHEMATICS,  
\*SLOW LEARNERS, \*UNDERACHIEVERS, INSERV-  
ICE TEACHER EDUCATION, INSTRUCTIONAL AIDS.

ES 000 834  
 EDUCATIONAL INNOVATION (PROJECT-EDINN).  
 CALIF., SALINAS, MONTEREY COUNTY SUPT. OF  
 SCHOOLS.  
 EDRS PRICE MF-\$0.50 MC-\$2.36 59P.

DESCRIPTORS- \*GRADES 1-6, \*GRADES 7-12,  
 \*HUMANITIES, \*INDIVIDUAL INSTRUCTION,  
 \*MATHEMATICS, \*MEXICAN AMERICAN, \*READ-  
 ING, \*TEACHER IMPROVEMENT, DEMONSTRATION  
 PROGRAMS.

ES 000 898  
 COMPUTER MATHEMATICS AND PROGRAMING.  
 IND., GARY, COMMUNITY SCHOOL CORPORATION  
 EDRS PRICE MF-\$0.25 HC-\$0.84 21P.

DESCRIPTORS- \*COMPUTER PROGRAMS, \*GRADE  
 11, \*GRADE 12, \*GRADES 7-12, \*MATHEMATICS,  
 \*PROGRAMING.

ES 000 901  
 OAKLAND COUNTY MATHEMATICS PROJECT.  
 MICH., PONTIAC, OAKLAND COUNTY SCHOOLS  
 EDRS PRICE MF-\$0.25 HC-\$1.48 37P.

DESCRIPTORS- \*HIGH SCHOOL STUDENTS, \*MATH-  
 EMATICS CURRICULUM, MATHEMATICS, VOCA-  
 TIONAL EDUCATION.

ES 000 903  
 THE PLANNING OF CLASSROOM INSTRUCTIONAL  
 MATERIALS DESIGNED FOR THE LOW ACHIEVING  
 PUPIL IN GRADES 7 AND 8.  
 OHIO, CINCINNATI, BD. OF ED. CITY SCH. DIST.  
 EDRS PRICE MF-\$0.25 HC-\$0.80 20P.

DESCRIPTORS- \*GRADE 7, \*GRADE 8, LOW  
 ACHIEVING, MATHEMATICS, MATERIALS,  
 MATHEMATICS.

**ERIC Information Analysis Center  
for Science Education  
1460 West Lane Avenue  
Columbus, Ohio 43221**