This supplementary report was designed to aid the researcher concerned with concept learning. It contains: (1) rationale and strategy for compiling a bibliography of articles concerned with concept learning; (2) a definition of the world "concept"; (3) a system for classifying articles by their content; (4) a bibliography of relevant articles arranged alphabetically by author; and (5) a bibliography of the articles arranged according to their content. The first step in compiling this bibliography was to systematically and comprehensively search fifty selected journals and publications. The text of each article in all issues was examined to determine whether the article met criteria established for inclusion in the bibliography. The primary specified criterion was that the article include the terms concept, concept formation, concept identification, concept attainment, or conceptual learning in either: (1) the title; (2) a subheading; (3) an abstract of the article; or (4) the summary or conclusion. (Also see ED 035 958.) (Author)
A SUPPLEMENT TO
TECHNICAL REPORT NO. 82
CONCEPT LEARNING:
A BIBLIOGRAPHY, 1970.
Technical Report No. 183

A SUPPLEMENT TO TECHNICAL REPORT NO. 82

CONCEPT LEARNING: A BIBLIOGRAPHY, 1970

Herbert J. Klausmeier, Dorothy A. Frayer, and Marjorie L. Sunde

Report from the Variables and Processes of Learning and Instruction Component of Program 1
Herbert J. Klausmeier, Principal Investigator
Dorothy A. Frayer, Assistant Scientist

and the
Quality Verification Program
Mary R. Quilling, Director

Wisconsin Research and Development Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

December 1971

Published by the Wisconsin Research and Development Center for Cognitive Learning, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed herein do not necessarily reflect the position or policy of the Office of Education and no official endorsement by the Office of Education should be inferred.

Center No. C-03 / Contract OE 5-10-154
**NATIONAL EVALUATION COMMITTEE**

- **Samuel Brownell**, Professor of Urban Education, Graduate School, Yale University
- **Henry Chauncey**, President, Educational Testing Service
- **Launer F. Carter**, Senior Vice President on Technology and Development, System Development Corporation
- **Martin Deutsch**, Director, Institute for Developmental Studies, New York Medical College
- **Francis S. Chase**, Professor, Department of Education, University of Chicago
- **Roderick McPhee**, President, Punahou School, Honolulu
- **G. Wesley Sowards**, Director, Elementary Education, Florida State University

**RESEARCH AND DEVELOPMENT CENTER POLICY REVIEW BOARD**

- **Leonard Berkowitz**, Chairman, Department of Psychology
- **Russell J. Hosler**, Professor, Curriculum and Instruction
- **Stephen C. Kleene**, Dean, College of Letters and Science
- **Archie A. Buchmiller**, Deputy State Superintendent, Department of Public Instruction
- **Clauston Jenkins**, Assistant Director, Coordinating Committee for Higher Education
- **Robert E. Grindler**, Associate Professor, Educational Psychology
- **Herbert J. Klausmeier**, Director, R & D Center
- **Ira Sharkansky**, Associate Professor of Political Science
- **Stephen C. Khrems**, Dean, College of Letters and Science
- **Donald J. McCarty**, Dean, School of Education

**EXECUTIVE COMMITTEE**

- **Edgar F. Borgatta**, Brittingham Professor of Sociology
- **Robert E. Davidson**, Assistant Professor, Educational Psychology
- **Frank H. Farley**, Associate Professor, Educational Psychology
- **Wayne Otto**, Professor of Curriculum and Instruction (Reading)
- **Anne E. Buchanan**, Project Specialist, R & D Center
- **Herbert J. Klausmeier**, Director, R & D Center
- **Robert G. Petzold**, Associate Dean of the School of Education
- **Robin S. Chapman**, Research Associate, R & D Center

**FACULTY OF PRINCIPAL INVESTIGATORS**

- **Vernon L. Allen**, Professor of Psychology
- **Frank H. Farley**, Associate Professor of Educational Psychology
- **James Moser**, Assistant Professor of Mathematics, Education, Visitors Scholar
- **Ted Czajkowski**, Assistant Professor of Curriculum and Instruction
- **Lester S. Galub**, Lecturer in Curriculum and Instruction in English
- **Wayne Otto**, Assistant Professor of Curriculum and Instruction (Reading)
- **Robert E. Davidson**, Associate Professor of Educational Psychology
- **John G. Harvey**, Associate Professor of Mathematics and of Curriculum and Instruction
- **Milton O. Pella**, Professor of Curriculum and Instruction (Science)
- **Gary A. Davis**, Associate Professor of Educational Psychology
- **Herbert J. Klausmeier**, Director, R & D Center
- **Thomas A. Romberg**, Associate Director, R & D Center
- **M. Vere DeVault**, Professor of Curriculum and Instruction (Mathematics)
- **Donald Lange**, Assistant Professor of Curriculum and Instruction
- **B. Robert Tabachnick**, Chairman, Department of Curriculum and Instruction

**MANAGEMENT COUNCIL**

- **Herbert J. Klausmeier**, Director, R & D Center
- **Thomas A. Romberg**, Associate Director
- **James Walter**, Director, Dissemination Program
- **Mary R. Quilling**, Director, Technical Development Program
- **Richard L. Venesky**, Assistant Professor of English and of Computer Sciences
- **Alan Voolker**, Professor of Curriculum and Instruction (Reading)
- **Dan G. Woolpert**, Assistant Professor of Educational Psychology
- **Larry Wilder**, Assistant Professor of Curriculum and Instruction
STATEMENT OF FOCUS

The Wisconsin Research and Development Center for Cognitive Learning focuses on contributing to a better understanding of cognitive learning by children and youth and to the improvement of related educational practices. The strategy for research and development is comprehensive. It includes basic research to generate new knowledge about the conditions and processes of learning and about the processes of instruction, and the subsequent development of research-based instructional materials, many of which are designed for use by teachers and others for use by students. These materials are tested and refined in school settings. Throughout these operations behavioral scientists, curriculum experts, academic scholars, and school people interact, insuring that the results of Center activities are based soundly on knowledge of subject matter and cognitive learning and that they are applied to the improvement of educational practice.

This Technical report is from the Variables and Processes of Learning and Instruction Component of Program 1. General objectives of the component are to specify the variables which facilitate learning from text, to specify instructional programs which encourage the development and use of learning strategies and skills, and to specify optimal peer-teaching techniques.
**CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>vii</td>
</tr>
<tr>
<td>I Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II Definition of <em>Concept</em></td>
<td>3</td>
</tr>
<tr>
<td>III List of Publications Searched</td>
<td>7</td>
</tr>
<tr>
<td>IV Classification System</td>
<td>9</td>
</tr>
<tr>
<td>V Form of Bibliographic Entries</td>
<td>11</td>
</tr>
<tr>
<td>VI Concept-Learning Bibliography</td>
<td>13</td>
</tr>
<tr>
<td>VII Bibliography Listed According to Classification System</td>
<td>23</td>
</tr>
<tr>
<td>Author Index</td>
<td>47</td>
</tr>
</tbody>
</table>
ABSTRACT

This report, a supplement to Technical Report No. 82, is designed to aid the researcher concerned with concept learning. It contains (1) rationale and strategy for compiling a bibliography of articles concerned with concept learning, (2) a definition of the word concept, (3) a system for classifying articles by their content, (4) a bibliography of relevant articles arranged alphabetically by author, and (5) a bibliography of the articles arranged according to their content.
INTRODUCTION

This technical report is a supplement to Technical Report No. 82 (Klausmeier, Sterrett, Frayer, Lewis, Lee, & Bavry, 1969). It contains (1) a definition of concept, (2) a bibliography of concept learning articles appearing in journals and Wisconsin R & D Center publications during 1970, (3) a system for classifying articles by content into areas of interest to the researcher, and (4) a listing of bibliographic entries grouped according to this classification system.

One primary interest of the Wisconsin Research and Development Center is to extend knowledge about the learning and teaching of concepts. An important step in this task is review of the literature concerned with concept learning. Review of the literature and cataloging of the relevant articles began immediately after the Center was established in September 1964. The results of this endeavor were published in Technical Report No. 1 (Klausmeier, Davis, Ramsey, Fredrick, & Davies, 1965), which contained a bibliographic of concept learning and problem-solving articles from selected journals for 1950-1964.

Early in the task of cataloging articles, it became apparent that a definition of concept was needed in order to specify more exactly what was to be included in this domain. Existing definitions of concept appeared inadequate as a basis for organizing present knowledge and suggesting additional research. Therefore, an analysis of concept in terms of its attributes was developed. This analysis of concept appears in Chapter II.

Recently, the concept learning section of the 1965 report was updated and expanded. The results have been published in Technical Reports Nos. 82, 107, 129, and 147 of the Wisconsin Research and Development Center [Klausmeier, et al., 1969 (a), (b), and 1970 (a), (b)]. Relevant articles of 1950-1969 journals were included in the reports. In addition to updating the concept learning bibliography of Technical Report No. 1, these reports were expanded by developing a classification system to provide more information about each article. Fifty-six areas of interest to the researcher in concept learning were identified. Each article was read to determine in which categories it should be included. Articles were then listed together under each appropriate category of the system.

The first step in compiling this bibliography was to systematically and comprehensively search the 50 selected journals and the R & D Center publications. The publications searched are listed in Chapter III. The text of each article in all issues was examined to determine whether the article met criteria established for inclusion in the bibliography. Criteria specified that the article was (1) to include the term(s) concept, concept formation, concept identification, concept attainment, or conceptual learning in either (a) the title, (b) a subheading, (c) an abstract of the article, or (d) the summary or conclusion; (2) to be a controlled experiment or a theoretical article discussing and integrating empirical research; and (3) to use human subjects. The articles which met all of the established criteria were then arranged by content using the classification system described in Chapter IV.

The present report includes a listing of articles arranged alphabetically by author, in Chapter VI. The articles arranged according to content are listed in Chapter VII. An author index is included and should be helpful to anyone who wishes to locate the work of a particular author.

This technical report brings the search for and cataloging of articles through 1970. Requests for this or previous supplements should be addressed to the Information Office of the Wisconsin Research and Development Center for Cognitive Learning.
DEFINITION OF CONCEPT

Many people refer to a concept as an idea or abstraction and may, for clarification, give examples of concepts such as dog, numeral, sentence, and reading readiness. In line with the widespread practice of defining concepts by giving synonyms and examples, the preceding definition is acceptable for use with the general public.

In the psychological and educational literature one finds such definitions of concept as:

The concept deals with the meaning an individual attaches to a word or other symbol, rather than with the mere fact that any given symbol is associated with any given object [Woodruff, 1951, p. 285].

A concept may be regarded as a verbal habit-family formed usually on the basis of a class of stimulus objects having identical elements [Staats, 1961, p. 195].

[A concept is the recognition of] a group of situations which have a resemblance or common element. We usually give a name or label to the group [Cronbach, 1954, p. 281].

Concepts are learnings that permeate thinking [Russell, 1960, p. 323].

... a concept exists whenever two or more distinguishable objects or events have been grouped or classified together and set apart from other objects on the basis of some common feature or property characteristic of each [Bourne, 1966, p. 1].

These excerpts of definitions indicate why one may become confused when attempting to delimit what is meant by concept. The term concept means many different things to many different individuals.

Objects and events may be put into the same category on the basis of their criterial attributes. The category is usually given a name. In turn, the word that represents the category may be defined in terms of the criterial attributes of the category. Such an approach may be used in deriving a definition of that class of learned behaviors represented by the word concept. Concepts have certain criterial attributes which differentiate them from other learning outcomes, such as facts. Klausmeier and Goodwin (1966) listed some of these attributes which are now treated briefly at a higher level of conceptualization.

BASIS OF DEFINITION

Words are used to represent concepts. In order that words convey the same or a similar meaning to individuals, it is necessary that there be agreement about the realities for which the words stand. Scholars in a discipline whose knowledge of the concepts is most complete use at least three bases for defining concepts.

First, concepts may be defined in terms of their intrinsic dimensions or attributes. These dimensions or attributes are abstracted as being alike or the same in otherwise dissimilar objects and thus define the concept from an objective point of view. For example, the attributes which allow some objects to be classified as oranges and others as lemons are size, color, shape, and taste. Similarly, the attributes useful in defining or putting many objects into the two classes squares and equilateral triangles are number of sides and length of sides. Living and nonliving things have been studied by naturalists and scientists. On the basis of observed attributes these things have been given names, assigned to classes, and organized into taxonomic systems—for example, the animal kingdom, the plant kingdom, the solar system, and the table of chemical elements.

Second, definition may be based on the use of the objects. For example, corn oil, strawberries, and beefsteak vary markedly according
to intrinsic properties, but all are categorized as food. Some scholars consider use as an intrinsic property of an object and therefore do not differentiate between the first and second bases of definition. Definition of concepts in terms of the use made of objects and ideas, however, is generally more tentative and culturally bound than is definition in terms of intrinsic properties. For example, more people properly classify pigs and cows as animals than pork and beefsteak as food.

Third, concepts may be defined in terms of behaviors or operations rather than attributes. This type of definition is prevalent in the behavioral sciences where many of the phenomena dealt with are internal processes that have no readily identifiable attributes. Examples of behavioral definitions of terms are the following: "Intelligence is the composite behavior measured by a test of general intellectual ability." "Hunger drive is an internal condition of the animal expressed as a linear function of the amount of time elapsed since food intake." Behavioral definitions are precise but different scholars may offer varying definitions for a given word.

In the preceding paragraphs, we have seen that concepts as represented in words and other symbols may be defined in terms of the observable attributes of objects or events, the uses made of them, or behaviors which permit inference of a concept. It is not the purpose here to treat the certainty of knowledge in various fields in terms of the methods used for defining concepts. Rather, the point is made that one attribute of concept is definability. Experts who know most about a discipline should be able to indicate the main concepts of the discipline, state the bases of definition, and arrange them according to preciseness of definition.

**STRUCTURAL CHARACTERISTICS**

Four important aspects of concept structure are the complexity of the attributes comprising the concept, the rules by which the attributes are joined to form the concept, the number of attributes joined, and the mode in which the examples of the concepts are experienced.

One way to look at the structure of concepts is in terms of what is joined. Think of the letters of the alphabet as units; of words like fish and fruit as representing classes; of words being joined into sentences by syntactical rules to express relations; and of relations being joined together in paragraphs to comprise systems that may be useful in describing, explaining, and the like. As one goes higher up the scale from units to classes to relations, the concepts become more complex. Being joined eventually are concepts into more complex concepts that some persons call generalizations, principles, or even theoretical statements.

A second characteristic of the structure of concepts is the type of rule by which the attributes are joined. Think of the concepts represented by the words red, mammal, baseball strike, and older. They differ in the number of attributes and the rules by which the attributes are joined. Red is a simple, affirmative type concept comprised of one dimension. Animals that manifest three attributes simultaneously or conjunctively—warm-blooded, mammary glands, bear young—are classified as mammals. A strike in baseball represents a concept where attributes are joined by a disjunctive rule, and/or. A strike may be a ball thrown in the strike zone and called by the umpire, or it may be a pitch swung at and missed, or it may be a foul tip. A five-year-old child is older than one of four years but younger than one of six. This is a relational type concept. These are only a few of the rules for joining the attributes of concepts and for joining simple concepts to form more complex concepts.

The number of attributes comprising a concept varies widely. Colors such as red and blue have only one dimension. Mammals have many attributes. Many subconcepts may be joined and relationships expressed among them as in the system by which vertebrates are put into various subclasses. In general, the greater the number of items joined, the more complex (and difficult to learn) is the concept.

The attributes of concepts may be represented in various forms. Words are being used here. Some attributes may be observed directly in figural content; that is they may be seen or heard as they actually exist. Some may also be manipulated or acted upon physically. The attributes of the concept emotion are perceived internally. Thus, attributes may not be equally available or open to the senses.

In summary, the structure of a concept is determined by the complexity of its attributes, the rule joining the attributes, the number of attributes, and the form in which instances of the concept are experienced. Concepts comprised of one or two attributes that may be directly observed in instances of the concept are least complex, or difficult, and may be learned early in life. Concepts comprised of several subconcepts that are joined by disjunctive rules, and that are represented only in words or other symbols, are most complex.
PSYCHOLOGICAL MEANINGFULNESS

Experts in a subject field might agree about the basis of definition, structure, and other dimensions of many concepts in the field. This agreement, however, would not indicate that all individuals possess the same concepts. Thus another dimension of concepts is individual, or phenomenological. Here there are two main concerns: (1) differences regarding the same concept among individuals and (2) changes that occur with increasing maturation and learning within the individual regarding the same concept.

Individuals of the same age vary widely in the accuracy and completeness of their concepts. For example, first-grade children's concepts of reading, school, and time vary considerably as a result of differing environmental and biological factors. Similarly, there is great variability among teachers' concepts of reading readiness, individualization of instruction, and pupil-teacher planning. Differences among individuals in the accuracy and completeness of concepts are well documented. Children's ability to conceptualize changes with age. According to Piaget, the changes are qualitative; that is, at successive stages that can be very roughly identified with age, distinct changes occur in the kind of mental operations that children can perform.

Bruner has transplanted Piaget's ideas, developed in Europe, to the American setting. According to Bruner, the growing human being has three means of acting upon his environment: through direct action, through imagery, and through language. Individuals not only act upon the environment through these means but have appropriate internal counterparts in the central nervous system for representing sensory-motor acts, percepts, and thoughts. These internal representational schemes are designated enactive, iconic, and symbolic. In early life the child proceeds in this sequence. He apparently first acts upon objects, or manipulates them (enactive representation), before developing a mental image (iconic) of them, and then later associating names with the objects (symbolic). Although this sequence is typical of early life, one does not stop transacting with the environment through action and imagery. The enactive and iconic modes continue throughout life. However, with the development of language, one increasingly deals with his environment at the symbolic level.

Like Piaget, Bruner (1964) stated that enactive and iconic representation are characterized by immediacy. Objects and events in the immediate environment are represented in the cognitive structure. With language development comes the ability to represent experience: in words. This act in turn releases one from immediate transactions with the environment. Language also permits combinatorial mental operations in the absence of what is represented. Thus, higher-order productive thinking is possible and enables one to interconnect and organize experiences into increasingly inclusive and abstract hierarchies.

UTILITY

Of what value is it to have learned a concept? Bruner, Goodnow, and Austin (1956) have outlined five uses or functions of concepts. First, concepts serve to reduce environmental complexity by allowing classification into superordinate categories. Second, concepts are means by which environmental objects and events are identified. Third, concepts reduce the necessity of continual relearning by providing easily recallable class labels. Fourth, concepts provide direction for instrumental activity. Fifth, concepts permit ordering and relating classes of objects and events.

Not all concepts are equally useful or equally applicable to many situations. As pointed to previously in the discussion of structure, concepts can be ordered hierarchically according to the number and complexity of attributes that are joined, the rules for joining them, and the mode in which they are represented. Concepts at a high level function in more situations than those at lower levels in the hierarchy. For example, the concepts of plant and animal function in more situations than do those of tree and bird, respectively.

Most learning theorists in the previous decades have defined concepts in terms of only one or two of the characteristics of concepts discussed here. This discussion reflects the growing interest for studying concept learning in depth. It is hoped that this discussion will provide some direction for the researcher involved in the study of concept learning, by suggesting areas in which investigation is needed.
REFERENCES


Technical Report from the Wisconsin Research and Development Center for Cognitive Learning, the University of Wisconsin, 1969, (b), No. 107.


Woodruff, A. D. The psychology of teaching. New York: Longmans, Green, 1951.
### LIST OF PUBLICATIONS SEARCHED

#### JOURNALS

Abbreviations accompanying the journal titles are those which appear in the bibliography.

<table>
<thead>
<tr>
<th>Journal Title</th>
<th>Abbreviation</th>
<th>Journal Title</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Development</td>
<td>Child, Develpm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood Education</td>
<td>Childh. Educ.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>Develpm. Psychol.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal Title</td>
<td>Abbreviation</td>
<td>Journal Title</td>
<td>Abbreviation</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Journal of Psychology</td>
<td>J. Psychol.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal of Verbal Learning and Verbal Behavior</td>
<td>J. Verbal Learn. Verbal Behav.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PUBLICATIONS OF THE R&D CENTER**

<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Abbreviation</th>
</tr>
</thead>
</table>
The following classification system was developed to facilitate use of the bibliography. The categories of the system are the topics and variables which may be of interest to the concept learning researcher. Each article listed in the bibliography was read and placed in all appropriate categories.

First, experimental studies were classified according to the age of subjects employed. For each article reporting empirical research, the age category of the subjects was noted in the bibliographic entry.

Second, variables studied in a particular experiment were noted. Studies which compared subjects differing on characteristics such as mental age, achievement, cognitive style, etc., were listed under the appropriate Subject Variable heading. Experiments manipulating conditions of learning such as type of instructions, pretraining, feedback, etc., were listed under the relevant Learning Situation topic. When variables dealing with the nature of this learning task itself were studied, the article was listed under the applicable Task Variable classification. Research dealing with the nature of a concept was listed under a Concept Relationships heading.

Third, articles and studies relevant to classroom learning were categorized under Academic Areas into subject matter fields such as reading, mathematics, etc.

Fourth, studies employing atypical subjects such as the mentally retarded or emotionally disturbed were noted under the section Abnormal Subject Characteristics.

Fifth, experiments designed to elucidate concept learning phenomena such as discrimination, transfer, etc., were listed under the appropriate topic in the Processes and Phenomena section, as well as under the variables manipulated.

Finally, articles dealing with recurrent topics such as computer simulation, factor analysis, and Piagetian theory were listed together under Specific Interests.

Although it was impossible to list or even determine every area that might be useful to a researcher, these classifications should assist in his search of the literature. Within Part VII the fifty-six headings appear in a single alphabetical order. On this and the following page, the headings have been grouped under several main topics to alert the researcher to his primary area of interest.

**SUBJECT AGE**
- PS - preschool age including nursery
- ES - elementary school age including kindergarten
- SS - secondary school age
- AD - adults including college students

**SUBJECT VARIABLES**
- Mental age differences
- Achievement differences
- Cognitive style differences
- Age or grade differences
- Sex comparisons
- Physical characteristic differences
- Affective characteristic differences
- Socioeconomic status differences
- Pre-experimental training differences
- Anxiety level differences

**LEARNING SITUATION VARIABLES**
- Instructions, information, or teaching method differences
Type and/or amount of pretraining and/or training differences
Type and/or amount of reward and/or feedback varied
Distraction or stress differences

**TASK VARIABLES**
Sequence of stimuli varied
Number of relevant or irrelevant dimensions varied
Variations within dimensions defining the concept
Comparison between dimensions defining the concept
Number of positive and/or negative instances varied
Number of instances varied
Method of presentation of stimuli varied
Sensory mode of presentation of stimuli varied
Shifts or concept switching
Learning set
Differences in mode of response
Differences in number of response categories
Redundancy of information

**CONCEPT RELATIONSHIPS**
Rules
Associative rank and dominance
Similarity

**ACADEMIC AREAS**
Language skills
Reading
Mathematics
Social studies
Science

**ABNORMAL SUBJECT CHARACTERISTICS**
Cognitive disabilities
Physical disabilities
Affective disabilities

**PROCESSES AND PHENOMENA**
Discrimination
Generalization
Mediation
Transposition
Transfer
Memory
Strategies and hypothesis testing
Probability matching
Conservation

**SPECIFIC INTERESTS**
Review of literature and discussions
Discussions for classrooms
Piaget theory and methodology
Apparatus description and development
Instrument description and development
Computer simulation
Models
Factor analysis
Semantic differential
FORM OF BIBLIOGRAPHIC ENTRIES

The following sections of the report were produced by computer printout, necessitating some deviations from standard bibliographic form. Journal titles are abbreviated; volume numbers are not in boldface; issue numbers and whole numbers when applicable follow volume numbers and are separated from them by a slash. Because of space limitations, entries of articles authored by more than three persons contain only the first three authors followed by "et al."

In Chapter VII, the listing according to classification system, the categories are arranged in alphabetical order. Within each category, articles are arranged alphabetically by author.
VI

CONCEPT-LEARNING BIBLIOGRAPHY
ADAMS J F 
LEARNING TO LEARN ON A CONCEPT ATTAINMENT TASK AS A FUNCTION OF AGE AND SOCIOECONOMIC LEVEL 
WIS. R + D CENT. COG. LEARN. TECH. REP. NO. 141. 1970. 
SUBJECT AGE-ADULTS

ADINOLFI A A & BAROCAS R 
CONCEPTUAL PERFORMANCE IN SCHIZOPHRENIA 
SUBJECT AGE-ADULTS

AHERN R D 
EQUALITY OF INFORMATION IN CONCEPT IDENTIFICATION 

BAKER N E & SULLIVAN E V 
The Influence of Some Task Variables and of Socioeconomic Class on the Manifestation of Conservation of Number 
SUBJECT AGE-ADULTS

BALL T S & CAMPBELL M L 
EFFECT OF MONTESSORI'S CYLINDER BLOCK TRAINING ON THE ACQUISITION OF CONSERVATION 
DEVELOP. PSYCHOL. 1970. 2: 156. 
SUBJECT AGE-ADULTS

BELL S M 
THE DEVELOPMENT OF THE CONCEPT OF OBJECT AS RELATED TO INFANT-MOTHER ATTACHMENT 
SUBJECT AGE-PRESCHOOL

BENTLER P N 
EVIDENCE REGARDING STAGES IN THE DEVELOPMENT OF CONSERVATION PERCEPTIONS, SKILLS 
PSYCHOL. REV. 1970. 77: 585-599. 
SUBJECT AGE-PRESCHOOL

BENZINGER T L 
EFFECTS OF INSTRUCTION ON THE DEVELOPMENT OF THE CONCEPT OF CONSERVATION OF NUMEROUSNESS BY KINDERGARTEN CHILDREN 
WIS. R + D CENT. COG. LEARN. WORK. PAP. NO. 94. 1970. 
SUBJECT AGE-ADULTS

BERRY C T & EVANS S M 
EFFECTS OF ADHERENCE TO GENERATION RULES ON CONCEPTUAL JUDGMENTS 
SUBJECT AGE-ADULTS

BILLEN V P & PELLA M O 
CULTURAL BIAS IN THE ATTAINMENT OF CONCEPTS OF THE BIOLOGICAL CELL BY ELEMENTARY SCHOOL CHILDREN 
SUBJECT AGE-ADULTS

BOURNE L E JR 
KNOWING AND USING CONCEPTS 
SUBJECT AGE-ADULTS

BRADBERRY C J 
CONTINUITY AND DISCONTINUITY HYPOTHESES IN STUDIES OF CONSERVATION 

BRADLEY J F & SARDELL C J 
INCREASING THE UTILITY OF NEGATIVE INSTANCES IN CONJUNCTIVE CONCEPT IDENTIFICATION 
SUBJECT AGE-ADULTS

BROWN A L 
SUBJECT AND EXPERIMENTAL VARIABLES IN THE ODDITY LEARNING OF NORMAL AND RETARDED CHILDREN 

BROWN D A L 
TRANSFER PERFORMANCE IN CHILDREN'S ODDITY LEARNING AS A FUNCTION OF DIMENSIONAL PREFERENCE, SHIFT PARADIGM AND OVERTRAINING 
SUBJECT AGE-ADULTS

BROWN E R & HERRMAN C T 
EFFECT OF NONCONTINGENT "RIGHTS" AND RANDOM REINFORCEMENTS ON CONCEPT IDENTIFICATION AS A FUNCTION OF THE RELEVANT DIMENSION'S CUE VALUE 
SUBJECT AGE-ADULTS

BROWN J L 
EFFECTS OF LOGICAL AND SCRAMBLED SEQUENCES IN MATHEMATICAL MATERIALS ON LEARNING WITH PROGRAMMED INSTRUCTION MATERIALS 
SUBJECT AGE-PRESCHOOL

CAHAN R L 
CONCEPT ATTAINMENT AND KNOWLEDGE OF RESULTS 
SUBJECT AGE-ADULTS

CARLSON J S 
SUBJECT AGE-ADULTS

CHLEBEK J & DOMINOWSKI R L 
THE EFFECT OF PRACTICE ON UTILIZATION OF INFORMATION FROM POSITIVE AND NEGATIVE INSTANCES IN IDENTIFYING DISJUNCTIVE CONCEPTS 
SUBJECT AGE-ADULTS

CHRISTIE J F & SMOTHERGILL D W 
DISCRIMINATION AND CONSERVATION OF LENGTH 
SUBJECT AGE-PRESCHOOL

COITRON I M & BARNES C W 
THE SEARCH FOR MORE EFFECTIVE METHODS OF TEACHING HIGH-SCHOOL BIOLOGY TO SLOW LEARNERS THROUGH INTERACTION ANALYSIS 
PART 2. THE EFFECTS OF VARYING TEACHING PATTERNS
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Volume</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORTH N G, YOUNESS J, FOSS B N</td>
<td>CHILDREN'S UTILIZATION OF LOGICAL SYMBOLS: AN INTERPRETATION OF CONCEPTUAL BEHAVIOR BASED ON PIAGETIAN THEORY</td>
<td>DEVELOP. PSYCHOL.</td>
<td>1970</td>
<td>3</td>
<td>36-57</td>
</tr>
<tr>
<td>GADWAY C J</td>
<td>SERIAL POSITION AND GROWTH CURVES IN DEMAND CONCEPT RECALL PERCEP. MOT. SKILLS</td>
<td>1970</td>
<td>30</td>
<td>139-142</td>
<td></td>
</tr>
<tr>
<td>GARDNER P L</td>
<td>RELATIVE DIFFICULTY OF RESTRICTED-CONEJUNCTIVE AND CONJUNCTIVE CONCEPTS</td>
<td>J. EXP. PSYCHOL.</td>
<td>1970</td>
<td>86</td>
<td>211-213</td>
</tr>
<tr>
<td>GARDNER P L</td>
<td>CONDITIONAL AND BICONDITIONAL RULE DIFFICULTY WITH ATTRIBUTE IDENTIFICATION, RULE LEARNING, AND COMPLETE LEARNING TASK</td>
<td>PSYCHON. SCI.</td>
<td>1970</td>
<td>39</td>
<td>347</td>
</tr>
<tr>
<td>GLASGOW J M, JONES E C</td>
<td>EFFECT OF KNOWLEDGE OF RESULTS ON SCHEMATIC CONCEPT FORMATION WITH LINGUISTIC PATTERNS</td>
<td>PSYCHON. SCI.</td>
<td>1970</td>
<td>39</td>
<td>347</td>
</tr>
<tr>
<td>GREEN N H</td>
<td>CONCEPTUAL IDEAS OF GEOLOGY INCLUDED IN SECONDARY SCHOOL EARTH SCIENCE TEXTBOOKS</td>
<td>SCI. EDUC.</td>
<td>1970</td>
<td>59</td>
<td>27-30</td>
</tr>
<tr>
<td>GRANT M</td>
<td>THE DEVELOPMENT OF THE CONCEPT OF NOTATION</td>
<td>BJ. EDU. PSYCHOL.</td>
<td>1970</td>
<td>40</td>
<td>81-82</td>
</tr>
<tr>
<td>JACOBSON L A, MILLHAM J A, BERGER S E</td>
<td>EFFECTS OF INTELLIGENCE ON THE SPEED AND FREQUENCY OF PROBLEM SOLUTION IN CONCEPT LEARNING</td>
<td>PSYCHON. SCI.</td>
<td>1970</td>
<td>19</td>
<td>337-338</td>
</tr>
<tr>
<td>JACOBY L L, RADTKE R C</td>
<td>EFFECTS OF MEANINGFULNESS OF RELEVANT AND IRRELEVANT STIMULI IN A MODIFIED CONCEPT FORMATION TASK</td>
<td>J. EXP. PSYCHOL.</td>
<td>1970</td>
<td>83</td>
<td>356-358</td>
</tr>
<tr>
<td>JOHNSON P, MURRAY F D</td>
<td>A NOTE ON USING CURRICULUM MODELS TO ANALYZE THE CHILD'S CONCEPT OF WEIGHT</td>
<td>J. RES. SCI. TEACH.</td>
<td>1970</td>
<td>7</td>
<td>377-381</td>
</tr>
<tr>
<td>JOHNSON P, WARNER P S, LEE D R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EFFECTS OF ENFORCED ATTENTION AND STIMULUS PHASING UPON RULE LEARNING IN CHILDREN
SUBJECT AGE: ELEMENTARY

JOHNSON S L; FREDRICK W C
AN ANALYSIS OF A TEST OF SEVENTH GRADE STRUCTURAL GRAMMAR CONCEPTS TAUGHT IN THE "ENGLISH LANGUAGE ARTS IN WISCONSIN" CURRICULUM
SUBJECT AGE: SECONDARY

KAHAMA D
STAGES OF THE DREAM CONCEPT AMONG HASIDIC CHILDREN
SUBJECT AGE: ELEMENTARY

KATES S L; BARRY W T
FAILURE AVOIDANCE AND CONCEPT ATTAINMENT
SUBJECT AGE: ADULTS

KLEINER E R; STEIN C
DIFFERENTIATED INSTRUCTION IN PROBLEM SOLVING FOR CHILDREN OF DIFFERENT MENTAL ABILITY LEVELS
SUBJECT AGE: ELEMENTARY

KENDLER H N; KENDLER T S; MARKEN R S
STIMULUS CONTROL AND MEMORY LOSS IN REVERSAL SHIFT BEHAVIOR OF COLLEGE STUDENTS
J. Exp. Psychol. 1970; 83: 64-68.
SUBJECT AGE: ADULTS

KING W L; HOLY J R
CONJUNCTIVE AND DISJUNCTIVE RULE LEARNING AS A FUNCTION OF AGE AND FORCED VERBALIZATION
SUBJECT AGE: ELEMENTARY

KLAUSMEIER D J; FRAYER D A
COGNITIVE OPERATIONS IN CONCEPT LEARNING

KOBAŞIŞANOĞ  A
EFFECTS OF MODEL'S PROBLEM-SOLVING BEHAVIOR AND VICARIOUS REINFORCEMENT ON CHILDREN'S LEARNING PERFORMANCE
PERCEP. NOT. SKILLS 1970; 31: 700.
SUBJECT AGE: ELEMENTARY

KREBS M J; LOVELACE E A
DISJUNCTIVE CONCEPT IDENTIFICATION: STIMULUS COMPLEXITY AND POSITIVE VS NEGATIVE INSTANCES
SUBJECT AGE: ADULTS

KUNN D J; NOVAK J D
A STUDY OF VARIED MASTERS OF TOPICAL PRESENTATION IN ELEMENTARY BIOLOGY TO DETERMINE THE EFFECT OF ADVANCE ORGANIZERS IN KNOWLEDGE ACQUISITION AND RETENTION
SUBJECT AGE: ADULTS

LARSON G Y; FLAVELL J H
VERBAL FACTORS IN COMPENSATION PERFORMANCE AND THE RELATION BETWEEN CONSERVATION AND COMPENSATION
SUBJECT AGE: ELEMENTARY

LEWIS A
CONCEPT FORMATION

LIEBERMAN L R
CONCEPT BREADTH AND THE CHILD'S IGNORANCE HYPOTHESIS
SUBJECT AGE: ELEMENTARY

LISTER C N
THE DEVELOPMENT OF A CONCEPT OF VOLUME CONSERVATION IN ENGLISH CHILDREN

LOCHER L F; ALLEN L T
SCHOOL-ECOLOGICAL STATISTICS AND SEX DIFFERENCES IN VISUAL RESEMBLANCE SORTING TASKS AT THE FIRST GRADE LEVEL

MARTEN B J
THE EFFECTS OF INFORMATION CONCERNING THE ATTRIBUTES OF CONCEPT INSTANCES AND RECALL OF RELEVANT SUBCONCEPTS ON THE LEVEL OF MASTERY OF CERTAIN GEOMETRIC CONCEPTS
SUBJECT AGE: ELEMENTARY

MARTIN B J
INTENTIONAL AND INCIDENTAL CONCEPT FORMATION AS A FUNCTION OF CONCEPTUAL COMPLEXITY, INTELLIGENCE, AND TASK COMPLEXITY

MAYER A
MATURATION OF CONCEPTS OF LIFE
SUBJECT AGE: ELEMENTARY

McCAUGHAN L S; VYLIÉ A A
CONTINUITY IN THE DEVELOPMENT OF CONCEPTUAL BEHAVIOR IN PRE-SCHOOL CHILDREN: RESPONSE TO A REJOINDER
EXPERIMENTAL COMPARISON OF INDUCTIVE AND DEDUCTIVE METHODS OF TEACHING CONCEPTS OF LANGUAGE STRUCTURE


ROLL S

DETERMINABILITY TRAINING AND STIMULUS DESIRABILITY AS FACTORS IN CONSERVATION OF NUMBER


ROSS D

INCIDENTAL LEARNING OF NUMBER CONCEPTS IN SMALL GROUP GAMES


SARAVO A & BAGBY B

TRANSFER EFFECTS IN CHILDREN'S ODDBIT LEARNING


SAWITSKY J C & IZARO C E

DEVELOPMENTAL CHANGES IN THE USE OF EMOTION CLUES IN A CONCEPT FORMATION TASK

DEVELOP. PSYCHOL. 1970. 3: 350-357.

SCHOLEK E N

INFERENCES AND PREFERENCES IN CHILDREN'S CONCEPTUAL PERFORMAANCE


SCHROTH M L

THE EFFECT OF INFORMATIVE FEEDBACK ON PROBLEM SOLVING


SCHWARTZ M H & SCHAULINCK E H

SCALOGRAM ANALYSIS OF LOGICAL AND PERCEPTUAL COMPONENTS OF CONSERVATION OF DISCONTINUOUS QUANTITY

CHILD DEVELOP. 1970. 41: 695-705.

SCOTT J A

THE EFFECTS ON SHORT-AND-LONG TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS


SCOTT M S

TRANSFER IN NURSERY SCHOOL CHILDREN BETWEEN TWO RELATIONAL TASKS

DEVELOP. PSYCHOL. 1970. 3: 145.

SCOTT M

STRATEGY OF INQUIRY AND STYLES OF CATEGORIZATION: A THREE-YEAR EXPLORATORY STUDY


SEEGEE J L

THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING


SIEGEL J E & KANEYA L I & PAULSON F L

THE EFFECTS OF MEMORY SUPPORT ON THE PROBLEM SOLVING ABILITY OF TEST-ANXIOPER CHILDREN

J. EDUC. PSYCHOL. 1970. 61: 159-168.

SIEGEL L S & DOWNEY J L

THE RELATIVE EFFECTIVENESS OF POSITIVE AND NEGATIVE INFORMATION FEEDBACK IN A CONCEPT ATTAINMENT TASK


SIEGEL L S & FORBES W H

RULE STRUCTURE AND PROPORTION OF POSITIVE INSTANCES AS DETERMINANTS OF CONCEPT ATTAINMENT IN CHILDREN


SILVER E S & SALTZ E & MODIGLIANI V

AWARENESS AND HYPOTHESIS TESTING IN CONCEPT AND OPERANT LEARNING


SJOBERG L & HOIJER B & OLSSON I

TEACHING CONSERVATION OF WEIGHT BY MEANS OF VERBAL INSTRUCTIONS


SMITH M Y

CHILDREN'S PERFORMANCE ON AN ODDBIT PROBLEM AS A FUNCTION OF THE NUMBER OF VALUES ON THE RELEVANT DIMENSION


SPENCE J T

VERBAL REINFORCEMENT COMBINATIONS AND CONCEPT-IDENTIFICATION LEARNING: THE ROLE OF NONREINFORCEMENT


STONES E

VERBAL LABELLING AND CONCEPT FORMATION IN PRIMARY SCHOOL CHILDREN


STRAUSS S & LANDER J

OPERATIONAL THINKING INDUCTION

CHILD DEVELOP. 1970. 41: 163-175.

STUCK D L & MANATT R P

A COMPARISON OF AUDIO-TUTORIAL AND LECTURE METHODS OF TEACH-
SUBJECT AGE-ADULTS
STUCK G B & YNE M D
HOW CHILDREN LEARN THE CONCEPT OF WEIGHT: S-R TRAINING VS. EQUILIBRATION TRAINING

SUBJECT AGE-ELEMENTARY
TABACHNICK B R, WEIBLE E & FRAYER D A
A SELECTION AND ANALYSIS OF SOCIAL STUDIES CONCEPTS FOR INCLUSION IN TESTS OF CONCEPT ATTAINMENT

SUBJECT AGE-ELEMENTARY
TIGHE L S, TIGHE I J & WATERHOUSE M O, ET AL
DIMENSIONAL PREFERENCE AND DISCRIMINATION SHIFT LEARNING IN CHILDREN

SUBJECT AGE-ELEMENTARY
TURNURE J E
CHILDREN'S REACTIONS TO DISTRACTORS IN A LEARNING SITUATION

SUBJECT AGE-PRESCHOOL
VAN DEN DAELE L D
CONTINUITY IN THE DEVELOPMENT OF CONCEPTUAL BEHAVIOR IN PRESCHOOL CHILDREN: A REJOINDER
DEVELPM. PSYCHOL., 1970, 2, 303-305.

SUBJECT AGE-ELEMENTARY
WEINSTEIN R S
EFFECTS OF TRAINING ON THE CONCEPTS OF WATER LEVEL AND HORIZONTALITY IN THE CLASSROOM

SUBJECT AGE-ELEMENTARY
WEISBERG J S
THE USE OF VISUAL ADVANCE ORGANIZERS FOR LEARNING EARTH SCIENCE CONCEPTS

SUBJECT AGE-SECONDARY
WELLS H
SUBJECT-CONTROLLED INTERTRIAL INTERVALS IN CONCEPT LEARNING

SUBJECT AGE-ELEMENTARY
WHITEMAN H & PEISACH E
PERCEPTUAL AND SENSOMOTOR SUPPORTS FOR CONSERVATION TASKS

SUBJECT AGE-ELEMENTARY
WINDSOR S
BASES OF CLASSIFICATION OF GEOMETRIC CONCEPTS USED BY CHILDREN OF VARYING CHARACTERISTICS

SUBJECT AGE-ELEMENTARY
WINDSOR S P
THE EXPLORATION OF TRANSITION RULES IN CONSERVATION OF QUANTITY (SUBSTANCE) USING FILM MEDIATED MODELING

SUBJECT AGE-ELEMENTARY
WINDSOR S P
THE EXPLORATION OF TRANSITION RULES IN CONSERVATION OF QUANTITY (SUBSTANCE) USING FILM MEDIATED MODELING
VII

BIBLIOGRAPHY LISTED ACCORDING TO CLASSIFICATION SYSTEM
### ACHIEVEMENT DIFFERENCES

**Dilleh V Y, Pella K O**  
Cultural Bias in the Attainment of Concepts of the Biological Cell by Elementary School Children  
**SUBJECT AGE-ELEMENTARY**

**Darnell C D, Bourne L E Jr**  
Effects of Age, Verbal Ability, and Pretraining with Component Concepts on the Performance of Children in a Biidimensional Classification Task  
**SUBJECT AGE-ELEMENTARY**

**Hall V C, Salvi R, Seeger L, et al**  
Cognitive Synthesis, Conservation, and Task Analysis  
**SUBJECT AGE-PRESCHOOL-ELEMENTARY**

**Proger B B, Taylor R O Jr, Mann L, et al**  
Conceptual Pre-Structuring for Detailed Verbal Passages  
**SUBJECT AGE-SECONDARY**

**Stines E**  
Verbal Labelling and Concept Formation in Primary School Children  
**SUBJECT AGE-ELEMENTARY**

**Wiotics S P**  
Bases of Classification of Geometric Concepts Used by Children of Varying Characteristics  
**SUBJECT AGE-ELEMENTARY-SECONDARY**

### AFFECTIVE CHARACTERISTIC DIFFERENCES

**Adams J F**  
Learning to Learn on a Concept Attainment Task as a Function of Age and Socioeconomic Level  
**SUBJECT AGE-ELEMENTARY**

**Bentler P M**  
Evidence Regarding Stages in the Development of Conservation  
**SUBJECT AGE-PRESCHOOL-ELEMENTARY**

**Billeh V Y, Pella K O**  
Cultural Bias in the Attainment of Concepts of the Biological Cell by Elementary School Children  
**SUBJECT AGE-ELEMENTARY**

**Brown A L**  
Transfer Performance in Children's Oddity Learning as a Function of Dimensional Preference, Shift Paradigm and Overtraining  
**SUBJECT AGE-ELEMENTARY**

**Deaehler M W**  
Children's Manipulation of Illusory and Ambiguous Stimuli: Discriminative Performance and Implications for Conceptual Development  
**SUBJECT AGE-PRESCHOOL-ELEMENTARY**

**Kates S L, Barry W T**  
Failure Avoidance and Concept Attainment  
**SUBJECT AGE-PRESCHOOL**

**Kates S L, Barry W T**  
Failure Avoidance and Concept Attainment  
**SUBJECT AGE-PRESCHOOL**

**Parsons O A, Klein H**  
Concept Identification and Practice in Brain-Damaged and Process-Reactive Schizophrenic Groups  
**SUBJECT AGE-ADULTS**

**Parsons O A, Klein H**  
Concept Identification and Practice in Brain-Damaged and Process-Reactive Schizophrenic Groups  
**SUBJECT AGE-ADULTS**

**BROWN A L**  
Transfer Performance in Children's Oddity Learning as a Function of Dimensional Preference, Shift Paradigm and Overtraining  
**SUBJECT AGE-ELEMENTARY**

**Deaehler M W**  
Children's Manipulation of Illusory and Ambiguous Stimuli: Discriminative Performance and Implications for Conceptual Development  
**SUBJECT AGE-PRESCHOOL-ELEMENTARY**

**Darnell C D, Bourne L E Jr**  
Effects of Age, Verbal Ability, and Pretraining with Component Concepts on the Performance of Children in a Biidimension-
AL CLASSIFICATION TASK
J. EDUC. PSYCHOL. 1970; 61: 66-71. SUBJECT AGE-ELEMENTARY

EIMAS P D
INFORMATION PROCESSING IN PROBLEM SOLVING AS A FUNCTION OF DEVELOPMENTAL LEVEL AND STIMULUS SALIENCY

FISCHBEIN E, PAMP A, MANZI T
COMPARISON OF RATIOS AND THE CHANCE CONCEPT IN CHILDREN
CHILD DEVELOP. 1970; 41: 377-389. SUBJECT AGE-PRESCHOOL ELEMENTARY

FRAYER D A
THE DEVELOPMENT OF THE CONCEPT OF ARTISTIC STYLE: A FREE CLASSIFICATION STUDY
PSYCHON. SCI. 1970; 18: 79-80. SUBJECT AGE-ELEMENTARY ADULTS

FURTH H J, FOWNES J, ROSS B M
CHILDREN'S UTILIZATION OF LOGICAL SYMBOLS: AN INTERPRETATION OF CONCEPTUAL BEHAVIOR BASED ON PIAGETIAN THEORY
DEVEL. PSYCHOL. 1970; 3: 36-57. SUBJECT AGE-ELEMENTARY

GARDNER H
CHILDREN'S SENSITIVITY TO PAINTING STYLES
CHILD DEVELOP. 1970; 41: 815-821. SUBJECT AGE-ELEMENTARY SECONDARY

GREEN R T, LARSEN W J
THE CONSERVATION OF NUMBER, BOTTLE, WATER, AND A FROG EGG
CHILDREN: AN EXPERIMENTAL AND EXPERIENCE APPROACH
ACTA PSYCHOL. 1970; 32: 1-30. SUBJECT AGE-PRESCHOOL ELEMENTARY

HOLLENBERG C H
FUNCTIONS OF VISUAL IMAGERY IN THE LEARNING AND CONCEPT FORMATION OF CHILDREN
CHILD DEVELOP. 1970; 41: 1003-1015. SUBJECT AGE-ELEMENTARY

HOPPEN C C, BUTTS O P
THE EFFECT OF INSTRUCTION ON THE ACQUISITION OF CONSERVATION OF VOLUME
J. RES. SCI. TEACH. 1970; 7: 371-375. SUBJECT AGE-ELEMENTARY

KAHANA B
STAGES OF THE DREAM CONCEPT AMONG HASIDIC CHILDREN

KING W L, HOLT J H
CONJUNCTIVE AND DISJUNCTIVE RULE LEARNING AS A FUNCTION OF AGE AND FORCED VERBALIZATION
J. EXP. CHILD PSYCHOL. 1970; 10: 100-111. SUBJECT AGE-ELEMENTARY

LARSON G Y, FLAVELL J H
VERBAL FACTORS IN COMPENSATION PERFORMANCE AND THE RELATION BETWEEN CONSERVATION AND COMPENSATION
CHILD DEVELOP. 1970; 41: 955-977. SUBJECT AGE-ELEMENTARY

LIEBERMAN L R
CONCEPT BREADTH AND THE CHILDREN'S IGNORANCE HYPOTHESIS

LLOYD B B, LITTMAN R A
COGNITIVE STAGES IN DREAM CONCEPT DEVELOPMENT IN ENGLISH CHILDREN

MAURER A
MATURENESS OF CONCEPTS OF LIFE

MCUGARAHAN L S, NYLIE A A
CONTINUITY IN THE DEVELOPMENT OF CONCEPTUAL BEHAVIOR IN PRE-SCHOOL CHILDREN: RESPONSE TO A REJOINDER
DEVEL. PSYCHOL. 1970; 2: 306-309. SUBJECT AGE-PRESCHOOL

MCWHANIS D L
CONSERVATION, SERIATION, AND TRANSITIVITY PERFORMANCE BY RETARDED AND AVERAGE INDIVIDUALS
AMER. J. MENT. DEFIC. 1970; 74: 789-791. SUBJECT AGE-ELEMENTARY

MILLER D J, COHEN L A, HILL M T
A METHODOLOGICAL INVESTIGATION OF PIAGET'S THEORY OF OBJECT CONCEPT DEVELOPMENT IN THE SENSORY-MOTOR PERIOD
J. CNTR. CHILD PSYCHOL. 1970; 9: 59-85. SUBJECT AGE-PRESCHOOL

MORRIS C H, MOTIF I J P
EFFECTIVENESS OF DIFFERENT VERBAL REINFORCEMENT COMBINATIONS ON A DISCRIMINATION-REVERSAL PROBLEM IN CHILDREN
SUBJECT: AGE-PRESCHOOL
MURRAY F.B.
STIMULUS MODC AND THE CONSERVATION OF WEIGHT AND NUMBER
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
STIMULUS MODE AND THE CONSERVATION OF WEIGHT AND NUMBER
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT: AGE-ELEMENTARY
MURRAY F.
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
EFFECT OF MEMORY SUPPORT ON THE PROBLEM SOLVING ABILITY OF TEST-ANXIOUS CHILDREN
SUBJECT AGE-ELEMENTARY

APPARATUS DESCRIPTION AND DEVELOPMENT

ASSOCIATIVE RANK AND DOMINANCE

MARX, D. J.
INTELLIGENT AND INCIDENTAL CONCEPT FORMATION AS A FUNCTION OF CONCEPTUAL COMPLEXITY, INTELLIGENCE, AND TASK COMPLEXITY
SUBJECT AGE-ELEMENTARY

COGNITIVE DISABILITIES

BROWN, A. L.
SUBJECT AND EXPERIMENTAL VARIABLES IN THE ODDITY LEARNING OF NORMAL AND RETARDED CHILDREN
AM. J. MENT. DEFIC. 1976, 75, 142-151.
SUBJECT AGE-ELEMENTARY

INSALACO, C.
EFFECTS OF VERBAL AND CONSUMABLE REINFORCEMENT COMBINATIONS ON CONCEPT LEARNING IN THE MENTALLY RETARDED
SUBJECT AGE-ELEMENTARY

LISTER, C. M.
THE DEVELOPMENT OF A CONCEPT OF VOLUME CONSERVATION IN EARLY CHILDREN
BELL J. EDUC. PSYCHOL. 1970, 41, 55-64.
SUBJECT AGE-ADULTS

REUTER, J. M.
COLUMBIA MENTAL MATURITY SCALE AS A TEST OF CONCEPT FORMATION
SUBJECT AGE-ELEMENTARY

COGNITIVE STYLE DIFFERENCES

DAVIS, J. E., KLAUSMEIER, H. J.
COGNITIVE STYLE AND CONCEPT IDENTIFICATION AS A FUNCTION OF COMPLEXITY AND TRAINING PROCEDURES
SUBJECT AGE-ELEMENTARY

COMPUTER SIMULATION

HOLLENBERG, C. K.
FUNCTIONS OF VISUAL IMAGERY IN THE LEARNING AND CONCEPT FORMATION OF CHILDREN
CHILD DEVELOPM. 1973, 41, 1003-1015.
SUBJECT AGE-ELEMENTARY

MARX, D. J.
INTELLIGENT AND INCIDENTAL CONCEPT FORMATION AS A FUNCTION OF CONCEPTUAL COMPLEXITY, INTELLIGENCE, AND TASK COMPLEXITY
SUBJECT AGE-ELEMENTARY

PETER, D. L.
VERBAL MEDIATORS AND CLE D I S C R I M I N A T I O N IN THE TRANSITION FROM NON-CONSERVATION TO CONSERVATION OF NUMBER
CHILD DEVELOPM. 1975, 41, 727-731.
SUBJECT AGE-ELEMENTARY

COMPARISON BETWEEN DIMENSIONS DEFINING THE CONCEPT

BROWN, A. L.
TRANSFER PERFORMANCE IN CHILDREN'S ODDITY LEARNING AS A FUNCTION OF DIMENSIONAL PREFERENCE, SHIFT PARADIGM AND OVERTRAINING
SUBJECT AGE-ELEMENTARY

CANDOW, R. L.
CONCEPT ATTAINMENT AND KNOWLEDGE OF RESULTS
SUBJECT AGE-ADULTS

FISHKIN, S. R., FISHKIN, V.
TACTUAL AND VISUAL CONCEPT IDENTIFICATION
SUBJECT AGE-ADULTS

ODON, D. R., GUXMAN, R. D.
PROBLEM SOLVING AND THE PERCEPTUAL SALIENCE OF VARIABILITY AND CONSTANCY: A DEVELOPMENTAL STUDY
J. EXP. CHILD PSYCHOL. 1970, 9, 156-165.
SUBJECT AGE-ELEMENTARY

SCHOLL, C. K.
INFERENCE AND PREFERENCES IN CHILDREN'S CONCEPTUAL PERFORMANCE
SUBJECT AGE-ELEMENTARY
<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Title</th>
<th>Journal</th>
<th>Volume</th>
<th>Page</th>
<th>Age Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker</td>
<td>N E</td>
<td>Conservation of Number, Mother, Water, and a Fried Egg</td>
<td>J. Genet. Psychol.</td>
<td>1970</td>
<td>32</td>
<td>1-20</td>
</tr>
<tr>
<td>Sullivan</td>
<td>E V</td>
<td>Conservation of Number, Mother, Water, and a Fried Egg</td>
<td>J. Genet. Psychol.</td>
<td>1970</td>
<td>32</td>
<td>1-20</td>
</tr>
<tr>
<td>Ball</td>
<td>T S</td>
<td>Effect of Montessori's Cylinder Block Training on the Acquisition of Conservation</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Sullivan</td>
<td>E V</td>
<td>Conservation of Number, Mother, Water, and a Fried Egg</td>
<td>J. Genet. Psychol.</td>
<td>1970</td>
<td>32</td>
<td>1-20</td>
</tr>
<tr>
<td>Benzinger</td>
<td>T L</td>
<td>Effects of Instruction on the Development of the Concept of Conservation</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Benzinger</td>
<td>T L</td>
<td>Effect of Instruction on the Development of the Concept of Conservation</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>2</td>
<td>156</td>
</tr>
<tr>
<td>Brainerd</td>
<td>C J</td>
<td>Continuity and Discontinuity Hypotheses in Studies of Conservation</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>3</td>
<td>225-228</td>
</tr>
<tr>
<td>Carlson</td>
<td>J S</td>
<td>A Note on the Relationships Between the Draw-a-Man Test, the Progressive Matrices Test, and Conservation</td>
<td>J. Psychol.</td>
<td>1970</td>
<td>74</td>
<td>231-235</td>
</tr>
<tr>
<td>Daehler</td>
<td>M W</td>
<td>Children's Manipulation of Illusory and Ambiguous Stimuli, Discriminative Performance, and Implications for Conceptual Development</td>
<td>Child Dev.</td>
<td>1970</td>
<td>41</td>
<td>225-231</td>
</tr>
<tr>
<td>Ford</td>
<td>L H Jr</td>
<td>Predictive Versus Perceptual Responses to Piaget's Water-Line Task and Their Relation to Distance Conservation</td>
<td>Child Dev.</td>
<td>1970</td>
<td>41</td>
<td>193-204</td>
</tr>
<tr>
<td>Grant</td>
<td>M</td>
<td>The Development of the Concept of Notation</td>
<td>Brit. J. Educ. Psychol.</td>
<td>1970</td>
<td>40</td>
<td>81-82</td>
</tr>
<tr>
<td>Halford</td>
<td>G S</td>
<td>A Theory of the Acquisition of Conservation</td>
<td>Psychol. Rev.</td>
<td>1970</td>
<td>77</td>
<td>302-315</td>
</tr>
<tr>
<td>Halford</td>
<td>G S</td>
<td>A Discrimination Task Which Induces Conservation of Number</td>
<td>Child Dev.</td>
<td>1970</td>
<td>41</td>
<td>205-213</td>
</tr>
<tr>
<td>Halford</td>
<td>G S</td>
<td>A Discrimination Task Which Induces Conservation of Number</td>
<td>Child Dev.</td>
<td>1970</td>
<td>41</td>
<td>205-213</td>
</tr>
<tr>
<td>Halford</td>
<td>G S</td>
<td>A Discrimination Task Which Induces Conservation of Number</td>
<td>Child Dev.</td>
<td>1970</td>
<td>41</td>
<td>205-213</td>
</tr>
<tr>
<td>Homer</td>
<td>A C</td>
<td>The Effect of Instructing on the Acquisition of Conservation of Volume</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>2</td>
<td>423-428</td>
</tr>
<tr>
<td>Johnson</td>
<td>P E</td>
<td>A Note on Using Curriculum Models to Analyze the Child's Concept of Weight</td>
<td>J. Res. Sci. Teach.</td>
<td>1970</td>
<td>7</td>
<td>371-378</td>
</tr>
<tr>
<td>Murray</td>
<td>F B</td>
<td>Stimulus Mode and the Conservation of Weight and Number</td>
<td>J. Educ. Psychol.</td>
<td>1970</td>
<td>41</td>
<td>207-208</td>
</tr>
<tr>
<td>Northman</td>
<td>J E</td>
<td>Relationship Between Identity and Equivalence Conservation</td>
<td>Dev. Psychol.</td>
<td>1970</td>
<td>2</td>
<td>311</td>
</tr>
</tbody>
</table>
SUBJECT AGE – ADULTS
GUTHRIE J T, BALDWIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS

SUBJECT AGE – ELEMENTARY
HALFORD G S, FULLERTON T J
A DISCRIMINATION TASK WHICH INDUCES CONSERVATION OF NUMBER

JOHNSON P E, MURRAY F B
A NOTE ON USING CURRICULUM MODELS TO ANALYZE THE CHILD’S CONCEPT OF WEIGHT

SUBJECT AGE – ELEMENTARY
THOMPSON B E
CHILDREN’S REACTIONS TO DISTRACTORS IN A LEARNING SITUATION

SUBJECT AGE – ELEMENTARY
EDMONDS E M, MUELLER M R
CONCEPT FORMATION AND UTILIZATION IN THE PRESENCE OF IRRELEVANT VISUAL SIMULATION

SUBJECT AGE – ELEMENTARY
THOMPSON B E
A LIST OF CURRENTLY CREDIBLE BIOLOGY CONCEPTS JUDGED BY A NATIONAL PANEL TO BE IMPORTANT FOR INCLUSION IN K-12 CURRICULA

SUBJECT AGE – ELEMENTARY
GUTHRIE J T, BALDWIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS

SUBJECT AGE – ELEMENTARY
HOWE A, BUTTS D P
THE EFFECT OF INSTRUCTION ON THE ACQUISITION OF CONSERVATION OF VOLUME

SUBJECT AGE – ELEMENTARY
JOHNSON P E, WARNER F S, LEE D R
EFFECTS OF ENFORCED ATTENTION AND STIMULUS PHASING UPON RULE LEARNING IN CHILDREN

SUBJECT AGE – ELEMENTARY
CITRON I M, BARNES C W
THE SEARCH FOR MORE EFFECTIVE METHODS OF TEACHING HIGH-SCHOOL BIOLOGY TO SLOW LEARNERS THROUGH INTERACTION ANALYSIS.
PART I: THE EFFECTS OF VARYING TEACHING PATTERNS

SUBJECT AGE – ELEMENTARY
CITRON I M, BARNES C W
THE SEARCH FOR MORE EFFECTIVE METHODS OF TEACHING HIGH-SCHOOL BIOLOGY TO SLOW LEARNERS THROUGH INTERACTION ANALYSIS.
PART II: THE EFFECTS OF CONSTANT TEACHING PATTERNS

SUBJECT AGE – ELEMENTARY
DENNEY N W
ANALYSIS OF PROCESSING TIME FOR CONJUNCTIVE AND DISJUNCTIVE PROBLEM SOLVING

SUBJECT AGE – ELEMENTARY
DOAN H P
EFFECTS OF CORRECTION AND NON-CORRECTION TRAINING PROCEDURES ON "EASY" AND "HARD" DISCRIMINATION LEARNING IN CHILDREN

SUBJECT AGE – ELEMENTARY
FISCHBEIN E, PANPU I, MANZAT I
COMPARISON OF RATIOS AND THE CHANCE CONCEPT IN CHILDREN

SUBJECT AGE – ELEMENTARY
GUTHRIE J T, BALDWIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS
LARSON G T. FLAVELL J N
VERBAL ACTORS IN COMPENSATION PERFORMANCE AND THE RELATION BETWEEN CONSERVATION AND COMPENSATION

LIEBERMAN L R
CONCEPT BREATH AND THE CHILDISH IGNORANCE HYPOTHESIS
J. ABNORM. PSYCHOL.. 1970. 76. 130-133.

MARTEN B J
THE EFFECTS OF INFORMATION CONCERNING THE ATTRIBUTES OF CONCEPT INSTANCES AND RECALL OF RELEVANT SUBCONCEPTS ON THE LEVEL OF MASTERY OF CERTAIN GEOMETRIC CONCEPTS

PETERS D L
VERBAL MEDIATORS AND CUE DISCRIMINATION IN THE TRANSITION FROM NON-CONSERVATION TO CONSERVATION OF NUMBER

RIZZUTO M F
EXPERIMENTAL COMPARISON OF INDUCTIVE AND DEDUCTIVE METHODS OF TEACHING CONCEPTS OF LANGUAGE STRUCTURE

SCOTT N
STRATEGY OF INQUIRY AND STYLES OF CATEGORIZATION: A THREE-YEAR EXPLORATORY STUDY

SILVER D S, SALTZ E, MODIGLIANI V
AWARENESS AND HYPOTHESIS TESTING IN CONCEPT AND OPERANT LEARNING
J. EXP. PSYCHOL.. 1970. 84. 198-203.

STUCK D L, MANATT R P
A COMPARISON OF AUDIO-TUTORIAL AND LECTURE METHODS OF TEACHING
EFFECTS OF LOGICAL AND SCRAMBLED SEQUENCES IN MATHEMATICAL MATERIALS ON LEARNING WITH PROGRAMMED INSTRUCTION MATERIALS
SUBJECT AGE-SECONDARY

FISCHBEIN E., PAMP U. I., MANZAT I.
COMPARISON OF RATIOS AND THE CHANCE CONCEPT IN CHILDREN
SUBJECT AGE-PRESCHOOL ELEMENTARY

GRANT M.
THE DEVELOPMENT OF THE CONCEPT OF NOTATION
SUBJECT AGE-ELEMENTARY

HALFORD G. S., FULLERTON T. J.
A DISCRIMINATION TASK WHICH INDUCES CONSERVATION OF NUMBER
SUBJECT AGE-ELEMENTARY

ROSS D.
INCIDENTAL LEARNING OF NUMBER CONCEPTS IN SMALL GROUP GAMES
AMER. J. MENT. DEFIC., 1970, 74, 719-723.
SUBJECT AGE-ELEMENTARY

MEDIATION

JACOBSON L. I., MILLHAN J., BERGER S. E.
EFFECTS OF INTELLIGENCE ON THE SPEED AND FREQUENCY OF PROBLEM SOLUTION IN CONCEPT LEARNING
SUBJECT AGE-ADEULTS

KENDLER H. M., KENDLER T. S., MARKEN R. S.
STIMULUS CONTROL AND MEMORY LOSS IN REVERSAL SHIFT BEHAVIOR OF COLLEGE STUDENTS
J. EXP. PSYCHOL., 1973, 80, 84-98.
SUBJECT AGE-ADEULTS

PETERS O. L.
VERBAL MEDIATORS AND CUE DISCRIMINATION IN THE TRANSITION FROM NON-CONSERVATION TO CONSERVATION OF NUMBER
SUBJECT AGE-ELEMENTARY

MEMORY

BRINLEY J. F., SADELLER P. J.
INCREASING THE UTILITY OF NEGATIVE INSTANCES IN CONJUNCTIVE CONCEPT IDENTIFICATION
SUBJECT AGE-SECONDARY

GREEN R. T., MERRYMAN C. T.
EFFECT OF NONCONTINGENT **RIGHTS** AND RANDOM REINFORCEMENTS
ON CONCEPT IDENTIFICATION AS A FUNCTION OF THE RELEVANT DIMENSION'S CUE VALUE
SUBJECT AGE-ADEULTS

EXNAS P.
EFFECTS OF MEMORY AIDS ON HYPOTHESIS BEHAVIOR AND FOCUSING IN YOUNG CHILDREN AND ADULTS
SUBJECT AGE-ELEMENTARY ADULTS

ERICKSON J. A., BLOCK K. R., RULON M. J.
SOME CHARACTERISTICS OF HYPOTHESIS SAMPLING IN CONCEPT IDENTIFICATION
SUBJECT AGE-ADEULTS

MARTEN B. J.
THE EFFECTS OF INFORMATION CONCERNING THE ATTRIBUTES OF CONCEPT INSTANCES AND RECALL OF RELEVANT SUBCONCEPTS ON THE LEVEL OF MASTERY OF CERTAIN GEOMETRIC CONCEPTS
SUBJECT AGE-ELEMENTARY

SCOTT J. A.
THE EFFECTS ON SHORT-AND-LONG TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS
SUBJECT AGE-ELEMENTARY

SIEBER J. E., KANEYA L. I., PAULSON F. L.
THE EFFECTS ON SHORT-AND-LONG TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS
SUBJECT AGE-ELEMENTARY

MENTAL AGE DIFFERENCES

BROWN A. L.
SUBJECT AND EXPERIMENTAL VARIABLES IN THE ODDITY LEARNING OF NORMAL AND RETARDED CHILDREN
SUBJECT AGE-ELEMENTARY

BROWN J. L.
EFFECTS OF LOGICAL AND SCRAMBLED SEQUENCES IN MATHEMATICAL MATERIALS ON LEARNING WITH PROGRAMMED INSTRUCTION MATERIALS
SUBJECT AGE-SECONDARY

GREEN R. T., LAXON V. J.
THE CONSERVATION OF NUMBER, MOTHER, WATER, AND A FRIED EGG
CHEZ L'ENFANT
SUBJECT AGE-PRESCHOOL ELEMENTARY

SCHNEIDER J. P., BALDWIN T. L.
EFFECTS OF DISCRIMINATION: GRAMMATICAL RULES AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS
SUBJECT AGE-ELEMENTARY

JACOBSON L I, MILLHAN J, BERGER S E
EFFECTS OF INTELLIGENCE ON THE SPEED AND FREQUENCY OF PROBLEM SOLUTION IN CONCEPT LEARNING
SUBJECT AGE-ELEMENTARY

KEISLER E R, STERN C
DIFFERENTIATED INSTRUCTION IN PROBLEM SOLVING FOR CHILDREN OF DIFFERENT MENTAL ABILITY LEVELS
SUBJECT AGE-ELEMENTARY

KMAR C J
INTENTIONAL AND INCIDENTAL CONCEPT FORMATION AS A FUNCTION OF CONCEPTUAL COMPLEXITY, INTELLIGENCE, AND TASK COMPLEXITY
SUBJECT AGE-ELEMENTARY

ROMANIS D L
CONSERVATION, SERIATION, AND TRANSITIVITY PERFORMANCE BY RETARDED AND AVERAGE INDIVIDUALS
SUBJECT AGE-ELEMENTARY

REUTER J, KINZI J
COLUMBIA MENTAL MATURITY SCALE AS A TEST OF CONCEPT FORMATION
SUBJECT AGE-ELEMENTARY

RIZZUTO M F
EXPERIMENTAL COMPARISON OF INDUCTIVE AND DEDUCTIVE METHODS OF TEACHING CONCEPTS OF LANGUAGE STRUCTURE
SUBJECT AGE-ELEMENTARY

SCOTT J A
THE EFFECTS ON SHORT- AND LONG-TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS
SUBJECT AGE-ELEMENTARY

STONES E
VERBAL LABELLING AND CONCEPT FORMATION IN PRIMARY SCHOOL CHILDREN
SUBJECT AGE-ELEMENTARY

WEINSTEIN M S
EFFECTS OF TRAINING ON THE CONCEPTS OF WATER LEVEL AND HORIZONTality IN THE CLASSROOM
SUBJECT AGE-ELEMENTARY

WIVIOTT S P

SUBJECT AGE-ELEMENTARY
BASES OF CLASSIFICATION OF GEOMETRIC CONCEPTS USED BY CHILDREN OF VARYING CHARACTERISTICS
SUBJECT AGE-ELEMENTARY-SECONDARY

MODELS

DEFFENBACHER K A
AN EXTENSION OF FOUR SINGLE-CUE PROCESS MODELS TO CONJUNCTIVE CONCEPT LEARNING
SUBJECT AGE-ADULTS

NUMBER OF INSTANCES VARIED

CHLEBEK J., DOMINOWSKI R L
THE EFFECT OF PRACTICE ON UTILIZATION OF INFORMATION FROM POSITIVE AND NEGATIVE INSTANCES IN IDENTIFYING DISJUNCTIVE CONCEPTS
SUBJECT AGE-ADULTS

EIMAS, P, D
INFORMATION PROCESSING IN PROBLEM SOLVING AS A FUNCTION OF DEVELOPMENTAL LEVEL AND STIMULUS SALIENCE
SUBJECT AGE-ELEMENTARY-SECONDARY-ADULTS

FRAYER D. A
EFFECTS OF NUMBER OF INSTANCES AND EMPHASIS OF RELEVANT ATTRIBUTE VALUES ON MASTERY OF GEOMETRIC CONCEPTS BY FOURTH- AND SIXTH- GRADE CHILDREN
SUBJECT AGE-ELEMENTARY

HART, D. J
INTELLIGENCE AND INCIDENTAL CONCEPT FORMATION AS A FUNCTION OF CONCEPTUAL COMPLEXITY, INTELLIGENCE, AND TASK COMPLEXITY
SUBJECT AGE-SECONDARY

RITTLE, R. H
LEARNING WITH REGARD TO IRRELEVANT STIMULUS CUES DURING CONCEPT IDENTIFICATION
SUBJECT AGE-ADULTS

NUMBER OF POSITIVE AND/OR NEGATIVE INSTANCES VARIED

BROWN, A. L
SUBJECT AND EXPERIMENTAL VARIABLES IN THE ODDITY LEARNING OF NORMAL AND RETARDED CHILDREN
SUBJECT AGE-ELEMENTARY

DAVIS, J. K, KLAUSEMEIER, H J
COGNITIVE STYLE AND CONCEPT IDENTIFICATION AS A FUNCTION OF COMPLEXITY AND TRAINING PROCEDURES
SUBJECT AGE-SECONDARY

DEFFENBACHER, K A
AN EXTENSION OF FOUR SINGLE-CUE PROCESS MODELS TO CONJUNCTIVE CONCEPT LEARNING
SUBJECT AGE-ADULTS

DOAN, H. M
EFFECTS OF CORRECTION AND NON-CORRECTION TRAINING PROCEDURES ON **EASY** AND **HARD** DISCRIMINATION LEARNING IN CHILDREN
SUBJECT AGE-PRESCHOOL

EIMAS, P. D
EFFECTS OF MEMORY AIDS ON HYPOTHESIS BEHAVIOR AND FOCUSING IN
THE DEVELOPMENT OF THE CONCEPT OF OBJECT AS RELATED TO INFANT
- MOTHER ATTACHMENT
CHILD DEVELOPM.* 1970; 41: 291-311.
SUBJECT AGE-PRESCHOOL

BENTLER P M
EVIDENCE REGARDING STAGES IN THE DEVELOPMENT OF CONSERVATION
SUBJECT AGE-PRESCHOOL ELEMENTARY

BENZINGER T L
EFFECTS OF INSTRUCTION ON THE DEVELOPMENT OF THE CONCEPT OF
CONSERVATION OF NUMEROUSNESS BY KINDERGARTEN CHILDREN
SUBJECT AGE-ELEMENTARY

BRAINERD C J
CONTINUITY AND DISCONTINUITY HYPOTHESES IN STUDIES OF
CONSERVATION

CARLSON J S
A NOTE ON THE RELATIONSHIPS BETWEEN THE DRAW-A-PAA TEST. THE
PROGRESSIVE MATRICES TEST, AND CONSERVATION
SUBJECT AGE-ELEMENTARY

CHRISTIE J F. SMOTHERGILL D W
DISCRIMINATION AND CONSERVATION OF LENGTH
SUBJECT AGE-PRESCHOOL

FISCHBEIN E. PAMPU I. MAKZAT I
COMPARISON OF RATIOS AND THE CHANCE CONCEPT IN CHILDREN
SUBJECT AGE-PRESCHOOL ELEMENTARY

FORD L H JR
PREDICTIVE VERSUS PERCEPTUAL RESPONSES TO PIAGET'S WATER-LINE
TASK AND THEIR RELATION TO DISTANCE CONSERVATION
SUBJECT AGE-PRESCHOOL

FURTH H G. YOUNISS J. ROSS E M
CHILDREN'S UTILIZATION OF LOGICAL SYMBOLS: AN INTERPRETATION
OF CONCEPTUAL BEHAVIOR BASED ON PIAGETIAN THEORY
SUBJECT AGE-ELEMENTARY

GRANT M
THE DEVELOPMENT OF THE CONCEPT OF NOTATION
SUBJECT AGE-ELEMENTARY

GREEN R T. LAXON V J
THE CONSERVATION OF NUMBER. MOTHER, WATER, AND A FRIED EGG
CHEZ L'ENFANT
SUBJECT AGE-PRESCHOOL ELEMENTARY
HALFORD J S
A THEORY OF THE ACQUISITION OF CONSERVATION

HALFORD G S & FULLERTON T J
A DISCRIMINATION TASK WHICH INDUCES CONSERVATION OF NUMBER

HALL V C & SALVI R & SEGGER L & ET AL
COGNITIVE SYNTHESSES, CONSERVATION, AND TASK ANALYSIS

HAWK A C & BUTTS D P
THE EFFECT OF INSTRUCTION ON THE ACQUISITION OF CONSERVATION OF VOLUME

JOHNSON E & MURRAY F B
A NOTE ON USING CURRICULUM MODELS TO ANALYZE THE CHILD'S CONCEPT OF WEIGHT

KAHANA B
STAGES OF THE DREAM CONCEPT AMONG HASIDIC CHILDREN

LARSON E V & FLAVELL J H
VERBAL FACTORS IN COMPENSATION PERFORMANCE AND THE RELATION BETWEEN CONSERVATION AND COMPENSATION
CHILD DEVELOPM. 1970 41: 965-977.

LISTER C M
THE DEVELOPMENT OF A CONCEPT OF VOLUME CONSERVATION IN ELEMENTARY CHILDREN

LLOYD B B & LIGHT R A
COGNITIVE STAGES IN DREAM CONCEPT DEVELOPMENT IN ENGLISH CHILDREN

MACMANS L J
CONSERVATION, SERIATION, AND TRANSITIVITY PERFORMANCE BY RETARDED AND AVERAGE INDIVIDUALS

MILLER D J & COHEN L B & MILL H T
A METHODOLOGICAL INVESTIGATION OF PIAGET'S THEORY OF OBJECT CONCEPT DEVELOPMENT IN THE SENSORY-MOTOR PERIOD
Subject Age: Elementary

Weisberg J S
The Use of Visual Advance Organizers for Learning Earth Science Concepts

Subject Age: Secondary

Gardner P L
Relative Difficulty of Restricted-Conjunctive and Conjunctive

Subject Age: Elementary

Droll W L
Response Strategies in the Oddity Discrimination of Preschool Children

Subject Age: Preschool

Edmonds E M, Mueller N R
Concept Formation and Utilization in the Presence of Irrelevant Visual Stimulation

Subject Age: Adults

Brown A L
Subject and Experimental Variables in the Oddity Learning of Normal and Retarded Children

Subject Age: Elementary

Croll W L
Response Strategies in the Oddity Discrimination of Preschool Children

Subject Age: Preschool

Edmonds E M, Mueller N R
Concept Formation and Utilization in the Presence of Irrelevant Visual Stimulation

Subject Age: Adults

Bourne L E Jr
Knowing and Using Concepts

Subject Age: Adults

Fortm M G, Yousuf J, Ross B
Children's Utilization of Logical Symbols: An Interpretation of Conceptual Behavior Based on Piagetian Theory

Subject Age: Preschool

Van den Daële L D
Continuity in the Development of Conceptual Behavior in Preschool Children: A Rejoinder

Rules

Bourne L E Jr
Knowing and Using Concepts

Subject Age: Adults

Denney N W
Analysis of Processing Time for Conjunctive and Disjunctive Problem Solving

Subject Age: Adults

Furth M G, Yomtiss J, Ross B
Children's Utilization of Logical Symbols: An Interpretation of Conceptual Behavior Based on Piagetian Theory

Subject Age: Elementary

Gardner P L
Relative Difficulty of Restricted-Conjunctive and Conjunctive

Review of Literature and Discussions

Arendt D
Equivalence of Information in Concept Identification

Brainerd C J
Continuity and Discontinuity Hypotheses in Studies of Conservation

Halmos G S
A Theory of the Acquisition of Conservation

Klausmeier M J, Frayer D A
A Cognitive Operations in Concept Learning

McAulhanan L S, Wylie A A
A Theory of the Acquisition of Conservation

Van den Daële L D
Continuity in the Development of Conceptual Behavior in Preschool Children: A Rejoinder

Rules

Bourne L E Jr
Knowing and Using Concepts

Subject Age: Adults

Denney N W
Analysis of Processing Time for Conjunctive and Disjunctive Problem Solving

Subject Age: Adults

Furth M G, Yomtiss J, Ross B
Children's Utilization of Logical Symbols: An Interpretation of Conceptual Behavior Based on Piagetian Theory

Subject Age: Elementary

Gardner P L
Relative Difficulty of Restricted-Conjunctive and Conjunctive

Review of Literature and Discussions

Arendt D
Equivalence of Information in Concept Identification

Brainerd C J
Continuity and Discontinuity Hypotheses in Studies of Conservation

Halmos G S
A Theory of the Acquisition of Conservation

Klausmeier M J, Frayer D A
A Cognitive Operations in Concept Learning

McAulhanan L S, Wylie A A
A Theory of the Acquisition of Conservation

Van den Daële L D
Continuity in the Development of Conceptual Behavior in Preschool Children: A Rejoinder

Rules

Bourne L E Jr
Knowing and Using Concepts

Subject Age: Adults

Denney N W
Analysis of Processing Time for Conjunctive and Disjunctive Problem Solving

Subject Age: Adults

Furth M G, Yomtiss J, Ross B
Children's Utilization of Logical Symbols: An Interpretation of Conceptual Behavior Based on Piagetian Theory
CONCEPTS
J. EXP. PSYCHOL. 1970. 86. 211-213. SUBJECT AGE-SECONDARY

GIAMBRA L N
CONDITIONAL AND BICONDITIONAL RULE DIFFICULTY WITH ATTRIBUTE IDENTIFICATION, RULE LEARNING, AND COMPLETE LEARNING TASK
J. EXP. PSYCHOL. 1970. 86. 250-254. SUBJECT AGE-ADULTS

GUTHRIE J T. BALDWIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS
J. EDUC. PSYCHOL. 1970. 61. 358-364. SUBJECT AGE-ELEMENTARY

JOHNSON P J. WARNER M S. LEE O R
EFFECTS OF ENFORCED ATTENTION AND STIMULUS PHASING UPON RULE LEARNING IN CHILDREN
J. EXP. CHILD PSYCHOL. 1970. 16. 398-399. SUBJECT AGE-ADULTS

KATES S L. BARRY W I
FAILURE AVOIDANCE AND CONCEPT ATTAINMENT
J. PERS. SOC. PSYCHOL. 1970. 9. 21-27. SUBJECT AGE-ADULTS

KING V L. HOLT J N
CONJUNCTIVE AND DISJUNCTIVE RULE LEARNING AS A FUNCTION OF AGE AND FORCED VERBALIZATION
J. EXP. CHILD PSYCHOL. 1970. 10. 100-111. SUBJECT AGE-ADULTS

NEIMARK E D
DEVELOPMENT OF COMPREHENSION OF LOGICAL CONNECTIVES: UNDERSTANDING OF "AND"

NEIMARK E D. SLOTNICK M S
DEVELOPMENT OF THE UNDERSTANDING OF LOGICAL CONNECTIVES
J. EDUC. PSYCHOL. 1970. 61. 451-460. SUBJECT AGE-SECONDARY. SECONDARY. ADULTS

SCOTT N
STRATEGY OF INQUIRY AND STYLES OF CATEGORIZATION: A THREE-YEAR EXPLORATORY STUDY
J. RES. SCI. TEACH. 1970. 7. 93-102. SUBJECT AGE-ADULTS

STUCK E B. WINE M D
HOW CHILDREN LEARN THE CONCEPT OF WEIGHT: S-R TRAINING VS. EQUILIBRATION TRAINING
SCI. EDUC. 1970. 56. 373-378. SUBJECT AGE-ADULTS

THOMPSON B E
A LIST OF CURRENTLY CREDIBLE BIOLOGY CONCEPTS JUDGED BY A NATIONAL PANEL TO BE IMPORTANT FOR INCLUSION IN K-12 CURRICULA
WIS. R. O. CENT. COG. LEARN. TECH. REP. NO. 185. 1970. SUBJECT AGE-ADULTS. SECONDARY
SHIFTS OR CONCEPT SWITCHING

BROWN A L
TRANSFER PERFORMANCE IN CHILDREN'S ODDITY LEARNING AS A FUNCTION OF DIMENSIONAL PREFERENCE, SHIFT PARADIGM AND OVERTRAINING
SUBJECT AGE-ELEMENTARY

ERICKSON J R. BLOCK K K. RULON K J
SOME CHARACTERISTICS OF HYPOTHESIS SAMPLING IN CONCEPT IDENTIFICATION
SUBJECT AGE-ELEMENTARY

KENDLER H F. KENDLER T S. MARKEN R S
STIMULUS CONTROL AND MEMORY LOSS IN REVERSAL SHIFT BEHAVIOR OF COLLEGE STUDENTS
SUBJECT AGE-ADULTS

MOFFAT G M. MOTIFF J P
EFFECTIVENESS OF DIFFERENT VERBAL REINFORCEMENT COMBINATIONS ON A DISCRIMINATION-REVERSAL PROBLEM IN CHILDREN
SUBJECT AGE-PRESCHOOL-ELEMENTARY

TIGHE L S. TIGHE T Jo WATERHOUSE M O. ET AL
DIMENSIONAL PREFERENCE AND DISCRIMINATION SHIFT LEARNING IN CHILDREN
SUBJECT AGE-ELEMENTARY

SIMILARITY

DEZFEUN G
EXTENSIVE AND INTENSIVE PROPERTIES OF CONCEPTS
SUBJECT AGE-ADULTS

JOHNSON P E. COX O L. CURRAN T E
PSYCHOLOGICAL REALITY OF PHYSICAL CONCEPTS
SUBJECT AGE-ADULTS

SOCIAL STUDIES

TABACHNICK B R. WEIBLE E. FRAYER D A
A SELECTION AND ANALYSIS OF SOCIAL STUDIES CONCEPTS FOR INCLUSION IN TESTS OF CONCEPT ATTAINMENT
SUBJECT AGE-ELEMENTARY+SECONDARY

TABACHNICK B R. WEIBLE E. LIVERMORE O
ITEMS TO TEST LEVEL OF ATTAINMENT OF SOCIAL STUDIES CONCEPTS BY INTERMEDIATE-GRADE CHILDREN
SUBJECT AGE-ELEMENTARY

SOCIOECONOMIC STATUS DIFFERENCES

ADAMS J F
LEARNING TO LEARN ON A CONCEPT ATTAINMENT TASK AS A FUNCTION OF AGE AND SOCIOECONOMIC LEVEL
SUBJECT AGE-ELEMENTARY

BAKER M E. SULLIVAN E V
THE INFLUENCE OF SOME TASK VARIABLES AND OF SOCIOECONOMIC CLASS ON THE MANIFESTATION OF CONSERVATION OF NUMBER
SUBJECT AGE-ELEMENTARY

BILLEN V V. PELLA M J
CULTURAL BIAS IN THE ATTAINMENT OF CONCEPTS OF THE BIOLOGICAL CELL BY ELEMENTARY SCHOOL CHILDREN
SUBJECT AGE-ELEMENTARY

LLOYD B R. LIGHT R A
COGNITIVE STAGES IN DREAM CONCEPT DEVELOPMENT IN ENGLISH CHILDREN
SUBJECT AGE-PRESCHOOL-ELEMENTARY

LOWERY L F. ALLEN L R
SOCIO-ECONOMIC STATUS AND SEX DIFFERENCES IN VISUAL RESEMBLANCE SORTING TASKS AT THE FIRST GRADE LEVEL
SUBJECT AGE-ELEMENTARY

MURRAY F B
STIMULUS MODE AND THE CONSERVATION OF WEIGHT AND NUMBER
SUBJECT AGE-ELEMENTARY

PEISACH E. WEIN M
RELATIONSHIP OF CONSERVATION EXPLANATIONS TO ITEM DIFFICULTY
SUBJECT AGE-ELEMENTARY

ROLL S
REVERSIBILITY TRAINING AND STIMULUS DESIRABILITY AS FACTORS IN CONSERVATION OF NUMBER
STRATEGIES AND HYPOTHESIS TESTING

BOURNE L E JR
KNOWING AND USING CONCEPTS
*PSYCHOL. REV.* 1970 77 545-555.

BROWN E R. HERRMANN C T
INCREASING THE UTILITY OF NEGATIVE INSTANCES IN CONJUNCTIVE CONCEPT IDENTIFICATION
*PSYCHON. SCI.* 1970 19 101-122.

CAHON R L
CONCEPT ATTAINMENT AND KNOWLEDGE OF RESULTS
*J. PSYCHOL.* 1970 74 219-229.

CHLEBEK J. COMINVSKI R
THE EFFECT OF PRACTICE ON UTILIZATION OF INFORMATION FROM POSITIVE AND NEGATIVE INSTANCES IN IDENTIFYING DISJUNCTIVE CONCEPTS

CROLL W L
RESPONSE STRATEGIES IN THE ODDBITY DISCRIMINATION OF PRESchool CHILDREN

EIMAS P D
EFFECTS OF MEMORY AIDS ON HYPOTHESIS BEHAVIOR AND FOCUSING IN YOUNG CHILDREN AND ADULTS
*J. EXP. CHILD PSYCHOL.* 1970 10 319-335.

EIMAS P D
INFORMATION PROCESSING IN PROBLEM SOLVING AS A FUNCTION OF DEVELOPMENTAL LEVEL AND STIMULUS SALIENCY
*DEVELPM. PSYCHOL.* 1970 2 224-229.

ERICSON J R. BLOCK K M. RULON K J
SOME CHARACTERISTICS OF HYPOTHESIS SAMPLING IN CONCEPT IDENTIFICATION

STRAIGHTTO L E JR
KNOWING AND USING CONCEPTS
*PSYCHOL. REV.* 1970 77 546-555.

HAYGOOD R C. HARBERT T L. DOLLAR J A
INTERDIMENSIONAL VARIABILITY AND CONCEPT IDENTIFICATION

HEISLER E R. STERN C
DIFFERENTIATED INSTRUCTION IN PROBLEM SOLVING FOR CHILDREN OF DIFFERENT MENTAL ABILITY LEVELS
*J. EDUC. PSYCHOL.* 1970 61 441-450.

KING W L. HOLT J K
CONJUNCTIVE AND DISJUNCTIVE RULE LEARNING AS A FUNCTION OF AGE AND FORCED VERNALIZATION
*J. EXP. CHILD PSYCHOL.* 1970 12 100-111.

KINGSTEIN I D. PENROD W C. SLAYMAKER F L
RELATIONSHIP OF COMPONENT CUES TO HYPOTHESES IN CONJUNCTIVE CONCEPT LEARNING
*J. EXP. PSYCHOL.* 1970 83 351-353.

KINGSTEIN I D. SLAYMAKER F L
USE OF NEGATIVE INSTANCES IN CONJUNCTIVE CONCEPT IDENTIFICATION
*J. EXP. PSYCHOL.* 1970 84 64-66.

REEVE R D. POLSON P C. OLMANN J L
THE SIZE OF FOCUS SAMPLES IN MULTIPLE-CATEGORY CONCEPT IDENTIFICATION
*PSYCHON. SCI.* 1970 23 125-126.

SILVER D S. SALTZ E. MODIGLIANI V
AWARENESS AND HYPOTHESIS TESTING IN CONCEPT AND ODDITY LEARNING
*J. EXP. PSYCHOL.* 1970 84 199-203.

WELLS H
SUBJECT-CONTROLLED INTERTRIAL INTERVALS IN CONCEPT LEARNING
*PSYCHON. SCI.* 1970 19 109-111.

WINograd E
EFFECT OF KNOWLEDGE OF SET SIZE ON SEARCH TERMINATION IN LONG-TERM MEMORY
*PSYCHON. SCI.* 1970 22 225.

TRANSFER

BROWN E R.
KNOWING AND USING CONCEPTS
*PSYCHOL. REV.* 1970 77 546-555.

BROWN A L
TRANSFER PERFORMANCE IN CHILDREN'S ODDBITY LEARNING AS A FUNCTION OF DEVELOPMENTAL LEVEL AND STIMULUS SALIENCY
*DEVELPM. PSYCHOL.* 1970 2 224-229.
DIMENSIONAL PREFERENCE. SHIFT PARADIGM AND OVERTRAINING

DICKERSON D-J
EFFECTS OF NAMING RELEVANT AND IRRELEVANT STIMULI ON THE DISCRIMINATION LEARNING OF CHILDREN

GUTHRIE J T. BULLARD T L
EFFECTS OF DIMENSIONAL PREFERENCE, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS

HARTEN B J
THE EFFECTS OF INFORMATION CONCERNING THE ATTRIBUTES OF CONCEPT INSTANCES AND RECALL OF RELEVANT SUBCONCEPTS ON THE LEVEL OF ACQUISITION OF CERTAIN GEOMETRIC CONCEPTS

OKOMI H O
THE EFFECT OF SPECIAL TRAINING ON THE CLASSIFICATORY BEHAVIOR OF SOME JAPANESE 800 CHILDREN

SARAVO A. BABBY B. HASKINS K
TRANSFER EFFECTS IN CHILDREN'S ODDBY LEARNING

SCOTT J A
THE EFFECTS ON SHORT-AND-LONG TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS

SCOTT H S
TRANSFER IN NURSERY SCHOOL CHILDREN BETWEEN TWO RELATIONAL TASKS
Develop. Psychol. 1970. 3. 145.

SJÖR-KER I. HÖJER J. OLSSON C
TEACHING CONSERVATION OF WEIGHT BY MEANS OF VERBAL INSTRUCTIONS

STONES E
VERBAL LABELLING AND CONCEPT FORMATION IN PRIMARY SCHOOL CHILDREN

TRANPOSITION

DICKERSON D-J
EFFECTS OF AGING, VERBAL ABILITY, AND PRETRAINING WITH COMPONENT CONCEPTS ON THE PERFORMANCE OF CHILDREN IN A DIMENSIONAL CLASSIFICATION TASK

DARNELL C D. BOURNE L E JR
EFFECTS OF AGING, VERBAL ABILITY, AND PRETRAINING WITH COMPONENT CONCEPTS ON THE PERFORMANCE OF CHILDREN IN A DIMENSIONAL CLASSIFICATION TASK

GUTHRIE J T. BALONIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS

HARTEN B J
THE EFFECTS OF INFORMATION CONCERNING THE ATTRIBUTES OF CONCEPT INSTANCES AND RECALL OF RELEVANT SUBCONCEPTS ON THE LEVEL OF ACQUISITION OF CERTAIN GEOMETRIC CONCEPTS

OKOMI H O
THE EFFECT OF SPECIAL TRAINING ON THE CLASSIFICATORY BEHAVIOR OF SOME JAPANESE 800 CHILDREN

SARAVO A. BABBY B. HASKINS K
TRANSFER EFFECTS IN CHILDREN'S ODDBY LEARNING

SCOTT J A
THE EFFECTS ON SHORT-AND-LONG TERM RETENTION AND ON TRANSFER OF TWO METHODS OF PRESENTING SELECTED GEOMETRY CONCEPTS

SCOTT H S
TRANSFER IN NURSERY SCHOOL CHILDREN BETWEEN TWO RELATIONAL TASKS
Develop. Psychol. 1970. 3. 145.

SJÖR-KER I. HÖJER J. OLSSON C
TEACHING CONSERVATION OF WEIGHT BY MEANS OF VERBAL INSTRUCTIONS

STONES E
VERBAL LABELLING AND CONCEPT FORMATION IN PRIMARY SCHOOL CHILDREN

BENZINGER T L
EFFECTS OF INSTRUCTION ON THE DEVELOPMENT OF THE CONCEPT OF CONSERVATION OF NUMEROUSNESS BY KINDERGARTEN CHILDREN

GUTHRIE J T. BALONIN T L
EFFECTS OF DISCRIMINATION, GRAMMATICAL RULES, AND APPLICATION OF RULES ON THE ACQUISITION OF GRAMMATICAL CONCEPTS
CJ.J N. KLAUSNEIER H J
COGNITIVE STYLE AND CONCEPT IDENTIFICATION AS A FUNCTION OF COMPLEXITY AND TRAINING PROCEDURES
SUBJECT AGE-SECONDARY

DOCHERSON D H
EFFECTS OF NAMING RELEVANT AND IRRELEVANT STIMULI ON THE DISCRIMINATION LEARNING OF CHILDREN
SUBJECT AGE-ELEMENTARY

HALFORD G S, FULLERTON T J
A DISCRIMINATING TASK WHICH INDUCES CONSERVATION OF NUMBER
SUBJECT AGE-ELEMENTARY

MALL V C, SALVE R, SEGGER L, ET AL
COGNITIVE SYNTHESIS: CONSERVATION, AND TASK ANALYSIS
SUBJECT AGE-PRESCHOOL-ELEMENTARY

JACOBSON L I, MILLHAN J, BERGER S E
EFFECTS OF INTELLIGENCE ON THE SPEED AND FREQUENCY OF PROBLEM SOLUTION IN CONCEPT LEARNING
SUBJECT AGE-ADULTS

KOBASKA N A
EFFECTS OF MODEL'S PROBLEM-SOLVING BEHAVIOR AND VICARIOUS REINFORCEMENT ON CHILDREN'S LEARNING PERCEPTION, NOT. SKILLS, 1970, 31, 700.
SUBJECT AGE-ELEMENTARY

KUHN D J, NOVAK J D
A STUDY OF VARYING ROLeS OF TOPICAL PRESENTATION IN ELEMENTARY SCHOOL BICOLLODY TO DETERMINE THE EFFECT OF ADVANCE ORGANIZERS IN KNOWLEDGE ACQUISITION AND RETENTION
SUBJECT AGE-ADULTS

LISTER C H
THE DEVELOPMENT OF A CONCEPT OF VOLUME CONSERVATION IN ESL CHILDREN
BRIT. J. EDUC. PSYCHOL., 1970, 40, 55-64.
SUBJECT AGE-ELEMENTARY

OKONJI N O
THE EFFECT OF SPECIAL TRAINING ON THE CLASSIFYING BEHAVIOR OF SWEHICIAN 380 CHILDREN
SUBJECT AGE-ELEMENTARY

OVERBECK C, SCHWARTZ M
TRAINING IN CONSERVATION OF WEIGHT
J. EXP. CHILD PSYCHOL., 1970, 9, 253-264.
SUBJECT AGE-ELEMENTARY

PROBER B B, TAYLOR R G JR, MANN L, ET AL
CONCEPTUAL PRE-STRUCTURING FOR DETAILED VERBAL PASSAGES
J. EDUC. RES., 1970, 64, 28-34.
SUBJECT AGE-SECONDARY

RAVEN R J
THE EFFECTS OF A STRUCTURED LEARNING SEQUENCE ON SECOND AND THIRD GRADE CHILDREN'S CLASSIFICATION ACHIEVEMENT
SUBJECT AGE-ELEMENTARY

ROLL S
REVERSIBILITY TRAINING AND STIMULUS DESIRABILITY AS FACTORS IN CONSERVATION OF NUMER
SUBJECT AGE-ELEMENTARY

SEEGER J L
THE UTILIZATION BY CHILDREN AND ADULTS OF BINARY PROPOSITIONAL THINKING IN CONCEPT LEARNING
SUBJECT AGE-ELEMENTARY-ADULTS

STRAUSS S, LANGER J
OPERATIONAL THOUGHT INDUCTION
CHILD DEVELOPM., 1970, 41, 163-175.
SUBJECT AGE-ELEMENTARY

STUCK G B, NAYNE M D
HOW CHILDREN LEARN THE CONCEPT OF WEIGHT: S-R TRAINING VS. EQUILIBRATION TRAINING
SUBJECT AGE-ELEMENTARY

TALKINGTON L W, HALL S M
MATRIX LANGUAGE PROGRAM WITH MONOCHLOIDS

TIGHE L S, TIGHE T J, WATERHOUSE M D, ET AL
DIMENSIONAL PREFERENCE AND DISCRIMINATION SHIFT LEARNING IN CHILDREN
SUBJECT AGE-ELEMENTARY

WACHORN L, SULLIVAN E V
THE EXPLORATION OF TRANSITION RULES IN CONSERVATION OF QUANTITY (SUBSTANCE) USING FILM-MEDIATED MODELING
SUBJECT AGE-ELEMENTARY

WEINSTEIN M S
EFFECTS OF TRAINING ON THE CONCEPTS OF WATER LEVEL AND HORIZONTAITY IN THE CLASSROOM
SUBJECT AGE-ELEMENTARY

WEISBERG J S
THE USE OF VISUAL ADVANCE ORGANIZERS FOR LEARNING EARTH SCIENCE CONCEPTS
SUBJECT AGE-SECONDARY
IN A MODIFIED CONCEPT FORMATION TASK
SUBJECT AGE: ADULTS

KREBS M J. LOVELACE E A
DISJUNCTIVE CONCEPT IDENTIFICATION: STIMULUS COMPLEXITY AND
POSITIVE VERSUS NEGATIVE INSTANCES. J. EXP. PSYCHOL., 1970. 93, 351-357.

ODON R. GUZMAN R
PROBLEM SOLVING AND THE PERCEPTUAL SALIENCE OF VARIABILITY AND
CONSTANCY: A DEVELOPMENTAL STUDY. J. EXP. CHILD PSYCHOL., 1970, 9, 156-165.

IMILORES PERFORMANCE ON AN ODDITY PROBLEM AS A FUNCTION OF
### Author Index

<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams, J. F.</td>
<td>15, 25, 32, 41</td>
</tr>
<tr>
<td>Adinolfi, A. A.</td>
<td>15, 25</td>
</tr>
<tr>
<td>Allen, L. R.</td>
<td>18, 40, 41</td>
</tr>
<tr>
<td>Arenberg, D.</td>
<td>15, 32, 38</td>
</tr>
<tr>
<td>Bagby, B.</td>
<td>20, 27, 43</td>
</tr>
<tr>
<td>Baker, N. E.</td>
<td>15, 29, 32, 36, 41</td>
</tr>
<tr>
<td>Baldwin, T. L.</td>
<td>17, 31, 32, 33, 39, 43</td>
</tr>
<tr>
<td>Ball, T. S.</td>
<td>15, 28, 36, 43</td>
</tr>
<tr>
<td>Barnes, C. W.</td>
<td>15, 16, 31, 39</td>
</tr>
<tr>
<td>Barocas, R.</td>
<td>15, 25</td>
</tr>
<tr>
<td>Barry, W. T.</td>
<td>18, 25, 30, 39, 45</td>
</tr>
<tr>
<td>Bayuk, R. J. Jr.</td>
<td>see Proger, Taylor, Mann et al.</td>
</tr>
<tr>
<td>Bell, S. M.</td>
<td>15, 25, 36</td>
</tr>
<tr>
<td>Bentler, P. M.</td>
<td>15, 25, 29, 36</td>
</tr>
<tr>
<td>Benzinger, T. L.</td>
<td>15, 29, 36, 43</td>
</tr>
<tr>
<td>Bercov, S.</td>
<td>19, 30, 34</td>
</tr>
<tr>
<td>Berger, S. E.</td>
<td>17, 33, 34, 44</td>
</tr>
<tr>
<td>Berstated, C. T.</td>
<td>15, 45</td>
</tr>
<tr>
<td>Billeh, V. Y.</td>
<td>15, 25, 41</td>
</tr>
<tr>
<td>Block, K. K.</td>
<td>16, 33, 41, 42</td>
</tr>
<tr>
<td>Bourne, L. E. Jr.</td>
<td>15, 16, 25, 38, 40, 42, 43</td>
</tr>
<tr>
<td>Brainard, C. J.</td>
<td>15, 29, 35, 38</td>
</tr>
<tr>
<td>Brinley, J. E.</td>
<td>15, 30, 33, 34, 35, 40, 42</td>
</tr>
<tr>
<td>Brown, A. L.</td>
<td>15, 25, 28, 30, 33, 35, 38, 41, 42, 43</td>
</tr>
<tr>
<td>Brown, E. R.</td>
<td>15, 33, 42, 45</td>
</tr>
<tr>
<td>Brown, J. L.</td>
<td>15, 32, 33, 40</td>
</tr>
<tr>
<td>Butts, D. P.</td>
<td>17, 26, 29, 31, 37, 39</td>
</tr>
<tr>
<td>Cahanon, R. L.</td>
<td>15, 28, 31, 42, 45</td>
</tr>
<tr>
<td>Caldwell, E.</td>
<td>see Hall, Salvi, Segger, et al. 17, 25, 28, 37, 44</td>
</tr>
<tr>
<td>Campbell, M. L.</td>
<td>15, 29, 36, 43</td>
</tr>
<tr>
<td>Carlson, J. S.</td>
<td>15, 29, 36</td>
</tr>
<tr>
<td>Chlebeck, J.</td>
<td>15, 35, 42</td>
</tr>
<tr>
<td>Christie, J. F.</td>
<td>15, 28, 36, 43</td>
</tr>
<tr>
<td>Citron, I. M.</td>
<td>15, 16, 31, 39</td>
</tr>
</tbody>
</table>

*Numbers which are underlined refer to entries in Chapter VII, "Bibliography Listed According to Classification System."*