This publication is one of a series on current research and resources compiled by the Counseling and Personnel Service Center. The relationship of decision-making to creativity and dominance, group processes, educational and vocational planning, business strategy and communication are areas included in this resource. The roles played by the teacher, counselor, and computer in teaching decision-making skills are emphasized. Resumes of the selected literature suggest the main issues and the variety of available materials. Procedures for obtaining complete documents are explained. (NS/Author)
SCOPE OF THE
ERIC
COUNSELING AND PERSONNEL
SERVICES INFORMATION CENTER

The ERIC Counseling and Personnel Services Information Center (CAPS) is responsible for materials and research reports relating to the preparation, practice, and supervision of counselors and other personnel workers at all educational levels and in all settings. Included are materials describing theoretical development; the use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing environmental information; group work and casework; and reports on program development and evaluation. Included also are materials which deal with the nature of pupil, student, and adult characteristics; descriptions of education, occupational, and community settings; and discussions of the types of assistance provided by personnel workers in such areas as career planning, family consultations, and student orientation activities.
CAPS CURRENT RESOURCES INDEX

DECISION-MAKING

Compiled by
Thelma Urbick

June 1968

The work presented herein was performed pursuant to a contract from the U. S. Office of Education, Department of Health, Education, and Welfare.

ERIC
Counseling and Personnel Services Information Center
University of Michigan
611 Church Street
Ann Arbor, Michigan
PREFACE

Although decision-making has always been a part of man's thought processes, awareness of the importance of decision-making skills seems to have been a relatively recent phenomenon. The theoretical base, skills involved in the process itself, group decision-making, and decision-making in specific areas have all received the attention of researchers and writers. Recognition of the importance of the student's learning decision-making processes and skills and applying them to his educational and career planning has resulted in innovative thinking and techniques.

The relationship of decision-making to creativity and dominance, group processes, educational and vocational planning, political influence and power, community planning, business strategy, and communication are areas included in this resource. References to the roles played by the teacher, counselor, and computer in teaching decision-making skills are also a part of this index.

This publication will fulfill its purpose if it serves to familiarize the reader with current thought and research, and acts as a stimulus to the examination of his explicit and implicit decision-making experiences.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>i</td>
</tr>
<tr>
<td>Introduction</td>
<td>v</td>
</tr>
<tr>
<td>Current Resources Series</td>
<td>vii</td>
</tr>
<tr>
<td>Organization of Current Resources Series</td>
<td>viii</td>
</tr>
<tr>
<td>Resume Section</td>
<td></td>
</tr>
<tr>
<td>ERIC Document Resumes</td>
<td>1</td>
</tr>
<tr>
<td>CAPS Document Resumes</td>
<td>10</td>
</tr>
<tr>
<td>ERIC Project Resumes</td>
<td>15</td>
</tr>
<tr>
<td>Journal Article Resumes</td>
<td>19</td>
</tr>
<tr>
<td>Subject Index</td>
<td>27</td>
</tr>
<tr>
<td>Author Index</td>
<td>45</td>
</tr>
</tbody>
</table>

iii
INTRODUCTION

This publication is part of the Current Resources Series (CRS), developed by the Counseling and Personnel Services Information Center (CAPS). The series has been planned to assist personnel workers in the identification and retrieval of informational resources in areas where there is both an expanding knowledge base and identified personnel worker need for increased informational materials.

Several characteristics of CRS deserve special emphasis. First, the coverage of each publication is tailored to the topic. Some topics will provide an extensive coverage of basic and applied research sources while other topics will lead to greater use of philosophical and humanistic documents and publications. Basic to all topics, however, is a search strategy which includes an intensive examination of Research in Education and core psychological and guidance journals. A second major characteristic of CRS is that each publication is designed to facilitate user searches. Two indexes, an extensive subject index based on ERIC descriptors and an author index, enable the user to search the contents of each volume rapidly and thoroughly. A third characteristic is the inclusion of an abstract for documents indexed in each volume. The presence of the abstract both adds to the user's knowledge in a given area and provides a useful tool for the judicious selection of full documents when the abstract is insufficient. An important fourth characteristic is the relatively easy access to, and retrievability of, all documents indexed in CRS. A large number of the documents are available at comparatively low cost from the ERIC Documents Reproduction Service (EDRS), either on microfiche or in hard copy. On more generally available resources, full bibliographic entries are provided so that they may be ordered directly from the publication source.

The uses of CRS are legion. It can be used as the first step in the search phase of a research project, a means of analyzing informational trends in a topical area, a tool for browsing in new information areas or as a means of regularly updating knowledge acquisition in a topical area of continuing interest. Other uses may readily be apparent to you as you use the index. The first three indices, published in May, included: The Use of Information in Personnel Services, Small Group Work and Group Dynamics, and Pupil Personnel Services. Other indices published concurrently with the present index are: Professional Specialties in the Pupil Personnel Services and Elementary School Counseling and Guidance.

Additional publications focused on other topics will be introduced as new information becomes available. Existing CRS publications will also be regularly updated through the distribution of supplementary materials.

Each CRS publication is intended to be usable by itself. However, the optimum use of each is as one part of a local information system organized to meet the information needs of major user sub-groups in a given locale or unit. Through other CAPS publications and consultation with local units, CAPS is striving to assist others in the more efficient utilization of knowledge. Inquiries about available publications and services are welcome.
Suggestions and/or reactions regarding this publication or ideas for new publications are eagerly solicited.

Garry R. Walz
Director
CURRENT RESOURCES SERIES

The CAPS Current Resources Series is designed to meet the needs of personnel workers and those interested in personnel work for current research and resource information.

Topic Selection

Each individual publication within the Current Resources Series focuses on a topic of interest to a large number of users. These specific topics are selected using three types of data. First, the CAPS staff surveys both the CAPS Collection and the total ERIC Collection for indications of information trends. Also, the letters of inquiry received at CAPS are analyzed to determine the current information concerns of our users. Finally, special subject matter consultants who are external to the Center are consulted to gain further insights concerning our users' information needs. The information gained from these three sources, the CAPS and ERIC document collections, users inquiries, and consultants suggestions, form the guidelines for the final selection of Current Resources Series topics.

Comprehensiveness of Information Search

Once the topic for this Current Resource Index had been determined, a comprehensive search for information on this specific topic was initiated. For this publication, several major collections were searched. First, the total ERIC microfiche file was searched. This includes all issues of Research in Education. The second collection included in the search was the CAPS collection. This includes all CAPS materials which have been abstracted and indexed but have not been submitted to the Central ERIC collection. Another major source was the CAPS journal collection. CAPS subscribes to about forty journals which are either personnel work journals or behavioral science journals containing information relevant to personnel work.
ORGANIZATION OF THE CURRENT RESOURCES SERIES

Resume Section

The Resume Section contains information about each of the documents reported in this publication. The resumes are divided into four sections. These sections are: (1) ERIC Document Resumes, (2) CAPS Resumes, and (3) ERIC Project Resumes, arranged in numerical order by accession number, and (4) Journal Resumes, arranged alphabetically by author.

1. ERIC Documents - The first resumes to appear in this section are documents which have been completely abstracted and indexed for the central ERIC collection. These documents are available in either hard copy or microfiche from the ERIC Document Reproduction Service. These resumes are clearly identifiable by the ED Accession Number.

Sample ERIC Resume

7
Shumake, Franklin
Pupil Personnel Services Seminar, A Summary.
Georgia State Department of Education, Atlanta
15 Nov 66
MF-$0.50  HC-$3.52  86P.


The five major areas covered by a seminar on Pupil Personnel Services, sponsored by the Georgia State Departments of Education in June, 1966, are summarized. Papers were presented, and a panel reacted to the following: (1) the pupil personnel concept, (2) the counselor on the pupil personnel staff, (3) the social worker on the pupil personnel staff, (4) the school psychologist on the pupil personnel staff, and (5) the administration of pupil services. The papers and the panel discussions (both reprinted) dealt with the educational training of different pupil personnel specialists, specialists, specific problems of three specialists in the state of Georgia, and the role of pupil personnel services in terms of a total instructional program. (SK)

2. CAPS Documents - The second resumes in the Resume Section are materials which have been indexed and abstracted or annotated. These materials are available in hard copy from the CAPS Center. CAPS resumes are clearly identifiable because they have only a CG Accession Number.
New Models and Techniques in Career Guidance.
Boynton, Ralph E.
Pittsburgh Univ., Pa.
12P.


A model for a career guidance system that appears to effect positive change for students, schools, and the community is presented. There are four phases to the model, one for each year the student is in high school. The student's skills, aptitudes, interests, intelligence, and achievements are determined at initial fact gathering sessions. This information is stored in a computer. The student may obtain information from the computer about grades, courses taken, and college acceptance. The counselor receives a copy of all such sessions. Students are assigned by the computer to discussion groups which focus on the selection of occupational objectives. Career seminars provide the students with opportunities to talk with representatives of careers in which they have an interest. Where feasible, senior year students are given work experience opportunities. This type of approach appears meaningful for students who are not college oriented. The use of a systems approach, peer groups for counseling, and community resources seems to operate effectively in preparing students to take their place in the economic life of a community. (SK)

3. ERIC Project Resumes - This section contains resumes of ongoing projects currently being funded by the Bureau of Research, U.S. Office of Education. Reports of these projects are not currently available. The user may find these references of interest and thus either contact the investigator for further information or be alerted for reports of these projects as they later appear in future issues of Research in Education. These resumes may be identified by the EP Accession Number.

4. Journal Article Resumes - Journal Articles have either been annotated or appear with author abstracts. They are available from the original source only. The resume for the journal article indicates the source of each article.

Sample Journal Article Resume


The number of bibliographies in the field of psychology is rapidly increasing. A system for developing a bibliography of psychology-related bibliographies is devised and applied. (JR)
Subject Index Section

The Subject Index Section contains an alphabetical listing of subject headings with appropriate resume numbers and titles listed under each heading. The user may scan titles to identify those documents of greatest interest and then use the resume number to enter the Resume Section for further information about the document and document availability.

The user is encouraged to use a multiple search strategy. When searching for information, it is desirable to search more than one term. When initiating his search, the user may want to scan the subject index to develop an overview of the types of subject headings which are being used. Then, when searching for specific titles, he will want to enter the subject index through several subject headings.

Sample Subject Index Entry

COUNSELORS

(24) The Computer in Educational Research and Its Implications for the Counselor
(54) Information and Counseling: A Dilemma
(56) A Review of Literature as a Service to Teachers
(59) Three Dimensions of Counselor Encapsulation
(60) High School Counselors and College Information
(61) A Professional Approach to the Information Function in Counselor Education
(73) Ideology and Counselor Encapsulation
(79) The Impact of Information Systems on Counselor Preparation and Practice
(80) Data Processing in Counselor Education

Author Index Section

The Author Index Section contains an alphabetical listing of authors with appropriate resume numbers and titles listed under each author. Using the resume number, the user may enter the Resume Section for further information about the document and about document availability.

Sample Author Index Entry

BOROW, HENRY

(30) Occupational Information in Guidance Practice Viewed in the Perspective of Vocational Development Theory and Research
(44) Research Frontier, Information Retrieval: A Definition and Conference Report
Procedure for Ordering Documents

ERIC Documents

Orders must specify:
- ED numbers of documents
- Kind of reproduction desired
  - Hard copy
  - Microfiche
- Number of copies
- Method payment
  - Cash with order
  - Deposit account
  - Charge

Address orders to:
EDRS
The National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20014
(The ERIC Document Reproduction Service will provide a convenient order form upon request.)

Prices are quoted on the last line of each report citation. Payment must accompany orders totaling less than $5.00. Add a special handling charge of 50 cents to orders totaling less than $3.00. The EDRS is registered to collect sales tax. Please add applicable sales tax or submit tax exemption certificate for the following states:

Alabama
California
Colorado
Connecticut
District of Columbia
Florida
Georgia
Hawaii
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Missouri
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Virginia
Washington
West Virginia
Wisconsin

Foreign orders: A 25% service charge, calculated to the nearest cent, must accompany orders from outside the United States, its territories, and possessions. This service charge is applicable to orders for microfiche (MF) and hard copy (HC).

CAPS Documents

The CAPS Document Reproduction Service is able to provide hard copy reproduction on CAPS documents only. This service excludes all documents listed in either the ERIC Document or Journal Article Section.

The cost of this service is $0.10 per page. The total cost of an order can be computed by multiplying the number of pages, as indicated on the resume, by $0.10. There is no additional charge for handling or mailing.
Foreign orders please add 25% to the cost of each order.

To order, please specify the CG accession number and the titles of the document.

Methods of payment:
   (a) Cash with order preferred. No stamps please.
   (b) Billing with order.
RESUME SECTION
The problem of this effort involved -- (1) the development of a workable and empirically grounded theory of communication and decision-making relative to student transition from high school to college, and (2) the design and empirical testing by computer manipulation of a formal model to characterize this theory, using the "Markov Chain Process." An empirical setting, a conceptual framework, and term definitions were provided in describing the communication-decision behavior among high school students. Given the conceptual framework, the next step was to choose an "optimal" strategy (in relation to the state of information) for the model design. Next, the "time-dependent" communication behavior of students in relation to the state of decision was examined in the light of two possible solutions--(1) a communication-decision model with constant transition matrices or incremental behavior in a sequential over time, and, (2) a model with time-varying parameters or transformation information over time. From this activity, a Markovian Time-Varying, Communication-Decision Model was developed. A Digital Computer Program, using Fortran Language and providing random outputs, was then developed for model simulation. The computer generated a number of outcomes which showed how long it took a student to arrive at a "decision" and what kind of decision was made, namely, to go or not go to college. (JH)
teachers, administrators, and supervisors was related, in a positive manner at an appreciable level of significance, to the incidence of planning for instructional change and to the extent of the implementation of this planning. Teachers, administrators, and supervisors (N6183) responded to such decision-point questions as (1) who makes this decision, (2) who else participates in making this decision, and (3) how did you participate in this decision. Results indicated that the relationship between the extent of congruence in staff perceptions of decision-point location was not significantly related to the production of curricular plans and the implementation of these plans. (LP)

Krumboltz, John D. * and others

Counseling procedures derived from research in social learning were experimentally tested. Procedures were used by counselors to assist students in learning how to make plans and decisions more effectively. Specifically, this study tested the relative effect of student social models, characterized by varying degrees of athletic, social, and academic success, on the information-seeking behavior of male high school students. The study was conducted in 4 high schools with 225 eleventh-grade students. Treatment procedures administered to 189 students in 27 active treatment groups included the presentation of an audiotape in which the peer social model verbally demonstrated those behaviors the study sought to promote. Evaluation of the treatment procedures was made by determining the frequency and variety of such information-seeking behaviors as writing to a college for entrance information. Results indicated that the treatment procedures did not produce statistically significant differences among the various treatment groups to answer or support the questions and hypotheses raised, though not hypothesized, it was found that subjects counseled by a male counselor engaged in a significantly greater number and variety of information-seeking behaviors than subjects counseled by a female counselor in the same school setting. Additional research utilizing different criterion measures, designs, and media of model presentation is necessary before any final conclusion can be drawn. (JM)

Pankove, Ethel
The Relationship Between Creativity and Risk Taking in Fifth-Grade Children. Rutgers, The State Univ., New Brunswick, N.J. Sept. 66
Individual differences in risk taking were studied in a sample of 162 middle-class children in grade 5. Measures of anxiety, creativity, defensiveness, intelligence, and risk taking were analyzed to determine certain selected relationships. The author concluded that creativity bears a more powerful relationship to risk taking than does intelligence. (JK)

Dinklage, Lillian B.  
Sept 1966  
MF-$0.50  HC-$3.76

Current models of decision-making and related research in connection with certain developmental tasks of adolescents were reviewed. The decision elements receiving theoretical attention were (1) decision-process phases, (2) decision-outcome probabilities and structural components, (3) decision-plan dimensions, (4) decision strategies, and (5) decider traits, needs, drives, and social context. Vocational maturity and developmental readiness were discussed in relation to career development, dynamic decision processes, personality factors, and types of deciders. A review of adolescent cognitive development indicated that it was a continuous and tentative process and frequently was based on more psychological elements than logical ones. In addition, many stage tasks called for and would be enhanced by a growing competence in decision-making. (GC)

Yabroff, William W.  
State Dept. of Education, Sacramento, California  
Sept. 1964  
MF-$0.25  HC-$0.44

Two hundred forty-eight ninth grade students were given four weeks of daily intensive group guidance on vocational and educational planning prior to experimental treatment. Students were randomly divided into three ability groups and three treatment groups. The control group received no further treatment. Group 1 received training using local probability data (experience tables). Group 2 received instruction in decision-making using general probability data similar to that presented in the 1st four weeks. Group 1 scored significantly higher (beyond .01 level) than groups 2 and 3 at all ability levels in 1) knowledge about the process of decision-making, 2) awareness of high school and college alternatives, 3) knowledge of the probabilities involved in these alternatives. No significant differences between sexes were found.

This experiment suggests that in helping 9th grade students learn decision-making, local probability data can be meaningful to students at all ability levels, equally effective with boys and girls, and more effective than general data or structured guidance units on general information. The author suggests that using local data and allowing the student to make his own tentative interpretation makes the data more personal and stimulates intensive group discussion about education plans and personal values. (JH)

Bailey, Stephen K.
Urban Decision-Making, The University's Role.
Center for the Study of Liberal Educ. for Adults, 1967
MF-$0.25  HC-$0.64  14P.


The author examines the various ways in which the university can and should influence urban decision making. The central university role is sensitizing the decision makers and the citizens to human misery, such as bigotry, squalor, disease, ugliness, poverty, and ignorance. Long-range roles are pinpointing the problems urban decision makers should deal with, discovering the root laws of human behavior, and finding answers to problems according to these laws. Short-range roles include providing technical advice and educating urban decision makers. The complete document, "Political Background of Adult Education, the University in Urban Society," is also available from the Center for the Study of Liberal Education of Adults at Boston University, 138 Mountford St., Brookline, Massachusetts 02146, for $1.25. (JA)

Wrench, David F. and Gregor, Gary L.
Balancing in Group Decision Making.
Oregon Univ., Eugene
Jan 1966
MF-$0.25  HC-$1.12  26P.

*Group Dynamics, *Interaction Process Analysis, *Group Behavior,
This study was designed to test the theory that laboratory groups making complex decisions will distort their perceptions of each other in ways predictable from Newcomb's A-B-X Model of Perceptual Distortion, in which "A" represents the perceiving individual, "B" represents another member of the group, and "X" the issues under discussion. Four hypotheses dealing with perceptual distortion were tested in simulated school boards, each composed of four subjects and a graduate student, the latter playing the role of a nondirective superintendent of schools. Each subject received communications from, and represented, an interest group. Each board met four times, and, at each meeting, two different but interrelated issues were discussed and decided. Subjects were asked to rate each other, the superintendent, and themselves at the start, middle, and end of each meeting in relation to a hypothetical normal distribution of a reference population. The two types of ratings made were (1) position on issue and (2) soundness of judgment. Mixed results were obtained. In fact, one hypothesis was significant in the opposite direction to that predicted, so that the static correlation between perceived position discrepancy and expertise is high and negative. Further search for the conditions which led to these results was recommended. (GD)

Franklin, Richard and Franklin, Paula
National Training Labs., Washington, D.C.
1967
MF-$0.50 HC-$4.00 98P.

This National Training Laboratories (NTL) Conference, departing somewhat from its usual experience-based learning programs, focused laboratory training methods on the decision-making process in urban-community problem solving. The conference presented theory, information, and opinion on the nature of cities and their decision-making processes. Groups of participants studied the rational-technical-social analysis, and a concept of forces for change versus restraining forces. Participants dealt with two approaches to social change--the conflict-oppositional strategy and the collaboration-integrative strategy. One group examined ways of enlisting maximum feasible participation of the poor in urban decision making, especially in the war on poverty.
Findings were consolidated and recommendations made on more effective approaches to urban change. Participants planned how they would influence change in their own communities. A final evaluation of the conference was made by participants. The document includes nine references, case studies of several cities, discussion transcripts and other records, and appendixes. This document is also available from National Training Laboratories, 1201 Sixteenth Street, N.W., Washington, D.C. 20036, for $3.50. (LY)

Gittell, Marilyn
Participants and Participation, A Study of School Policy in New York City.
Center for Urban Education, New York, N.Y.
1967
MF-$0.50  HC-$4.88  120P.

A 3-year study of decision-making in the New York City Schools explores the political forces affecting educational policy and evaluates the relative openness of the system. Policy makers include the Board of Education, 31 local school boards, the superintendent, the head office staff, the field staff (principals, assistant principals, district superintendents, and department chairmen), a headquarters supervisory group, local district superintendents, supervisory associations, the teachers' union, local civic and interest groups, and the city's press. As policy formulation for an increasingly complex school system has demanded more specialized knowledge, power has shifted from the board to professionals in the system and to special interest groups. Curriculum development and budgeting are almost completely controlled by the headquarters supervisory bureaucracy. In the selection of the superintendent, the board of education plays a primary role. The determiners of salary policy include the major and special interest groups, further breaking the monopoly of power vested in the small core of superintendents, boards, and school bureaucracies. Suggestions for decentralizing the system include (1) developing educational parks, (2) strengthening local school boards, (3) decentralizing economic administration into local school districts, and (4) replacing the present single district with several coordinated smaller districts. These suggestions are applied to the five boroughs of New York City. This document is also available from the Center for Urban Education, 33 W. 42 St., New York, N.Y. 10036, for $1.00. (JK)

Sitgreaves, Rosedith
Fundamentals of Statistical Decision Theory.
1965
MF-$0.25  HC-$1.64  39P.
Statistical decision-making theory provides a frame of reference within which the counselor and client can consider a wide range of problems of decision making. In the face of uncertainty, a set of actions is available. Preference among these actions depends on the true state of nature which is generally unknown. To gain this information, an experiment can be performed which will yield a set of data. A strategy for decision making is a complete prescription which specifies the experiment to be performed and the terminal decision to be made for each set of data collected. With the use of a loss table, the expected loss for any strategy for each state of nature can be found. Comparisons generally make it possible to eliminate inadmissible strategies. Two criteria can be employed to select from the remaining classes of admissible strategies. First is the Minimax Principle which is based on the criterion of selecting the strategy for which the maximum expected loss is the smallest. Second is the Bayes Criterion which is based on the assumption that there is a known probability distribution over the states of nature and, therefore, the expected risk of wrong decisions can be minimized by computing the average of the assumed probability distribution. This address was presented at the conference on the training of counselors of adults (Chatham, May 22-28, 1965). (RM)
High school students are examining and internalizing values. Their fear of commitment to anything deviating from accepted values may hinder their clarification of personal goals and values. The decision making process should be an important part of the guidance program. Standard questionnaires do not provide information about specific factors which affect personal decisions. Such information is more effectively obtained through evaluation of spontaneous samples of students in a decision making situation. Related questions include (1) whether only the mature, independent student can effectively examine subjective desires, (2) whether counselors should use students' affective reactions to alternatives as a basis for working with them, (3) whether the high school student is able to distinguish personal values from peer, community, or school values, and, if not, should the counselor work with the student toward clarifying and distinguishing the two, and (4) whether the limited life experience of the high school student also limits rational utilization of values in decision making. Experiences with group counseling, group experiences with a simulation life career game, group guidance sessions on decision making, and individual counseling which have helped students develop values and make decisions are described. Suggestions for further research are given. (PS)
school pupils, who varied in heterogeneity, sex, educational level, locale, socioeconomic characteristics, and aspirations were selected. Three separate factor analyses were conducted on the basis of survey and inventory checklist responses. Major general factors (conformity, academic value, material value, altruistic value, school influence, influence of experience, science interest, and humanities interest) were identified as among those contributing to educational decisions in the samples. Certain decision structures before college resemble factors contributing to college attendance. Many factors are associated with educational decision making. The eight major factors are generally comparable to factors obtained on the determinants of vocational decision. Except for sex, personal and social variables are not closely linked to motivational factor structures. This paper was presented at the American Personnel and Guidance Association Convention, Dallas, Texas, March, 1967. (AF)

15

Varenhorst, Barbara
Palo Alto Unified School District, Calif. 15P.


A program to teach decision-making skills to ninth and eleventh grade students using local research data, visual aids, and other materials was undertaken. In group guidance sessions, these problems were discovered: (1) some decisions are never consciously made, (2) the emotional bases of decisions are not considered, (3) many students avoid making decisions because they fear lasting consequences, and (4) provisions for practice in decision-making are needed. To alleviate some of these problems, the Life Career Game developed by Boocock and Coleman, was employed. Using two groups comprised of 10 and 18 students respectively, teams of two students were formed. Each team planned a fictitious student's life for 20 years, including education, occupation, family life and leisure time. Teams competed for the highest number of points in the game. The games were successful because they provided motivation and involvement, illustrated future factual realities, and led to discussion. Since the game meets some needs which were lacking in group guidance sessions, it can be used in conjunction with the sessions. Plans call for extended use in the high schools as well as implementation in junior high schools. (PR)

16

Tillery, Dale * and others
Scope State Profile, Grade Twelve 1966, Massachusetts. A Descriptive Report.
California Univ., Berkeley, Ctr. for R. and D. in Ed.
1966
77P.


School to College--Opportunities for Post Secondary Education (SCOPE), is a six-year project which seeks to discover decision-making patterns among high school students. This report on Massachusetts, the second of the series, gives means, percentile ranks, standard deviations, and distributions on the verbal ability test, math ability test, ability test, student questionnaire item analysis, occupational preference item analysis, activities preference item analysis, and an intellectual predisposition scale. Information about both ninth- and twelfth-grade students, as a basis for longitudinal studies, was collected about the following variables--academic ability test scores, family and home milieu, parental expectations, self-evaluation, values, perceptions of school, information-seeking activities, occupational preferences, and intellectual predisposition. (WR)

17

Ellis, Allan B. * and others
Aug-1967
117P.


A computerized information system for vocational decisions is described and demonstrated. Demonstration materials include an introduction to the system, six scripts, a test of occupational knowledge, and a script writing language. The inquirer's name is first requested by the system. The inquirer decides whether he wishes to choose a specific script, take the test of occupational knowledge, or write a script himself. The script, "naming and collecting job preferences," elicits appropriate data, collects job preferences, and calls up other scripts. "Exploration" collects data and directs users to other scripts. "Learning the ROE categories" is for those who have not thought about future occupation, and "choosing further education" presents educational opportunities. "Choosing a job by characteristics" elicits preferences and dislikes about job characteristics using a base of 11 occupations. "Getting specific job descriptions: uses the
The importance of assisting students in the decision-making process is explored. Counselors assist students in learning how to make decisions. A decision should be evaluated in terms of the process used to arrive at it rather than in terms of the resulting choice. Knowledge of alternatives, possible outcomes, and the probability for success of each of the outcomes are necessary for scientific decision-making. New counseling procedures have been proposed and experimentally studied to promote this type of behavior. Model-reinforcement and reinforcement counseling have been shown to be effective in motivating students to seek and use information prior to making decisions. Results of several research studies utilizing such procedures are presented. Other studies using counseling techniques derived from research in learning have also proved effective in promoting good decision-making procedures. These techniques include verbal reinforcement, use of programmed booklets, and participation in simulated experiences. These techniques have also helped students gain skills necessary for meeting decision making problems. This paper was presented at the American Psychological Association Convention, Washington, D.C., September, 1967. (SK)

Wilson, Eugene H.
Apr-1967
180P.

A course in decision-making, built around the Tiedeman-O'Hara Paradigm, was taught at a junior high school to test materials. The three essential aspects of teaching decision-making are--(1) learning the language of the decision-making process, (2) practicing decision-making while under supervision, and (3) formulating criteria for a decision. A booklet, "You,
the Decider," containing relevant theory, activities, tasks, and cases resulting in explicit criteria for choice was given to students. Weekly workshops for teachers were held six weeks before the course began. A sharing of competencies by research personnel, counselors, and teachers took place at the workshops, which were continued through four weeks of actual teaching. Resource materials included the "Occupational Outlook Handbook" and Katz's "You, Today and Tomorrow." Results of the evaluation of the course are not presented, although a definite research program has been designed. A copy of "You, the Decider" and various evaluation instruments are included. (SK)

Yabroff, William W.  
Invitation to Decision, Guide I--Ninth Grade.  
Palo Alto Unified School Dist., Calif.  
1966  
92P.  

Decision Making, Ninth Grade

This booklet, designed to be used in learning the decision-making process, is worked with by the student from the ninth grade through high school. From available educational and vocational facts, the student learns to weigh alternatives and their possible consequences. (TU)

Yabroff, William W.  
Two Experiments in Teaching Decision Making.  
National Defense Education Act, Washington, D.C.  
California State Department of Education, Sacramento  
Jun-1964  
67P.  

Possible effects of teaching decision-making (DM) to ninth grade students using locally derived versus general probability data were demonstrated, using two school guidance programs differing in their emphasis on individual versus group counseling. In the first experiment, 33 ninth grade students, previously exposed to individual counseling, were given four daily class periods in DM training and then a test on the DM process. The control group was given only the test. In the second experiment, 248 pupils were given a four week daily program in general group guidance. They were then divided into three groups. Group I received a week's training in the DM process using local probability data. Group II received a week's training using general probability data. Group III received no additional training. Students who received training using local probability data scored significantly higher than other groups on objective tests, they were more able to realistically select a high school academic load, and stated more realistic college alternatives. An operational model was developed for gathering and presenting local
research. The value of local research for the decision making approach is strongly supported by the findings. (PR)

22
Johnson, William H. E.
University of Pittsburgh
25-May-1966


The purposes of this project are (1) to determine to what degree and in which directions the educational decisions of the Academy of Pedagogical Sciences in Moscow influence the programs and policies of secondary educational institutions in Yugoslavia, Poland, and Czechoslovakia, and (2) to determine to what degree each of these nations has managed to avoid Soviet domination and to express in secondary schools their own independent thought and action. Procedures will be related to an earlier intensive study of the Academy of Pedagogical Sciences already completed by the grantee. Procedures for each of the three nations under the current project will involve (1) interviews with leading educational authorities and research scholars, (2) direct observation of schools and teacher education institutions, (3) conferences with teachers in the schools, and (4) analysis of findings in the light of data on the Soviet Academy of Pedagogical Sciences. (LP)

23
Goodman, Paul
Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia.
New School for Social Research, New York
1967


The relationships between child development and the presence or absence of attitudes of initiative and vocation will be explored in three foreign countries. Visits will be made to Denmark, Yugoslavia, and Israel, where comprehensive survey techniques will be applied in relevant vocational, cultural, and educational institutions. The attempt in these visits will be to discern the kinds of educational institutions which are most conducive to cognitive development, particularly in the areas of decision-making and initiative formation. These particular countries
were chosen for study because of (1) their cooperative movements in production, distribution, and management, (2) their experiences with various degrees of workers' management in industrial enterprises, and (3) their combination industrial-agricultural communities. Findings of the survey will be directly applicable to the Institution of American Education which the author believes, in many cases, is opposed in its nature to preparing the child for initiating and decision-making roles and produces instead a spirit of grade-grubbing. (JH)

Munger, E.S.
Refinement of Political/Military/Diplomatic Games as an Educational Tool.
California Inst. of Technology, Pasadena
Aug-1966

Previously tested role-playing games will be refined and a manual will be developed to provide an instructional tool for schools without this particular simulation experience. The games are intended to stimulate and motivate high school and college students in the acquisition of factual and conceptual knowledge of international relations. The games will focus upon a simulated experience in international crises. This will facilitate student learning of facts, problems, decision-making processes, pressures, and strategy of policy formulation and conduct. (RS)

Sprague, Norman
Exploration of Simulation as a Retirement Education Technique.
23-Nov-1966

This study will be directed toward exploring the use of simulation as a means of presenting the realities of post-retirement years to workers approaching the retirement age. Answers will be sought for two questions--(1) can models be built that simulate the important decisions to be made by persons approaching retirement in such a way that retirement problems would appear realistic and meaningful, and (2) will the simulation technique produce enough interest among older workers to motivate them to plan their retirement early enough to have a choice of alternatives. Steps to be taken in this project are (1) a review of the types of decisions that must be made by most workers, (2) identification of interrelations of problem areas and of the points in the worker's life where some decisions can be made to the best advantage, (3) identi-
lication of the principles used in other decision-making games and the development of new games for retirement simulation, and (4) exploratory testing of preliminary models with groups of older workers. Only the large middle group of workers whose resources are limited but adequate for retirement will be considered in this study. (AL)

Ryan, T.A.
Improvement of Vocational Decision-Making in the Community College.
Blue Mountain Community College, Pendleton, Oreg.
30-May-1965

A program integrating the functions of instruction and counseling will be developed to increase the level of basic knowledge, skill development, effective study behavior, and realistic vocational and educational decision-making by community college youth. Data will be gathered from 200-300 subjects classed on the basis of initial screening as inadequate or unrealistic decision makers. Basic knowledge and skill proficiency, effective study behavior, self-concept and occupational information, decision-making skills, and aspiration will be measured. The instruction-counseling program for this group will consist of approximately 16 hours per week in reading, study skills, and psychological laboratories. Besides affording a laboratory environment, the program will stress individualized instructions, team teaching, staff involvement and small-group counseling. (GD)

Tiedeman, David V. and others
An Information System for Vocational Decisions Under Section 4 (C) of the Vocational Education Act of 1963.
Harvard Univ., Cambridge, Mass.
15-Sep-1965

The major objective of this project is to improve vocational decision-making through the use of a computer-based training program. The program is so designed that the student can relate knowledge about himself to data about education, training, and work, and can thereby obtain information on which he can base career decisions. The entire program links person, computer, and teacher or counselor in such a way that the student conducts a dialog with the computer, and the counselor assists in interpreting and evaluating the results. The project activities fall into three broad areas—(1) development of a computer-based data system for vocational decision making, (2) development of a training program or course in vocational decision-making, and (3) study and assessment of the
system, its users, and its use. (TC)

Friedman, Burton D.
Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools.
Charles F. Kettering Foundation, Dayton, Ohio
27-Apr-1967


A consortium of 36 innovative elementary and secondary U.S. public schools will conduct a descriptive, analytic, and evaluative program of institutional research designed to facilitate management decision making. The design of the study will (1) delineate the population of 36 demonstration schools and the practices these schools manifest, (2) develop case studies of specific schools and practices, (3) develop means for determining costs and for illuminating cost-effectiveness relationships, (4) develop means for evaluating continuous learning materials developed and distributed by a materials dissemination center, and (5) develop conclusions and recommendations. It is anticipated that the conclusions and recommendations will be prepared in appropriate formats and disseminated to a wide audience. (TC)

Green, Thomas F.
A Pilot Policy Research Center.
Syracuse Univ., N.Y., Research Corp.
30-Apr-1967


The establishment of a pilot center for the study of educational policy is proposed. A major task of the pilot center will be to plan the organization and operations of a permanent center that will (1) specify alternate possible states of the educational enterprise, (2) assess alternate possible states of the educational enterprise, (3) assess alternate plans of action open to policy makers, and (4) disseminate the results of such studies to individual groups and organizations in a position to influence the rational formulation of policy. An interdisciplinary approach will be taken to the development of a model for the permanent center, and as part of the development and testing of the model, two research projects will be conducted. The studies to be made are (1) "The New Politics of Local Education--A Study in the Formation of Policy and the Control of Schools," and (2) "The Learning Force--A Statistical Analysis and Projection." This second study would include the "honestablishment" educational activities, such as adult education, on-the-job training, managerial training, and correspondence courses, as part of the educational enterprise. (AL)

The problems of adolescents can be seen mainly as decision-making problems, and counseling with them becomes more definitive when viewed from a decision-making construct.


Decision theory has an important place in the problems of social science and is profitably being used on a diversity of problems.


The background of decision-making theory is reviewed. Interpretation and application of various types of decision-making are discussed and explained.


The power of those in decision-making positions and how they are seen from the viewpoint of various individuals and organizations are discussed. Chapter 12, pp. 237-254, deals particularly with informal power forces in decision-making in individual schools.


Decision-making is viewed from the standpoint of the influence upon it by behavior interaction, individual differences, and interview content.


Information and decision theory are seen as an important frame of reference for secondary school guidance. The author points out the place of probability, models, and values in decision-making.


The "common sense approach" to organizing and administering guidance services needs to be buttressed by sound theoretical principles and the results of meaningful research. In view of the absence of such support, the contributions of the science of organizations are examined for relevant concepts and conclusions. Commonly held assumptions regarding
the value of democratic supervision and participative problem-solving need to be qualified. In addition, effective social interactions are viewed as a function of a complex of behaviors and events involving the initiator, the recipient and their situational circumstances. The concepts of communication, organization fiction, power, and decision-making were seen as providing the administrator with additional cues for appraising and revitalizing his program and service.


The function of high school guidance services in facilitating educational-vocational decision-making is twofold: it involves helping students make "good" educational-vocational decisions and also helping them develop effective decision-making skills. This paper presents a paradigm dealing with certain aspects of the decision-making function and illustrates how the paradigm can be utilized in research to improve guidance services. The paradigm suggests that the greater the knowledge a student has concerning the possible sequences of experiences that lead from his present situation, the more likely he will be able to direct his development toward the outcomes he desires. Local guidance research, conducted in two secondary schools which utilized this paradigm, is discussed. A research strategy is developed and some research examples are reported.


A goal of counseling is to help decision makers make good decisions. But what is meant by "good"? Two views are discussed: outcome and process. The former is concerned with real-life results after the decision is made, the latter with the quality of the deliberations during the decision-making process. The counselor's interaction occurs during the process and is in terms of the decision maker's statements about reality (rather than reality itself). These statements are often unrealistic in that they inaccurately reflect conditions in real life. Counselors should help decision makers change their inaccurate perceptions so that (1) process deliberations are more likely to lead to expected outcomes, and (2) the decision maker is more likely to be prepared for whatever outcomes occur.


This study is concerned with the development of an instrument measuring decision-making ability (DMI) and the relationship of scores on this instrument to intelligence, achievement, and participation in extra-curricular activities, three variables known to be related to vocational maturity. The DMI was administered to 174 high school seniors, randomly selected from four metropolitan high schools in the Midwest. Chi-square and analysis of variance were used to test the relationship
of levels of DMI scores to each of the other variables. It was found that high DMI scores were associated with: (a) high intelligence, (b) high achievement, (c) high frequency of participation in extracurricular activities. It is concluded that decision-making ability is related to vocational maturity.


The authors suggest that the distribution of influence within the professional association is partly the result of the demands of the professional culture of the association, and partly of the role requirements within the association as well as between the association and other social organizations.


Decision-making guidance has proposed that a student should use specific, relevant information in formulating estimates of how likely it is for him that certain actions will lead to certain outcomes. These estimates are necessarily subjective; they are a result of the student's own interpretations of whatever objective data are available. By referring to some of the psychological research on how people actually make decisions, this paper discusses the need for school guidance programs to provide students with objective data relevant to the important decisions to be made and to present such data in a powerful way in order to influence these subjective estimates. Implications for counseling and for emphasizing personal student values are also discussed.


Secondary school counseling and guidance development has suffered from the lack of a compelling theoretical frame of reference. A framework is proposed and called "sequential decision-making." Implications for guidance practice are presented.


Problems in higher education are delineated. Guidance and personnel services offer a vital dimension to total education. More research and knowledge of the decision-making process is needed in higher education.

This study points out that superior ninth-grade students prefer to make their own decisions on educational matters. However, parents would rather make the choices. There was significant agreement among the parents and the child on only six of fifteen items, suggesting that there may be difficulties in communications about educational decisions that may develop into conflicts.


This discussion of the decision-making process is concerned with "the dynamics of human activity." It centers on decision-making as (1) obtaining the greatest value from money, people, space, and time; (2) stimulating and directing the abilities of the faculty; and (3) involving students in the decision-making process as a means of educating them.


An adaptation of decision theory was described for use in counseling about choice of college or of college curriculum. Its use requires that actuarial procedures be available for estimating probabilities of various levels of grades (events) at various colleges (alternatives). Actuarial procedures are available to all counselors for many colleges in at least two states. Values for the grades are determined by means of constant-sum scaling. The procedure has been tried out on limited numbers of cases seen by the author and seems to be usable and helpful.


Career development can be described as the accretion of a chain of decision. Five possible models of decision-making processes were examined: the attribute-matching model, the need-reduction model, the probable gain model, the social structure model, and the complex information processing model. Each was found to have some useful emphases but most of them involved assumptions not consistent with available research findings or informal observations. The author proposes that the reduction of dissonance among a person's beliefs about himself and his environment is the major motivation of career decision-making. Three sets of hypotheses which are based on the model are presented.


A fifteen item Indecision Scale was empirically derived to further understanding of the process of decision. The Indecision Scale was
found to have substantial construct validity by virtue of its relationship with personality and interest inventories, self-ratings and life goals, and various achievements. When the Indecision Scale was applied to a cross-validation sample, it was also found to have predictive validity over a one-year interval for change in major field. Results lend support to decision theory emphasizing the importance of personality and interest variables. The Indecision Scale is also positively associated with both the potential for and performance of creative work, especially in the arts.


This model of guidance for career decision-making assists the student in taking full cognizance of the range of values in the culture and encourages him to make his own values explicit. The next task is to convey appropriate information about the opportunity or strength of return inherent in each option. Then it is time to harness relevant predictive data and to show how these three systems can be combined in a rational process.


Some psychological concomitants of decision-making behavior were investigated. The first grade subjects were administered the Rorschach, the Rosenzweig Picture-Frustration Study, sociometric measures, and teacher ratings were intercorrelated. Case illustrations are provided.


This paper departs from Elliot Jaques' theory on the discretionary lag between a decision and its implementation. The major emphasis here is to show how processes of the present and future are related. While the future process can be conceptually extended or shortened, the present cannot be.


Much of the impact of the counselor is indirect. The counselor achieves success when the student arrives at the right decision on his own through the efforts of the counselor.


A practical situation is used to illustrate how Bayesian decision theory
can be applied in counseling and educational problems. It is shown that the formal decision process involved in Bayesian procedure is different from and more objective than the approach in classical decision theory.


An experiment was conducted to investigate the structure of interdependent strategies in an effort to illuminate the psychological processes involved. In order to construct an experimental task in which both interdependence and experimental control of the form of the interdependence would be possible, a small digital computer was programmed to play zero-sum games against human subjects. The machine was programmed to play the game according to three different strategies.

Fourteen human subjects played a zero-sum game against each of these programs for a total of 150 trials. The sequence of choices for each subject was analyzed in an effort to determine how the different strategies used by the machine affected the strategies used by the subjects.

The analyses indicated that the decision strategies adopted by the subjects depended critically on the strategy used by the computer. The subjects' strategies were effective, although not strictly optimal, against those of the machine. The results reveal a level of complexity not previously observed in the study of interdependent decision processes and some implications of these results for theory construction are discussed.


This study is concerned with the experimental investigation of human dynamic decisions in multistage inventory problems. Its purpose is to detect discrepancies between observed decisions and optimal decisions which could reveal the existence of constraints on human ability to process information and make dynamic decisions.

Thirty-four subjects were run individually in six different computer-controlled multi-stage inventory tasks. They were required to maximize the gain of an operation involving the producing, storing, and selling of a stock of goods.

Two-models are tested--a single-stage inventory model and a multistage inventory model. Both are normative models prescribing constant-level optimal ordering policies. Both are rejected as descriptive models. The subject's level of stock is not constant but slightly decreasing and strongly related to the previously observed demand.

The purpose of the study was to test the hypothesis that frequency with which clients make decision and deliberation responses increases with selective counselor reinforcement of these responses. Ss were 60 male students enrolled in a psychology course, assigned randomly to two counselors and three treatment groups: (1) decision responses reinforced; (2) deliberation responses reinforced; (3) decision and deliberation responses non-reinforced. One twenty-minute semi-structured counseling interview, divided into operant, treatment, and extinction periods was held with each S. Findings confirmed the hypothesis. Counselor reinforcement of decision and deliberation responses increased significantly frequencies of reinforced responses. Generalization of decision-making behavior to non-counseling settings was found.


If it is to survive as a significant part of the educational enterprise school counseling must become a more rigorous and better integrated discipline. Our role in the school system must be clarified. Both our ethical and psychological assumptions must be made more explicit and subjected to logical analysis. Our psychological concepts must be tested empirically.

Our major goal should continue to be that of increasing the freedom of the individual student, in a literal sense. This can best be done by helping him increase the number of significant courses of action available to him at important decision points in his life. The counselor's efforts, therefore, should focus on the decision-making process. Counselors should teach students to search for more rather than fewer alternative solutions to their educational, vocational, and personal problems and to evaluate the probable consequences of each alternative in terms of both the external events that are likely to follow and also the individual's own internal reactions to those events. Some of the implications of this view for counselor training are explored.


Ignorance of specifics of career decision-making processes has prevented the development and use of more effective vocational counseling procedures. Simply giving clients vocational information and assuming rational use of it is criticized. Contemporary decision theories suggest several relevant variables. Two variables, subjective probabilities (individual's self-estimates of success) and utilities (desirabilities held for outcomes or alternatives), are discussed in relation to presenting clients with objective probability information concerning future plans. Some relevant research is reviewed and two questions are discussed: (1) How do different methods of presenting information influence subjective probabilities? (2) How are utilities influenced by objective probability data?

60. Tiedeman, David V., "Decision and Vocational Development: A Paradigm
An explicit statement of the process of decision in vocational development is needed. This article attempts a formal statement of the hypothesis that "the set of decision and the context of relevance for the anticipation and implementation of each constitutes the essence of vocational development."


The author believes that the core of individuality consists of a person's choices and the way he organizes them. A method of investigating patterns of choices is described.


The use of group process and decision-making is described as a means of preparing disadvantaged youth for aide positions in the human services. Incidents in the group's life are described to demonstrate the kinds of issues that were used to help the youths develop their "coping skills."
ADMINISTRATOR ATTITUDES

(2) Relationship between Instructional Change and the Extent to which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions

ADOLESCENTS

(30) Counseling in Secondary Schools

ADULT COUNSELING

(11) Fundamentals of Statistical Decision Theory
(25) Exploration of Simulation as a Retirement Education Technique

BEHAVIOR INTERACTION

(34) Decision-Making in the Employment Interview

CAREER CHOICE

(27) An Information System for Vocational Decisions under Section 4 (C) of the Vocational Education Act of 1963
(50) A Model of Guidance for Career Decision-Making

CAREER DEVELOPMENT

(48) Career Decision-Making

CAREER PLANNING

(17) A Rudimentary Demonstration for the Information System for Vocational Decisions--Orientation, Guidance Scripts, Test of Occupational Knowledge, and a Script Writing Language

CHILD DEVELOPMENT

(23) Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia
COGNITIVE ABILITY

(4) The Relationship Between Creativity and Risk Taking in Fifth-Grade Children

COGNITIVE DEVELOPMENT


COLLEGE CHOICE

(35) Information and Decision Theories Applied to College Choice and Planning
(47) Decision Theory and College Choice

COLLEGE STUDENT

(1) Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue their Education

COMMUNICATION THEORY

(1) Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue their Education

COMMUNITY CHANGE

(9) Urban Decision Making--The Findings from a Conference (Chicago, November 5-12, 1965)

COMMUNITY COLLEGES

(26) Improvement of Vocational Decision-Making in the Community College

COMMUNITY ROLE

(7) Urban Decision-Making, the University's Role
COMPUTERS

(27) An Information System for Vocational Decisions under Section 4 (C) of the Vocational Education Act of 1963

COMPUTER ORIENTED PROGRAMS

(17) A Rudimentary Demonstration for the Information System for Vocational Decisions--Orientation, Guidance Scripts, Test of Occupational Knowledge, and a Script Writing Language

COUNSELING

(3) A Study to Determine How Counseling Procedures Can Be Used to Help Students Make Decisions and Plans More Effectively
(11) Fundamentals of Statistical Decision Theory
(13) How Students Use Values in Decision-Making
(18) Product or Process--Implications for Decision-Making
(30) Counseling in Secondary Schools
(38) Decision-Making: A Dilemma and a Purpose for Counseling
(42) Decision-Making: A Conceptual Frame of Reference for Counseling
(57) Effect of Planned Reinforcement Counseling on Client Decision-Making Behavior

COUNSELING INSTRUCTIONAL PROGRAMS

(26) Improvement of Vocational Decision-Making in the Community College

COUNSELOR

(53) Helping Young People with the Decision-Making Process
(57) Effect of Planned Reinforcement Counseling on Client Decision-Making Behavior
(58) Pterodactyls, Passenger Pigeons, and Personnel Workers

COURSE CONTENT

(19) A Task Oriented Course in Decision-Making

CREATIVE EXPRESSION

(4) The Relationship Between Creativity and Risk Taking in Fifth-Grade Children
CREATIVITY RESEARCH

(4) The Relationship Between Creativity and Risk Taking in Fifth-Grade Children

CULTURAL DIFFERENCES

(22) A Comparison of Educational Research Organizations and Methods, and Their Restrictive Influence on Secondary School Practices

DECISION-MAKING

(7) Urban Decision-Making, the University's Role
(8) Balancing in Group Decision-Making
(9) Urban Decision-Making--The Findings from a Conference (Chicago, November 5-12, 1965)
(10) Participants and Participation, A Study of School Policy in New York City
(11) Fundamentals of Statistical Decision Theory
(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth
(13) How Students Use Values in Decision-Making
(14) Factors in Educational Decisions among Public School Pupils
(15) Information Regarding the Use of the Life Career Game in the Palo Alto Unified School District Guidance Program
(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts
(19) A Task Oriented Course in Decision-Making
(20) Invitation to Decision, Guide I--Ninth Grade
(21) Two Experiments in Teaching Decision-Making
(27) An Information System for Vocational Decisions under Section 4 (C) of the Vocational Education Act of 1963
(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools
(29) A Pilot Policy Research Center
(30) Counseling in Secondary Schools
(32) Decision Processes
(33) Political Power and Educational Decision-Making
(34) Decision-Making in the Employment Interview
(35) Information and Decision Theories Applied to College Choice and Planning
(36) Organization Theory and Research: Some Implications for Guidance Programs
(37) A Decision-Making Paradigm for Local Guidance Research
(38) Decision-Making: A Dilemma and a Purpose for Counseling
(40) Decision-Making within a Professional Association
(42) Decision-Making: A Conceptual Frame of Reference for Counseling
DECISION-MAKING

(43) Decision-Making in Higher Education
(44) Educational Decision-Making by Superior Secondary-School Students and Their Parents
(48) Career Decision-Making
(50) A Model of Guidance for Career Decision-Making
(51) The Decision-Making Process as it Relates to Dominance in Children
(52) Two Processes: A New Framework for the Theory of Participation in Decision-Making
(56) Variables Affecting Decisions in a Multistage Inventory Task
(57) Effect of Planned Reinforcement Counseling on Client Decision-Making Behavior
(61) Research Explorations in the Realm of Choice
(62) Group Decision-Making in an Apprenticeship Program for Youth

DECISION-MAKING PROCESSES

(32) Decision Processes
(41) Role of Subjective Probabilities in the Decision Process
(46) The Decision Process in Higher Education
(51) The Decision-Making Process as it Relates to Dominance in Children
(53) Helping Young People with the Decision-Making Process
(55) Interdependent Decision Strategies in Zero-Sum Games: A Computer-Controlled Study
(58) Pterodactyls, Passenger Pigeons, and Personnel Workers
(59) Decision Theory and Vocational Counseling: Important Concepts and Questions
(60) Decision and Vocational Development: A Paradigm and Its Implications

DECISION-MAKING SKILLS

(1) Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue Their Education
(2) Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions
(3) A Study to Determine How Counseling Procedures Can Be Used to Help Students Make Decisions and Plans More Effectively
(4) The Relationship Between Creativity and Risk Taking in Fifth-Grade Children
DECISION-MAKING SKILLS


(6) An Experiment in Teaching Decision-Making

(17) A Rudimentary Demonstration for the Information System for Vocational Decisions--Orientation, Guidance Scripts, Test of Occupational Knowledge, and a Script Writing Language

(18) Product or Process--Implications for Decision-Making

(20) Invitation to Decision, Guide I--Ninth Grade

(21) Two Experiments in Teaching Decision-Making

(22) A Comparison of Educational Research Organizations and Methods, and Their Restrictive Influence on Secondary School Practices

(23) Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia

(24) Refinement of Political/Military/Diplomatic Games as an Educational Tool

(25) Exploration of Simulation as a Retirement Education Technique

(26) Improvement of Vocational Decision-Making in the Community College

(37) A Decision-Making Paradigm for Local Guidance Research

(39) Decision-Making Ability and Vocational Maturity

DECISION THEORY

(31) Psychological Tests and Personnel Decisions

(32) Decision Processes

(35) Information and Decision Theories Applied to College Choice and Planning

(47) Decision Theory and College Choice

(49) The Development and Validation of an Indecision Scale: The Natural History of a Problem in Basic Research

(54) Bayesian Decision

(59) Decision Theory and Vocational Counseling: Important Concepts and Questions

DEMONSTRATION PROGRAMS

(17) A Rudimentary Demonstration for the Information System for Vocational Decisions--Orientation, Guidance Scripts, Test of Occupational Knowledge, and a Script Writing Language

(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools
DEMONSTRATION PROJECTS

(26) Improvement of Vocational Decision-Making in the Community College

EDUCATIONAL ATTITUDES

(14) Factors in Educational Decisions among Public School Pupils

EDUCATIONAL EXPERIMENTS

(14) Factors in Educational Decisions among Public School Pupils

EDUCATIONAL PLANNING

(6) An Experiment in Teaching Decision-Making
(10) Participants and Participation, a Study of School Policy in New York City

EDUCATIONAL POLICY

(29) A Pilot Policy Research Center
(33) Political Power and Educational Decision-Making

EDUCATIONAL RESEARCH

(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts

ELEVENTH-GRADE

(3) A Study to Determine How Counseling Procedures Can Be Used to Help Students Make Decisions and Plans More Effectively

EMPLOYMENT INTERVIEW

(34) Decision-Making in the Employment Interview

EXPECTANCY TABLES

(6) An Experiment in Teaching Decision-Making
FACTOR ANALYSIS

Factors in Educational Decisions Among Public School Pupils.

FOREIGN RELATIONS

Refinement of Political/Military/Diplomatic Games as an Educational Tool.

GAMES

Refinement of Political/Military/Diplomatic Games as an Educational Tool.


GRADE 9


Two Experiments in Teaching Decision-Making.

GRADE 11


GROUP BEHAVIOR

Balancing in Group Decision-Making.

GROUP DYNAMICS

Balancing in Group Decision-Making.

Group Decision-Making in an Apprenticeship Program for Youth.

GROUP EXPERIENCE

How Students Use Values in Decision-Making.

GROUP GUIDANCE

An Experiment in Teaching Decision-Making.

Invitation to Decision, Guide I--Ninth Grade.

GUIDANCE PROGRAMS

(36) Organization Theory and Research: Some Implications for Guidance Programs.

GUIDANCE SERVICES

(37) A Decision-Making Paradigm for Local Guidance Research.

HIGH SCHOOL STUDENTS

(1) Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue Their Education.
(13) How Students Use Values in Decision-Making.
(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts.
(44) Educational Decision-Making by Superior Secondary-School Students and Their Parents.

HIGHER EDUCATION

(43) Decision-Making in Higher Education.
(46) The Decision Process in Higher Education.

INDIVIDUAL DIFFERENCES


INDIVIDUALITY

(61) Research Explorations in the Realm of Choice.

INFORMATION DISSEMINATION


INFORMATION SYSTEMS

(19) A Task-Oriented Course in Decision-Making.

INFORMATION THEORY

(35) Information and Decision Theories Applied to College Choice and Planning.

INSTRUCTIONAL INNOVATION

(2) Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions.
(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools.

INTERACTION


INTERACTION PROCESS ANALYSIS

(8) Balancing in Group Decision-Making.

INTERVIEW


JUNIOR HIGH SCHOOL STUDENTS

(19) A Task Oriented Course in Decision-Making.

LEADERSHIP TRAINING

(9) Urban Decision Making--The Findings from a Conference (Chicago, November 5-12, 1965).

LEARNING MOTIVATION

(23) Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia.

LITERATURE REVIEWS

(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth.

MANAGEMENT

(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools.

MODELS

(25) Exploration of Simulation as a Retirement Education Technique.
(35) Information-and Decision Theories Applied to College Choice and Planning.

MOTIVATION TECHNIQUES

(25) Exploration of Simulation as a Retirement Education
Technique.

**OCCUPATIONAL CHOICE**

(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth.
(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts.

**ORGANIZATION THEORY**

(36) Organization Theory and Research: Some Implications for Guidance Programs.

**PARTICIPATION**

(10) Participants and Participation, a Study of School Policy in New York City.

**PEER GROUP**


**PERCEPTION TESTS**

(8) Balancing in Group Decision-Making.

**PERSONAL ADJUSTMENT**

(8) Balancing in Group Decision-Making.

**PERSONNEL**

(31) Psychological Tests and Personnel Decisions.

**PERSONALITY DEVELOPMENT**


**POLICY FORMATION**


**POLITICAL POWER**

(22) A Comparison of Educational Research Organizations and
Methods, and Their Restrictive Influence on Secondary School Practices.

PROBABILITY

(11) Fundamentals of Statistical Decision Theory.
(35) Information and Decision Theories Applied to College Choice and Planning.
(41) Role of Subjective Probabilities in the Decision Process.

PROBLEM SOLVING

(11) Fundamentals of Statistical Decision Theory.

PROFESSIONAL ASSOCIATION

(40) Decision-Making Within a Professional Association.

PUBLIC SCHOOLS

(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools.

RESEARCH

(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth.
(18) Product or Process--Implications for Decision-Making.
(20) Invitation to Decision, Guide I--Ninth Grade.
(36) Organization Theory and Research: Some Implications for Guidance Programs.
(37) A Decision-Making Paradigm for Local Guidance Research.
(61) Research Explorations in the Realm of Choice.

RESEARCH AND DEVELOPMENT CENTERS

(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts.

ROLE PLAYING

(24) Refinement of Political/Military/Diplomatic Games as an Educational Tool.

RURAL YOUTH

(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth.

SCHOOL POLICY

(10) Participants and Participation, a Study of School Policy
in New York City


SCHOOL RESPONSIBILITY

Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia.

SCHOOL SYSTEMS

Participants and Participation, a Study of School Policy in New York City.

SECONDARY EDUCATION


SIMULATION


Exploration of Simulation as a Retirement Education.

SOCIAL SCIENCES

Psychological Tests and Personnel Decisions.

SOCIAL ENVIRONMENT


STUDENT ATTITUDES

Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue Their Education.

STUDENT MOTIVATION

Refinement of Political/Military/Diplomatic Games as an Educational Tool.

STUDENT NEEDS

Product or Process--Implications for Decision-Making.
SUPERVISORS

(2) Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions.

TASK PERFORMANCE


TEACHERS

(2) Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions.

TEACHING GUIDES

(20) Invitation to Decision, Guide I--Ninth Grade.
(24) Refinement of Political/Military/Diplomatic Games as an Educational Tool.

TECHNIQUES

(18) Product or Process-Implications for Decision-Making.

TRAINING TECHNIQUES

(9) Urban Decision-Making--The Findings From a Conference (Chicago, November 5-12, 1965).

UNIVERSITIES

(7) Urban Decision-Making, The University's Role.

URBAN AREAS

(9) Urban Decision-Making--The Findings From a Conference (Chicago, November 5-12, 1965).

URBAN CULTURE

(7) Urban Decision-Making, The University's Role.

VALUES

(13) How Students Use Values in Decision-Making.
(35) Information and Decision Theories Applied to College Choice and Planning.
VOCATIONAL COUNSELING

(26) Improvement of Vocational Decision-Making in the Community College.


VOCATIONAL DEVELOPMENT

(19) A Task Oriented Course in Decision-Making.

(60) Decision and Vocational Development: A Paradigm and Its Implications.

VOCATIONAL EDUCATION


VOCATIONAL MATURITY

(39) Decision-Making Ability and Vocational Maturity.
BAILEY, STEPHEN K.
(7) Urban Decision-Making, the University's Role.

CALIA, VINCENT F.
(36) Organization Theory and Research: Some Implications for Guidance Programs.

CLARKE, ROBERT
(37) A Decision-Making Paradigm for Local Guidance Research.

CRONBACH, LEE J.
(31) Psychological Tests and Personnel Decisions.

DILLEY, JOSIAH S.
(38) Decision-Making: A Dilemma and a Purpose for Counseling.
(39) Decision-Making Ability and Vocational Maturity.

DINKLAGE, LILLIAN B.

DOLE, ARTHUR A.
(14) Factors in Educational Decisions Among Public School Pupils.

EHLING, WILLIAM P.
(1) Development of a Computer Model of the Factors Which Influence School Students to Continue or Discontinue Their Education.

ELLIS, ALLAN B.

EYE, GLEN G.
(2) Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions.
FRANKLIN, RICHARD

(9) Urban Decision-Making--The Findings From a Conference (Chicago, November 5-12, 1965).

FRIEDMAN, BURTON D.

(28) Analysis of the Effectiveness of Selected Promising Educational Practices in a Consortium of 36 Public Schools.

GEISER, PETER

(40) Decision-Making Within a Professional Association.

GELATT, H.B.

(35) Information and Decision Theories Applied to College Choice and Planning.
(41) Role of Subjective Probabilities in the Decision Process.

GITTELL, MARILYN


GOODMAN, PAUL

(23) Research in Education for Sense of Vocation, Initiative, Cooperation, and Management in Denmark, Israel, and Yugoslavia.

GREEN, THOMAS F.


HABEIN, MARGARET

(43) Decision-Making in Higher Education.

HAYS, DONALD G.

(44) Educational Decision-Making by Superior Secondary-School Students and Their Parents.

HENDERSON, ALGO D.

(46) The Decision Process in Higher Education.

HILLS, JOHN R.

(47) Decision Theory and College Choice.
HILTON, THOMAS L.  

HOLLAND, JOHN L.  
(49) The Development and Validation of an Indecision Scale: The Natural History of a Problem in Basic Research.

HORNER, JAMES T.  
(12) Factors Relating to Occupational and Educational Decision-Making of Rural Youth.

HOSFORD, RAY E.  
(18) Product or Process--Implications for Decision-Making.

JOHNSON, WILLIAM H.E.  

KATZ, MARTIN  

KIMMITT, YEVONNE G.  
(51) The Decision-Making Process as it Relates to Dominance in Children.

KINBROUGH, RALPH B.  
(33) Political Power and Educational Decision-Making.

KOLAJA, JIRI  

KRUMBOLTZ, JOHN D.  

LAWTON, EDITH  
(53) Helping Young People With the Decision-Making Process.

LOUGHARY, JOHN W.  
MARSHALL, JON C.
(54) Bayesian Decision.

MESSICK, DAVID M.

MUNGER, E.S.
(24) Refinement of Political/Military/Diplomatic Games as an Educational Tool.

PANKOVE, ETHEL
(4) The Relationship Between Creativity and Risk Taking in the Fifth-Grade Children.

RAPOPORT, AMNON
(56) Variables Affecting Decisions in a Multistage Inventory Task.

RYAN, T.A.
(26) Improvement of Vocational Decision-Making in the Community College.
(57) Effect of Planned Reinforcement Counseling on Client Decision-Making Behavior.

SITGREAVES, ROSEDITH
(11) Fundamentals of Statistical Decision Theory.

SORENSON, GARTH
(58) Pterodactyls, Passenger Pigeons, and Personnel Workers.

SPRAGUE, NORMAN
(25) Exploration of Simulation as a Retirement Education Technique.

THORESEN, CARL E.

THRALL, R.M.
(32) Decision Processes.
TIEDEMAN, DAVID V.
(27) An Information System for Vocational Decisions under Section 4 (C) of the Vocational Education Act of 1963.
(60) Decision and Vocational Development: A Paradigm and Its Implications.

TILLERY, DALE
(16) SCOPE State Profile, Grade Twelve 1966, Massachusetts.

TYLER, LEONA E.
(61) Research Explorations in the Realm of Choice.

VARENHORST, BARBARA B.
(13) How Students Use Values in Decision-Making.

WALKER, WALTER L.
(62) Group Decision-Making in an Apprenticeship Program for Youth.

WEBSTER, EDWARD C.

WILSON, EUGENE H.
(19) A Task Oriented Course in Decision-Making.

WRENCH, DAVID F.
(8) Balancing in Group Decision-Making.

YAEROFF, WILLIAM W.
(20) Invitation to Decision, Guide I--Ninth Grade.