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ABSTRACT
        In an effort to respond to a growing need of
educators to have access to educational information, the Iowa State
Department of Public Instruction has initiated an information service
for local school districts. The information and retrieval service is
provided through Project INFORMS (Iowa Network For Obtaining Resource
Materials fcr Schools). It is anticipated that this service will
increase the number of alternatives for alleviating needs in local
districts. Hopefully, improved long-range planning procedures will be
created and implemented. Due to the newness of information networks,
this manual was constructed to assist INFORMS personnel in
identifying their roles and becoming familiar with operational
techniques. An effort was made to identify and explain all the
different kinds of activities to be performed in Project INFORMS. The
promotional and operational activities of the project are extensively
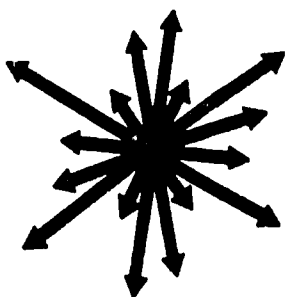discussed. (Author/SJ)

ACTIVITIES MANUAL

Operational and Promotional

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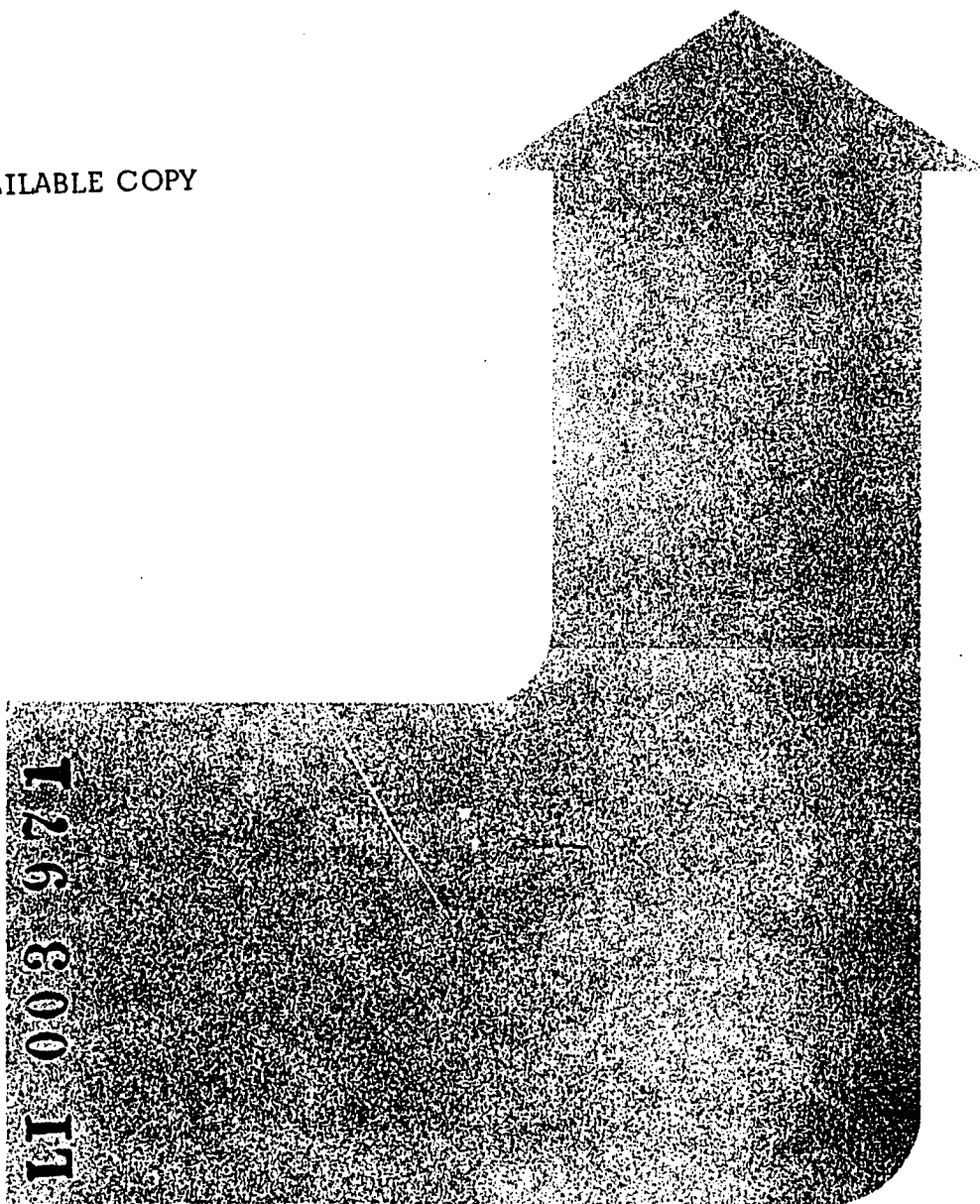
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GRIMES STATE OFFICE BUILDING
DES MOINES, IOWA 50319

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State of Iowa
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Grimes State Office Building
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IOWA NETWORK FOR OBTAINING RESOURCE MATERIALS FOR SCHOOLS

Iowa's Pilot State Dissemination Program
Grant Number OEG-0-71-3725

Authored By

Mary Jo Bruett   - Project Director
                      Referral Specialist
Kathy Borlin   - Research Associate
Russell L. Carey   - Consultant
                      Planning, Research and Evaluation

September 1972

PREFACE

It has often been said that it takes approximately fifty years
for educational ideas to filter from originator to practitioner.
Regardless of the credibility of this statement, educators agree that
the rate cf information flow must be increased. One way to accelerate
the flow is to have information readily available. In an effort to
respond to a growing need of educators to have access to educational
information, the Iowa State Department of Public Instruction has initiated
an information service for local school districts. The information and
retrieval service is provided through Project INFORMS (Iowa Network For
Obtaining Resource Materials for Schools). It is anticipated that this
service will increase the number of alternatives for alleviating needs
in local districts. Hopefully, improved long-range planning procedures
will be created and implemented.

Information Network Systems connecting local districts to an
external information source are relatively new. For this reason, how
they should be organized is still open to discussion. Also, the role
of the contact person in the field varies between networks and may be
changing. A field representative may eventually be responsible for the
diagnosis of problems as well as the dissemination of information.

Due to the "newness" of information networks, this manual was
constructed to assist INFORMS personnel in identifying their roles and
becoming familiar with operational techniques. An effort was made to
identify and explain all the different kinds of activities to be performed
in Project INFORMS. Realizing that no manual ever discusses every
possible situation that may arise, the authors hope the number of un-
answered operational questions are limited.

M.J.B.
K.A.B.
R.L.C.

CONTENTS

Definitions

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DESCRIPTOR CARD FILE: 3 x 5 card file of ERIC descriptors used by INFORMS in search requests. File materials and previous request numbers are also recorded.

DESCRIPTOR POSTING LIST: Listing of ERIC document numbers by descriptor. Available on magnetic tape.

DEVELOPMENTAL CENTER: Center that is in the first pilot phase to plan and develop an educational information center.

DISSEMINATION: Process of dispersing educational knowledge.

EDUCATIONAL LINKER/LINKER: Intermediary person between the educational Resource System personnel and User System personnel.

ERIC: Educational Resources Information Center. A national information system dedicated to the progress of education through the dissemination of educational results and research related materials.

FIELD AGENT: Field representative.

FIELD REPRESENTATIVE: Person that acts as a link between the client (User System) and INFORMS (Resource System).

INFORMATION CENTERS: An information system designed to organize and disseminate otherwise fugitive research materials.

INFORMATION NETWORK: Coordinated efforts among User, Linkage and Resource Systems.

INFORMATION PACKET: Form in which a set of materials and data on a specific subject is presented to the client.

INVERTED FILE: ERIC Descriptor Posting Tape. The Descriptor Posting Tape lists ERIC descriptors and the document numbers that have been assigned to those descriptors. This is opposite(inverted) from the manner in which the ERIC index, Research in Education, is organized. The RIE lists document numbers and the descriptors which have been assigned to each document.

LEDGER: Form used to record the status of search requests.

LINKAGE SYSTEM: System which provides the communication channel between the Resource System and the User System.

NCEC: National Center for Educational Communication. NCEC was established by the U.S. Office of Education to furnish leadership and support to strengthen educational communication throughout the country.

NEGOTIATION FORM: Form used to record the client-field representative interactions during a request initiation.

NIE: National Institute of Education. NIE is the major Federal agency
for educational research and development. NIE and the Office of Education
comprise the Division of Education in the Department of Health, Education
and Welfare.

OE: Office of Education.

OPERATIONAL CENTER: Center that is in the second phase to strengthen,
expand and develop the service within the educational information center.

PACKET CONTENTS: Letter which accompanies Information Packet. Informs the
client as to the material contained in the Information Packet.

PREP: Putting Research into Educational Practice. A series of monthly
reports which focus on current educational problems.

R & D ACTIVITIES: Research and development activities.

REGIONAL EDUCATIONAL SERVICE AGENCIES (RESA): Serves local education agencies
in a specific geographical region. The RESA provides instructional resources,
equipment resources, maintenance services, program development, in-service
development, library services, consultant services.

REQUEST ASSESSMENT: Form used to record client evaluation of the Information
Packet.

RESOURCE SYSTEM: System which gathers, assesses and organizes educational
knowledge.

RETRIEVAL: Process of extracting educational knowledge from the Resource
System.

RETRIEVAL FORM: Form used to request microfiche, magazine articles or
additional searching for a particular request.

USER SYSTEM: System of people that have an awareness and interest in
educational knowledge.

Promotional Activities
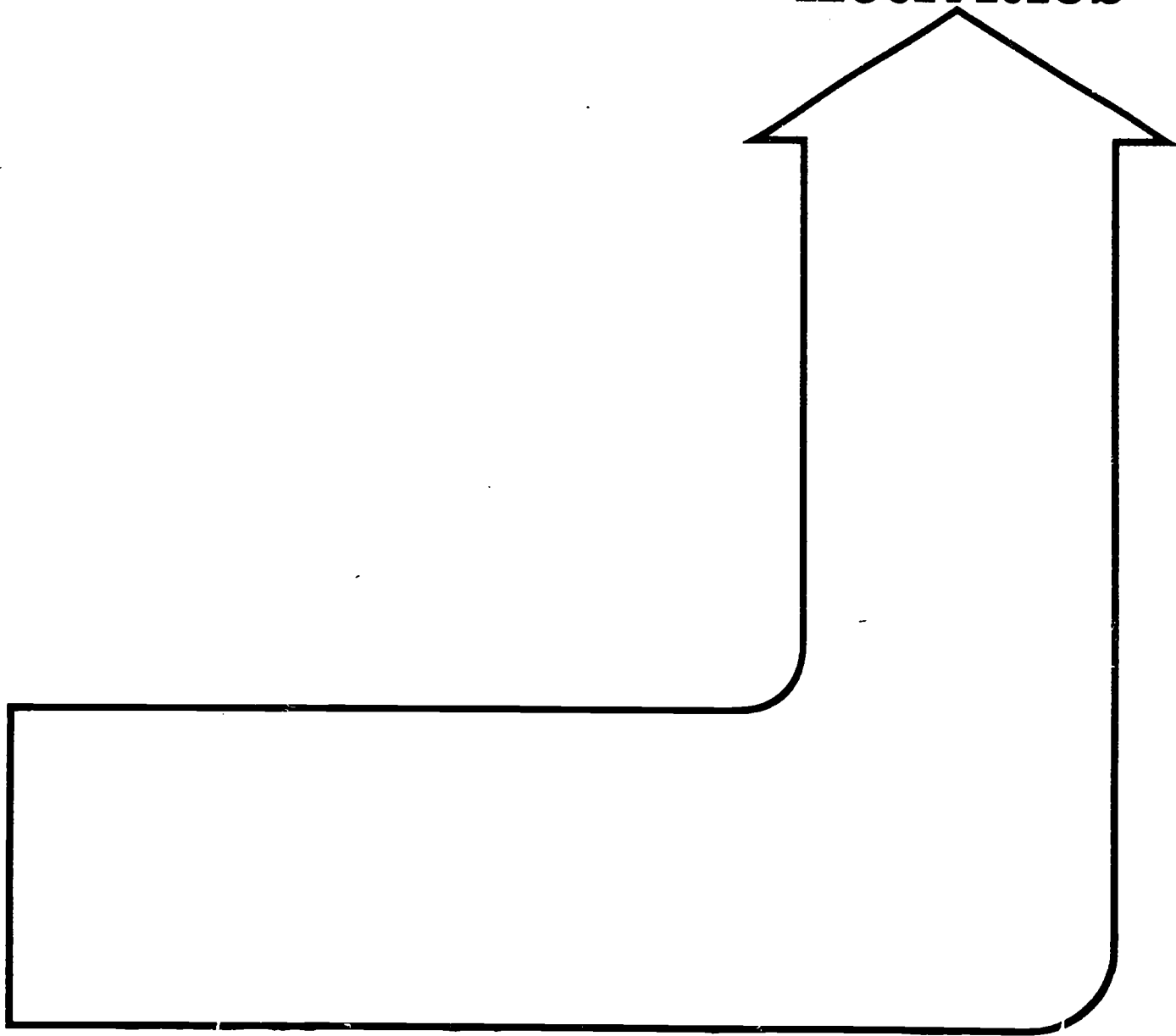
OPERATIONS

A retrieval and dissemination service is of questionable value if requests are limited or non-existent. It has been discovered that it is difficult to stimulate requests in communication network projects. The problem has been characterized by some educational linkers as inherit apathy to the flow of new knowledge. An active program to promote services must be maintained. This section will survey factors to consider in promotional activities.

Field representatives are encouraged to develop and personalize a set of promotional activities. The nature of the activities rests solely with the representative. Information that may be useful for developing promotional techniques is provided in the section titled "Resources For Promotional Activities". This information, mostly of a historical nature, is not intended for use in its present form, but should be the ingredients for creative promotional activities.

Promotional methods may involve both written and verbal techniques. Written approaches traditionally have consisted of news items, bulletin board posters and advertisement leaflets. Verbal solicitation and advertisement procedures can involve discussions from the teacher's lounge level to the formal faculty meeting level.

In the past, informal meetings with a limited number of participants have been successful. They accommodate two-way communication which seems to be a necessary ingredient. Also, educators are reluctant to discuss problems in large group formal meetings.

One must be cautioned against emphasizing the need for in-depth diagnosis of problems when soliciting requests and explaining services. Present educational linkers report adverse effects from this type of emphasis. Apparently, this approach produces an image of the information representative as having all the answers to improve educational operations. Select the appropriate time for initiating changes in educator behavior.

The promotional activities successful for one representative may not be appropriate for another. Any procedures employed should allow for contacts with educators in all types and levels of positions. Regardless of the types of promotional activities, records should be kept on the number and kinds for the INFORMS Field Personnel Report which will be submitted periodically to the DPI INFORMS office. This report will be discussed in the "Evaluation" section of the manual.

RESOURCES FOR PROMOTIONAL ACTIVITIES

NATIONAL CENTER FOR EDUCATIONAL COMMUNICATIONS

The first educational network systems were proposed and funded under the auspices of the Office of Education (OE) through the National Center for Educational Communication (NCEC). Due to governmental reorganization, NCEC recently became a member of the National Institute for Education (NIE). How this move will influence the operations of educational network systems is still an unanswered question. However, for background information, the original intentions of NCEC are conveyed in the following report titled, "NCEC: A New Concept in Educational Communication".

NCEC: A NEW CONCEPT IN EDUCATIONAL COMMUNICATION

Education and its improvement are based on communication. To furnish leadership and support to strengthen educational communication throughout the country the Office of Education has established a NATIONAL CENTER FOR EDUCATIONAL COMMUNICATION (NCEC).

Although communication is as old as man himself, today we have new means and methods of communicating. NEW DIMENSIONS in educational communication have led to a NEW PROFESSION with NEW TERMINOLOGY...information transfer-- networks--dissemination--utilization--installation--feedback...and NEW ROLES ...disseminator--field/change agent--retrieval specialist--gatekeeper-- knowledge linker. It is the goal of NCEC to give a NEW DIRECTION to educa- tional communication and provide a unique national resource for American educators.

NCEC OBJECTIVES AND PROGRAMS

NEW PROGRAMS are being developed in cooperation with other OE, Federal, State, local and private educational organizations to achieve five major objectives.

Accelerate the spread of exemplary programs and validated practices.

- Provide information nationally about validated exemplary programs.
- Increase interpersonal communication about improved practices.
- Achieve faster nationwide use of tested products from major educational development efforts.
- Facilitate commercial marketing of materials through OE copyright program and the Publishers Alert Service.

<u>Develop national communication linkages for effective application of knowledge and improved practices</u>.

- Encourage State-Federal communication planning and liaison activities.
- Support pilot communication programs for serving local needs.
- Provide technical assistance for development of dissemination and application programs.

<u>Assure access to current educational knowledge</u>.

- Maintain information storage, retrieval and dissemination services through the Educational Resources Information Center (ERIC).
- Utilize the information resources of the OE Educational Materials Center (EMC) with its display of books currently available for schools and teacher education programs.
- Provide new services through the OE Educational Reference Center (ERC), a model one-stop information center with reference and demonstration services and on-line capability.
- Support pilot regional centers to provide computer searches of the ERIC report literature for local schools.
- Make ERIC master magnetic tape files available.

<u>Disseminate interpreted information on priority educational topics</u>.

- Support information analysis activities through interpretive summaries and bibliographies produced by the ERIC clearinghouses.
- Continue the OE Target Communications Program for decision makers and practitioners with emphasis on <u>Putting Research into Educational Practice (PREP)</u> for widespread dissemination of information at low cost.

<u>Develop and articulate OE communication efforts</u>.

- Support Research and Development in educational communications systems.
- Develop and test communication models and strategies.
- Coordinate planning and development of OE communication resources.

To provide some information on the transfer of NCEC from OE to NIE, the following paragraph from a recent NIE communication is quoted.

With the passage by Congress and the signature by the President of the 1972 Education Amendments Bill, the National Center for Educational Communication and its dissemination functions are transferred to the new National Institute of Education (NIE). NIE and the Office of Education comprise the Division of Education headed by an Assistant Secretary for Education, in the Department of Health, Education, and Welfare. As the major Federal agency for educational research and development, NIE is responsible for the R & D activities previously administered by OE and will work to bring about coordination of educational research among the Federal agencies. NIE will conduct in-house and contracted research, both basic and applied, and will disseminate the results of that research to educational systems at all levels throughout the nation. Its basic aims are ...... *to bring about those scientific inquiries into the learning process which will best promote equal educational opportunity for all Americans... *to identify reforms which will alleviate the problems of American education... *to advance the practice of education, as an art, a science and a profession... *to build an effective educational research and development.

The interim organization of NIE is based on a service of Task Forces, one of which focuses on dissemination. NCEC staff comprise this task force which is headed by Lee G. Burchinal, former head of NCEC. Formal organization of NIE will follow appointment of NIE director.

FLOW SYSTEM FOR EDUCATIONAL KNOWLEDGE

Knowledge is often of a questionable value if it does not move from the minds of the individuals responsible for its discovery to the minds of individuals responsible for its utilization. The movement is usually referred to as the "flow of knowledge".

In the field of education, information networks (resource systems) are being formed to develop communication linkages between the source of knowledge and the site of knowledge utilization. The source of knowledge includes the discoverers as well as the storage of their knowledge. These two components are collectively called the resource system. Personnel who utilize the knowledge are called users. The users and their operations form a users system. To facilitate the flow of knowledge, the resource system and users system are linked together by the operations of personnel called linkers, field agents, field representatives, etc. These personnel and their operations make up the linkage system. The ultimate intent of an information network is to coordinate efforts and the flow of knowledge among the user, linkage and resource systems. Relationships between these three systems are shown in Diagram A. Each system will be explained separately.

This flow of educational knowledge is established and maintained via information channels.

USER
SYSTEM

(Client)

LINKAGE
SYSTEM

(Field Representative)

RESOURCE
SYSTEM
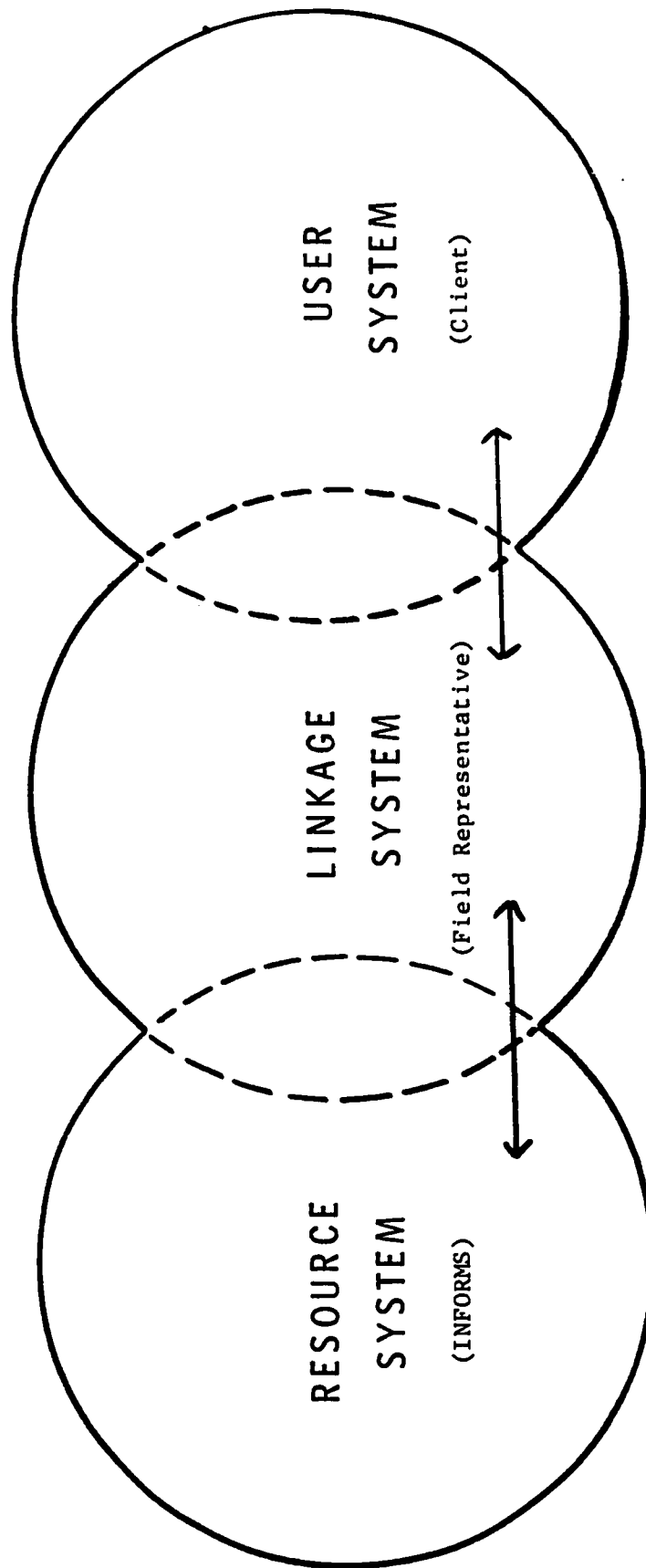
(INFORMS)

Diagram A

Resource System

Providing a Service

1. Information Gathering:

    The resource system will continually utilize the materials
    and services that are made available to them.

2. Assessing:

    The resource system will anticipate or sense an area of
    concern among educators in preparation for providing
    information.

3. Organizing:

    The resource system will select and utilize only the most
    relevant elements that are available for the area of concern.
    The material will be presented in a format that is easily
    readable.

4. Disseminating:

    The resource system will disseminate this material to
    local educators via the field representative.

Linkage System

Establishing Communication Channels
via field agent or
field representative

1. Communication:

   The field representative will maximize personal communication
   linkage by helping local educators identify educational concerns.

2. Strategy:

   The field representative will formulate search strategy and make
   appropriate communication with resource system at the state agency.

3. Analysis:

   The field representative will survey the information packet
   returned to him by the state agency.

4. Assistance:

   The field representative will assist the client in the best
   utilization of the packet.

User System

Application of Knowledge
by the School Client

1. Awareness:

    The client learns of the existence of a new educational idea,
    but does not know very much about this idea.

2. Interest:

    The client seeks to learn more about the new educational idea.

3. Communication:

    The client contacts the field representative to request information
    about the idea. The client, with the help of the field represen-
    tative, surveys the information.

4. Evaluation:

    The client analyzes the information and makes a decision on the
    relevancy of ideas which are pertinent to his needs.

5. Utilization:

    The client adopts and/or adapts the new ideas which he selected
    as being relevant.

INFORMS

Iowa Network For Obtaining Resource
Materials for Schools

Headquarters:

Department of Public Instruction
Educational Media Section
Grimes State Office Building
Des Moines, Iowa   50319

Hours: 8:00 to 4:30
Monday - Friday

        In February 1971, the Department was invited to submit a proposal
to NCEC to develop an Information Center. NCEC had approximately
$600,000 of discretionary funds to establish four to six Information
Centers throughout the country. Proposals were due in Washington in
April 1971. Late in June, Iowa was awarded a grant to serve as one of
the pilot information centers that would provide information services
to local schools. The project was funded for an initial period of
eighteen months by NCEC for an amount not to exceed $97,526 beginning
July 1, 1971.

        The goal of the Iowa Project (known as INFORMS) is to increase the
level of knowledge of curriculum and instructional methods, educational
innovations and current research. Hopefully, administrators, teachers
and board members will have access to information from INFORMS on a
number of promising practices such as early childhood education, reading,
ecological-environmental programs and additional programs which they
might be considering for revision in their own school. INFORMS is
attempting to provide decision makers (local school personnel) with a
number of alternatives, so they can best meet the needs in their district.

A chief feature of each state information center should be personalized services. Because of this, the Regional Educational Service Agencies were selected to provide personalized services throughout the state as they were in the best position to provide person to person contact. Eleven service agencies (locations on the following page) were selected as Pilot Sites and contact personnel (media, curriculum or other assigned staff) were designated as field representatives to work with the local schools in their region.

The field representatives (listed on pages C-12 and C-13) will:

1. Identify instructional, curriculum or administrative changes contemplated by public school decision makers in their schools and school districts for the school year via telephone, letter or personal contact.

2. Provide assistance to educators who have an information need by defining the need and assessing the context of that need.

3. Plan a search strategy to retrieve information for the clients.

4. Contact DPI INFORMS if the scope of the client's question goes beyond those resources available to the field representative in his own site.

5. Screen, analyze and synthesize retrieved information that has been returned by INFORMS.

DPI INFORMS will serve school users by receiving the client's request from the field representatives and will:

1. Plan a search strategy to retrieve information.

2. Conduct searches from the data bank available at the DPI Educational Media Section.

3. Screen, analyze and synthesize information retrieved.

4. Return information to client via the field representatives.

5. Check with user as to utility of information provided.

INFORMATION DISSEMINATION CENTERS

Davenport

*

Dubuque

*

Decorah

*

Cedar Rapids

*

Cedar Falls

*

Marshalltown

*

Ottumwa

*

Des Moines

*

Fort Dodge

*

*Sergeant
Bluff

Council
Bluffs

*
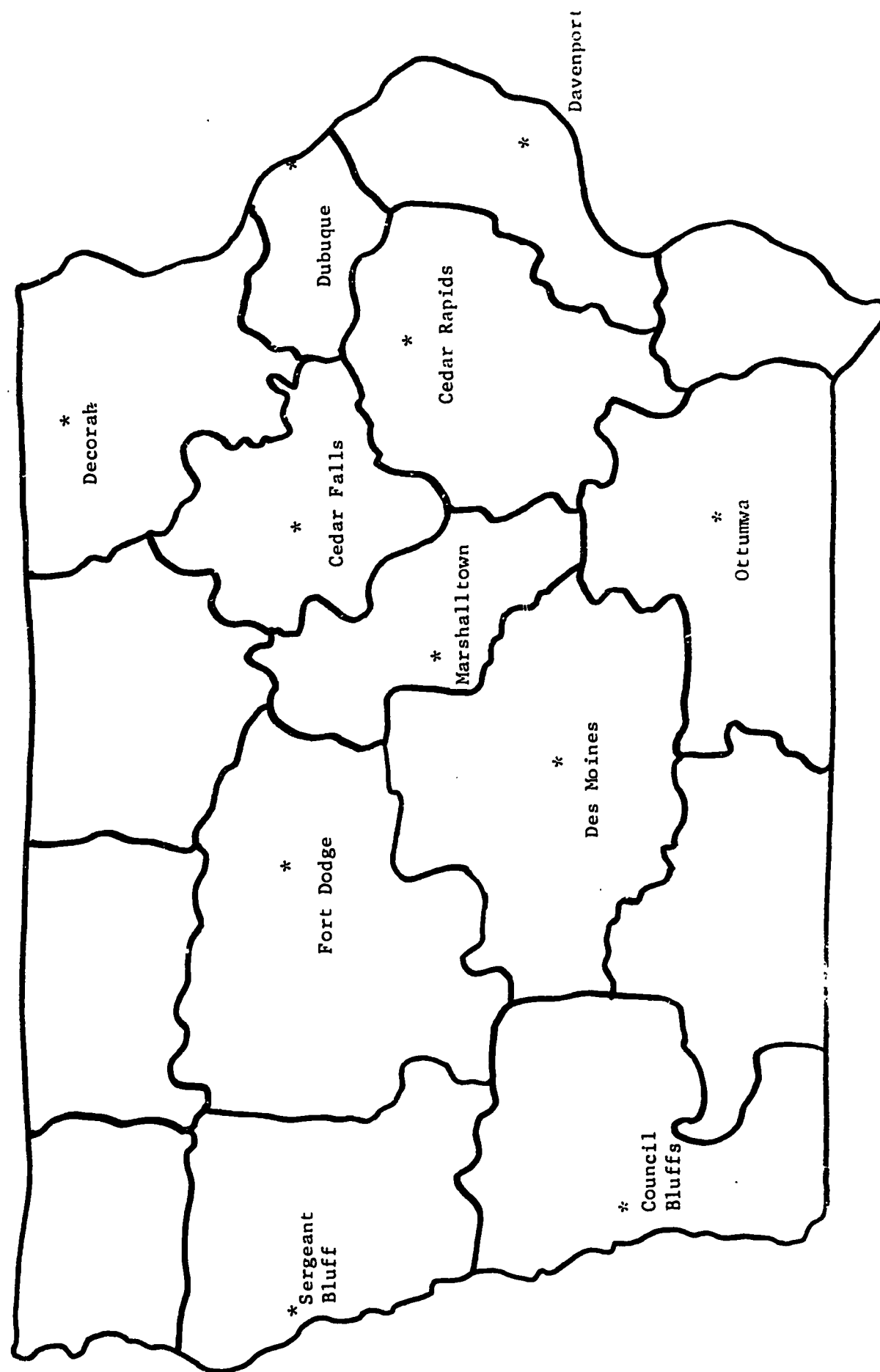
* Location of Field Representatives

Field Representatives for INFORMS

Regional Media Centers	Field Representatives

Decorah
Area I Media Center
305 Montgomery
Decorah, Iowa 52101

Mrs. Eileen Devine
Director
(319-382-4369)

Fort Dodge
Joint County System
    of Hamilton, Webster
    and Wright Counties
Fort Dodge, Iowa 50501

Mr. Robert Dunlap
Director of Instructional
    Materials Centers
(515-576-3117)

Marshalltown
Area VI Resource Center
9 Westwood Drive
Marshalltown, Iowa 50158

Mrs. Sue Soy
Librarian
(515-752-1578)

Cedar Falls
Area VII Educational Media
    Center
314 East 14th Street
Cedar Falls, Iowa 50613

Mrs. Beverly Trost
Director-Librarian
(319-277-3335)

Mr. Harry Budensiek
Coordinator of Educational
    Consultants (319-277-3330)

Dubuque
Area VIII Instructional
    Materials Center
Conlin Building
1473 Central Avenue
Dubuque, Iowa 52001

Mrs. Pam Grotegut
Administrative Assistant
(319-558-0388)

Mr. Al Hovey
Audiovisual Coordinator
West Delaware Junior High
Manchester, Iowa 52057
(319-927-2515)

Davenport	Area IX Instructional Materials Center 2604 West Locust Davenport, Iowa 52804	Mr. John T. Haack Director (319-391-7982)
		Miss Lois A. Harker Library Consultant
		Mr. Cecil Ross Director of Department of Educational Consultants
Cedar Rapids	RESA Instructional Materials Center P.O. Box 1406 4401 Sixth Street Road S.W. Cedar Rapids, Iowa 52406	Mr. David Baldwin Assistant Librarian (319-366-7601)
		Mr. Dean Hartman Science Consultant
Des Moines	Area XI Regional Media Center 112-116 Eleventh Street Des Moines, Iowa 50309	Mrs. Betty Atwood Curriculum Consultant (515-284-6171)
		Dr. Joe Millard Director of Research and Staff Development
Sergeant Bluff	Area XII Educational Resource Center P.O. Box 42 Sergeant Bluff, Iowa 51054	Mr. David L. Little Director (712-277-1058)
		Miss Norma Barnes Librarian
Council Bluffs	Area XIII Educational Services and Media Center The Halverson Center for Education Route 1 Council Bluffs, Iowa 51501	Dr. Phillip Slagle Director (712-366-0503) Dr. Harry Tiller Federal Program Coordinator
Ottumwa	Area XV Media Center Building #18 Ottumwa Industrial Airport Ottumwa, Iowa 52501	Mrs. Maxine M. Wegner Librarian (515-682-8735)

When information is retrieved from INFORMS it will be in the format of an Information Packet.

The Information Packet may include any of the following:

   a) Abstracts, bibliographies and citations from research documents and educational journals

   b) Resource materials

   c) Information about new and exemplary educational programs in the state

   d) Names and addresses of additional resource people

Information for the packets comes from many varied sources which are available to INFORMS. They are as follows:

   a) ERIC

   b) PREP Packets

   c) Services of Iowa State Traveling Library

   d) Materials from Regional Educational Laboratories

   e) Assistance from the Iowa State Department Consultants

INFORMATION CENTERS

As a result of NCEC objectives, pilot communication projects (information and retrieval centers) were established. The goal of NCEC was to establish at least one information center in each state to assist local schools and communities in locating and applying current educational information.

State and local education information centers funded in fiscal year 1972 are as follows:

Developmental Centers

California: Mr. Frank W. Mattas
              Educational Resource Center
              San Mateo County Board of Education
              590 Hamilton Street
              Redwood City, California 94063

The Educational Resource Center offers information services to counties on a subscription basis; representatives from county and district officers act as linkers and receive in-service training.

District of Columbia: Dr. Mildred C. Cooper
                         Research Information Center
                         Public Schools of the District of Columbia
                         415 12th Street, N.W.
                         Washington, D.C. 20004

The Center provides three liaison researchers as a link between the resources in the central information center and teachers, principals, librarians and reading specialists in sixteen elementary schools.

Florida: Dr. Carl W. Proehl
          Florida Educational Resources Information Center
          State of Florida Department of Education
          Knott Building
          Tallahassee, Florida 32304

        Information on request is provided through several types of
individuals trained in information skills, including subject matter
and general education specialists within the state department,
vocational education representatives in five districts of the state,
and representatives of the state junior colleges and universities.

Iowa: Miss Mary Jo Bruett
       INFORMS
       Educational Media Section
       Iowa State Department of Public Instruction
       Grimes State Office Building
       Des Moines, Iowa 50319

        Representatives from regional and joint county offices are
serving as links with local educators.

Kansas: Dr. Richard Herlig
         Project Communicate
         Kansas State Department of Education
         120 East 10th Street
         Topeka, Kansas 66612

        Two full time field agents are provided to work in the target
districts to negotiate, fulfill information requests and provide follow-up.

Massachusetts: Dr. James F. Baker
                Massachusetts State Education Information Center Network
                Massachusetts Department of Education
                182 Tremont Street
                Boston, Massachusetts 02116

                Dr. Richard J. Lavin
                Merrimack Educational Center
                101 Mill Road
                Chelmsford, Massachusetts 01824

        Five field agents are available to interpret research findings
for the instructional staff.

North Dakota: Dr. Edward Krahmer
Resource Information Center
Bureau of Educational Research and Services
Box 8009 University Station
Grand Forks, North Dakota   58201

The librarian in each school in the state has been identified by project representatives from the University of North Dakota to serve as a local contact person. They are being trained at the center in the use of ERIC.

Pennsylvania: Mr. Richard Brickley
Research and Information Services for Education
198 Allendale Road
King of Prussia, Pennsylvania   19406

The Resource Center's primary objective is to train field agents from each intermediate unit within the state about the processes of resource information storage and retrieval.

Texas: Mr. Charles Mix
Texas Education Information Service Project
6504 Tracor Lane
Austin, Texas   78721

This project is developing an information component to serve renewal sites. A full time extension agent operating from Teacher Centers or renewal cites will provide linkage.

Operational Information Centers

Oregon: Mr. George Katagiri
      Office of Planning and Research
      Oregon Board of Education
      942 Lancaster Drive, N.E.
      Salem, Oregon   97310

     Comprehensive information services are available to local educators
stationed in counties.

South Carolina: Dr. William E. Ellis
      Office of Planning and Research
      South Carolina State Department of Education
      Rutledge State Office Building
      Columbia, South Carolina   29201

     Field agents are supplied in target areas, including one
metropolitan district, to provide personalized information services
to educators.

Utah: Dr. Kenneth Lindsay
      Office of Planning and Research
      Utah State Board of Education
      136 East South Temple
      Salt Lake City, Utah   84111

     Field agents from the regional centers provide information to
local educators in rural areas of the state.

NCEC Information Center

District of Columbia: Educational Reference Center
      National Center of Educational Communications
      U. S. Office of Education
      400 Maryland Avenue, S.W.
      Washington, D.C.   20202

     The Educational Reference Center's primary objective is to display
current materials and exhibits from NCEC. The ERC is located in the lobby
of the Office of Education Building and the ERIC on-line computer searching
in room 1135.

IOWA STATE TRAVELING LIBRARY

To increase the availability of magazine article reproductions
INFORMS has enlisted the cooperation of the Iowa State Traveling Library
and its participation in I-LITE (Iowa Library Information Teletype Exchange).
I-LITE was launched in October, 1969 by the State Traveling Library. At
its beginning I-LITE was a network of nine public libraries, each serving
as the headquarters for a regional cooperative. Today, I-LITE's network
encompasses nineteen libraries.

If a copy of a periodical article is requested by a client, the
INFORMS staff first checks the Source Journal Index for <u>Current Index to
Journals in Education</u> (CIJE). The Source Journal Index (located on the
following page) lists all those periodicals indexed in CIJE which are
available to the client through DPI INFORMS. The Source Journal Index
also indicates the location of the periodical.

If the periodical is not available through the Educational Media
Library, the State Traveling Library is contacted. The State Traveling
Library subscribes to 99 periodicals that are indexed in the CIJE. Through
participation in I-LITE, State Traveling Library also provides access to
an additional 172 periodicals indexed in CIJE.

Periodicals can be retrieved from the State Traveling Library or
I-LITE within seven to ten days. The exact time depends upon the location
of the periodical.

SOURCE JOURNAL INDEX
FOR
CURRENT INDEX TO JOURNALS IN EDUCATION
Revised Edition as of May 1, 1972

* Academic Therapy Quarterly
* Administrative Science Quarterly
* Adolescence
+ * Adult Education
o + * Adult Leadership
o + * Agricultural Education Magazine
+ * AIA Journal
o * American Annals of the Deaf
* American Behavioral Scientist
* American Biology Teacher
+ * American Economic Review
o + * American Education
o * American Educational Research
Journal
o * American Journal of Mental
Deficiency
* American Journal of Occupational
Therapy
* American Journal of Orthopsychiatry
+ * American Journal of Physics
+ * American Journal of Psychology
+ * American Journal of Sociology
+ American Libraries
+ * American Scholar
o * American School Board Journal
o + American School and University
* American Speech
o * American Vocational Journal
o Appalachian Advance(current year)
+ Architectural Forum
+ * Architectural Record
* Architectural Review
o * Arithmetic Teacher
o * Art Education
o * Audiovisual Instruction
o AV Communication Review

o + * Balance Sheet
+ Bell Journal of Economics and
Management
* BioScience
o Black Scholar
* British Journal of Disorders
of Communication
* British Journal of Educational
Psychology
* British Journal of Educational
Studies
* British Journal of Psychology
* Bulletin of Hispanic Studies

+ * Bulletin of the Atomic Scientist
o * Business Education Forum
* California Journal of Educational
Research
* California Management Review
* Canada's Mental Health
* Catholic School Journal
o * Change
* Changing Education
o * Child Development
* Child Study Journal
o * Child Welfare
o * Childhood Education
o + * Children Today(formerly Children)
+ * Civil Rights Digest
* Classical Bulletin
* Classical Journal
* Classical Outlook
* Classical World
+ * Clearing House
o * College Board Review
* College Composition and Communication
+ * College English
o * College Management
* Community Development Journal
o Community Education Journal
+ * Community Mental Health Journal
o Compact
* Comparative Education Review
+ * Conservationist
* Contact
o * Contemporary Education
* Contemporary Psychology
+ * Convergence

+ * Daedalus
+ Datamation
* Delta Kappa Gamma Bulletin
* Delta Pi Epsilon Journal
* Drexel Library Quarterly

* EBTA Journal
* Economic Journal
+ * Education
* Education in Chemistry
o + * Education Digest
o * Educational Broadcasting Review
+ * Educational Forum
o Educational Horizons

o Educational Media Library   + State Traveling Library   * I-lite System

o + * Educational Leadership
    * Educational Perspectives
    * Educational Record
  + * Educational Review
o + * Educational Screen and Audiovisual
      Guide
o   * Educational Technology
o   * Educational Television
    * Educational Theatre Journal
    * Educational Theory
o + * Elementary English
o   Elementary School Guidance and
      Counseling
  + * Elementary School Journal
    * English
o + * English Journal
    * English Language Teaching
    * ETC: A Review of General
      Semantics
o + * Exceptional Children
  + * Extension Service Review

    * Foreign Language Annals
    * Francais dans le Monde
    * Freedomways
    * French Review

    * German Quarterly
o + * Grade Teacher
    * Graduate Journal

o + * Harvard Business Review
    * Harvard Educational Review
o   Hearing and Speech News
    * Heating, Piping and Air Condition-
      ing
    * High School Journal
    * Hispania
    * Hispanic Review
    * History of Education Quarterly
    * History Teacher
    * Human Development
    * Human Organization

    * Impact of Science on Society
    * Improving College and Univer-
      sity Training
  +   Indian Historian
o + * Industrial Arts and Vocational
      Education
o + * Instructor

o   Integrated Education
  * International Journal of American
    Linguistics
  * International Review of Education

  * Journal of Abnormal Psychology
  * Journal of the American Academy of
    Child Psychiatry
+   Journal of the American Society for
    Information Science
  * Journal of Applied Behavioral Science
  * Journal of Applied Psychology
  * Journal of Biological Education
  * Journal of Broadcasting
o * Journal of Business Education
  * Journal of Chemical Education
  * Journal of Communication
o * Journal of Consulting and Clinical
    Psychology
o * Journal of Counseling Psychology
  * Journal of Creative Behavior
+ * Journal of Education
+ * Journal of Education for Librarian-
    ship
o + * Journal of Educational Psychology
o * Journal of Educational Research
  * Journal of Experimental Child Psycho-
    logy
+ * Journal of Experimental Education
+ * Journal of Experimental Psychology
  * Journal of General Education
  * Journal of Genetic Psychology
+ * Journal of Geography
o * Journal of Health, Physical Education
    and Recreation
+ * Journal of Higher Education
+ * Journal of Home Economics
  * Journal of Human Resources
  * Journal of Industrial Teacher Education
o * Journal of Learning Disabilities
o * Journal of Library Automation
  * Journal of Marriage and the Family
  * Journal of Negro Education
  * Journal of Nervous and Mental Disease
  * Journal of Personality and Social
    Psychology
  * Journal of Psychology
  * Journal of Public Law
o * Journal of Reading
  * Journal of the Reading Specialist
o * Journal of Research and Development
    in Education

o Educational Media Library   + State Traveling Library   * I-lite System

* Journal of Research in Music
  Education
* Journal of Research in Science
  Teaching
* Journal of School Health
o * Journal of School Psychology
* Journal of Secondary Education
* Journal of Social Issues
+ * Journal of Social Psychology
o * Journal of Special Education
o * Journal of Speech and Hearing
  Disorders
o * Journal of Speech and Hearing
  Research
o * Journal of Teacher Education
* Journal of Verbal Learning and
  Verbal Behavior
o * Junior College Journal

* Labor Law Journal
* Language Learning
* Language Sciences
* Law and Society Review
* Liberal Education
+ * Library Association Record
+ * Library College Journal
o + * Library Journal
+ * Library Quarterly
o + * Library Resources and Technical
  Services
+ * Library Trends
* Linguistic Reporter

o   Man/Society/Technology - Journal
  of Industrial Arts Education
* Management Science
* Manpower
* Mathematical Gazette
+ * Mathematics Teacher
o + * Media and Methods - Exploration
  in Education
+ * Mental Hygiene
o * Mental Retardation
* Merrill-Palmer Quarterly of Be-
  havior and Development
* Minerva
+ * Modern Language Journal
+ * Music Educators Journal

o * NASSP Bulletin
o   National Art Education Associa-
  tion Studies in Art Education

* National Business Education Quarterly
* National Catholic Guidance Conference
  Journal
o * National Elementary Principal
+ * National Tax Journal
o + * Nation's Schools
o * NEA Research Bulletin
* Negro American Literature Forum
o   New Outlook for the Blind
+   New South
+ * New York Review of Books
o + * North Central Association Quarterly
* NSPI Journal

+ * Occupational Outlook Quarterly

+ * Parks and Recreation
* Peabody Journal of Education
* Perceptual and Motor Skills
+ * Personnel and Guidance Journal
* Personnel Journal
* Personnel Psychology
o * Phi Delta Kappan
* Phoenix
+ * Phylon
* Physics Education
* Physics Teacher
+ * Physics Today
o   Planning and Changing - A Journal for
  School Administrators
* Progressive Architecture
+ * Psychological Bulletin
* Psychological Reports
+ * Psychological Review
o * Psychology in the Schools
+ * Public Administration Review
* Public Interest
+ * Public Opinion Quarterly
* Publications of the Modern Language
  Association

* Quarterly Journal of Speech

* Reading Improvement
o * Reading Research Quarterly
o * Reading Teacher
o + * Review of Educational Research
* Revista Iberoamericana
+ * Rural Sociology

o + * Saturday Review
* School Arts

o Educational Media Library   + State Traveling Library   * I-lite System

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    * School Counselor
o + * School Libraries
o + * School Library Journal
o   * School Management
o + * School Review
    * School Science and Mathematics
o   * School Shop
  + * School and Society
  + * Science
o   * Science and Children
  + * Science Education
o   * Science Teacher
  +   Sexual Behavior
    * Slavic and East European Journal
    * Slavonic and East European Review
o + * Social Education
  + * Social Forces
    * Social Problems
  + * Social Science Quarterly
o   * Social Studies
  + * Social Work
  + * Sociology of Education
    * Soviet Education
  + * Special Libraries
    * Speech Monographs
  . * Speech Teacher
    * Studies in Art Education
    * Studies in English Literature

    * Teachers College Record
o     Teaching Exceptional Children
    * Technical Education News
    * Theory into Practice
    * Times(London)Educational Supplement
o + * Today's Education
o + * Top of the News
o     Training in Business and Industry
    * Transaction

  + * Unesco Bulletin for Libraries
    * Urban Education

o + * Vocational Guidance Quarterly
  + * Volta Review

  + * Wilson Library Bulletin
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CONSULTATIVE SERVICE

One approach INFORMS uses to assist educators in alleviating their needs is to identify consultants. The consultants are personnel from the Department of Public Instruction, public schools and colleges and universities. Normally, a fee is charged by non-Department of Public Instruction consultants. DPI personnel, being state employees directly associated with public education, are not allowed to accept a fee or honorarium.

DPI personnel will be listed as contact people for users. Then, if the DPI consultants are unable to provide the requested services, they will be given an opportunity to recommend appropriate consultative personnel. In each case, the DPI consultant should be contacted by the user. All arrangements between users and consultants are the responsibility of the user.

To indicate some of the types of services DPI can provide, several branch and section titles follow.

A. Administration

1. Administration and Finance
2. School Plant Facilities
3. Transportation
4. Driver and Safety Education
5. Food Services

B. Planning and Management Information

1. Planning, Research, and Evaluation
2. Management Information

C. Instruction and Professional Education

1. Supervision
2. Curriculum
3. Urban Education
4. Educational Media Center

D. Pupil Personnel Services

1. Special Education
2. Guidance Services
3. Special Needs

F. Rehabilitation Education and Services

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EDUCATIONAL RESOURCE INFORMATION CENTER

Changes in education are occurring at an unprecedented rate. It
is easy to generate information about these changes but problems develop
when educators only have access to this material in an unclassified, un-
indexed form. The National Center for Educational Communications is
hoping to solve these problems through ERIC -- Educational Resources
Information Center.

ERIC's purpose is twofold. First, ERIC makes thousands of
documents available in one place and lets you identify and obtain the
ones you need. Second, ERIC produces new information and disseminates
it in the form of newsletters, bibliographies or interpretive summaries.

The key to utilization of the ERIC system is in the monthly
indexed publications.

RESEARCH IN EDUCATION
- RIE -

RIE announces the new documents added
to ERIC each month. The RIE is made
up of document resumes and subject,
author and institution indexes.

CURRENT INDEX TO JOURNALS IN EDUCATION
- CIJE -

CIJE covers more than 500 publications
which represent the core periodical
literature in the field of education.

ERIC with its unique distribution of research documents makes it easy for the total educational community to be made aware of what is taking place in the field of education.

Documents are distributed on microfiche - a flat sheet of film that is low in cost and is a space saver.

ED 033 096   AN ANNOTATED BIBLIOGRAPHY OF PUBLISHED WORKS
FROM R AND D CENTER FOR TEACHER EDUCATION. R
AND D REPORT SERIES NO.22. WILSON, OAVID A.,
ED. TEXAS UNIV., AUSTIN. RESEARCH AND DEVELOP-
MENT CTR.FOR TEACHER EDUCATION. AUG 69 138P.

I OF 3
ED
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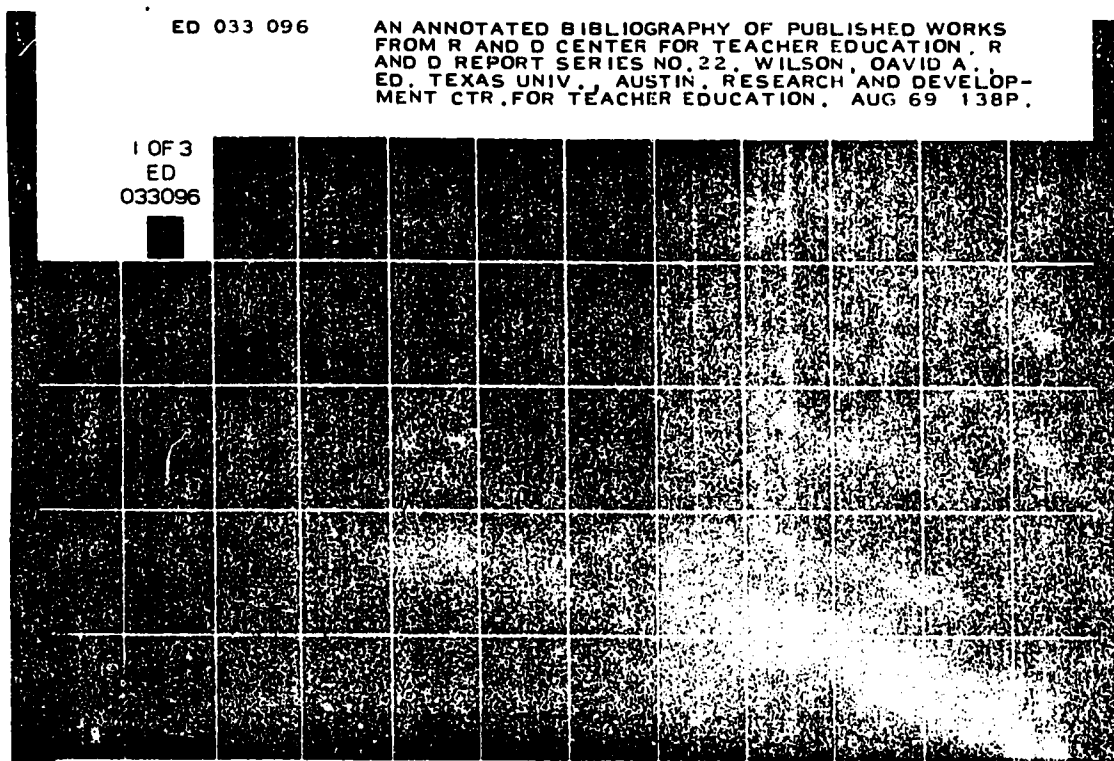
A complete ERIC collection is located in the Educational Media Section, Iowa Department of Public Instruction. This collection is complete with monthly updating of Research in Education, Current Index to Journals in Education and the entire microfiche collection.

On the following pages is a listing of the eighteen ERIC clearinghouses which cover specialized fields of education. Each clearinghouse locates significant research and resource material within a specific field. These subject clearinghouses review, abstract and index the documents announced in Research in Education.

ADULT EDUCATION
Syracuse University
107 Roney Lane
Syracuse, New York 13210
(315-476-5541)

ERIC/CAE is responsible for research and other documents on formal and informal adult and continuing education in all settings.

COUNSELING AND PERSONNEL SERVICES
University of Michigan
611 Church Street
Ann Arbor, Michigan 48104

ERIC/CAPS focuses on information relevant to personnel work at all levels and in all settings, including college student personnel work, elementary and secondary school counseling and school health work research. Included are materials on pupil, student and adult characteristics; educational, occupational and community settings; and the types of assistance provided by personnel workers.
Newsletter: Free upon request.

DISADVANTAGED
Teachers College
Columbia University
Box 40
New York, New York 10027
(212-870-4808)

ERIC/IRCD is responsible for research reports and other documents on the educational, psychological, social and general development of urban children and youth who are socially or economically disadvantaged.
Bulletin: Free upon request.

EARLY CHILDHOOD EDUCATION
University of Illinois
805 West Pennsylvania Avenue
Urbana, Illinois 61801
(217-333-1386)

ERIC/ECE is responsible for research documents on the physiological, psychological and cultural development of children from birth through primary grades.
Newsletter: Free upon request.

**EDUCATIONAL ADMINISTRATION
    MANAGEMENT**
Library-South Wing
University of Oregon
Eugene, Oregon 97403
(503-686-5043)

ERIC/CEA focuses on information concerned with leadership, management and structure of public and private educational organizations at all levels. Included are documents on the practice and theory of administration, generated from the fields of educational, public and business administration and from the humanities and the social and behavioral sciences. Not included are documents dealing specifically with educational facilities or junior colleges.
Perspectives: Free upon request.

EDUCATIONAL MEDIA AND TECHNOLOGY
Institute for Communication Research
Stanford University
Stanford, California 94306
(415-321-2300, ext. 3345)

ERIC at Stanford is responsible for information on application of new media and technological innovation to education, including such subjects as instructional television, computer assisted instruction and programmed learning.
Newsletter: Free upon request.

EXCEPTIONAL CHILDREN
The Council for Exceptional Children
1411 Jefferson Davis Highway
Suite 900
Arlington, Virginia 22202
(703-521-8820)

ERIC/CEC is responsible for documents on educating children and youth who require special services--those who are gifted, mentally retarded, visually impaired, deaf, hard of hearing, physically handicapped, emotionally disturbed or speech- and language-impaired.

HIGHER EDUCATION
George Washington University
1 Dupont Circle
Suite 630
Washington, D.C. 20036
(202-296-2597)

ERIC/CHE is responsible for research documents on higher education, with the exception of reports on both teacher education and teaching English in higher education.

JUNIOR COLLEGES
University of California at LA
405 Hilgard Avenue
Los Angeles, California 90024
(213-825-3931)

This clearinghouse is responsible for research documents about public and private community and junior colleges, including studies on students, staff, curricula, programs, libraries and community services.

LANGUAGES AND LINGUISTICS
Modern Language Association of America
62 Fifth Avenue
New York, New York 10011
(212-691-3200)

ERIC/CAL is responsible for research reports on linguistics and all related language sciences, uncommonly taught languages, the teaching of English as a foreign or second language and the teaching of English as a native language to speakers of nonstandard dialects.

LIBRARY AND INFORMATION SCIENCES
American Society for Information
    Science
1140 Connecticut Avenue, N.W.
Suite 804
Washington, D.C.   20036
(201-659-3778)

ERIC/CLIS is responsible for research
documents on the operation of libraries
and information centers, the technology
used to improve their operations and
the education and training of library
and information specialists.

READING AND COMMUNICATION SKILLS
1111 Kenyon Road
Urbana, Illinois   61801

ERIC/CRIER focuses on information related
to all aspects of reading behavior with
emphasis on physiology, psychology,
sociology and the teaching of reading.
Included are reports on the development
and evaluation of instructional mater-
ials, curricula, tests and measurements,
preparation of reading teachers and
specialists and methodology at all
levels; the role of libraries and other
agencies in fostering and guiding
reading; and diagnostic and remedial
services in school and clinic settings.
Brief Series: Free upon request.

RURAL EDUCATION AND SMALL SCHOOLS
New Mexico State University
Box 3 AP
University Park Branch
Las Cruces, New Mexico   88001
(505-646-2623)

ERIC/CRESS is responsible for research
documents on organization, administra-
tion, curriculum, instruction, inno-
vative programs and other aspects of small
schools and rural education in general,
as well as outdoor education, migrant
education, Indian education, and Mexican
American Education.
Newsletter: Free upon request.

SCIENCE, MATHEMATICS AND ENVIRONMENTAL
    EDUCATION
Ohio State University
1460 West Lane Avenue
Columbus, Ohio   43221
(641-422-6717)

ERIC/SMAC is responsible for reports on
all levels of science and mathematics
education and on adult and continuing
education in science and mathematics.

SOCIAL STUDIES/SOCIAL SCIENCE
   EDUCATION
University of Colorado
970 Aurora Avenue
Boulder, Colorado 80302

ERIC/CHESS is responsible for information on social studies, social science education and social education.
Newsletter: Free upon request.

TEACHER EDUCATION
George Washington University
1 Dupont Circle
Suite 616
Washington, D.C. 20046

This clearinghouse focuses on materials relative to the preparation of school personnel (nursery, elementary, secondary and supporting school personnel); the preparation and development of teacher educators; and the profession of teaching. The scope included recruitment, selection, lifelong personal and professional development and teacher placement.

TESTS, MEASUREMENT AND EVALUATION
Educational Testing Service
Rosedale Road
Princeton, New Jersey 08540
(609-921-9000)

ERIC/TM is responsible for documents presenting descriptions of: (1) tests and other measurement devices; (2) evaluation procedures and techniques; and (3) the application of tests, measurements or evaluation in educational projects or programs.
Newsletter: Free upon request.

VOCATIONAL AND TECHNICAL EDUCATION
Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

This clearinghouse focuses on research documents and related resources in vocational and technical education, new subprofessional fields and the related fields of industrial arts education, manpower economics, occupational psychology and occupational sociology.

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ERIC Vocabulary

1. ANNUAL INDEX - the RIE Annual Index is a cumulation of subject, author, institution and cross reference indexes from the monthly issues. The CIJE Annual Index cumulation includes complete citations as well as the indexes from the monthly issues.

2. CIJE - Current Index to Journals in Education.

3. CURRENT INDEX TO JOURNALS IN EDUCATION - the companion volume to RIE which announces journal articles. CIJE uses the same indexing terms as RIE. When necessary articles are annotated for clarity.

4. DESCRIPTIORS - authoritative terms which characterize the substantive content of a document and are used to index and search the ERIC system.

5. ED NUMBERS - primary identification numbers used to identify ERIC documents. Used to search the ERIC file and to order documents from EDRS.

6. EDRS - ERIC Document Reproduction Service which makes available in microfiche and hard copy most of the documents cited in RIE.

7. ERIC ACCESSION NUMBERS - assigned sequentially to documents at the clearinghouses as they are processed into the ERIC system. Preceded by clearinghouse prefix initials and used to identify individual clearinghouse input into RIE.

8. ERIC EDUCATIONAL DOCUMENTS INDEX - a subject and author index providing titles and ED numbers for RIE documents from November 1966 through December 1969. Includes both major and minor descriptors.

9. ERIC - EDUCATIONAL RESOURCES INFORMATION CENTER - a national information network for acquiring, abstracting, indexing, storing, retrieving and disseminating the most significant and timely educational research reports, program descriptions and other materials.

10. HC - hard copy, a full-size Xerox reproduction.

11. IDENTIFIERS - additional identifying terms such as names of tests or institutions used to index documents in RIE and CIJE but which are not listed in the Thesaurus of ERIC Descriptors.

12. MAJOR DESCRIPTORS - descriptors preceded by an asterisk in each RIE entry indicating the major concepts of a document.

13. MF - microfiche, a 4" X 6" sheet of film showing up to 70 images each representing an 8½" X 11" sheet of paper. It is read in a microfiche reader which enlarges the images.

14. MINOR DESCRIPTORS - descriptors without an asterisk in each RIE entry indicating the less important concepts of a document.

15. NCEC - National Center for Educational Communication, office in N.I.E. responsible for the ERIC system.

16. QUERY - a computer program used to search the ERIC files.

17. RESEARCH IN EDUCATION - a monthly abstract journal which announces new substantive reports in the field of education. It contains resumes highlighting the significance of each document and indexes citing the contents by subject, author, institution, ED number and clearinghouse accession number.

18. RIE - Research in Education, monthly abstract journal published by ERIC.

19. ROTATED DESCRIPTOR DISPLAY - a list of all descriptors in the ERIC Thesaurus with each element of the descriptor entered separately in alphabetical order but always entered along with the other elements of the descriptor. Descriptors with words in common are grouped together.

20. THESAURUS OF ERIC DESCRIPTORS - structured compilation of educational terms used to index and enter documents into the ERIC system. Needed to search for documents on a specific topic.

PUTTING RESEARCH INTO EDUCATIONAL PRACTICE

PREP is:

- A series of monthly reports which focus the light of research on current educational problems.

- A synthesis and interpretation of research, development and current best practice on specific educational topics.

- The best thinking of researchers interpreted by specialists for the practitioner in nontechnical language.

- A series of reports targeted to specific educational audiences--the administrator, school board member, teacher, curriculum specialist and teacher educator.

- Information in the public domain which can be adapted to meet local needs.

- A format for disseminating significant R & D findings to the practitioner.

> Putting
> Research into
> Educational
> Practice

PREP reports are available from:

- Your state education agency.

- ERIC Document Reproduction Service, Post Office Drawer O, Bethesda, Maryland 20014.

> See monthly issues of Research in Education for abstracts and prices of PREP reports in microfiche and hard copy.

- Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402--beginning with report No. 24.

- Iowa's Regional Educational Media Centers

PREP   Reports

1--Instructional Television Facilities: A Guide for School Administrators and Board Members. ED 035 077

2--Reading Difficulties: Reading and the Home Environment. The Principal's Responsibility. ED 034 078

3--Establishing Central Reading Clinics: The Administrator's Role. ED 034 079

4--Correcting Reading Problems in the Classroom. ED 034 080

5--Treating Reading Disabilities: The Specialist's Role. ED 034 081

6--Bilingual Education. ED 034 082

7--Research for School Board Members: School-Community Relations. ED 034 083

8--Research for School Board Members: Teacher Militancy, Negotiations and Strikes. ED 034 084

9--Job-Oriented Education Programs for the Disadvantaged. ED 034 085

10--Seminar on Preparing the Disadvantaged for Jobs: A Planning Handbook. ED 034 086

11--Research on Elementary Mathematics. ED 034 087

12--Paraprofessional Aides. ED 034 906

13--Sharing Educational Services. ED 036 666

14--Social Studies and the Disadvantaged. ED 037 588

15--Student Participation in Academic Governance. ED 038 555

16--Individualized Instruction. ED 041 185

17--Microteaching. ED 041 190

18--Reinforcing Productive Classroom Behavior: A Teacher's Guide to Behavior Modification. ED 042 061

19--Migrant Education. ED 042 936

20--Teacher Recruitment and Selection. ED 043 797

21--Teacher Evaluation. ED 044 546

22--A Readiness Test for Disadvantaged Preschool Children. ED 047 168

23--Educational Cooperatives. ED 048 521

24--School-Community Relations and Educational Change. ED 054 536

25--Improving Teaching Effectiveness. ED 054 083

26--Black Studies in Community Colleges. ED 055 579

27--Year-Round Schools. The 45-15 Plan. ED 054 396

28--Educational Performance Contracting. ED 057 262

29--New Products in Education. ED 059 410

30--Teaching Resources for Low-Achieving Mathematics Classes. ED 059 413

31--Early Childhood Programs for Non-English-Speaking Children. ED 060 397

32--Job Placement and Follow-up of Secondary School: Vocational Education
    Students.

33--Environmental Education Programs and Materials.

34--Evaluating College Classroom Teaching Effectiveness.

35--Educational Accountability and Evaluation.

FEDERALLY FUNDED CENTERS AND LABORATORIES

The Research and Development Centers and Educational Laboratories are of specific interest to INFORMS because they are the major originator of educational innovations and other components of new knowledge. For this reason, educators may be interested in their names, addresses and mission.

RESEARCH AND DEVELOPMENT CENTERS

The basic objective of the eight university based Research and Development Centers is to create improved educational programs and practices through systematic long-term programs of research and development. Each center brings together resources and inter-disciplinary talent to focus on a significant educational problem.

Center for Research and Development in Higher Education
University of California, Berkeley
1947 Center Street
Berkeley, California 94720
(415-642-5769)

   Mission: To improve the quality, effectiveness and accessibility of
             higher education in the United States.

Center for Social Organization of Schools
Johns Hopkins University
3505 North Charles Street
Baltimore, Maryland 21218
(301-366-3300)

   Mission: To conduct research on how students are affected by
             environmental aspects such as school organization, rules
             and racial composition.

Center for the Advanced Study of Educational Administration
147B Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503-342-1411)

    Mission: To develop programs to improve procedures for educational
                    decision making related to the organizational and ad-
                    ministrative implications of instructional change in
                    public elementary and secondary schools.

Center for the Study of Evaluation
University of California, Los Angeles
145 Moore Hall
405 Hilgard Avenue
Los Angeles, California   90024

    Mission: To develop systems for evaluating different levels of education
                    which can be adopted and implemented by educational agencies.

Pittsburgh Learning R & D Center
University of Pittsburgh
160 North Craig Street
Pittsburgh, Pennsylvania   15213

    Mission: To study the processes of learning and to design, develop
                    and test new techniques of instruction.

Research and Development Center for Teacher Education
University of Texas
303 Sutton Hall
Austin, Texas   78712
(512-471-1343)

    Mission: To promote the "personalization" of teacher education and
                    through teacher training, the "personalization" of elementary
                    and secondary school instruction by focusing on the maximum
                    individualization of learning experience for teacher trainees
                    (and ultimately, their pupils) in accordance with their
                    concerns and capabilities.

Stanford Center for Research and Development in Teaching
Stanford University
770 Welch Road
Palo Alto, California   94304
(415-321-2300)

    Mission: To improve the effectiveness of teaching in American
                Schools.

Wisconsin Research & Development Center for Cognitive Learning
University of Wisconsin
1404 Regent Street
Madison, Wisconsin   53706
(608-262-4901)

    Mission: To improve educational practice through programmatic
                R & D by generating new knowledge about cognitive learning
                and instructional processes and by developing materials
                and procedures based on a self-renewing system of
                Individually Guided Education (IGE) in the Multiunit
                Elementary School.

EDUCATIONAL LABORATORIES

       Educational Laboratories are primarily engaged in educational
development; that is, the precise formulation, field testing and
refinement of curriculum materials, teaching procedures and
organizational arrangements for adoption by local school systems.
Currently, eleven autonomous, "not-for-profit" corporations (with
independent governing boards, staffs and other sources of income)
are developing tested alternatives to traditional educational
practice.

Appalachia Educational Laboratory (AEL)
1031 Quarrier Street
Post Office Box 1348
Charleston, West Virginia   25325
(304-344-8371)

    Mission: To develop programs to increase the accessibility of
                quality educational programs for rural and isolated schools.

<u>Center for Urban Education</u> (CUE)
105 Madison Avenue
New York, New York 10016
(212-889-7277)

Mission: To develop programs to improve the quality and relevance
          of urban education.

<u>Research for Better Schools</u> (RBS)
1700 Market Street
Suite 1700
Philadelphia, Pennsylvania 19103
(215-561-4100)

Mission: To construct products which will not only optimize
          conditions for intellectual growth of the individual
          student, but also promote his self-reliance, responsibility
          and responsiveness to changing social and technological
          environments.

<u>Southwest Educational Development Laboratory</u> (SEDL)
800 Brazos Street
Austin, Texas 78767
(512-476-6861)

Mission: To develop learning systems at the preschool and primary
          levels to meet the specific educational needs of Mexican-
          American, Black and French-American children.

<u>Southwest Regional Laboratory</u> (SWRL)
11300 LaCienega Boulevard
Inglewood, California 90304
(213-776-3800)

Mission: To develop performance referenced and learner-controlled
          curriculum systems that are research based; that equip
          pre-school and primary Anglo, Mexican-American and Black
          children with skills necessary to function in an increasingly
          complex environment; and that are supported by human
          resources support systems and computer support systems.

<u>Southwestern Cooperative Educational Laboratory</u> (SWCEL)
117 Richmond Drive, NE
Albuquerque, New Mexico 87106
(505-265-9561)

Mission: To develop programs to improve the communication skills of
culturally diverse children, ages 3-8, particularly
Mexican-Americans and Indians.

Operational Activities
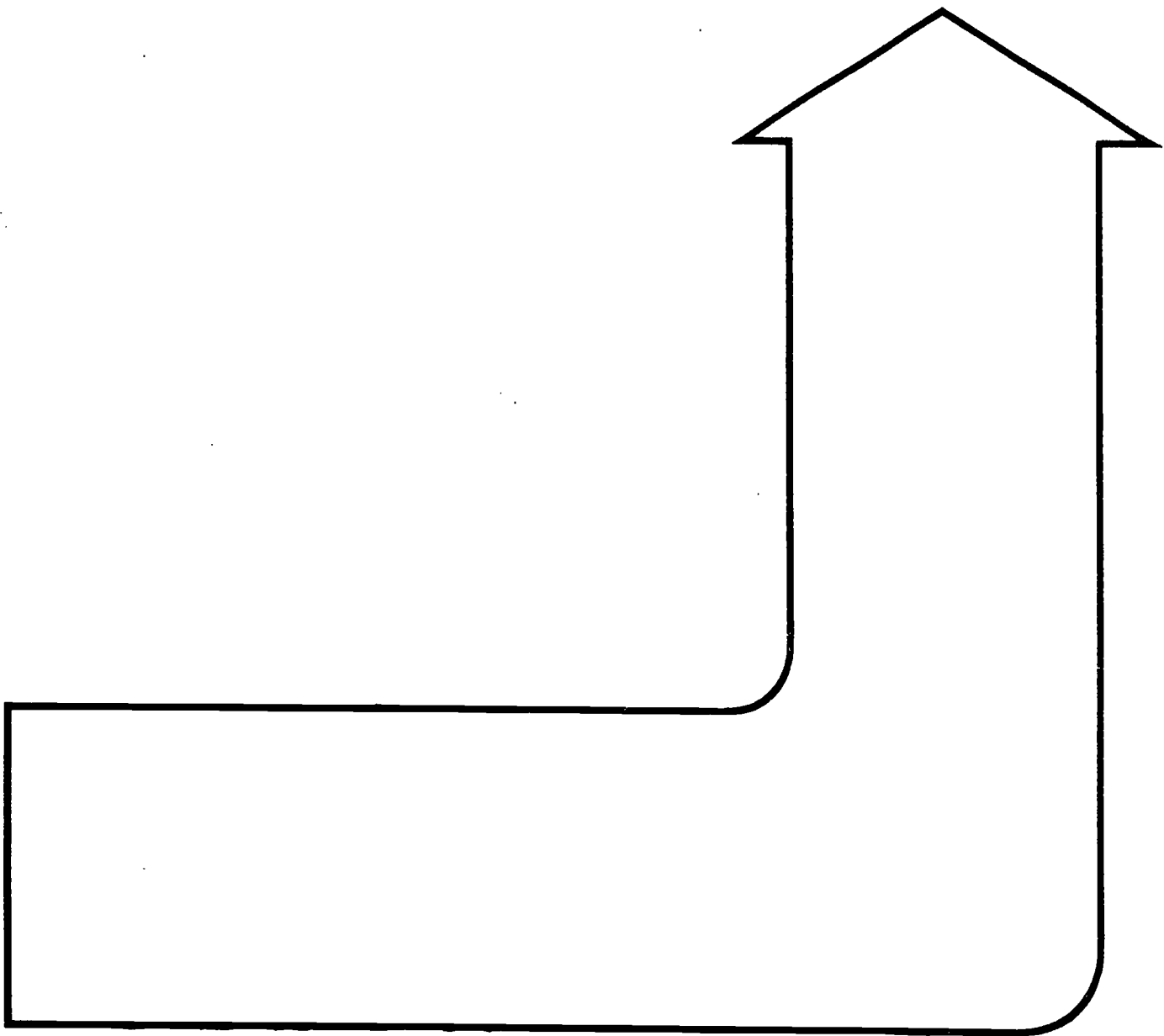
INTRODUCTION

If one reflects upon the vast number of possible methods of providing information and the confusion that may result from multiple utilization, it becomes obvious that an information retrieval and dissemination network needs a set of prescribed operations as guidelines for satisfactory service. INFORMS operations and their relationships for information requests are shown in the Flow Chart of Request Operations (page D-3). Only the major operations are given by a short characterization statement. How to perform each operation is to be described later. The symbol in the left-hand bottom corner of each box on the flow chart identifies the operation leader.

The flow chart conveys a number of different request operation sequences according to the involvement of DPI INFORMS staff, field representatives and clients. To assist in interpreting the chart, several flow paths will be characterized and described by number identification, number sequence and operational leader. Other combinations of operations may be possible; however, it is anticipated that the described sequences represent the most common ones. The flow paths and flow chart should be analyzed simultaneously.

Flow Chart of Request Operations

FR = Field Representative

DPI = Department of Public Instruction

C = Client

1 Negotiate
FR—DPI

2 Identify and Record Local Number
FR

3 Record Ledger Information
FR

4 Formulate Search Strategy
FR

5 Organize Local Site Resources
FR

7 Present Resource Information
FR

6 Forward Request to DPI
FR

8 Identify and Record DPI Number
DPI

9 Record Ledger Information
DPI

11 Notify Client of Request Status
DPI

12 Formulate Search Strategy
DPI

13 Perform Manual Search
DPI

10 File Completed Requests
DPI

14 Identify ED and EJ Numbers by Computer Search (Phase I)
DPI

15 Print Abstracts or Citations (Phase II)
DPI

16 Prepare Information Packet

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15 — Print Abstracts or Citations (Phase II) *DPI*

16 — Prepare Information Packet *DPI*

17 — Forward Packet to Field Representative *DPI*

18 — Screen, Analyze and Synthesize Information *FR*

19 — Present Information to Client *FR*

20 — Analyze and Evaluate Information *C*

21 — Complete Assessment Questionnaire *C*

22 — File Completed Requests *DPI*

23 — Request Additional Information *C*

24 — Collect Retrieval Request Information *DPI*

25 — Prepare Information Packet *DPI*

26 — Forward Packet to Field Representative *DPI*

27 — Present Information to Client *FR*

28 — Complete Assessment Questionnaire *C*

29 — File Completed Requests *DPI*

D-3

A series of operations where the field representative completes a
request by supplying local site resources is represented in Flow Path 1.
NO SEARCH OR SUPPLYING OF INFORMATION IS REQUIRED BY THE DPI INFORMS STAFF.
The DPI is involved by filing the request in a master file (operations
$8 \rightarrow 9 \rightarrow 10$).

DPI INFORMS	Field Representative	Client
	1	
	↓	
	2	
	↓	
	3	
	↓	
	4	
	↓	
8	5	
↓	↓	
9	6	
↓	↓	
10	7 ——————→ 20	
	↓	
	21	
22 ←————————		
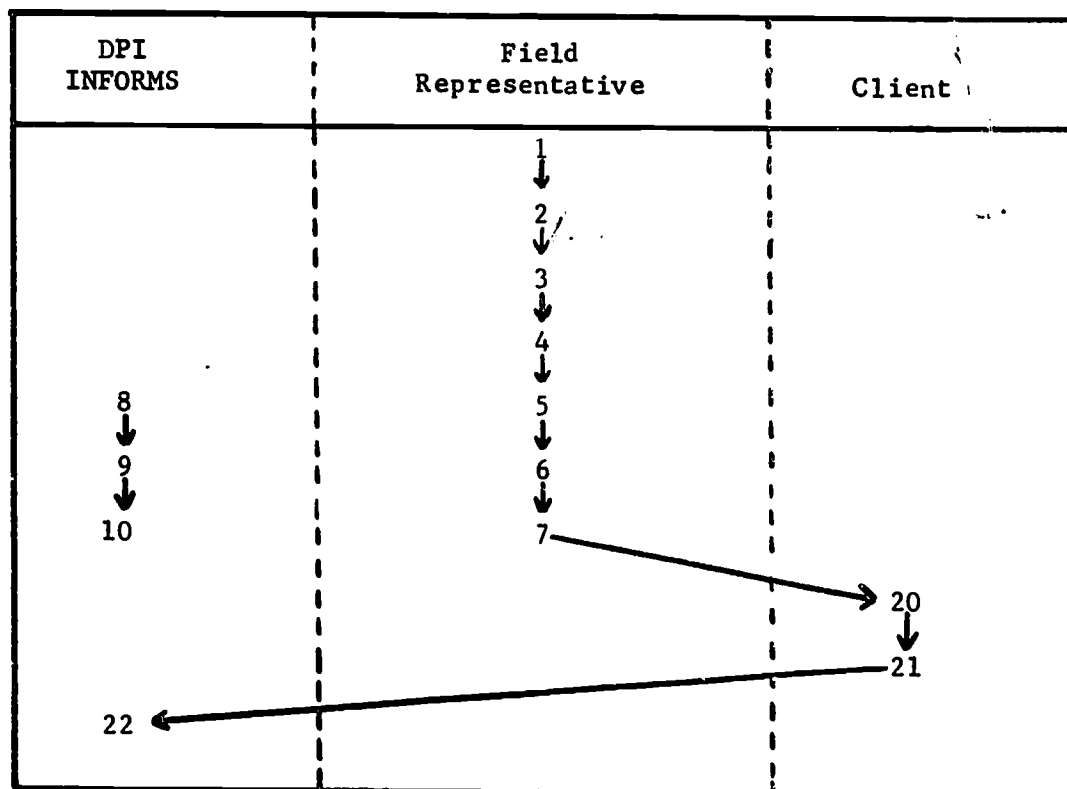
Flow Path 1

The most frequently used series of operations will consist of the
DPI INFORMS STAFF CONDUCTING A SEARCH AND SUPPLYING INFORMATION AFTER A
FIELD REPRESENTATIVE PERFORMS THE NEGOTIATION. Flow Path 2 shows the
sequence of operations. The notation (21→22) signifies that the series
may end with operations 21 and 22 rather than proceding with 23 if the
initial information supplied is sufficient to complete the request.
Which route is selected depends upon a client's decision in operation 20.

DPI INFORMS	Field Representative	Client
	$\downarrow$ 1 2 3 4 6	
8 $\downarrow$ 9 $\downarrow$ 11 $\downarrow$ 12 $\downarrow$ 13, 14, 15 $\downarrow$ 16 $\downarrow$ 17	18 $\downarrow$ 19	20 $\downarrow$ 23 (21→22)
24 $\downarrow$ 25 $\downarrow$ 26	27	28
29		
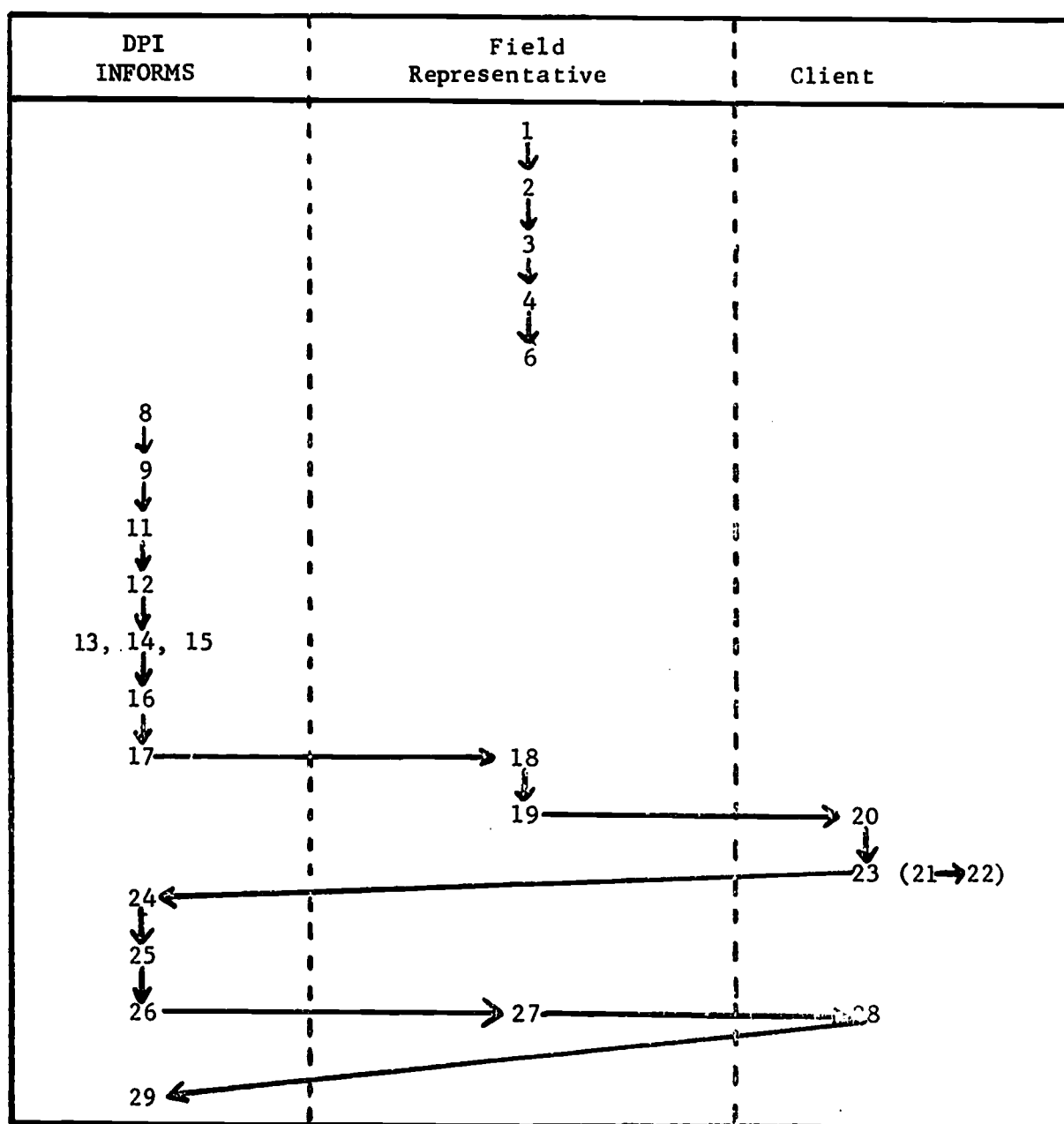
Flow Path 2

Flow Path 3 depicts a series of operations where both the DPI AND FIELD
REPRESENTATIVE PERFORM A SEARCH AND SUPPLY INFORMATION. The field repre-
sentative performs the negotiation. Second requests, which involve supply-
ing documents abstracted in the initial information, are handled by the
DPI INFORMS staff.
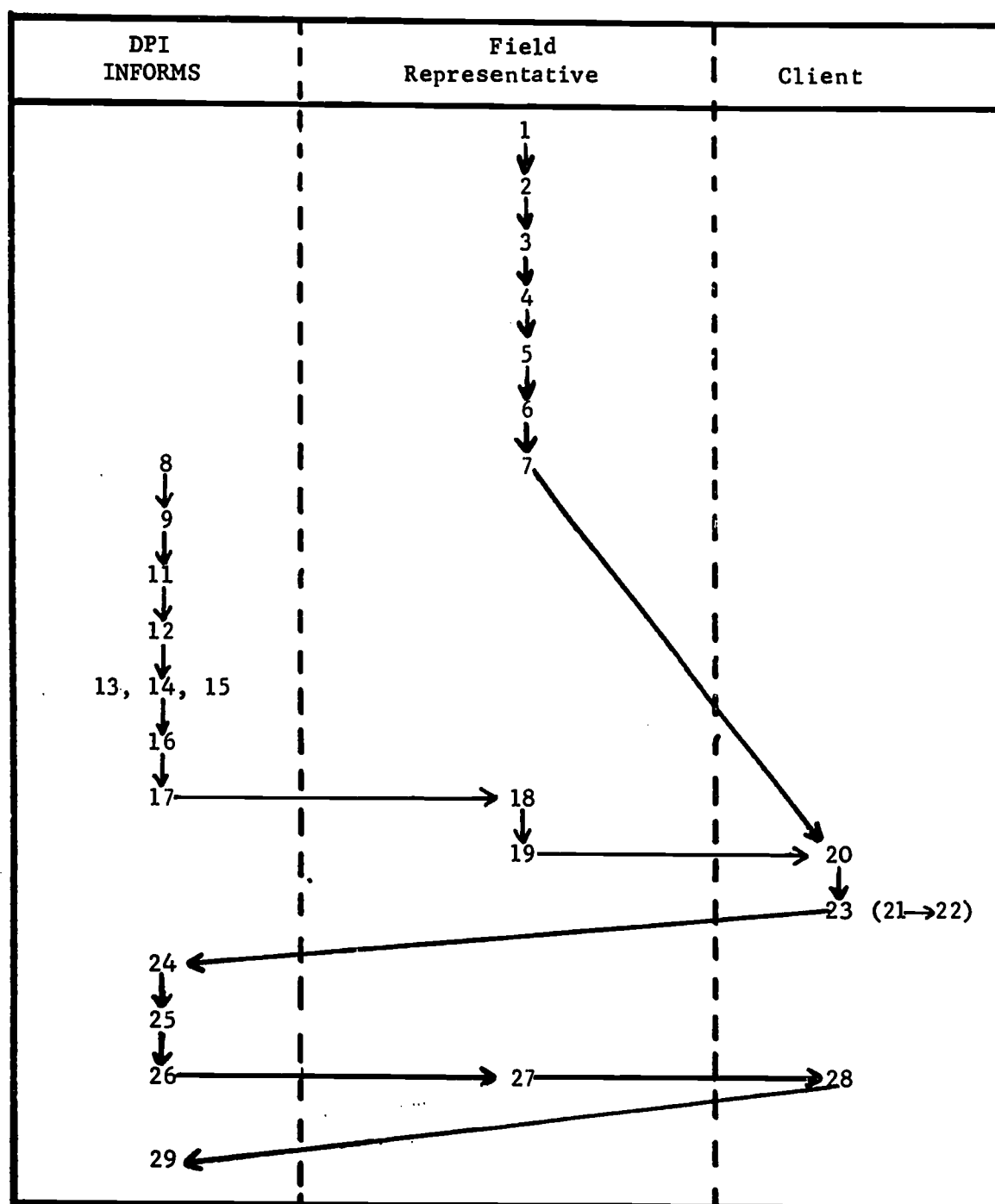
Flow Path 3

A request may be initiated by the <u>DPI INFORMS STAFF PERFORMING THE</u>
<u>NEGOTIATION</u>. The field representative acts as an intermediary between DPI
and client as is indicated by the operation numbers listed in Flow Path 4.
The searching for and supplying of information is conducted by the DPI
INFORMS staff. After receiving the packet contents, the field representative
would record and file relevant forms (operations 2→3) in addition to
presenting the information to the client. Another similar sequence to Flow
Path 4 would involve the DPI staff presenting the information directly
to the client. An example of such a situation would be a request from a
member of DPI. When this condition exists, operations 2 and 3 performed
by the field representative would be eliminated and operations 19 and 27
would be performed by DPI INFORMS staff.

DPI INFORMS	Field Representative	Client
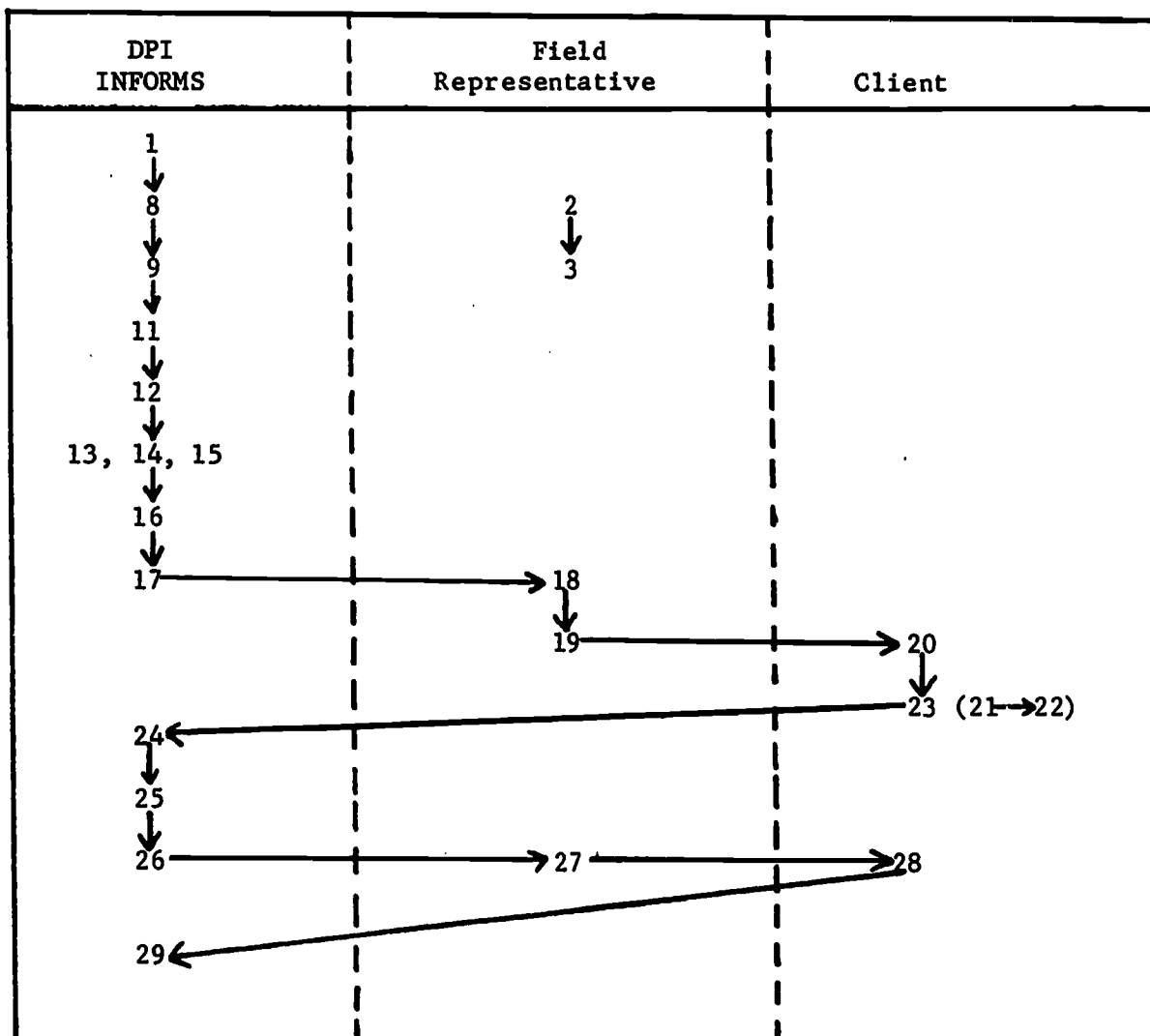
Flow Path 4

WHEN A FIELD REPRESENTATIVE PERFORMS A NEGOTIATION, IDENTIFIES THE
NECESSARY INFORMATION AND REQUESTS A PORTION OF THE INFORMATION TO BE
SUPPLIED BY DPI, either Flow Path 5 or Flow Path 6 explains the sequence.
Which path is appropriate depends upon the nature of the materials requested
from DPI. If the materials will definitely not require a second request
(e.g. no abstracts, etc. included), Flow Path 5 applies. Flow Path 6 is
appropriate when the information may require a second request.

Flow Path 5

DPI
INFORMS

Field
Representative

Client

1
2
3
4
5
6
7

8
9
11
12
16
17 →18
19 →20
23 (21→22)
24
25
26
27
28
29
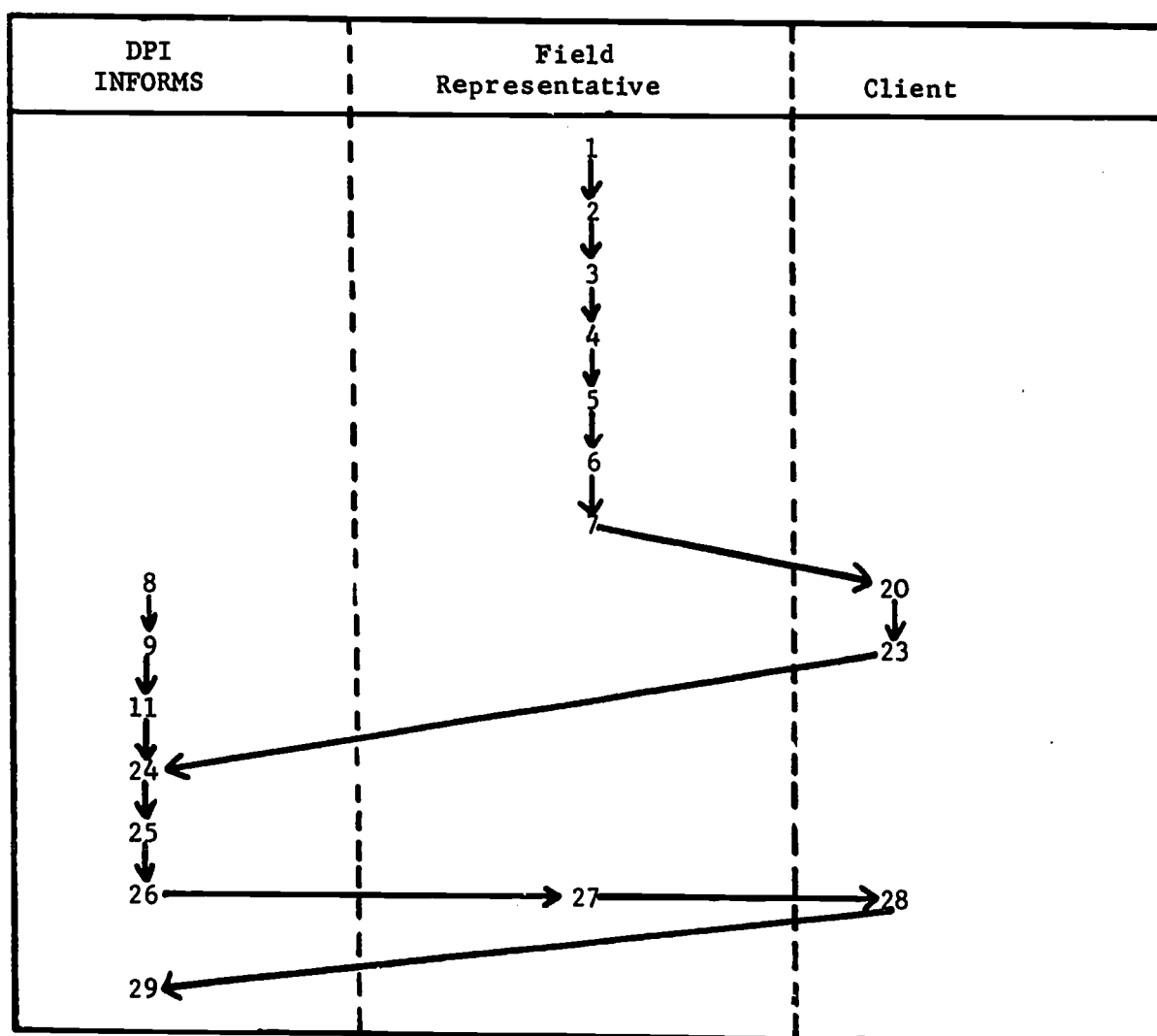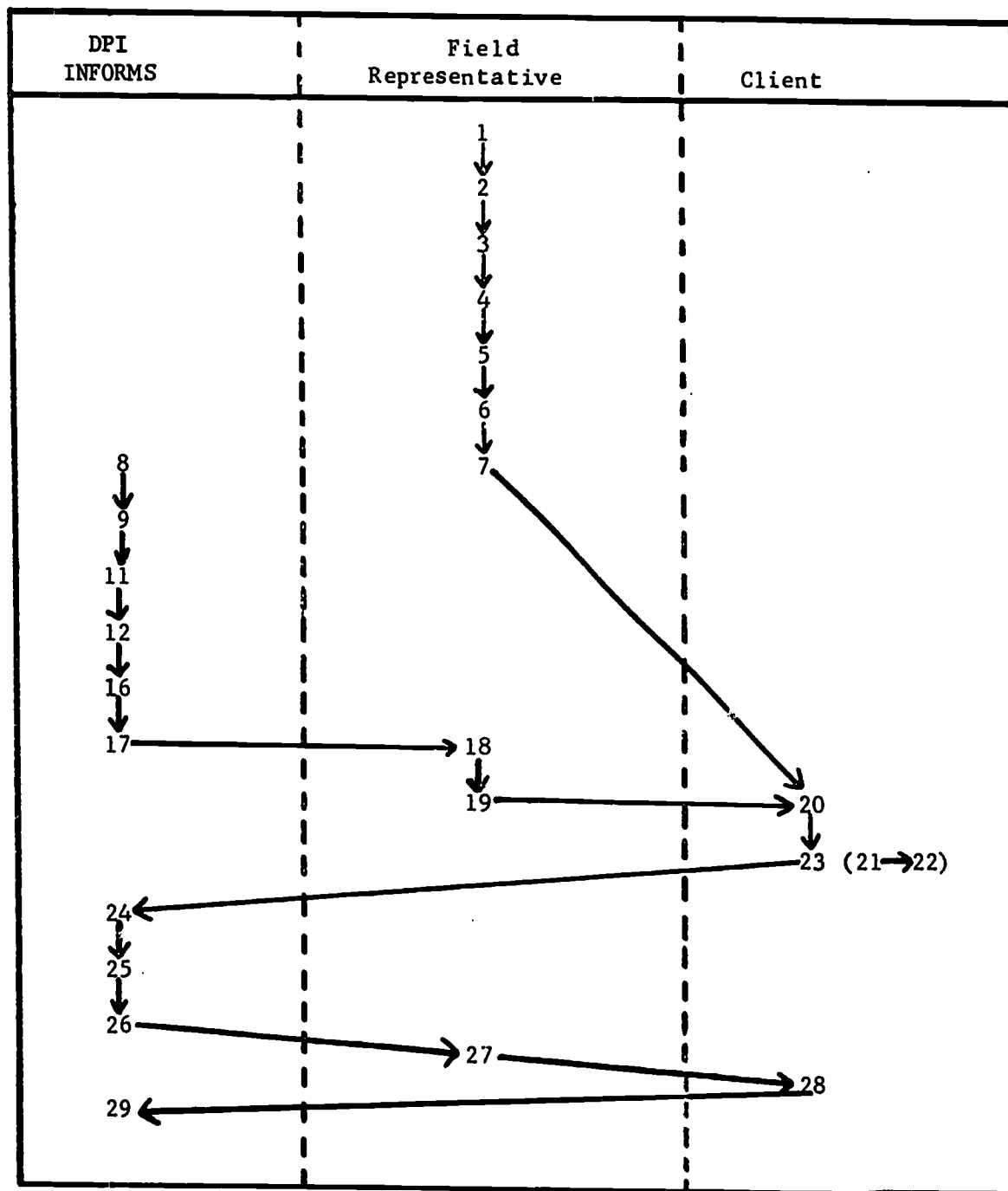
Flow Path 6

How to perform each operation is described with similar operations being grouped together under a sub-section heading based upon common characteristics. When an operation is not grouped with at least one other operation, the sub-section title and operation may have the same label. Immediatley after a heading, the operation(s) being discussed is (are) listed within solid lines along with preceding and succeeding operations within broken lines.
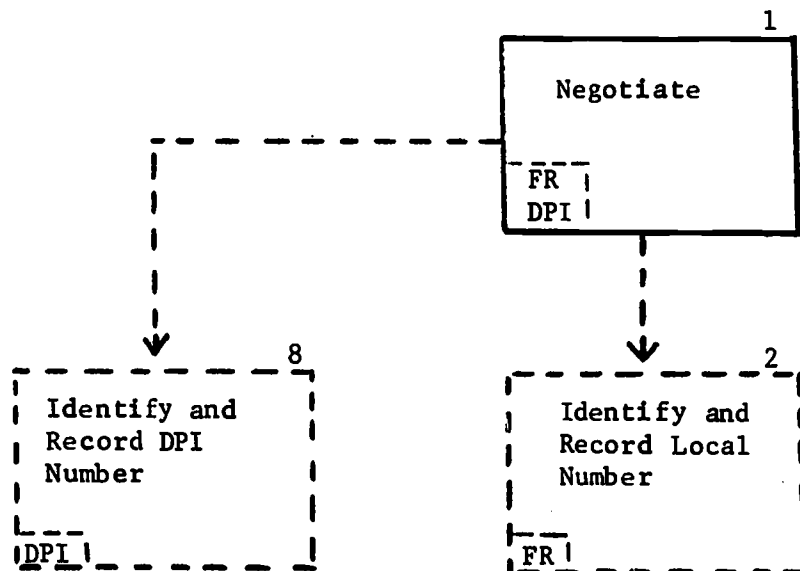
Negotiating a Problem:

When one person does not know what another has in mind, information is not easily transmitted. When the teacher, principal, curriculum supervisor (client) comes to the field representative he most likely will need assistance in describing the information that is needed to help him solve his curricular or instructional problem.

It then becomes the responsibility of the field representative to acquire an understanding of the client's perspective on his problem. This is essential to help make the search for relevant information more effective. The ideal method to accomplish this understanding is to define the problem through personal negotiation with the client. The results of the negotiation will be completed on the Negotiation Form.

Negotiation Form (page E-3)

For the field representative to utilize the materials within
the resource system a Negotiation Form must be used.

- Standard forms provided by DPI INFORMS will be used
  by all field representatives.

- Each request for information (e.g. microfiche, magazine
  articles, in-depth searches) will be submitted on a
  Negotiation Form.

- A local number will be assigned to each form before
  it is sent to DPI INFORMS.

- A carbon copy of all forms sent to DPI INFORMS must be
  retained by field representatives.

In order that all requests may be handled with speed and
efficiency, the Negotiation Form must be properly completed and
must accompany all requests. All members of the DPI INFORMS
staff will be happy to assist you in the correct procedures.
However, it is the field representative's responsibility to describe
the request accurately and completely.

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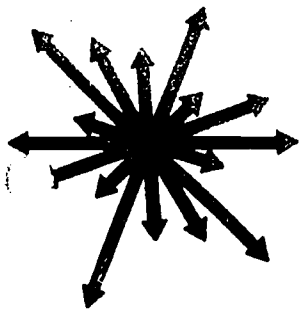
INFORMS

DPI NO. [| | | | | | |]

LOCAL NO. [| | | | | |]

NEGOTIATION FORM

IOWA NETWORK FOR OBTAINING RESOURCE MATERIALS FOR SCHOOLS
Department of Public Instruction
Educational Media Section
Grimes State Office Building
Des Moines, Iowa   50319

FIELD REPRESENTATIVE: _____ AREA: _____

CLIENT: _____ POSITION: _____ DATE: _____

SCHOOL DISTRICT: _____ ADDRESS: _____
==

TOPIC: (One topic per request form)

ERIC MAJOR DESCRIPTORS: _____
==

ADDITIONAL SEARCH REQUIRED: Yes _____   No _____   Date Needed _____

PURPOSE OF SEARCH: _____

_____

GRADE LEVEL: _____

RESTRICTIONS: _____
==

INITIAL REQUEST: Circle letters of desired types of materials

a. Microfiche _____
b. ERIC Document Abstracts ____
c. Dissertation Abstracts ____
d. CIJE Citations ____
e. CIJE Articles ____
f. PREP Packages ____

g. Educational Index Articles ____
h. Educational Index Bibliography ____
i. Other Bibliographical Information ____
j. Brochures, Pamphlets, etc. ____
k. Human Resource Information ____
l. Information in Local Media Center ____
m. Other ____

SECOND REQUEST:

a. Microfiche _____
b. CIJE Articles ____
c. Educational Index Articles ____

d. Dissertations ____
e. Other Articles ____
f. Human Resources ____
g. Other ____

E-3

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DO NOT USE ➡

For Staff Use Only:

Date Received _____ DPI No. _____ 1st Run _____ re-run _____ 2nd Run _____

Number of Hits: RIE _____ CIJE _____ Total _____ ☐ RIE ☐ CIJE ☐ BOTH

Negotiation Instructions:

SIDE I

For discussion purposes, Side I of the Negotiation Form is divided into six parts. The completion of each part will be considered a step. The steps are:

STEP 1: Introductory Information

STEP 2: Client's Topic

STEP 3: Search Restrictions

STEP 4: Initial Request

STEP 5: Second Request

STEP 6: Number and Filing System Codes
(Will be discussed in the "Coding Request" section)

SIDE II

Explanation is contained in "Computer Search" section.

STEP 1: FILL OUT INTRODUCTORY INFORMATION

FIELD REPRESENTATIVE: _Dave Baldwin_ AREA: _X_

CLIENT: _John Smith_ POSITION: _Superintendent_ DATE: _8-30-72_

SCHOOL DISTRICT: _Amana_ ADDRESS: _305 Elm Street_
Amana, Iowa 52307
===

    Describe the client. Note his name, position, school district and address for your records and future correspondence. The field representative's name, area and the date are essential.

STEP 2: DESCRIBE YOUR CLIENT'S TOPIC

TOPIC: (One topic per request form)

ERIC MAJOR DESCRIPTORS: _____

===

    To avoid confusion, ONE TOPIC PER REQUEST FORM. For evaluation purposes. DPI INFORMS must record each subject area covered. With the field representative supplying the general and specific categories (explained in Step 6) in the local number and only one topic per request form, this will be possible.

    In the space provided, define a clear, concise statement of the problem. Searching is limited by the description of information requested.

GOOD EXAMPLE:

Readiness testing to predict achievement in Elementary Math.

ERIC MAJOR DESCRIPTORS:

Testing, Elementary School
    Mathematics, Achievement Tests

POOR EXAMPLE:

Mathematics Tests

When defining your requests and selecting ERIC major descriptors, it will be to your advantage to follow these searching suggestions:

- Check the ERIC Thesaurus for using descriptors (subject headings).
- Use narrow terms (NT) when possible.
- Use broad terms (BT) when necessary.
- Use related terms (RT) as needed.
- Do not use terms listed as (UF) which mean 'used for' other synonyms.
- The rotating list at the end of the Thesaurus gives all descriptors by keyword.

STEP 3: FILL OUT SEARCH RESTRICTIONS

==

ADDITIONAL SEARCH REQUIRED: _____ _____   DATE NEEDED _____
                               Yes   No

PURPOSE OF SEARCH: _____

_____

GRADE LEVEL: _____

RESTRICTIONS: _____

==

This section is important so that the searcher is aware of what limitations have been placed on the search.

Ask the client when and why he needs the information. Does he plan
to use it for himself, for a teacher training workshop, for a curriculum
committee, for a superintendent's meeting, etc.? The goal or purpose for
requesting the information may contain clues that will help define his
problem. All of this helps to clarify the quantity, depth and type
of information needed.

A search will not be conducted at DPI INFORMS unless additional
search required is indicated and a specific date is given.

Valid:

ADDITIONAL SEARCH REQUIRED: ✓   DATE NEEDED _September 30_
                              Yes   No

Invalid:

ADDITIONAL SEARCH REQUIRED: ✓   DATE NEEDED _As soon as_
                              Yes   No   _possible_

STEP 4: INITIAL REQUEST

==

INITIAL REQUEST: Circle letters of desired types of materials

a. Microfiche ____   h. Educational Index Bibliography ____
b. ERIC Document Abstracts ____ i. Other Bibliographical Information ____
c. Dissertation Abstracts ____ j. Brochures, Pamphlets, etc. ____
d. CIJE Citations ____   k. Human Resource Information ____
e. CIJE Articles ____   l. Information in Local Media Center ____
f. PREP Packages ____   m. Other ____
g. Educational Index Articles ____

==

During negotiations:

        Circle the letters of the kinds of material that have a high probability
of providing information to alleviate the need. After the initial search,
record on the line the actual number of materials sent by you to a client.
Special Note: Remember to record on the line only the number of different
kinds of materials supplied by you.

        Since confusion may arise for reporting purposes, the DPI staff will
always record the number in parenthesis for the initial request. Thus, a
distinction will exist between local and DPI sources. An example is CIJE
Articles 2(4). The interpretation is two articles from local sources and
four articles from DPI. The initial request is defined as the first
opportunity to supply information.

STEP 5: SECOND REQUEST

==

SECOND REQUEST:

a. Microfiche ____   e. Other Articles ____
b. CIJE Articles ____   f. Human Resources ____
c. Educational Index Articles ____ g. Other ____
d. Dissertations ____

==

        Material for the second request will always be indicated on a Retrieval
Request form which is based upon the Packet Contents that has been previously
sent out as a result of the initial request. Record the number of items sent
on each appropriate line. Do not record DPI contribution numbers in parentheses
since a Retrieval Request form for a request will not be handled by both DPI
and a field representative.

CODING REQUESTS

```
                                          ┌─ ─ ─ ─ ─ ─ ─ ─ ─1┐
                                          │  Negotiate       │
                                          │                  │
                                          │                  │
                                          │                  │
                                          └FR┐DPI│─ ─ ─ ─ ─ ─┘
        ┌─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘        │
        │                                          │
        │                                          ▼
        ▼                                  ┌──────────────2┐
┌──────────────8┐                          │ Identify and  │
│ Identify and  │                          │ Record Local  │
│ Record DPI    │                          │ Number        │
│ Number        │                          │               │
│               │                          │ ┌──           │
│ ┌──           │                          │ │FR│          │
│ │DPI│         │                          └──────────────┘
└──────────────┘                                  │
        │                                          │
        ▼                                          ▼
┌─ ─ ─ ─ ─ ─ ─ ─9┐                        ┌─ ─ ─ ─ ─ ─ ─ ─3┐
│ Record Ledger  │                        │ Record Ledger  │
│ Information     │                        │ Information     │
│                 │                        │                 │
│                 │                        │                 │
│ ┌── │           │                        │ ┌──             │
│ │DPI│ ─ ─ ─ ─ ─ ┘                        └─│FR│─ ─ ─ ─ ─ ─ ┘
└─ ─ ─ ─ ─ ─ ─ ─ ┘
```
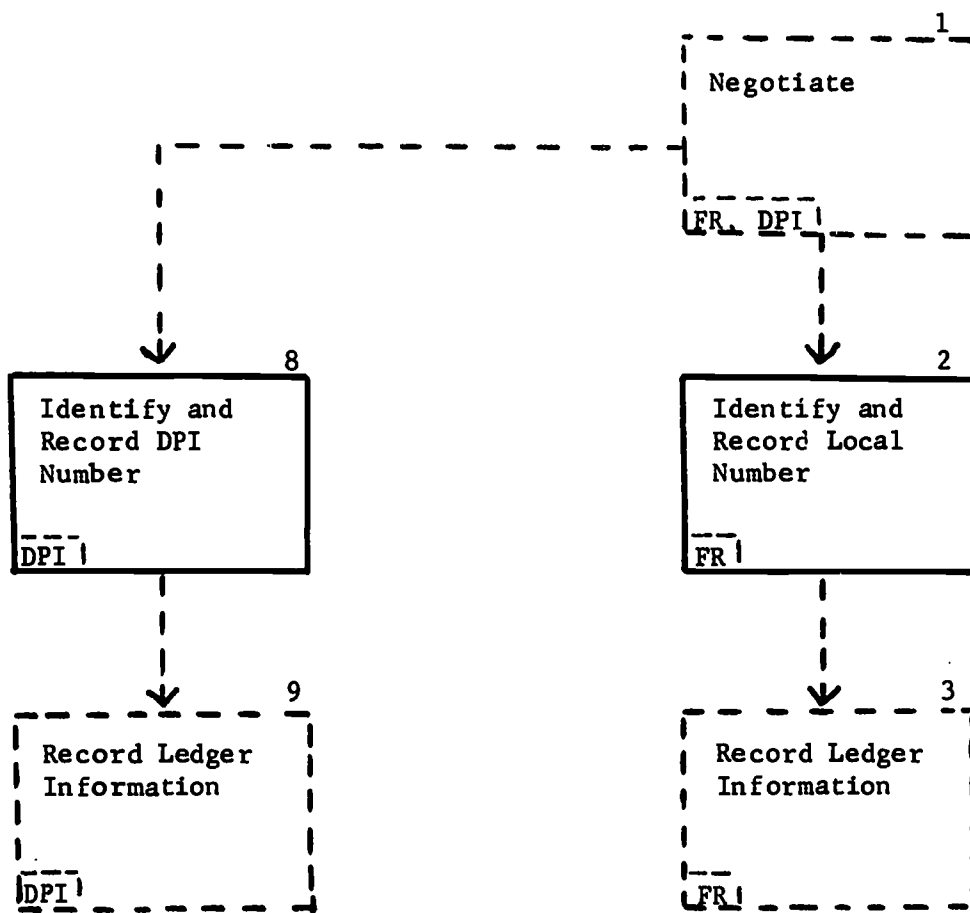
STEP 6: NUMBER AND FILING SYSTEM CODES

Coding Requests

DPI NO.

LOCAL NO.

    1-4   5-6 7-8

DPI NO. Digits 1-4:

The 1st four (4) digits will be consecutively numbered upon
arrival of the Negotiation Form at the DPI office. Actually, these
digits comprise the next appropriate numerals designating the number
of requests received according to the DPI Ledger. For example, if the
last number is |0‚2‚3‚4| ‚ | ‚ ‚| the new number should be
|0‚2‚3‚5| ‚ | ‚ ‚|.

LOCAL NO. Digits 1-4:

The 1st four (4) digits will be consecutively numbered by the
field representative before the Negotiation Form is sent to the DPI
office. The process of identifying the numerals is the same as for the
DPI staff except the Local Ledger provides directions rather than the
DPI Ledger.

DPI NO. AND LOCAL NO. Digits 5-6:

Digits 5-6 identify the general categories of the Filing System
Codes and Titles found on pages F-4 to F-6. The eight general
categories are numbered 01-08. Record the number of the category that
describes the topic of the request.

Aids for selecting general categories are:

1. Analyze the sub-categories for a better understanding
of the general categories.

2. Identify the main idea in the search question.

3. Check the question, being specific to particular grades,
subjects, etc. This information may be listed as a restriction.

4. If a specific subject area is mentioned, the general category
is curriculum.

5. If general information for grade levels is requested, Instructional
Levels is the general category.

6. If general information on teaching special groups or methodology
is necessary, select Teaching Techniques as a general category.

7. The Assessment and Evaluation category is for general information
about the sub-categories.

DPI NO. AND LOCAL NO. Digits 7-8:

Digits 7-8 identify the specific categories of the Filing System
Codes and Titles. One may think of these as the sub-categories of the
general categories. Record the number that best describes the topic
of the request.

On forwarded request, the DPI will use the same general and
specific category numbers as identified by the field representatives.

DO NOT ADD OR CHANGE ANY SUBJECT AREAS ON THE FILING SYSTEM
CODES AND TITLES BECAUSE THE MASTER FILE IS BASED UPON THESE CATEGORIES.

DPI SHOULD NEVER RECEIVE A NEGOTIATION FORM WITHOUT A LOCAL NUMBER
ASSIGNED TO IT.

Filing System Codes and Titles

01   Assessment and Evaluation

    01   Administrator Evaluation
    02   Experimental Design
    03   Consensus Techniques
    04   Guide Statement Construction
    05   Instrument Construction
    06   Needs Assessment (General)
    07   Reporting
    08   Statistical Techniques
    09   Student Evaluation
    10   Teacher Evaluation

02   Instructional Levels (General)

    01   Adult Education
    02   Elementary School (1-3)
    03   Exceptional Children
    04   Higher Education
    05   Junior High (7-9)
    06   Middle School (4-6)
    07   Preschool-Kindergarten
    08   Secondary School (10-12)

03   Curriculum

    01   Art
    02   Basic Skills (General)
    03   Conservation Education
    04   Curriculum (General)
    05   Driver and Safety Education
    06   Educable Mentally Retarded (General)
    07   Exceptional Children
    08   Foreign Languages
    09   Health Education
    10   History
    11   Home Economics
    12   Humanities
    13   Language Arts
    14   Mathematics
    15   Music
    16   Office Occupations
    17   Physical Education
    18   Reading
    19   Science
    20   Slow Learners (General)
    21   Social Studies
    22   Vocational Education - Career Education

04   Personnel Training

    01   In-service
    02   Pre-service Training

05   Physiological and Psychological Considerations

    01   Concept Formation
    02   Learning Disabilities (General)
    03   Mental Ability (General)
    04   Physical (General)
    05   Problem Solving
    06   Reinforcement

06   Teaching Techniques

    01   Audio Visual
    02   Classroom Organization
    03   Disadvantaged
    04   Discipline
    05   Educable Mentally Retarded
    06   Graded/Nongraded
    07   Grouping
    08   Guidance
    09   Home Instruction/Visitation
    10   Homework
    11   Independent Study
    12   Individualized Instruction
    13   Instructional Materials
    14   Instructional Media Centers
    15   Library
    16   Micro-teaching
    17   Paraprofessionals
    18   Programmed Instruction
    19   Quality Education
    20   Role Playing
    21   Simulated Games
    22   Slow Learners
    23   Teaching Methods (General)
    24   Team Teaching
    20   Textbooks

07   Student Related Questions

    01   Attendance Restricted (e.g., Unwed Mothers)
    02   Dropouts
    03   Drug Abuse
    04   Student Activism

08   Administration

    01   Accreditation
    02   Administration
    03   Administrative Policy
    04   Building Policy
    05   Grievance

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06 Professional Personnel (General)
07 Racial Questions
08 Record Keeping
09 School Board
10 School Building/Property
11 School Buses
12 School District
13 School Finance
14 School Health
15 School Management
16 School Organization
17 School Planning
18 School Policy
19 School Scheduling
20 Student Promotion and Failure

LEDGERS

```
                            ┌─────────────┐ 8        ┌─────────────┐ 2
                            │ Identify and│          │ Identify and│
                            │ Record DPI  │          │ Record Local│
                            │ Number      │          │ Number      │
                            │             │          │             │
                            │ DPI         │          │ FR          │
                            └──────┊──────┘          └──────┊──────┘
                                   ┊                        ┊
   ┌─────────────┐ 10              ▼                        ▼
   │ File        │       ┌─────────────┐ 9        ┌─────────────┐ 3
   │ Completed   │  ◄── ─│ Record Ledger│         │ Record Ledger│
   │ Requests    │       │ Information  │         │ Information  │
   │             │       │             │          │             │
   │ DPI         │       │ DPI         │          │ FR          │
   └─────────────┘       └──────┊──────┘          └──────┊──────┘
                                ┊                        ┊
                                ▼                        ▼
                       ┌─────────────┐ 11       ┌─────────────┐ 4
                       │ Notify Client│         │ Formulate   │
                       │ of Request   │         │ Search      │
                       │ Status       │         │ Strategy    │
                       │             │          │             │
                       │ DPI         │          │ FR          │
                       └─────────────┘          └─────────────┘
```
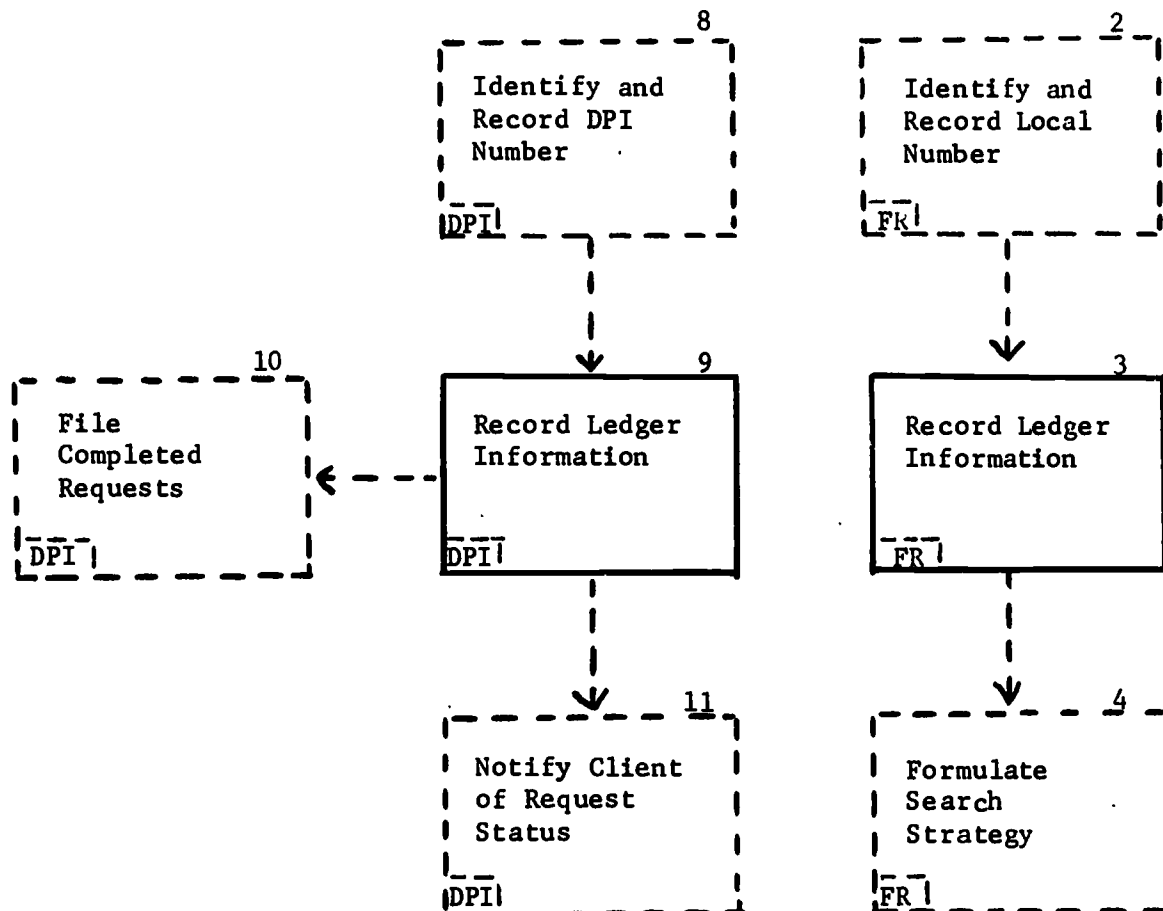
A ledger has two major functions. First, it provides easily
assessable information on the status of a request. Second, it provides
an avenue for checking to identify similar requests that are being pro-
cessed. The latter will be discussed in the "Search Strategy" section.
The grouping of similar requests would eliminate duplicate actions by
staff members over a short time period.

There is a difference between portions of a DPI Ledger and a
Local Ledger. Both types of ledgers will be discussed.

How to use a DPI Ledger sheet, shown on the following page, to record status information follows.

1. Upon receiving a request, the information recorded is:

   a. DPI request number
   b. Local request number
   c. Topic
   d. Area
   e. Date N.F. (Negotiation Form) received

2. As the search for information to be included in the first packet progresses, record the date different components of the search are initiated. The three possible considerations are (a) computer, (b) manual processing and (c) I-LITE. After each step is completed place a check by the appropriate date.

3. Record the date the first packet is sent to the field representative.

4. If a client desires additional information, he will return a Retrieval Request form (R.F.). Record the date the Retrieval Request form is received at the DPI office.

5. When collecting the information requested on the Retrieval Request form for the second packet, date each appropriate operation that is initiated. The possible operations are classified as microfiche and journal.

6. Record the date the second packet is sent to the field representative.

7. A file is complete when the Request Assessment questionnaire is received. At that time, check (✓) the file closed column. This should also indicate that the request records are placed in the appropriate storage file. A file can be closed without ever receiving a Retrieval Request form.

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DPI LEDGER

DPI Number				Local Number				Topic	Area	Date N. F. Received	1st Packet (Search)		
											Computer	Manual Processing	1-LIT

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DPI LEDGER

| Date N.F. Received | 1st Packet (Search) | | | Date 1st Packet Sent | Date R.F. Received | 2nd Packet (Retrieval) | | 2nd Packet Sent | File Closed |
	Computer	Manual Processing	I-LITE			Micro-fiche	Journal		

The instructions for using the Local Ledger sheet, shown on the following page, to record request status information are:

1. After a Negotiation Form is completed, the information recorded is:

   a. Local request number
   b. Topic
   c. Date

2. When a field representative performs a search to complete first packet, record the date the manual processing is initiated.

3. When a first packet has been received from DPI or organized by the field representative, record the date in the Date First Packet Received column.

4. Record the date the first packet is presented to a client. The first packet can originate with the DPI INFORMS staff or field representatives.

5. When the second packet (Retrieval Request form information) has been received from DPI or organized by the field representative, record the date in the Date Second Packet Received column.

6. Record the date the second packet is presented to a client. The origin of this packet is with either the DPI INFORMS staff or field representatives. It should be rare for a field representative to collect information for a second packet. For this reason, a column for collecting second packet information is absent from the Local Ledger sheet.

7. Check (✓) the Request Completed column when the client has been presented information and the assistance of the field representative is no longer required.

LOCAL LEDGER

Local Number	Topic	Date N.F. Completed	Date N.F. Forwarded to DPI	1st Packet			2nd Packet		Request Completed
				Manual Processing	Date Packet Received	Date Packet Presented	Date Packet Received	Date Packet Presented	

LOCAL SITE SEARCH STRATEGIES

```
                    ┌ ─ ─ ─ ─ ─ ─ 3
                    |              |
                    |  Record Ledger |
                    |  Information   |
                    |              |
                    ├─ ─           |
                    |_FR_| ─ ─ ─ ─ ─ ┘
                           |
                           |
                           |
                           ▼
                    ┌──────────── 4
                    |  Formulate    |
                    |  Search       |
          ┌ ─ ─ ─ ─ ─│  Strategy     │─ ─ ─ ─ ─ ┐
          |          |              |           |
          |          | ┌ ─ ─        |           |
          |          |_│FR_|_____|           |
          |                                      |
          |                                      |
          ▼                                      ▼
  ┌ ─ ─ ─ ─ ─ 6                        ┌ ─ ─ ─ ─ ─ 5
  |            |                        |            |
  |  Forward   |                        |  Organize  |
  |  Request to|                        |  Local Site|
  |  DPI       |                        |  Resources |
  |            |                        |_ _         |
  ├─ ─         |                        |            |
  |_FR_|_ ─ ─ ─ ┘                        |_FR_|_ ─ ─ ─ ┘
```
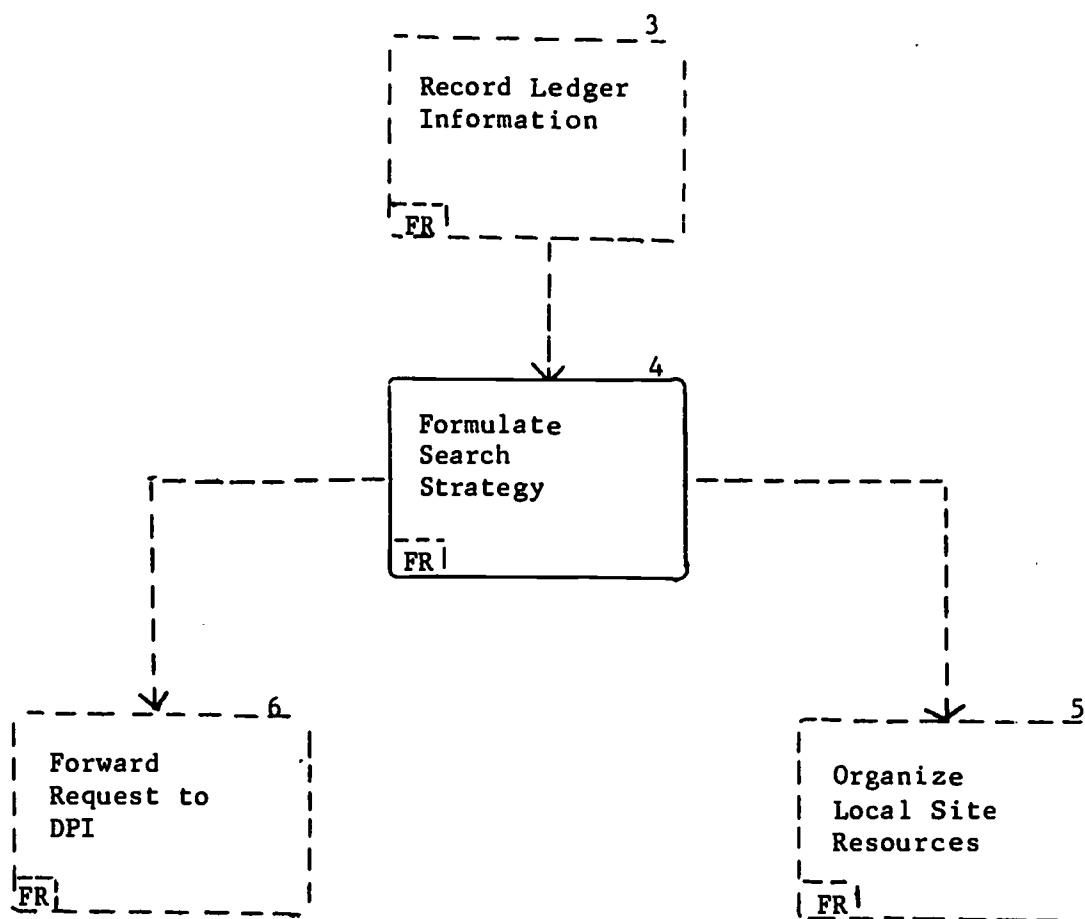
After completion of Side I of the Negotiation Form, it becomes the
responsibility of the field representative to formulate a search strategy.
The first operation is to decide if the request can be satisfactorily
completed at the field representative level or can it only be properly
handled by DPI INFORMS. If the request must be sent directly to DPI
INFORMS because the field representative cannot supply any information,
the search obligations of the field representative have ended.

When the field representative is capable of supplying a portion or all of the requested information, the following guidelines will provide assistance in performing a search.

1. Identify similar requests that are being processed.

    a. Analyze the preceding requests that have not been completed or closed for request numbers with the same general and specific codes as the new request. For example, request number 0066-03-05 is similar to number 0088-03-05.

    b. If similar coded requests are identified, check for the agreement of topics.

    c. If the topic statements also indicated a similar type request, combine the two or more search or retrieval operations.

2. Identify the descriptors for the defined problem.

3. Conduct a manual search of RIE and CIJE.

    a. Scan documents by descriptors.

    b. Select pertinent documents.

4. Check professional library materials.

    a. Books, films, etc.

    b. Pamphlets and curriculum materials.

    c. Bibliographies

    d. PREP

5. Check for resource people.

FORWARDING REQUESTS TO DPI
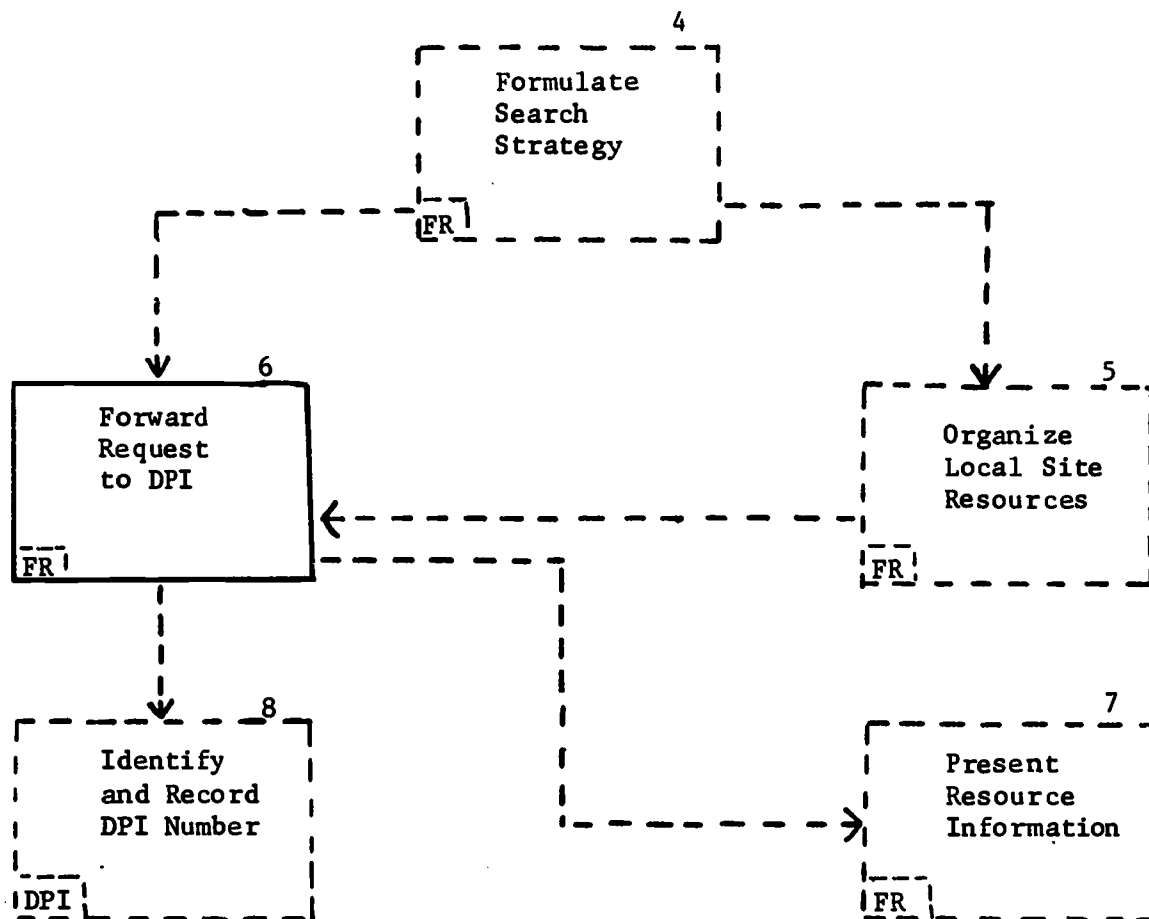
Requests will be accepted via:

         Mail: Mary Jo Bruett
                      INFORMS
                      Department of Public Instruction
                      Grimes State Office Building
                      Des Moines, Iowa 50319

         Telephone: 515-281-3475
                      515-281-3477

         NOTE: Do not forget to retain a carbon copy of all Negotiation Forms.

If requests are forwarded by telephone, DPI INFORMS staff will request the
information on the original Negotiation Form. Then, it will not be necessary
for field representatives to mail a copy of the original form.

In forwarding requests to DPI INFORMS remember:

--- One request per Negotiation Form

--- Local number must be on Negotiation Form

--- A Negotiation Form is sent with each request

--- Retrieval Request and/or Packet Contents form(s) may be included

These levels of requests include:

1. Request for information with field representative not supplying client with any reference materials.

   Send: a) Negotiation Form

2. Request for information after field representative has identified materials needed. No additional searching is needed.

   Send: a) Negotiation Form
          b) Retrieval Request

3. Request for information after field representative has identified materials needed and supplied at least one item of material to client. No additional searching is required.

   Send: a) Negotiation Form
          b) Retrieval Request
          c) Packet Contents

4. Request for information after field representative has supplied at least one item to client, but additional searching is needed.

   Send: a) Negotiation Form
          b) Packet Contents

5. Request that required no searching from DPI INFORMS staff.

   Send: a) Negotiation Form
          b) Packet Contents

```
        ┌─ ─ ─ ─ ─ ─ ─9─ ┐
        │                │
        │ Record Ledger  │
        │ Information     │
        │                │
        │ ┌──┐           │
        │ │DPI│          │
        └─└──┘─ ─ ─ ─ ─ ─┘
              │
              ▼
        ┌───────────────11─┐
        │                  │
        │ Notify Client    │
        │ of Request       │ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─┐
        │ Status           │                                    │
        │                  │                                    │
        │ ┌───┐            │                                    │
        │ │DPI│            │                                    │
        └─└───┘────────────┘                                    │
              │                                                  │
              ▼                                                  │
        ┌─ ─ ─ ─ ─12─ ┐      ┌─ ─ ─ ─ ─ ─16─ ┐                 │
        │             │      │              │                  │
        │ Formulate Search   │ Prepare       │                 │
        │ Strategy    │      │ Information    │◄─ ─ ─ ─ ─ ─ ─ ┤
        │             │      │ Packet         │                 │
        │ ┌───┐       │      │ ┌───┐          │                 │
        │ │DPI│       │      │ │DPI│          │                 │
        └─└───┘─ ─ ─ ─┘      └─└───┘─ ─ ─ ─ ─ ┘                 │
                                                                │
                             ┌─ ─ ─ ─ ─ ─24─ ┐                 │
                             │              │                  │
                             │ Collect       │                 │
                             │ Retrieval     │                 │
                             │ Request       │◄─ ─ ─ ─ ─ ─ ─ ─┘
                             │ Information    │
                             │ ┌───┐         │
                             │ │DPI│         │
                             └─└───┘─ ─ ─ ─ ─┘
```
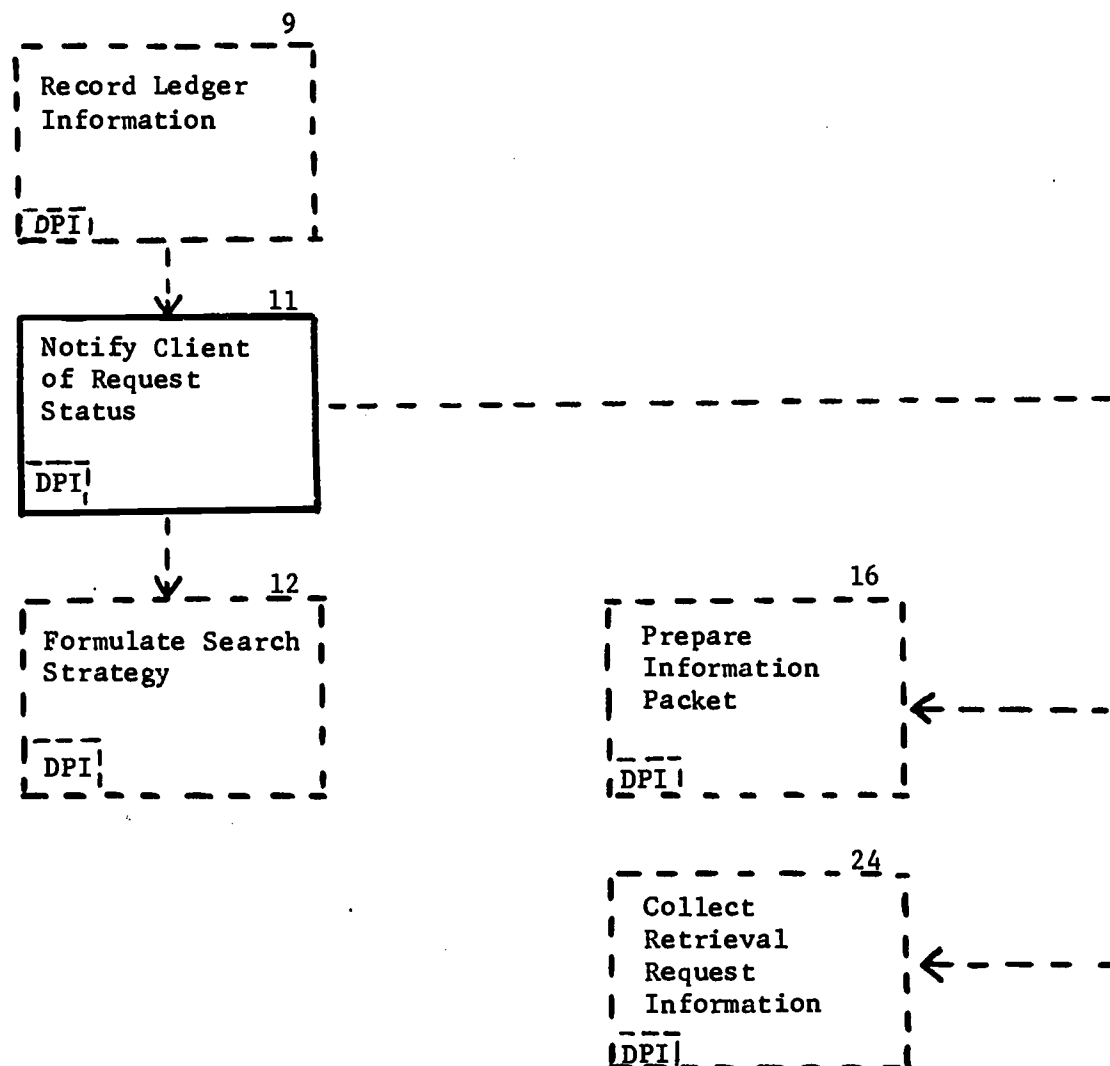
After the recording of request information in the DPI Ledger a card is sent to the client to notify him concerning the status of his search request. The card shown below advises the client that his request has been received by DPI INFORMS and is being processed.

```
┌──────────────────────────────────────────────────────────┐
│                          DATE:                             │
│                                                            │
│    Thank you for requesting information through            │
│ INFORMS.                                                   │
│                                                            │
│    Your request for _____           │
│ _____,       │
│ which was received on _____ is           │
│ being processed.  You will receive an Information          │
│ Packet via your field agent, _____        │
│ when the search has been completed.                        │
│                                                            │
│                              Mary Jo Bruett                │
│                        INFORMS                             │
│                        Department of                       │
│                             Public Instruction             │
│                                                            │
└──────────────────────────────────────────────────────────┘
```

DPI SEARCH STRATEGIES

```
                                         11
        ┌── ── ── ── ──┐
        │ Notify Client   │
        │ of Request      │
        │ Status          │
        │                 │
        │┌──┐             │
        ││DPI│            │
        └┴──┴── ── ── ──┘
                  │
                  │
                  ▼
                                   12
        ┌─────────────────┐
        │ Formulate       │
        │ Search          │
        │ Strategy        │
        │                 │
        │┌──┐             │
        ││DPI│            │
        └┴──┴─────────────┘
                  │
                  ▼
 ┌── ── ── ── ── ── ── ── ── ── ── ── ── ── ──┐
 ▼             14                                    ▼        13
┌── ── ── ──┐                              ┌── ── ── ──┐
│Identify ED and│                          │ Perform      │
│EJ Numbers by  │                          │ Manual       │
│Computer Search│                          │ Search       │
│    (Phase I)  │                          │              │
│┌──┐           │                          │┌──┐          │
││DPI│          │                          ││DPI│         │
└┴──┴── ── ── ──┘                          └┴──┴── ── ── ──┘
```
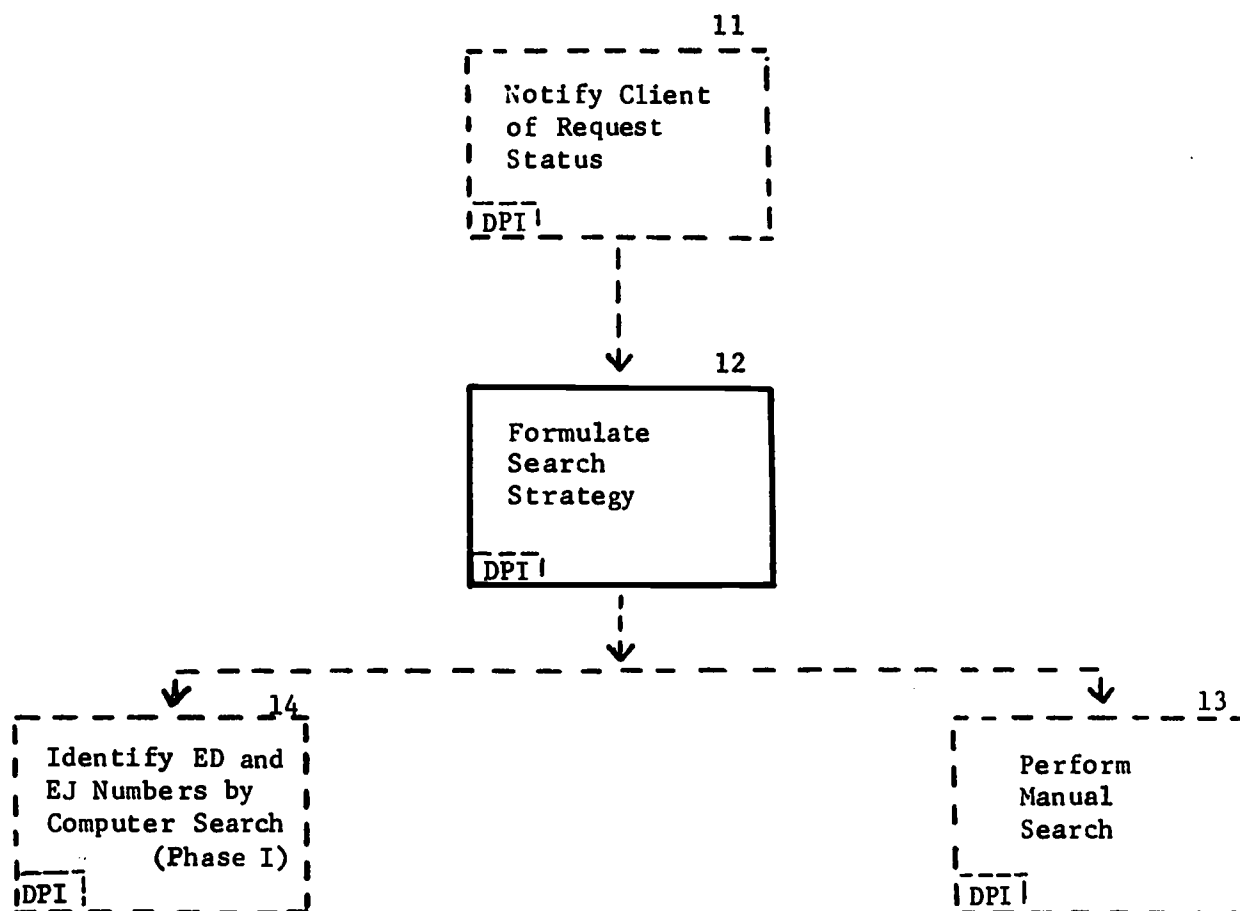
The initial strategies deal with identifying previous efforts with similar requests. This can be accomplished by analyzing the ledger and the Descriptor Card File.

The process for identifying similar requests being processed, according to the ledger, is as follows:

> 1. Analyze the preceding requests that have not been completed or closed for request numbers with the same general and specific codes as the new request. For example, request number 0066-03-05 is similar to number 0088-03-05.
>
> 2. If similar coded requests are identified, check for the agreement of topics.
>
> 3. If the topic statements also indicate similar type requests, combine the two or more search or retrieval operations.

The Descriptor Card File consists of 3 X 5 cards organized in alphabetical order by one or more descriptors stated at the top. Each card (sample below) may also contain the number and title of appropriate file materials as well as the code number of previous requests that have utilized the same descriptors.

```
                        ┌─────────────────────────────────────────────┐
                        │ INDIVIDUALIZED INSTRUCTION - SPELLING ◄──Descriptors
                        │                                             │
File                    │                                      Previous
Materials ──► │  45       Linn-Mar (IPI) ║   00003-03-13◄─Request
                        │                                      Number
                        │                                             │
                        │  ───────        ───────                     │
                        │  ───────        ───────                     │
                        └─────────────────────────────────────────────┘
```

Look up each descriptor or combination thereof, listed on the Negotiation Form, in the Descriptor Card File. If a card is located, previously gathered information will be recorded on it. When an appropriate card is not in the file, this should be interpreted to mean that those particular descriptors were not used in a previous search. If one or more descriptors are used in combination, check for all possible orders of the descriptors. For example, when the descriptors "individualized instruction" and "spelling" are used, they may be found as "individualized instruction - spelling" or "spelling - individualized instruction" but not both.

After attempting to identify previous relevant search efforts, one must decide if additional searching is required. If the answer is "yes", then a decision is made whether the searching should be done by computer and/or manually.

MANUAL SEARCH

```
          ┌ ─ ─ ─ ─ ─ ─ ─ ┐ 12
          │                 │
          │  Formulate      │
          │  Search         │
          │  Strategy       │
          │                 │
          ├ ─ ─             │
          DPI └ ─ ─ ┬ ─ ─ ─ ┘
             ┌ ─ ─ ─│─ ─ ─ ─ ┐
             └ ─ ─ ─ ─ ─ ─ ▼ ┐        13
                    ┌──────────────────┐
                    │                  │
                    │   Perform        │
                    │   Manual         │
                    │   Search         │
                    │   ─ ─ ─          │
                    │  │DPI │          │
                    └──────────────────┘
                 ┌ ─ ─ ─ ─ ─ ─ ─┘
       ┌ ─ ─ ─ ─ ▼ ─ ─ 16
       │                 │
       │  Prepare        │
       │  Information    │
       │  Packet         │
       │                 │
       │ ┌─ ─ ─          │
       │ DPI └ ─ ─ ─ ─ ─ ┘
```
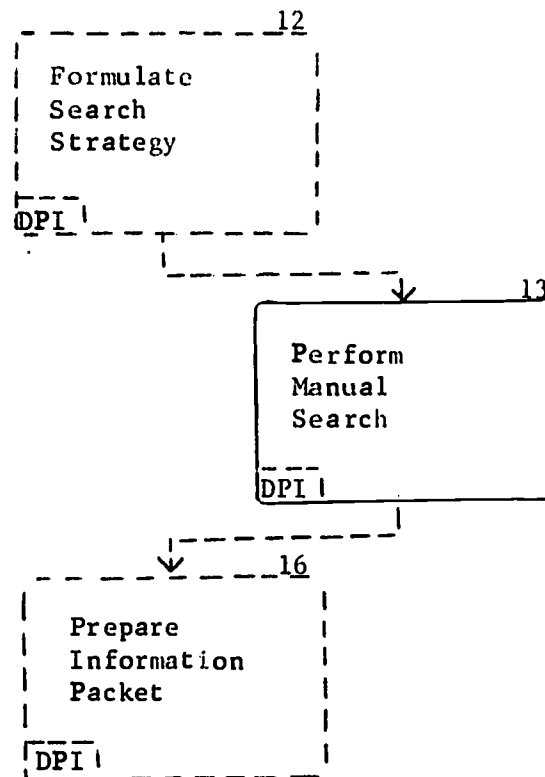
        An alternative to computer search of <u>Research in Education</u> and
<u>Current Index to Journals in Education</u> would be to conduct a manual
search of these indexes.

        Appropriate descriptors would be selected from the <u>Thesaurus
of ERIC Descriptors</u>. The Subject Index of RIE and CIJE is then
scanned to locate documents listed under the descriptors selected.
Resumes of documents are then read to identify relevant information.
After several documents have been selected as pertinent, the resumes
are copied and incorporated into the Information Packet.

        For the majority of searches, this time consuming process can
now be performed by a computer program. However, there is still a
need for the use of manual searching techniques to adequately utilize
the computer print-out and to find useful materials from other sources.

The Phase I print-out is scanned to find clerical errors in coding and also to find logic errors. The listing of too few or too many hits for a particular search may indicate too narrow or too broad a search logic. After the return of the Phase II print-out, the document resumes and journal citations are scanned. Those resumes which appear to be relevant to the search question are grouped together and given to the client in the form of the Information Packet.

In addition to the ERIC document resumes and journal citations, the availability of other resources should be manually searched.

Some of the possible considerations are:

1. Professional books

2. Pamphlets and curriculum materials

3. Published bibliographies

4. Education Index

5. PREP

6. INFORMS file of Educational Products

7. DPI Consultative Services

After the manual search has been completed, the Descriptor Card File should be updated. The procedures are:

1. Check for a card on each descriptor or combination that produced appropriate information.

2. If a card is not located, type one.

3. Record the DPI Ledger number on the card.

4. If file materials exist, record the file number and title.

5. File the new card in the appropriate position.

COMPUTER SEARCH

```
                                        ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ 12 ┐
                                        │ Formulate            │
                                        │ Search               │
                                        │ Strategy             │
                                        │                      │
                                        │ ┌────┐               │
                                        │ │DPI │               │
                        ┌ ─ ─ ─ 14 ─────┴─┴────┴───────────────┘
                        ▼
        ┌──────────────────────┐
        │ Identify ED and      │
        │ EJ Numbers by        │
        │ Computer Search      │
        │         (Phase I)    │
        │ ┌────┐               │
        │ │DPI │               │
        └─┴────┴───┬──────────┘
                   ▼   15
        ┌──────────────────────┐
        │ Print Abstracts      │
        │ or Citations         │
        │         (Phase II)   │
        │                      │
        │ ┌────┐               │
        │ │DPI │               │
        └─┴────┴─┬────────────┘
                 └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ▼ ─ ─ 16 ┐
                                        ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
                                        │ Prepare              │
                                        │ Information          │
                                        │ Packet               │
                                        │                      │
                                        │ ┌────┐               │
                                        │ │DPI │               │
                                        └ ┴────┴ ─ ─ ─ ─ ─ ─ ─ ─┘
```
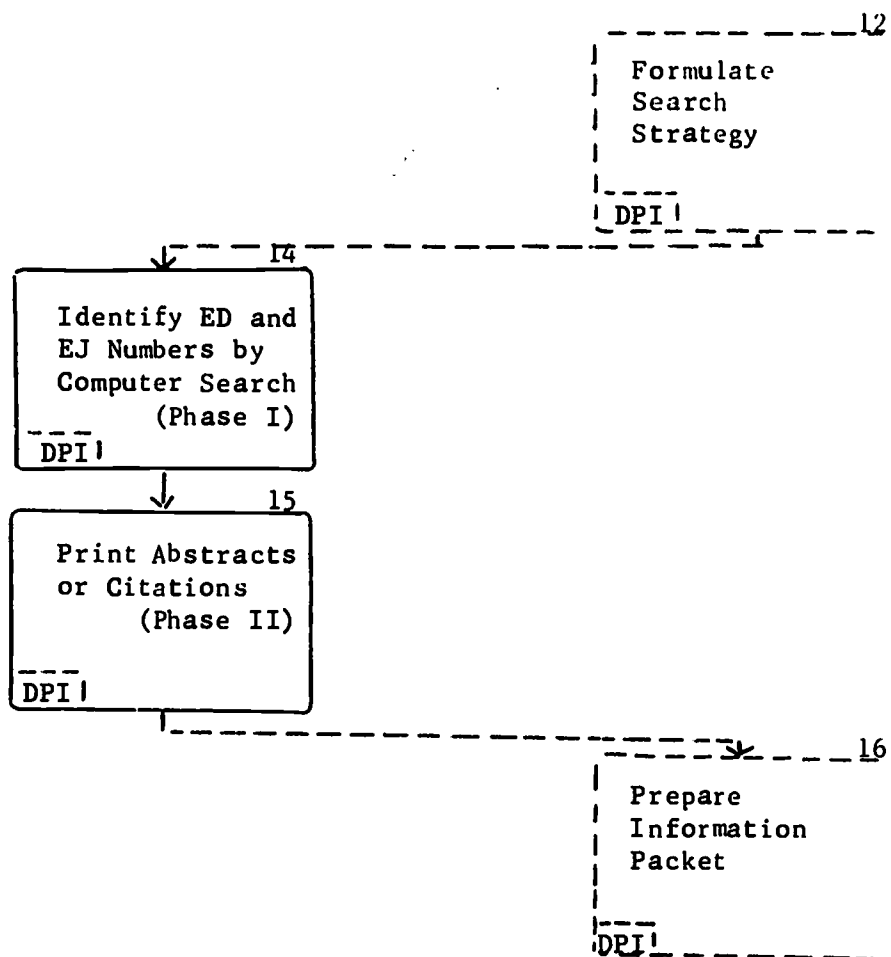
Late in 1969 a program designed to mechanically search the ERIC
Information Collection was developed by the U.S. Office of Education.
This computer program called QUERY was installed in several locales,
one of which was the Resource Information Center (RIC) Grand Forks,
North Dakota.

Because of the limited capacity of the RIC's computer and other
factors, QUERY was quickly found to be uneconomical for North Dakota's
RIC. Because of this, an alternate approach to securing an economical
computer search capability had to be found.

Soon after the search for an economical alternative to QUERY
began, the director of the RIC was introduced to the ERIC Descriptors -
Term Usage Postings and Term Usage Statistics, produced by Leasco
(computer contractor for ERIC). By using this Descriptor Posting
List, staff members of the RIC were able to develop an ALTERNATIVE TO
QUERY.

RIC'S ALTERNATIVE TO QUERY program has the following capabilities:

The ability to perform AND/OR/NOT logic.

The ability to use the Descriptor Posting List. The List is
an alphabetic listing of ERIC descriptors and corresponding
document numbers.

The ability to perform a comparable batch of searches
against the entire ERIC file (RIE and CIJE), which is
stored and available on magnetic tape. The batch searching
is reduced to a fraction of that time required by QUERY.

The ability to enter at any point the accession numbers
(ED and EJ Numbers) of the resumes which are indexed by each
descriptor and are read from the descriptor posting tape.

The ability to perform logic on the accession number
assigned to the resume.

The ability to sort the accession number "hits" (ED and
EJ Numbers) that meet the set of criteria established by the
descriptor logic for each search. These are sorted into numerical
order.

The ability to enter the resume tapes and to compare each
resume number with the next number in the order lists of hits.
When a match is found, the result is stored on a work tape until
such time as the hits are sorted back into order by search number
and printed.

For additional information, ED 063 519 (An Alternative to QUERY) is attached.

ED 063 519 AN ALTERNATIVE TO QUERY: BATCH-SEARCHING OF THE ERIC
INFORMATION COLLECTIONS.
EDWARD KRAHMER & KENT HORNE RESOURCE INFORMATION CENTER
GRAND FORKS, N. DAK. 1 AUG 72 55P

Computer searching of the ERIC Information Collection rather than manual searching will often be the mode in which an information request is processed. Turn around time for an information request will be approximately two weeks. The cost will be borne through project funding, and the search services will remain free to INFORMS' clients until such time when computer cost can be accounted.

Essential to utilizing an ERIC computer search program is an understanding of search coding techniques. These techniques, although simple in nature, must be strictly adhered to in order to avoid time consuming errors. In the following paragraphs search coding will be explained by examining a sample search entry shown on side II of the Negotiation Form (page M-5). The first portion of the coding deals with side II of the Negotiation Form. Side II operations are divided into four steps. They are:

STEP 1: Select descriptors from <u>Thesaurus of ERIC Descriptors</u>.

STEP 2: Combine descriptors with logic statements.

STEP 3: Print coded search on Negotiation Form.

STEP 4: DPI Staff fills out "For staff use only".

SL__ II

DO NOT USE ➡

(ELEMENTARY EDUCATION, OR, ELEMENTARY SCHOOLS), AND,

(EVALUATION, OR, MEASUREMENT) $

10   20   30   40   50

For Staff Use Only:

Date Received _____   DPI No. _____   1st Run _____   2nd Run _____

Number of Hits: RIE _____   CIJE _____   re-run _____   Total _____

☐ RIE   ☐ CIJE   ☐ BOTH

STEP 1:

It is essential that anyone coding a search question for computer processing select and use only those terms, or <u>descriptors</u> as they are called by ERIC, which appear in the <u>Thesaurus of ERIC Descriptors</u>.

Word listings in the Subject Index of RIE can be either descriptors or identifiers. Only descriptors from the <u>Thesaurus</u> are recognized as valid by the computer. Therefore, although "Learning Activity Packets" might be a subject listing in the monthly RIE it is not a descriptor and will not be recognized as such by the computer. Rather, possible descriptors to obtain material on LAPS might be "Learning Activities" or "Individualized Instruction".

Correct spelling of the descriptors is essential. Misspelling of a descriptor will invalidate the entire search question. Descriptor words may be divided at any point and continued on the next line. However, if a descriptor word is divided do <u>not</u> use a hyphen (-) as would be the case with printed matter. It is not necessary to consider syllables.

     Valid: (ELEMENTARY EDUCATION .OR. ELEMENTARY SCHOOLS) .AND. (EVALUA
           TION .OR. MEASUREMENT)$

   Invalid: (ELEMENTRAY EDUCATION .OR. ELEMENTRAY SCHOOLS) .AND. (EVALUA-
           TION .OR. MEASUREMENT)$

                Elementary is misspelled
                Hypen is used when dividing evaluation

Neatness and legibility are essential when printing the search request on the Negotiation Form. Clearness will help to alleviate errors that might occur in keypunching.
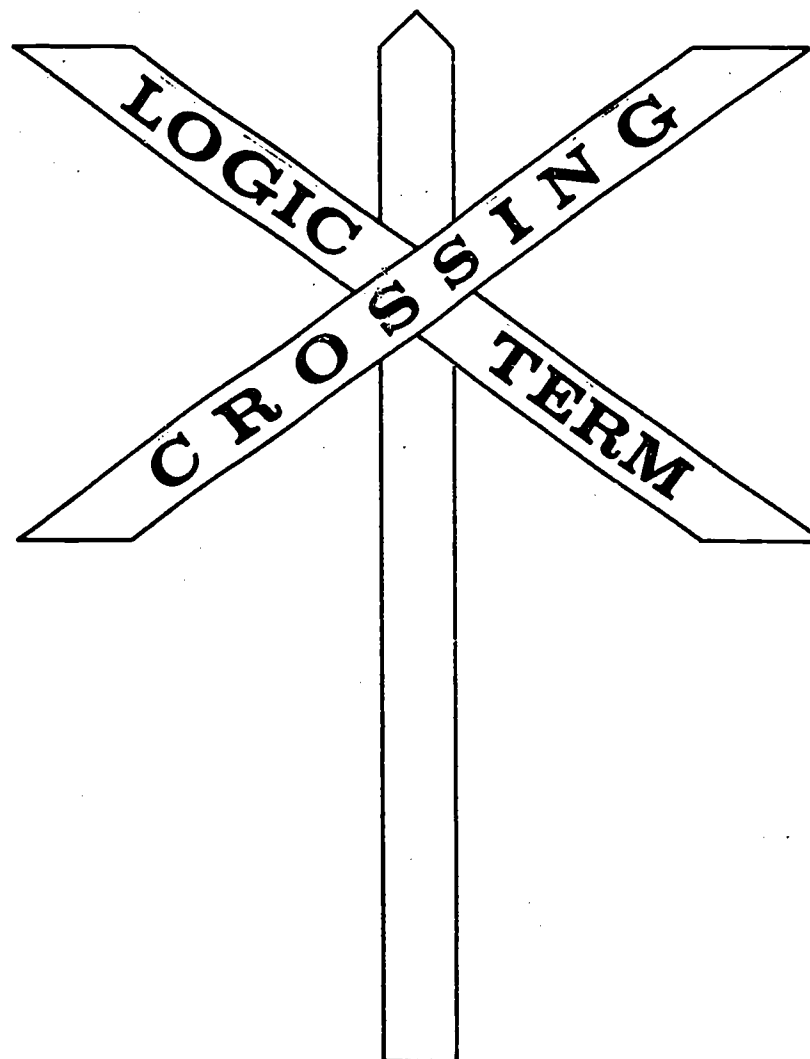
Be sure you're on the right track
with logic terms,

·OR· ·AND· ·NOT·

STEP 2:

Five symbols are used to connect and group descriptors. They are:

LOGIC SYMBOLS

.OR.
.AND.
.NOT.

CODING SYMBOLS

() - parentheses -- used to clarify logic statements by
grouping or nesting sets of descriptors.

$ -- Stop Signal -- used to signify the end of a search
statement.

IN ALL OF THE FOLLOWING EXAMPLES A, B, C, D, E, F, G and H represent descriptor terms.

.OR.

Application of .OR. logic results in the combining of descriptor posting lists made up of ED numbers of resumes that contain one or both descriptors.

Example 1: A .OR. B$

A ED 000 456	ED 061 245	ED 061 246
B ED 002 494	ED 045 398	ED 061 246

Hits: ED 000 456	ED 002 494	ED 045 398
ED 061 245	ED 061 246	

Note that each logic symbol begins and ends with a period. These periods are a part of the logic symbol and must appear on the Negotiation Form to denote the use of a logic symbol.

.AND.

Application of .AND. logic results in only numbers common to the postings for both descriptors.

Example 2: A .AND. B$

A ED 000 456	ED 061 245	ED 061 246
B ED 002 494	ED 045 398	ED 061 246

Hits: ED 061 246

M-8

.NOT.

The last type of logic .NOT. tells the computer to exclude those documents that carry the descriptor or set of descriptors that follow the .NOT.

Example 3: A .OR. B .NOT. C$

```
    A   ED 000 567      ED 001 123      ED 001 535
    B   ED 000 967      ED 001 197      ED 061 268
    C   ED 000 868      ED 001 123      ED 061 268

Hits: ED 000 567      ED 000 967      ED 001 535
```

The two numbers 001 123 and 061 268 which appear in C are excluded from the combination AB. .NOT. logic may be used as many times as desired in a given search.

More complex search questions may be written by using both .OR. logic and .AND. logic.

Example 4: A .OR. B .AND. C$

```
    A   ED 000 456      ED 061 245      ED 061 246
    B   ED 002 494      ED 045 398      ED 061 246
    C   ED 000 456      ED 045 398      ED 056 238

Hits: ED 000 456      ED 045 398
```

The search program is conducted from left to right. Thus, the computer reads the .OR. logic symbol combining A and B and then performs the .AND. logic on the combination AB compared to C.

Example 5: C .AND. B .OR. A$

```
    A   ED 000 456      ED 061 245      ED 061 246
    B   ED 000 494      ED 045 398      ED 061 246
    C   ED 000 456      ED 045 398      ED 056 238

Hits: ED 045 398   ED 000 456   ED 061 245   ED 061 246
```

This example is simply Example 4 written in reverse order. However, the result of applying the logic is not the same. Since the program reads from left to right the logic is performed first on C and B, then the numbers common to both C and B are combined (.OR. logic) with A.

Examples 4 and 5 make evident the need for grouping (or nesting) of descriptors and logic statements to achieve the desired result. Nesting of descriptors is accomplished through the use of <u>parentheses</u>. Logic operations within parentheses are performed first.

       Example 6: C .AND. (B .OR. A)$

A ED 000 456	ED 061 245	ED 061 246
B ED 002 494	ED 045 398	ED 061 246
C ED 000 456	ED 045 398	ED 056 238

Hits: ED 000 456   ED 045 398

Thus, postings for B and A are combined through the .OR. logic and then compared to C by the .AND. logic.

Therefore, as seen above, one purpose of the parentheses is to indicate terms that are considered as a group in relation to another term or group of terms. A second purpose of the parentheses is to group terms when two or more AND's are present (this is an idiosyncracy of the program and not obvious).

       Example 7: A .AND. (B .AND. C)$

       Example 8: (A .AND. B) .AND. (C .AND. D)$

Up to five levels of parentheses may be used within a single statement but any number of parentheses may be used when they appear in series.

       Example 9: Statement includes three levels of parentheses.

      (((A .AND. B) .AND. (C .AND. D)) .AND.
      (E .AND. F)) .AND. (G .AND. H)$

Parentheses must always be closed to be a valid coding character. An odd number of parentheses will invalidate the entire search question.

The coding symbol which must be present at the end of each search question is the $(dollar sign). This symbol acts as a stop symbol, signifying the end of a search question. The absence of this symbol will invalidate the search request and also the one directly following it.

In summary, there are three logic words available to the searcher when coding an ERIC computer search question. They are:

    1. .OR. --- which elicits the message <u>combined</u> postings,

    2. .AND. --- which elicits the message <u>common</u> or <u>shared</u> postings,

    3. .NOT. --- which elicits the message <u>exclude</u> postings.

STEP 3:

After the field representative has selected the appropriate
descriptors and combined them through the use of logic statements,
the coded search question must be printed on the back of the
Negotiation Form. The coded search question should appear in a
neat, legible form.

The first four spaces should not be used by the field repre-
sentative. The coded search question should begin on the fifth space
and may fill one or more lines. Each letter or symbol should be
printed in a single space. Blank spaces must be used between words.

STEP 4:

The remaining portion of Side II of the Negotiation Form is
filled in by the DPI staff.

Each search question must be given a single search number
consisting of four digits placed in the first four spaces on the
left side of the coding section of the Negotiation Form. This
number corresponds to the first 4 digits of the DPI number on
the front of the Negotiation Form. Field representatives DO NOT
fill in the DPI search number.

The date the request was received is recorded in the space
provided on the Negotiation Form.

The date of the Phase I computer run is recorded in the "1st
Run" blank. If Phase I must be run again because of error the date
of the second Phase I run is recorded in the "Rerun" blank. The
date of the Phase II run is recorded in the "2nd run" blank.

The DPI staff will also record whether the search was made
against the RIE resume tapes, the CIJE resume tapes, or both RIE
and CIJE by placing a check mark in the appropriate box. After
the return of the Phase 1 run the number of hits from RIE, CIJE
and the total number of hits will be recorded in the blanks provided.

Retrieval via the Computer

The information retrieval process begins at DPI INFORMS headquarters when the coded searches for the Phase I computer runs are collected and put into one of three groups:

1. Searches to be run against the RIE resume tape.

2. Searches to be run against the CIJE resume tape.

3. Searches to be run against both the RIE and the CIJE resume tapes.

Each group will be labeled with a Batch Control Sheet on page M-13, (i.e. RIE only, CIJE only, both RIE and CIJE) and forwarded to the Control Section of Management Information. If searches are required in some categories but not others, a Batch Control Sheet must also be submitted for the no search categories. Possible no search labels are RIE only - NONE, CIJE only - NONE, and Both RIE and CIJE - NONE. The last label is not possible for Phase II. If no searches are to be run for any given week, a Batch Control Sheet must be forwarded to the Control Section of Management Information stating NO RUNS FOR WEEK OF _____ .

After logging, editing the batches, etc., the Control Section of Management Information forwards all three batches and Batch Control Sheets to the Keypunch Section. The search is keypunched and verified. After verification, the batches with Batch Control Sheets are forwarded to the Operations Section where the actual computer run takes place.

The modified QUERY program developed by the North Dakota Resource Information Center (RIC) operates in two parts, Phase I and Phase II. During Phase I and Phase II the information retrieval process acts independently on the RIE resume tape and CIJE resume tape. The basic format for each Phase will be discussed.

MANAGEMENT INFORMATION

DATA SERVICES
BATCH SHEET

NOTE: Place labels in this blank space.

EXAMPLE:

RIE only

Batch Number _____

Number of Forms _____

Job Number ___F 42___

Department Number ___F___

Current Date _____

Control Total _____

Date Received _____

From _____

By _____

The following forms are included:

_____
Initials

PHASE I

Input of ──────→ Alphabetize ──────→ Search ──────→ Perform ──────→ Print hits
descriptor   descriptors   inverted   logic   and store
                                          file   information
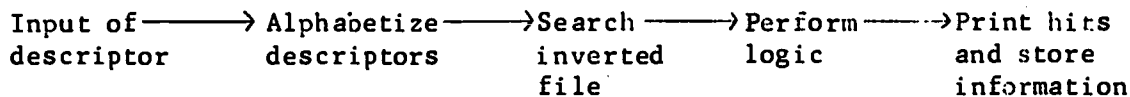
The first step in Phase I is the acceptance of the batch (group) of coded search questions. The descriptors from all search questions are then alphabetized. Next, the alphabetical list of descriptors is compared to the Descriptor Posting Tape (the RIE and CIJE Inverted File) and the accession numbers assigned to the listed descriptors are retained. The Descriptor Posting Tape is referred to as an inverted file.

After the search of the inverted descriptor posting file is completed, the logic which was coded and read by the computer at the beginning of Phase I is performed upon the resulting list of accession numbers. The "hits" or accession numbers that meet the set of criteria established by the descriptor logic statements are printed out by the computer and also stored for future reference.

The Phase I print-out consists of four sections.

1) Definition of search requests (page M-15).

2) Number of accession numbers found for each descriptor (page M-16).

3) Summary report of number of hits per search (page M-17).

4) Results for search by individual search number (page M-18).

The Phase I print-out is returned to the DPI INFORMS staff. At this time the Phase I print-out is scanned and errors in coding are detected. Those searches with errors are removed from the batch, corrected and included in the next Phase I run.

M-14

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DEFINITION OF
SEARCH REQUESTS

0001 STANDARDS .AND. %AFFECTIVE OBJECTIVES .OR. COGNITIVE OBJECTIVES .OR.
0001 MEASUREMENT GOALS .OR. PSYCHOMOTOR OBJECTIVES .OR. EDUCATIONAL OBJECTIVES¤
0001 $

0002 %PROGRAM LENGTH .OR. TIME FACTORS%LEARNING¤¤ .AND. %SCIENCE COURSES .OR.
0002 SCIENCES .OR. SCIENCE INSTRUCTION¤$

0003 %SCIENCES .OR. SCIENCE INSTRUCTION .OR. SCIENCE COURSES .OR. SCIENCE
0003 PROGRAMS .OR. SCIENCE UNITS¤ .AND. %PROGRAM LENGTH .OR. TIME FACTORS
0003 %LEARNING¤ .OR. INTERVALS¤$

0004 SCIENCE TEACHERS .AND. %INSERVICE COURSES .OR. INSERVICE EDUCATION .OR.
0004 INSERVICE PROGRAMS .OR. SCIENCE INSTITUTES¤$

0005 %GRANTS .OR. RECREATION FINANCES .OR. FEDERAL AID .OR. PRIVATE FINANCIAL
0005 SUPPORT .OR. INCENTIVE GRANTS¤ .AND. %SWIMMING POOLS .OR. RECREATIONAL
0005 FACILITIES .OR. COMMUNITY RECREATION PROGRAMS .OR. SCHOOL RECREATIONAL
0005 PROGRAMS¤$

0006 %GRANTS .OR. RECREATION FINANCE .OR. FEDERAL AID .OR. PRIVATE FINANCIAL
0006 SUPPORT .OR. INCENTIVE GRANTS¤ .AND.%SWIMMING POOLS .OR. RECREATIONAL
0006 FACILITIES .OR. COMMUNITY RECREATION PROGRAMS .OR. SCHOOL RECREATIONAL
0006 PROGRAMS¤ .AND. %HANDICAPPED .OR. HANDICAPPED CHILDREN¤$

0007 JUNIOR HIGH SCHOOLS .AND. %%SCIENCE EDUCATION .OR. SCIENCE INSTRUCTION
0007 .OR. SCIENCE PROGRAMS¤ .AND. %INDIVIDUALIZED INSTRUCTION .OR.
0007 INDIVIDUALIZED PROGRAMS .OR. INDIVIDUALIZED CURRICULUM .OR. CONTINUOUS
0007 PROGRESS PLAN¤¤$

0008 %SCIENCE EDUCATION .OR. SCIENCE INSTRUCTION .OR. SCIENCE PROGRAMS¤ .AND.
0008 %INDIVIDUALIZED INSTRUCTION .OR. INDIVIDUALIZED PROGRAMS .OR.
0008 INDIVIDUALIZED CURRICULUM .OR. CONTINUOUS PROGRESS PLAN¤$

0009 CURRICULUM PLANNING .AND. SMALL SCHOOLS$

SUMMARY REPORT OF
NUMBER OF HITS PER SEARCH

SEARCH NUMBER	NUMBER OF HITS
0001	11
0002	2
0003	2
0004	5
0005	15
0007	0
0008	14
0009	5
0010	24
0011	14
0012	2
0013	6
0014	12
0015	7
0016	23
0017	26
0018	32
0019	65
0020	4
0021	1
0022	82
0025	1,337
0027	82

NUMBER OF SEARCHES PROCESSED #   23
NUMBER OF SEARCHES WITH HITS #   22
NUMBER OF HITS FOR SEARCHES # 1,771

RESULTS FOR
SEARCH 0001

NUMBER OF ACCESSION NUMBERS FOUND #   41

ED 001353	ED 003526	ED 014828	ED 015568	ED 021378	ED 021381	ED 021383	ED 021384	ED 02
ED 025869	ED 026430	ED 026772	ED 026795	ED 029419	ED 029429	ED 029430	ED 029441	ED 02
ED 033516	ED 036038	ED 038813	ED 039651	ED 043141	ED 043144	ED 043165	ED 043166	ED 04
ED 054585	ED 056433	ED 057527	ED 057531	ED 058697	ED 059238	ED 060045	ED 060046	ED 0€
ED 060049								

Two sections of the print-out, "Definition of Search Request" and "Number of Accession Numbers Found for Each Descriptor", may contain error statements. The common errors by section are:

Definition of Search Request (pages M-20 and M-21)

    a. Two logic operations together
    b. Periods (logic delimiter) missing before or after logic
    c. Odd number of parentheses
    d. No end of search symbol
    e. Search number with more or less than four (4) digits

Number of Accession Numbers Found for Each Descriptor (page M-22)

    a. Misspelled descriptors
    b. Terms used that are not found in the Thesaurus of ERIC Descriptors

PHASE II

Input of ——————→ Input print-——→Search RIE (CIJE) ——→ Store hits for ——————→ Print
hit numbers   options   tape file   sorting prior to   resumes
                               (resumes)   printing (put in
                                                        order by search
                                                        number)

        All searches successfully completing Phase I are resubmitted for the Phase II run. The options are submitted through Print Option Sheets for RIE (page M-23) and CIJE (page M-24) which are filled out by the DPI INFORMS. The Print Option Sheet allows INFORMS to taylor each search to meet the needs of the individual client. It may restrict only one search, by placing a search number in the appropriate space or it may restrict all searches, by leaving the space blank. Since the RIE and CIJE sheets contain the same information, although they are used separately, the card code options will be jointly explained.

        Card 1:

        (1-8)   Always TAPESBEG

        (10-17)   ED Number - begins with the first ED number of
                        interest in a particular search (e.g. ED 003 220)

                        Blank - begins with ED 000 001

30   PREVOCATIONAL EDUCATION .AND.   LEMENTARY GRADES .OR. JUNIOR HIGH SCHOOL
.OR. MIDDLE SCHOOLS$

0131 *PREVOCATIONAL EDUCATION .OR. VOCATIONAL EDUCATION .OR. VOCATIONAL EDUCATION
TEACHERS .AND. ELEMENTARY GRADES .OR. JUNIOR HIGH SCHOOLS .OR.
MIDDLE SCHOOLS$

0132 OCCUPATIONAL INFORMATION .AND. *ELEMENTARY GRADES .OR. JUNIOR HIGH SCHOOLS
.OR. MIDDLE SCHOOLS$

0209 *CAUCASIAN STUDENTS .OR. NEGRO STUDENTS .AND. *STUDENT ABILITY .OR.
ACADEMIC ACHIEVEMENT .OR. ACADEMIC ASPIRATION .OR. ACADEMIC PERFORMANCE
.OR. STUDENT EVALUATION$

0270 *STUDENT ABILITY .OR. ACADEMIC ACHIEVEMENT .OR. ACADEMIC ASPIRATION .OR.
ACADEMIC PERFORMANCE .OR. STUDENT EVALUATION .AND. *CAUCASIAN STUDENTS
.OR. NEGRO STUDENTS$

0   ABILITY IDENTIFICATION .AND. ABILITY1

9843 TEACHING TECHNIQUES .AND. GRADE 06$

9275 MATHEMATICAL APPLICATIONS .OR. MATHEMATICAL MODELS .AND.
.NOT. COMPUTER PROGRAMS$

POSITION 05 .. DESCRIPTOR PRECEDES LOGIC OPERATION a.

9274 AGE
9275 ADULT LEADERS .OUT. AGEN .NOT. AUDIOVISUAL AIDS$
NEW SEARCH NUMBER FOUND BEFORE END OF SEARCH DELIMITER d.
POSITION 2 NO PARENT FOUND LEFT PARENTHESIS FOUND   c.

POSITION 9270 ADULT LEADERS .NOT AGE .NOT. AUDIOVISUAL AIDS$
POSITION 9271 DELIMITER FOR LOGIC TYPE MISSING b.
POSITION 9272 RIGHT PARENTHESIS FOUND c.

POSITION ROOT USED AND .OR. .NOT. .OF. AUDIOVISUAL AIDS!

```
                80        GRADE 1112$

POSITION 30 INVALID LOGIC TYPE IN SEARCH REQUEST
                9981      ADULT LEADERS .NOT. AGE .BUT. AUDIOVISUAL AIDS$

POSITION 33 INVALID LOGIC TYPE IN SEARCH REQUEST
POSITION 33 END DELIMITER FOR LOGIC TYPE MISSING c.
                9982      ADULT LEADERS .NOT AGE .NOT. AUDIOVISUAL AIDS$

                9983      ADULT LEADERS .NOT AGE .NOT AUDIOVISUAL AIDS$

POSITION 30 END DELIMITER FOR LOGIC TYPE MISSING c.
                9984      ADULT LEADERS .NOT. AGE .NOT AUDIOVISUAL AIDS$

NUMERIC SEARCH NUMBER NOT FOUND IN COLS 1-4 FOR SEARCH e.
                          ADULT LEADERS .NOT. AGE .NOT. AUDIOVISUAL AIDS$

                9986      ADULT LEADERS .NOT. AGE .NOT. AUDIOVISUAL AIDS$

                9987      $ADULT LEADERS .NOT. AGE .NOT. AUDIOVISUAL AIDS$

                9988      #CULTURALLY DISADVANTAGED .AND. ELEMENTARY SCHOOLS$ .AND.
                          EVALUATION TECHNIQUES$

                9989      CULTURALLY DISADVANTAGED .AND. ELEMENTARY SCHOOLS .AND.
                          EVALUATION TECHNIQUES$

POSITION 10 INVALID CHARACTER IN SEARCH REQUEST
                9990      =COUNT[I...]$

                9991      ACOUSTICAL ENVIRONMENT .OR. ACOUSTIC PHONETICS .AND.
                          ACOUSTIC INSULATION.$
```

NUMBER OF ACCESSION NUMBERS FOUND FOR EACH DESCRIPTOR

SEARCH NUMBER	WORD NUMBER	ACCESSION COUNT	DESCRIPTOR SEARCHED FOR
****UNABLE TO FIND DESCRIPTOR****** a. 0010	0002		RECREATIONFINANCE
****UNABLE TO FIND DESCRIPTOR****** a. 0011	0002		RECREATIONFINANCE
0007	0002	177	*SCHOOL LIBRARIES
****UNABLE TO FIND DESCRIPTOR****** a. 0010	0009		SCHOOLRECREATIONPROGRAMS
****UNABLE TO FIND DESCRIPTOR****** a. 0011	0009		SCHOOLRECREATIONPROGRAMS
0004	0003	112	SCIENCE COURSE IMPROVEMENT PROJECT
0003	0002	58	*SCIENCE COURSES
0004	0004	58	*SCIENCE COURSES
0005	0005	58	*SCIENCE COURSES
0005	0006	65	SCIENCE CURRICULUM
0707	0004	65	SCIENCE CURRICULUM
0007	0005	416	*SCIENCE EDUCATION
0006	0006	14	*SCIENCE INSTITUTES
0003	0004	115	SCIENCE INSTRUCTION
0007	0006	115	SCIENCE INSTRUCTION
0004	0007	36	SCIENCE PROGRAMS
0005	0007	36	SCIENCE PROGRAMS
0004	0008	15	*SCIENCE PROJECTS
0003	0003	299	*SCIENCES
0005	0004	299	*SCIENCES
****UNABL - TO FIND DESCRIPTOR****** b. 0005	0002		SCIENCETEACHEREDUCATION
0006	0001	45	*SCIENCE TEACHERS
0003	0001	21	SHORT COURSES
0002	0006	484	SOCIAL SCIENCES
0002	0004	979	SOCIAL STUDIES
0002	0005	309	*SOCIAL STUDIES UNITS
0001	0002	406	STANDARDS
0010	0006	17	SWIMMING POOLS
0011	0006	17	SWIMMING POOLS
0005	0001	5	*UNIFIED STUDIES PROGRAMS

M-22

I N F O R M S

PRINT OPTIONS FOR RIE ABSTRACTS

Card Code

Card 1 { (1-8)
         (10-17)

1. TAPESBEG
2. Beginning Accession Number

Card 2 { (1-8)
         (10-17)

1. TAPESEND
2. Ending Accession Number

(1-4)

1. SEARCH Number (Leave Blank if all Searches)

(5-12)

2. SEARCH TYPE (CURRENT OR HISTORIC)

(13-16)

3. Maximum Number Abstracts Allowed

4. Format of Printed Abstracts (1-Print ∅-Suppress)

Card 3

Code	Field
(17)	A. Accession Number (Default = 1)
(18)	B. Clearing House Number (Default = ∅)
(19)	C. Clearing House Number (Default = ∅)
(20)	D. Program Area (Default = ∅)
(21)	E. Publication Date (Default = 1)
(22)	F. Title (Default = 1)
(23)	G. Personal Author (Default = 1)
(24)	H. Institution Number (Default = ∅)
(25)	I. Sponsoring Agency Number (Default = ∅)
(26)	J. Descriptor (Default = 1)
(27)	K. Identifier (Default = ∅)
(28)	L. EDRS PRICE (Default = 1)
(29)	M. Descriptive Note (Default = 1)
(30)	N. ISSUE (Default = ∅)
(31)	O. Abstract (Default = 1)
(32)	P. Report Number (Default = ∅)
(33)	Q. Contract Number (Default = ∅)
(34)	R. Grant Number (Default = ∅)
(35)	S. Bureau Number (Default = ∅)
(36)	T. Availability (Default = 1)
(37)	U. Journal Citation (Default = 1)
(38)	V. Institution Name (Default = ∅)
(39)	W. Sponsoring Agency Name (Default = ∅)

M-23

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I N F O R M S

PRINT OPTIONS FOR CIJE ABSTRACTS

Card Code

| Card 1 | (1-8) | 1. | TAPESBEG | _ _ _ _ _ _ _ |
| | (10-17) | 2. | Beginning Accession Number | _ _ _ _ _ _ _ |

| Card 2 | (1-8) | 1. | TAPESEND | _ _ _ _ _ _ _ |
| | (10-17) | 2. | Ending Accession Number | _ _ _ _ _ _ _ |

Card 3

(1-4)   1. SEARCH Number (Leave Blank if all
              Searches)   _ _ _ _
(5-12)   2. SEARCH TYPE (CURRENT OR HISTORIC)   _ _ _ _ _ _ _
(13-16)   3. Maximum Number Abstracts Allowed   _ _ _ _
          4. Format of Printed Abstracts (1 = Print - Ø = Suppress)
(17)   A. Accession Number (Default = 1)   _____
(18)   B. Clearing House Number (Default = Ø)   _____
(19)   C. Clearing House Number (Default = Ø)   _____
(20)   D. Program Area (Default = Ø)   _____
(21)   E. Publication Date (Default = 1)   _____
(22)   F. Title (Default = 1)   _____
(23)   G. Personal Author (Default = 1)   _____
(24)   H. Institution Number (Default = Ø)   _____
(25)   I. Sponsoring Agency Number (Default = Ø)   _____
(26)   J. Descriptor (Default = 1)   _____
(27)   K. Identifier (Default = Ø)   _____
(28)   L. EDRS PRICE (Default = 1)   _____
(29)   M. Descriptive Note (Default = 1)   _____
(30)   N. ISSUE (Default = Ø)   _____
(31)   O. Abstract (Default = 1)   _____
(32)   P. Report Number (Default = Ø)   _____
(33)   Q. Contract Number (Default = Ø)   _____
(34)   R. Grant Number (Default = Ø)   _____
(35)   S. Bureau Number (Default = Ø)   _____
(36)   T. Availability (Default = 1)   _____
(37)   U. Journal Citation (Default = 1)   _____
(38)   V. Institution Name (Default = Ø)   _____
(39)   W. Sponsoring Agency Name (Default = Ø)   _____

Card 2:

    (1-8)   Always TAPESEND

    (10-17)   ED Number - ends with the last ED number of interest
                  in the same search as listed in (10-17), Card 1

                  Blank - ends with most current ED number

Card 3:

    (1-4)   Four Digit Number - DPI search number - same as
                  first four digits of DPI ledger

                  Blank - All searches will be treated in the same
                  manner

    (5-12)   CURRENT - will print abstracts of the five most
                  current numbers

                  HISTORIC - will print abstracts of the five most
                  historic numbers

    (13-16)   Any reasonable number (e.g. 25 or less)

    (17-39)   1 for Print   0 for Suppress
                  Blank - the default as listed will operate

A Batch Control Sheet should be completed for each group (i.e., RIE, CIJE). If no searches occur in a certain group the Batch Control Sheet should be marked accordingly and submitted to Management Information. If no options are requested the statement "No Options" should be written on the Print Option Sheet.

The Batch Control Sheets are then forwarded to the Control Section of Management Information. The batches are logged, edited, etc. and forwarded to the Keypunch Section. Each batch is keypunched, verified and forwarded to the Operations Section for Phase II computer runs.

A search of the ERIC resume tapes is made and the hits (found and listed in Phase I) are sorted (put in numerical order by search number) and stored for the final printing of the resumes.

The Phase II print-out is then channeled to DPI INFORMS. Samples of Phase II ED and EJ print-outs are found on pages M-26 to M-28. The INFORMS staff divides the print-out according to search number and incorporates the document resumes and journal citations into the Information Packet.

PUBLICATION DATE..   W 72

TITLE..   THE COMPREHENSION DILEMMA

PERSONAL AUTHOR..   RAKES, TOM

DESCRIPTOR..   CONTENT READING ELEMENTARY GRADES EXPOSITORY WRITING
     LANGUAGE EXPERIENCE APPROACH NARRATION *QUESTIONING TECHNIQUES
     *READING COMPREHENSION *READING INSTRUCTION *READING MATERIALS
     *READING SKILLS

JOURNAL CITATION..   READING HORIZONS 12 2 75-77

****END OF ABSTRACT****

PUBLICATION DATE..   MAR 72

TITLE..   CASE STUDIES IN READING

PERSONAL AUTHOR..   BECKER, GEORGE J. TRELA, THADDEUS M.

DESCRIPTOR..   *ANNOTATED BIBLIOGRAPHIES *CASE STUDIES ЗEDUCATIONu
     ELEMENTARY GRADES EMOTIONALLY DISTURBED CHILDREN *READING DIAGNOSIS
     *READING DIFFICULTY *READING INSTRUCTION READING PROCESSES REMEDIAL
     READING SECONDARY GRADES

JOURNAL CITATION..   JOURNAL OF READING 15 6 436-38

****END OF ABSTRACT****

After preparing the packet for information presentation, the packet should be presented in a style best suited for the client to use in answering his request.

Person to person contact is recommended for presentation. With this approach, the field representative is there to guide the client through the often asked questions of:

- What is the Packet Contents?

- How do I obtain more information?

- How do I receive materials listed on Packet Contents?

- What if I want updates or a new request?

- What is the Request Assessment Form?

- How do I obtain a microfiche reader?

PUBLICATION DATE..   JAN 72

TITLE..   A SURVEY OF READING INSTRUMENT USAGE IN NEW JERSEY PUBLIC SCHOOL
   READING PROGRAMS, GRADES K-12.

PERSONAL AUTHOR..   GREENWALD, MARCIA ALPERN

DESCRIPTOR..   *AUDIO EQUIPMENT AUDIOVISUAL AIDS *EDUCATIONAL EQUIPMENT
   ELEMENTARY GRADES INSTRUCTIONAL MATERIALS MASTERS THESES READING
   INSTRUCTION *READING PROGRAMS REMEDIAL READING PROGRAMS *SCHOOL
   DISTRICT SPENDING SECONDARY GRADES TACHISTOSCOPES *TEACHING MACHINES

EDRS PRICE..   EDRS PRICE MF-$0.65 HC-$3.29

DESCRIPTIVE NOTE..   94P. MASTER@S THESIS SUBMITTED TO RUTGERS, THE STATE
   UNIVERSITY, NEW BRUNSWICK, N.J.

ABSTRACT..   THE USE OF MACHINES IN READING INSTRUCTION WAS EXAMINED IN 174
   NEW JERSEY SCHOOL DISTRICTS. FROM DATA GATHERED BY QUESTIONNAIRE, THE
   NUMBERS, TYPES, AND USAGES OF MACHINES IN VARIOUS SCHOOL DISTRICTS WERE
   EXAMINED. THE RATIO OF PUPIL TO MACHINE WAS CORRELATED WITH THE SIZE OF
   THE SCHOOL DISTRICT, EXPENDITURES PER STUDENT, AND ORGANIZATION OF THE
   SCHOOL SYSTEMS %K THROUGH 8, K THROUGH 12, AND 7 THROUGH 12¤. IT WAS
   FOUND THAT K THROUGH 8 SCHOOL DISTRICTS HAD THE MOST FAVORABLE
   PUPIL/MACHINE RATIOS. THE SIZE OF THE SCHOOL DISTRICT SIGNIFICANTLY
   INFLUENCED THE NUMBER OF MACHINES OWNED. THERE WAS NO CORRELATION
   BETWEEN A DISTRICT@S SIZE AND THE PUPIL/MACHINE RATIO NOR BETWEEN A
   DISTRICT@S EXPENDITURE PER PUPIL AND ITS PUPIL/MACHINE RATIO. THE
   INSTRUMENTS MOST FREQUENTLY FOUND IN READING PROGRAMS WERE LISTENING
   AND RECORDING DEVICES, FOLLOWED BY DIRECTIONAL ATTACK CONTROL DEVICES
   AND GROUP TACHISTOSCOPES. THE MAJORITY OF DISTRICTS USED MACHINES IN
   BOTH DEVELOPMENTAL AND REMEDIAL READING PROGRAMS. INDICATIONS FOR
   FURTHER RESEARCH ARE MADE. TABLES, THE QUESTIONNAIRE, AND REFERENCES
   ARE INCLUDED. %AL¤

****END OF ABSTRACT****

INFORMATION ANALYSIS AND EVALUATION

```
                  _ _ _ _ _ _ _19_                      _ _ _ _ _ _ _7_
                 |                 |                    |                 |
                 | Present         |                    | Present. Resource |
                 | Information     |                    | Information       |
                 | to Client       |                    |                 |
                 |_ _              |                    |_ _              |
                 |FR |             |                    |FR |             |
                 |___|_ _ _ _ _ _ _|                    |___|_ _ _ _ _ _ _|
                     |
                     |_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
                     |                                          |
                     ↓  20                                      |  21
                 |                 |                    |                 |
                 | Analyze and                          |  Complete
```

ERIC
Full Text Provided by ERIC
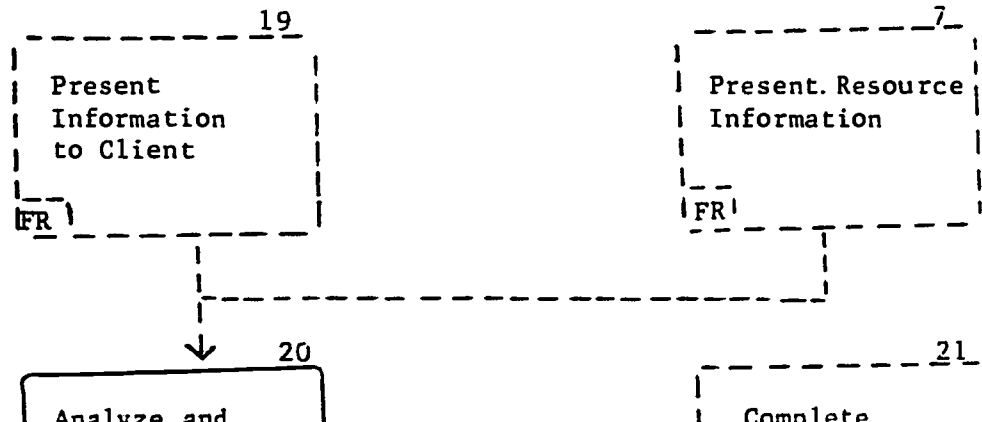
PUBLICATION DATE..   72

TITLE..   THE TEACHING OF READING. METHODS AND RESULTSO AN OVERVIEW.

PERSONAL AUTHOR..   SPACHE, GEORGE D.

DESCRIPTOR..   *BASIC READING *ELEMENTARY GRADES INDIVIDUALIZED READING
    INITIAL TEACHING ALPHABET LANGUAGE EXPERIENCE APPROACH PHONICS
    *READING INSTRUCTION READING MATERIALS *READING PROGRAMS READING
    READINESS *TEACHING METHODS

EDRS PRICE..   DOCUMENT NOT AVAILABLE FROM EDRS.

DESCRIPTIVE NOTE..   157P.

ABSTRACT..   THIS BOOK REVIEWS RESEARCH ON THE TEACHING OF ELEMENTARY
    READING AND SUMMARIZES THE RESEARCH IN SUCH A WAY AS TO MAKE IT USEFUL
    TO THE ELEMENTARY SCHOOL TEACHER. A NUMBER OF METHODS AND PROCEDURES OF
    INSTRUCTION ARE CONSIDERED. THE FIRST CHAPTER DISCUSSES WHEN TO BEGIN
    READING AND GENERAL TOPICS RELATED TO TEACHING YOUNG CHILDREN, AND THE
    SECOND CHAPTER DESCRIBES READINESS FACTORS AND PROGRAMS. TEACHING
    READING WITH A BASAL SYSTEM IS THE SUBJECT OF THE THIRD CHAPTER, AND
    INNOVATIVE APPROACHES INCLUDING INITIAL TEACHING ALPHABET, LANGUAGE
    EXPERIENCE, LINGUISTIC, AND INDIVIDUALIZED PROGRAMS ARE TREATED IN
    CHAPTER FOUR. THE FIFTH CHAPTER DISCUSSES TEACHING READING TO THE
    DISADVANTAGED, AND THE SIXTH CHAPTER IS CONCERNED WITH TEACHING READING
    AT THE INTERMEDIATE AND UPPER ELEMENTARY LEVELS. %MSO

AVAILABILITY..   PHI DELTA KAPPA, INC., EIGHTH AND UNION, BLOOMINGTON, IND.
    47401 %$3.50 TO MEMBERS, $3.95 TO NONMEMBERSO

****END OF ABSTRACT****

INFORMATION APPROPRIATENESS

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        ┌─ ─ ─ ─ ─ ─ 20 ─        ┌──────────── 21        ┌─ ─ ─ ─ ─ ─ 27 ─
        │                 │      │                       │                 │
        │ Analyze and     │      │ Complete              │ Present         │
        │ Evaluate        │ ─ ─ ─→ Assessment            │ Information      │
        │ Information     │      │ Questionnaire         │ to Client       │
        │                 │      │                       │                 │
        │ ┌──┐            │      │ ┌──┐                  │ ┌──┐            │
        │ │C │ ─ ─ ─ ─ ─ ─│      └─│C │─────────         │ │FR│─ ─ ─ ─ ─ ─ │
          └──┘                     └──┘                     └──┘
                                      │                       │
                                      │                       │
                                      ↓                       ↓
                               ┌─ ─ ─ 22─              ┌──────── 28
                               │                │      │
                               │ File           │      │ Complete
```

INFORMATION PACKET

```
               _____ 4
          |  Formulate     |
          |  Search        |
          |  Strategy      |
          |__              |                        _____ 24
          |FR|_____|                   |  Collect       |
 _____ 6                                     |  Retrieval     |
|  Forward       |                              |  Request       |
|  Request to    |          _____ 5          |  Information   |
|  DPI           |    |  Organize      |        |DPI|_____|
|__              |    |  Local Site    |             |
|FR|_____|    |  Resources     |             |
                      |__              |             ↓
                      |FR|_____|        _____ 25
                                                |  Prepare       |
          _____ 11                           |  Information   |
          |                |                    |  Packet        |
          | Notify Client  |                    |____            |
          | of Request     |                    |DPI|_____|
          |_Status         |                         |
          |_DPI_|_____ |                         |
 _____ 15                                          ↓
|  Print         |          _____ 13          _____ 26
|  Abstracts or  |    |  Perform       |        |  Packet        |
|  Citations     |    |  Manual        |        |  Forwarded to  |
|___  (Phase II) |    |  Search        |        |  Field         |
|DPI|_____|    |___             |        |__Representative |
                      |DPI|_____|        |DPI|_____|
          _____ 16
          |  Prepare       |
          |  Information   |
          |  Packet        |
          |____            |
          |DPI|_____|
          _____ 17
          |  Packet        |
          |  Forwarded to  |
          |  Field         |
          |__Representative |
          |DPI |_____|
```
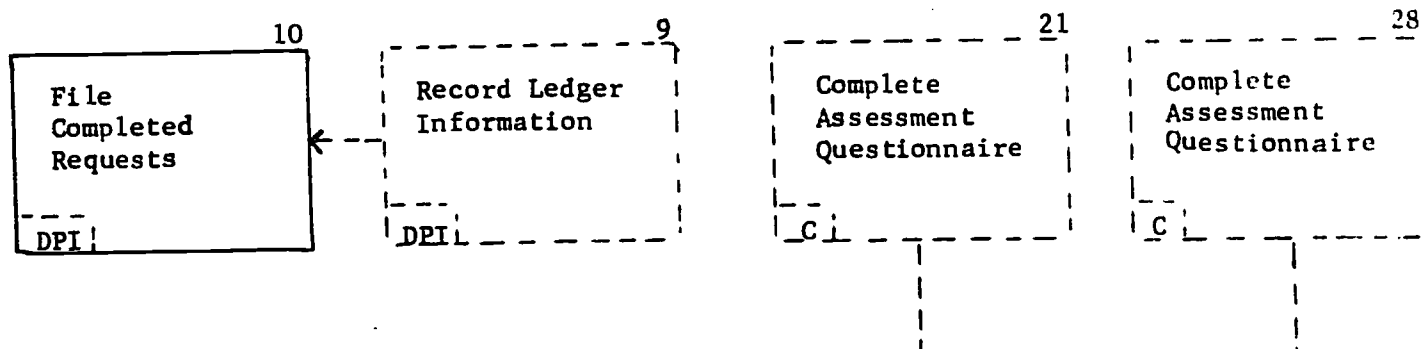
The Information Packet can be prepared at the field representative's
office or the DPI INFORMS Office. When the Information Packet is completed
it becomes the property of the client.

REQUEST FILES

```
                    10              9               21              28
┌──────────────────┐  ┌─────────────────┐  ┌─────────────────┐  ┌─────────────────┐
│ File             │  │ Record Ledger   │  │ Complete        │  │ Complete        │
│ Completed        │◄─┤ Information     │  │ Assessment      │  │ Assessment      │
│ Requests         │  │                 │  │ Questionnaire   │  │ Questionnaire   │
│                  │  │                 │  │                 │  │                 │
│ DPI              │  │ DPI             │  │ C               │  │ C               │
└──────────────────┘  └─────────────────┘  └─────────────────┘  └─────────────────┘
```

Evaluation
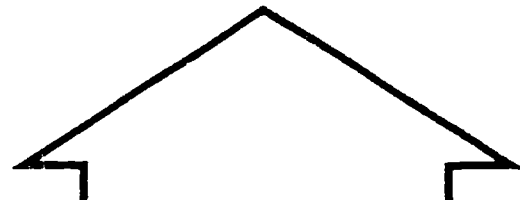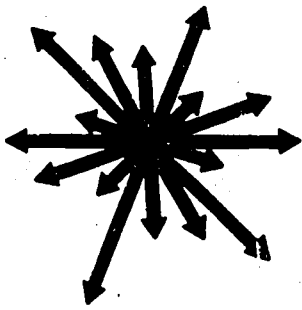
INFORMS

Hello! I'm your Information Packet

To help introduce me please read the definitions below and examine my format before beginning to work.

PACKET CONTENTS: The packet contents is your personal copy of the materials that are included in the information packet. Read carefully.

ERIC: Educational Resources Information Center - is a national system designed to provide access to current, significant developments in educational research and exemplary programs.

DOCUMENTS: The term document is used to describe any published materials such as research reports, dissertations, bibliographies or monographs. In this packet you will receive one or both of the following:

1. Document Abstracts - An abstract is a factual, objective abbreviated version of a complete document. From these abstracts you select those documents that are pertinent to your search question. To order microfiche copies of the complete document, simply enter the accession number - example ED 049 485 and title of the document on the retrieval request form.

2. Microfiche - Microfiche is a complete document on a 4"x6" sheet of film. A microfiche reader is required to read this microfiche. Microfiche received in the information packet are judged to be of general significance to your request question.

JOURNAL ARTICLES: These citations are from an ERIC index entitled Current Index to Journals in Education (CIJE), a monthly guide to periodical literature, with coverage of more than 500 major educational publications. In this packet you will receive one or both of the following:

1. Journal Citations - From the citations, you select those articles that are pertinent to your search question. To order simply enter the accession number - example EJ 045 405 and the bibliographic entry on the retrieval request.

2. Journal Articles - Articles received in the information packet are judged to be of general significance to your request question. JOURNAL ARTICLES ARE NOT AVAILABLE ON MICROFICHE.

RETRIEVAL REQUEST: The Retrieval Request form is for your use
                      when requesting microfiche (ED Numbers),
                      journal articles (EJ Numbers), or signifying
                      that a new negotiation is needed. This form
                      is to be returned in the self-addressed
                      envelope to INFORMS. You will receive requested
                      materials <u>via</u> <u>your</u> <u>field</u> <u>representative</u>.

REQUEST ASSESSMENT: To help us improve our services and increase
                      the probability of continued funding, please
                      complete the Request Assessment questionnaire
                      and return in the self-addressed envelope.
                      Complete the form after you receive all the
                      requested materials.
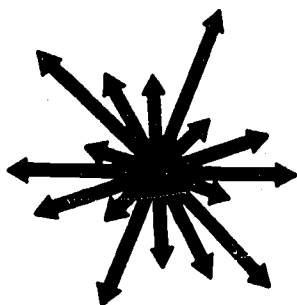
INFORMS

PACKET CONTENTS

IOWA NETWORK FOR OBTAINING RESOURCE MATERIALS FOR SCHOOLS
Department of Public Instruction
Educational Media Section
Grimes State Office Building
Des Moines, Iowa   50319

August 30, 1972

Dear Mr. Doe:

In our efforts to answer your search question we have gathered the follow-
ing materials for you.

_____ Microfiche: ED 033 829   ED 034 835
                   ED 033 837   ED 043 449

_____ Document abstracts: ED 046 674   ED 048 141
                           ED 047 892   ED 051 965

_____ Magazine articles:

1. "Organization and Operation of the Topeka Reading Clinic", _The Reading Teacher_, February 1970, pp. 414-417.
2. "Our High School Reading Center", _Today's Education_, January 1971, p. 40.

_____ Pamphlet:

1. PREP Report #3, Central Reading Clinics

In the left side pocket of your information packet you will find an
evaluation form. After reviewing the information in the packet please fill
out the evaluation form and return it to our office for use in the project's
narrative evaluation.

We hope these collected materials will be of value and assistance to
you. If further search material is needed please do not hesitate to contact
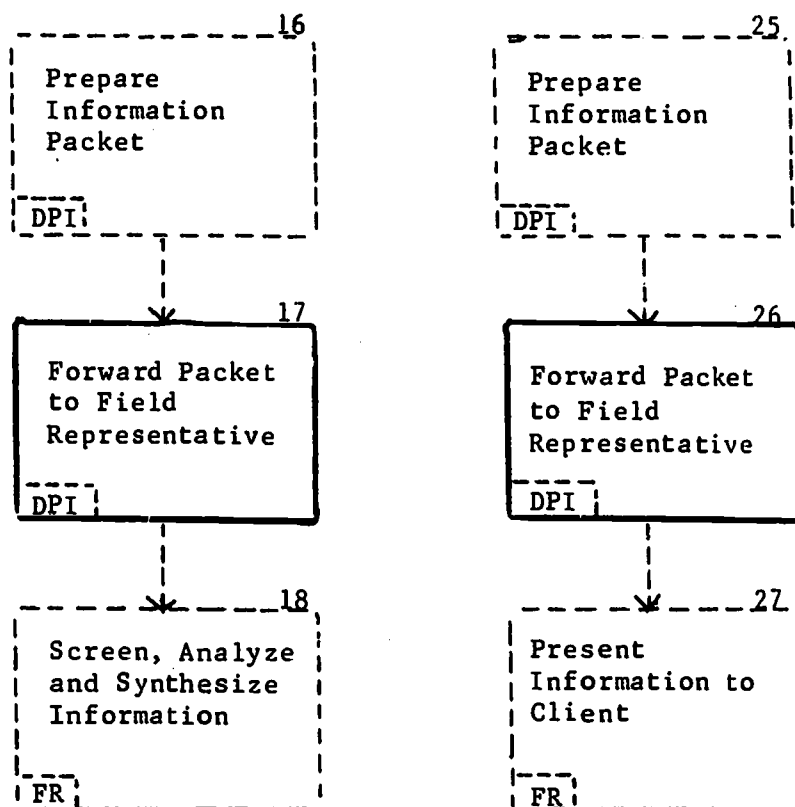your field representative.

INFORMS

EDUCATIONAL MEDIA SECTION

Kathy Borlin

(Mrs.) Kathy Borlin
Research Associate

KB:gn

TRANSPORT OF PACKETS

```
┌─ ─ ─ ─ ─ ─ ─16─ ─ ┐        ┌─ ─ ─ ─ ─ ─25─ ─ ┐
│                   │        │                 │
│  Prepare          │        │  Prepare        │
│  Information       │        │  Information    │
│  Packet           │        │  Packet         │
│                   │        │                 │
│ ┌────┐            │        │ ┌────┐          │
│ │DPI │            │        │ │DPI │          │
└─┴────┴─ ─ ─ ─ ─ ─ ┘        └─┴────┴ ─ ─ ─ ─ ─┘
         │                            │
         ▼                            ▼
┌───────────────17──┐        ┌───────────────26──┐
│                   │        │                   │
│  Forward Packet   │        │  Forward Packet   │
│  to Field         │        │  to Field         │
│  Representative   │        │  Representative   │
│                   │        │                   │
│ ┌────┐            │        │ ┌────┐            │
│ │DPI │            │        │ │DPI │            │
└─┴────┴────────────┘        └─┴────┴────────────┘
         │                            │
         ▼                            ▼
┌─ ─ ─ ─ ─ ─18─ ─ ┐          ┌─ ─ ─ ─ ─ ─27─ ─ ┐
│                 │          │                 │
│ Screen, Analyze │          │ Present         │
│ and Synthesize  │          │ Information to  │
│ Information     │          │ Client          │
│                 │          │                 │
│ ┌───┐           │          │ ┌───┐           │
│ │FR │           │          │ │FR │           │
└─┴───┴─ ─ ─ ─ ─ ─┘          └─┴───┴─ ─ ─ ─ ─ ─┘
```

The information packet will be forwarded to the field representative
by mail from DPI INFORMS.

The packet may be transported to the client via mail, Title II delivery
or personal delivery. For the best utilization of the material in the
Information Packet the personal delivery approach is advised.

When materials cannot be personally presented, a communique (letter
or telephone) to assist the client in utilization of the Information Packet
should be sent.

RETRIEVAL REQUESTS
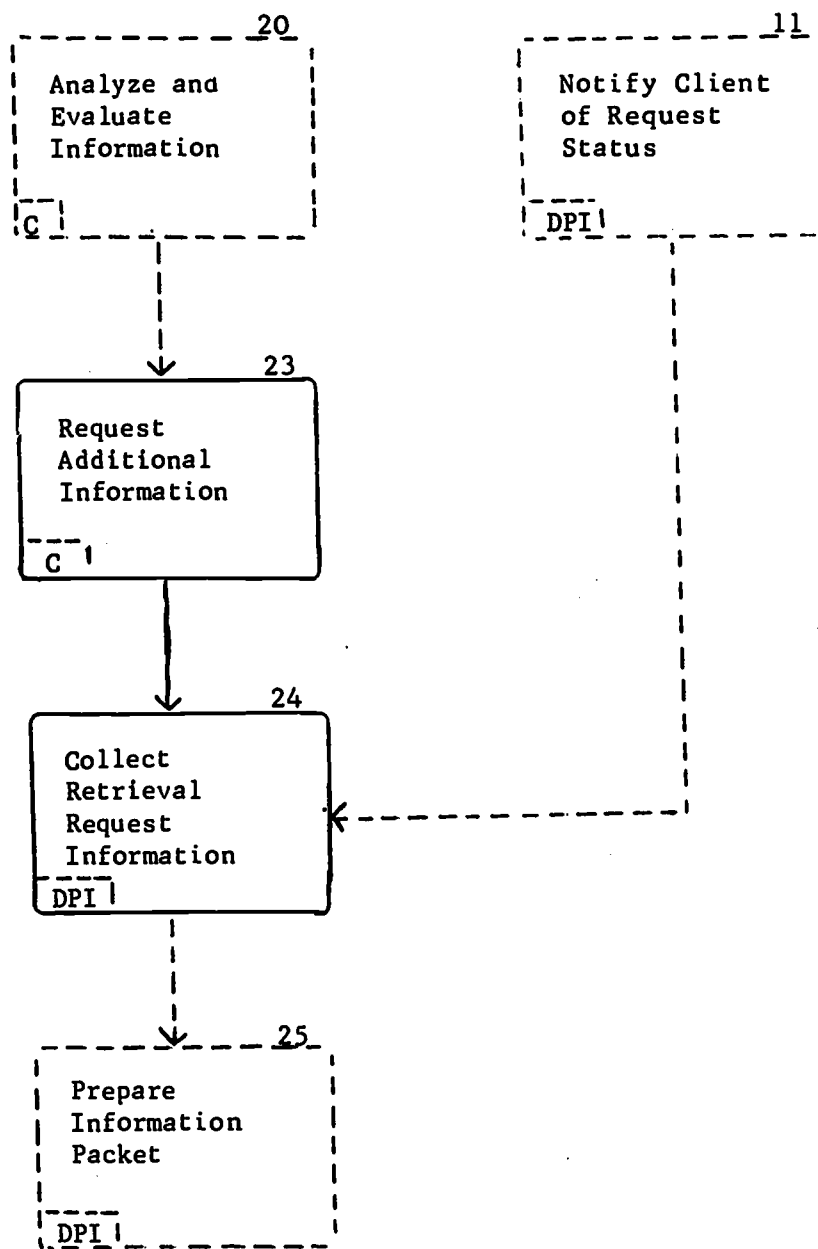
The Retrieval Request Form serves two purposes:

1. A way to request additional information referred to in the Packet Contents. The Retrieval Request Form (page P-3) is filled out by the client and returned to DPI INFORMS. Requested items will be returned to the client via the field representative. All materials sent to the client as a result of the second request will be recorded on the original Negotiation Form.

2. A notification that the nature of the Packet Contents requires another negotiation. If original materials are not appropriate, the only alternative is a new negotiation.

If client does not require additional information or does not wish a new negotiation, there is no need to return the Retrieval Request.
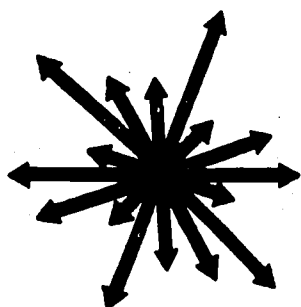
INFORMS

DPI NO. |⎵|⎵|⎵|⎵|⎵|⎵|⎵|⎵|⎵|

LOCAL NO. |⎵|⎵|⎵|⎵|⎵|⎵|⎵|⎵|

R E T R I E V A L   R E Q U E S T

PLEASE RETURN THIS FORM IF ADDITIONAL MATERIALS OR
A NEW NEGOTIATION IS NEEDED

FIELD REPRESENTATIVE: _____ DATE: _____

CLIENT: _____

_____ Check if a new negotiation is needed.

==

ERIC Documents: (Documents not available from EDRS must be purchased from
original source)

ED _____   ED _____

ED _____   ED _____

ED _____   ED _____

ED _____   ED _____

ED _____   ED _____

==

CIJE ARTICLES: (Articles are not available on microfiche)

EJ _____   EJ _____

EJ _____   EJ _____

EJ _____   EJ _____

EJ _____   EJ _____

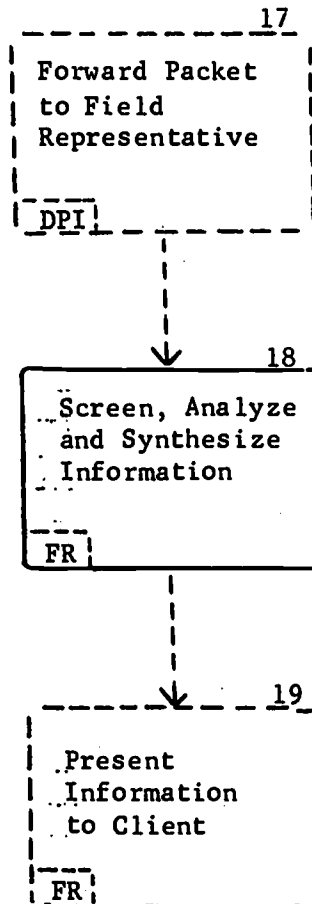==

Educational Index and Other Articles: (State title, author and journal)

_____

_____

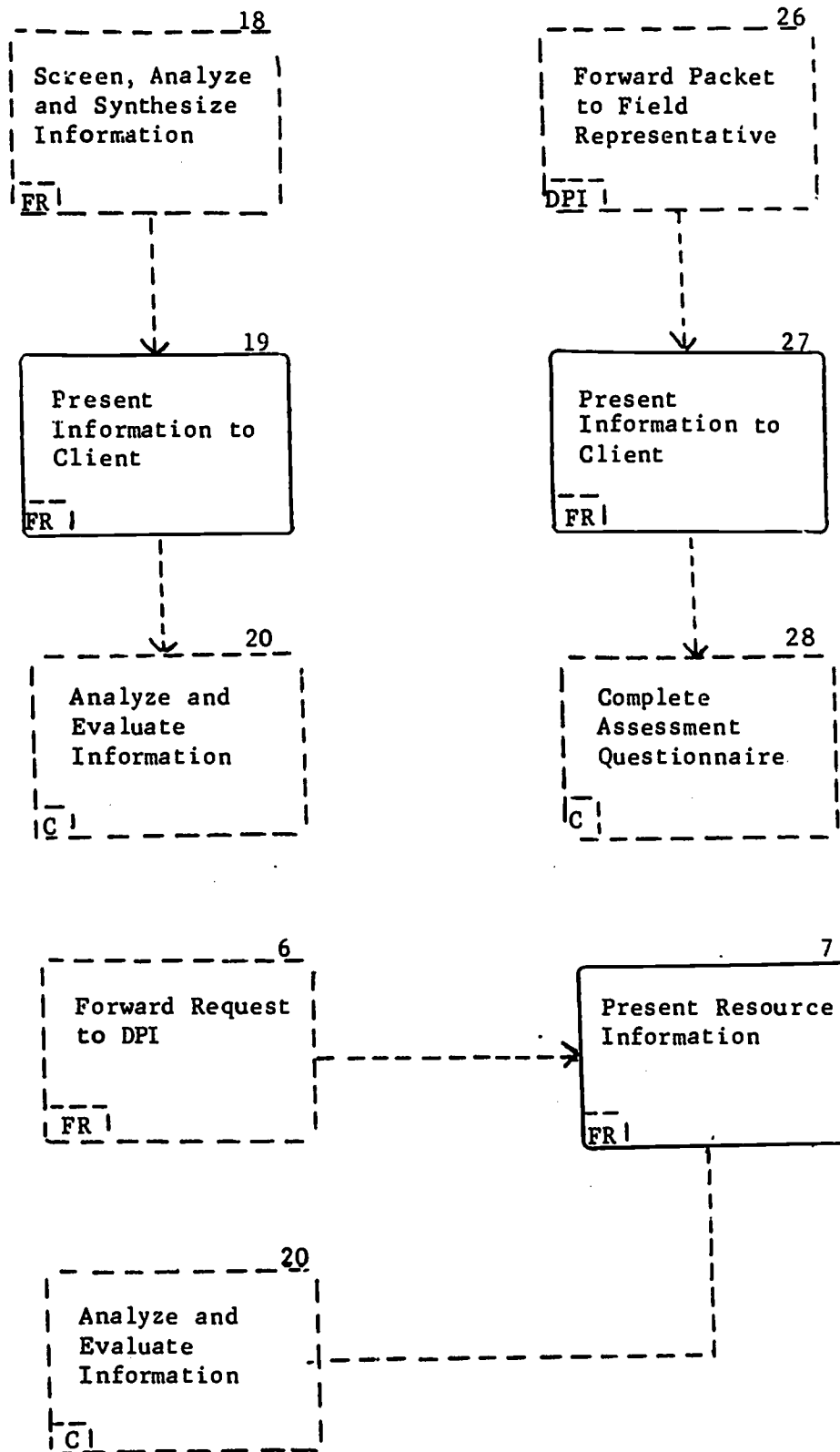_____

Other: (If additional space is needed, use the back side)

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PREPARING FOR INFORMATION PRESENTATION

```
                    ┌ ─ ─ ─ ─ ─ 17 ┐
                    │ Forward Packet │
                    │ to Field       │
                    │ Representative │
                    │                │
                    │ ┌──┐           │
                    └─│DPI│─ ─ ─ ─ ─ ┘
                      └──┘   │
                             │
                             ▼
                    ┌──────── 18 ──┐
                    │ Screen, Analyze│
                    │ and Synthesize │
                    │ Information    │
                    │                │
                    │ ┌──┐          │
                    │ │FR│          │
                    └─└──┘──────────┘
                             │
                             │
                             ▼
                    ┌ ─ ─ ─ ─ 19 ─ ┐
                    │ Present        │
                    │ Information    │
                    │ to Client      │
                    │                │
                    │ ┌──┐           │
                    └ │FR│ ─ ─ ─ ─ ─ ┘
                      └──┘
```

DPI INFORMS has attempted to analyze, synthesize, and organize relevant search information when constructing an Information Packet. However, the information must again be analyzed and synthesized by the field representative before presenting the packet to a client. Satisfactory service can only be provided by a field representative being knowledgeable about the packet contents. When preparing the packet presentation, a field representative may wish to consider the following points.

1. What is the quality and appropriateness of information as judged by the initial search question?
2. How can a client make effective use of the information?
3. What questions or reactions do you anticipate from a client?
4. What additional operations can you perform to assist the client in alleviating the need?
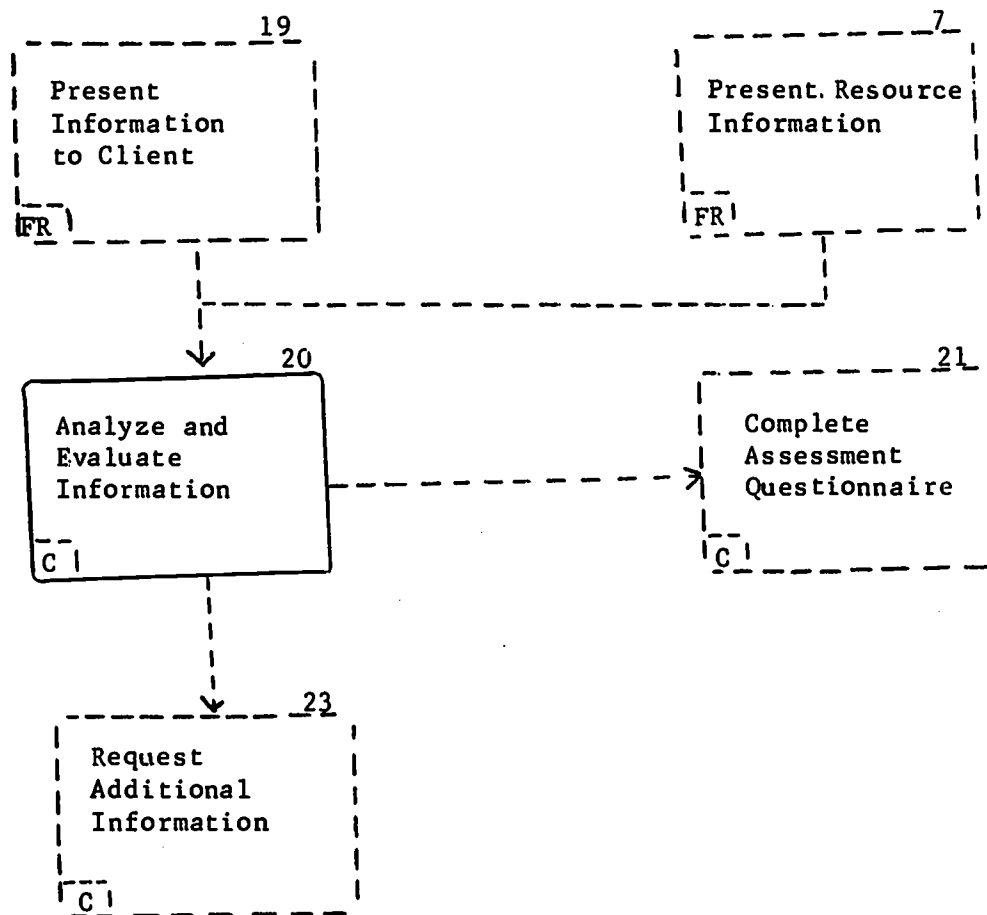
128

PRESENTING INFORMATION TO CLIENT

```
  ┌ ─ ─ ─ ─ ─ ─ ─ ─ 18         ┌ ─ ─ ─ ─ ─ ─ ─ 26
  │                  │         │                  │
  │ Screen, Analyze  │         │ Forward Packet   │
  │ and Synthesize   │         │ to Field         │
  │ Information      │         │ Representative   │
  │                  │         │                  │
  │┌──               │         │┌──              │
  │FR└ ─ ─ ─ ─ ─ ─ ─ ┘         │DPI└ ─ ─ ─ ─ ─ ─ ┘
        │                            │
        │                            │
        ▼                            ▼
  ┌──────────────── 19         ┌──────────────── 27
  │                  │         │                  │
  │ Present          │         │ Present          │
  │ Information to    │         │ Information to   │
  │ Client           │         │ Client           │
  │┌──               │         │┌──              │
  │FR└───────────────┘         │FR└───────────────┘
        │                            │
        ▼                            ▼
  ┌ ─ ─ ─ ─ ─ ─ ─ ─ 20         ┌ ─ ─ ─ ─ ─ ─ ─ 28
  │                  │         │                  │
  │ Analyze and      │         │ Complete         │
  │ Evaluate         │         │ Assessment       │
  │ Information      │         │ Questionnaire    │
  │                  │         │                  │
  │┌─               │         │┌─               │
  │C └ ─ ─ ─ ─ ─ ─ ─ ┘         │C └ ─ ─ ─ ─ ─ ─ ─ ┘
```

```
  ┌ ─ ─ ─ ─ ─ ─ ─ 6           ┌──────────────── 7
  │                  │         │                  │
  │ Forward Request  │         │ Present Resource │
  │ to DPI           │         │ Information      │
  │                  │──────▶  │                  │
  │┌──               │         │┌──              │
  │FR└ ─ ─ ─ ─ ─ ─ ─ ┘         │FR└───────────────┘
                                        │
  ┌ ─ ─ ─ ─ ─ ─ ─ 20                    │
  │                  │                  │
  │ Analyze and      │                  │
  │ Evaluate         │                  │
  │ Information      │─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
  │┌─               │
  │C └ ─ ─ ─ ─ ─ ─ ─ ┘
```

R-1

129

After preparing the packet for information presentation, the packet should be presented in a style best suited for the client to use in answering his request.

Person to person contact is recommended for presentation. With this approach, the field representative is there to guide the client through the often asked questions of:

- What is the Packet Contents?

- How do I obtain more information?

- How do I receive materials listed on Packet Contents?

- What if I want updates or a new request?

- What is the Request Assessment Form?

- How do I obtain a microfiche reader?

- How do I use a microfiche reader?

- What should I do if additional assistance is needed?

- Can you help me in interpreting the abstracts and citations?

INFORMATION ANALYSIS AND EVALUATION

```
          ┌ ─ ─ ─ ─ ─ 19 ┐              ┌ ─ ─ ─ ─ ─ 7 ┐
          |                |             |               |
          | Present        |            | Present. Resource |
          | Information    |            | Information   |
          | to Client      |            |               |
          |__             |             |__             |
          |FR |─ ─ ─ ─ ─ ┘             |FR|─ ─ ─ ─ ─ ┘
                |                                   |
                |    ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
                ↓                    20
          ┌──────────────┐           ┌ ─ ─ ─ ─ ─ 21 ┐
          |              |           |                |
          | Analyze and  |           | Complete       |
          | Evaluate     |           | Assessment     |
          | Information  |─ ─ ─ ─ ─ →| Questionnaire  |
          |              |           |                |
          |__            |           |__              |
          |C |           |           |C |─ ─ ─ ─ ─ ─ ┘
          └──────────────┘
                |
                ↓         23
          ┌ ─ ─ ─ ─ ─ ┐
          |             |
          | Request     |
          | Additional  |
          | Information  |
          |             |
          |__           |
          |C |─ ─ ─ ─ ─ ┘
```

After receiving the Information Packet, the client should analyze
and evaluate the information. This should be an attempt to (1) identify
documents that should be copied, (2) locate omissions in the materials
according to the search question and (3) identify problems in alleviating
the need. The field representative should be contacted if additional
assistance is needed in interpreting the packet contents.

At a later date, the field representative should contact the client
to determine the status of the analysis and evaluation process.

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INFORMATION APPROPRIATENESS

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   ┌─ ─ ─ ─ ─ ─ ─ ─ 20 ┐        ┌─ ─ ─ ─ ─ ─ ─ ─ ─ 21 ┐        ┌─ ─ ─ ─ ─ ─ ─ ─ 27 ┐
   │  Analyze and      │        │  Complete            │        │  Present          │
   │  Evaluate         │─ ─ ─→  │  Assessment          │        │  Information      │
   │  Information      │        │  Questionnaire       │        │  to Client        │
   │  ┌─ ┐             │        │  ┌─ ┐                │        │  ┌─ ┐             │
   │  │C │             │        │  │C │                │        │  │FR│             │
   └──┴─ ┴─ ─ ─ ─ ─ ─ ─┘        └──┴─ ┴                │        └──┴─ ┴─ ─ ─ ─ ─ ─ ─┘
```
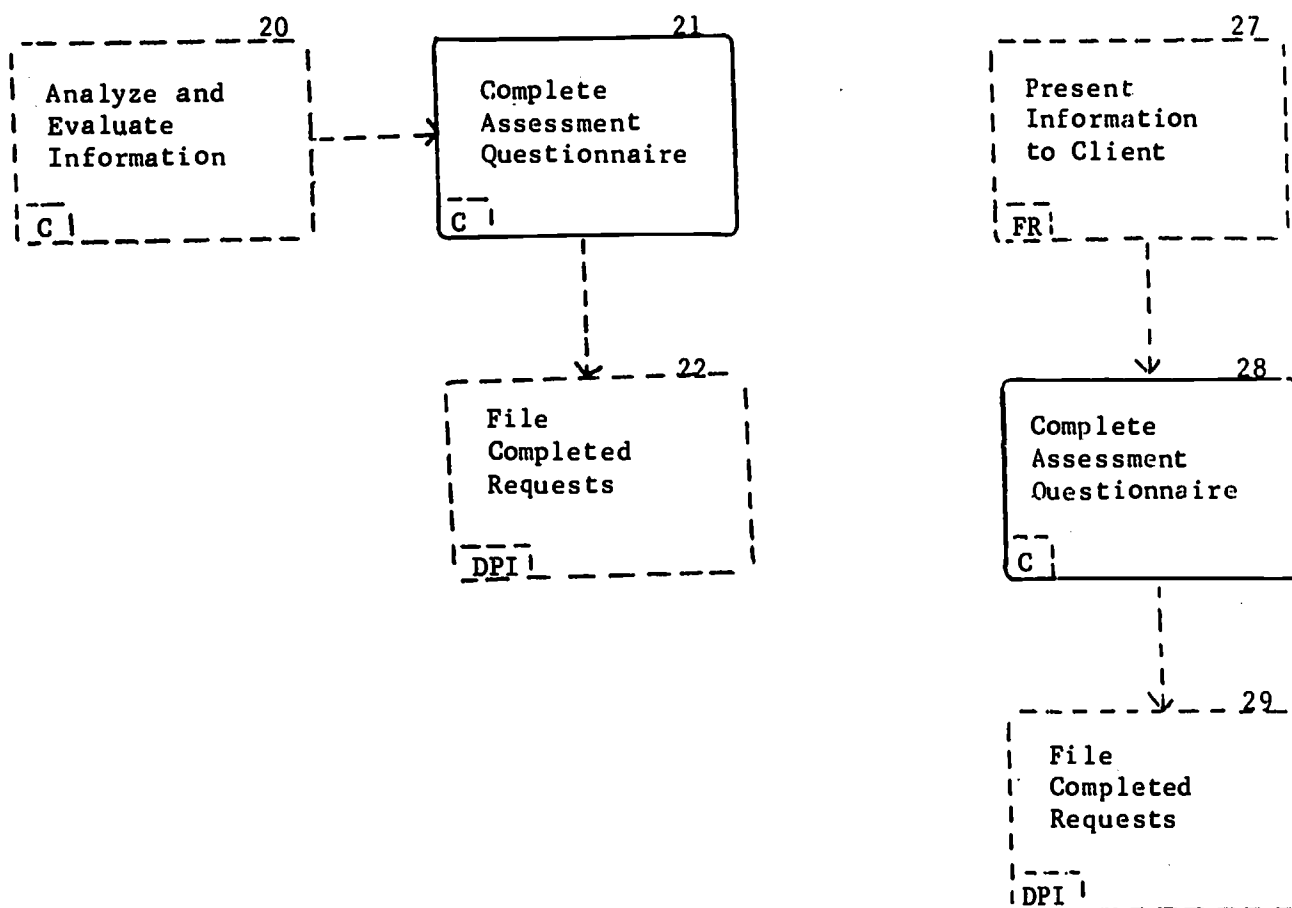
The Request Assessment questionnaire, which is described in the
Evaluation section, is appropriate for assessing the process and products
of a particular request. This instrument is completed by the client after
analyzing and evaluating the materials. The questionnaire is always returned
to DPI INFORMS. Process items of the instrument allow one to identify the
problems associated with each request in terms of field representative-client
interactions and the nature of selected request processes. The Product Assessment
concerns the client's interpretation of the appropriateness of the information to
alleviate needs. Refer to the Evaluation section for analysis of the questionnaire
and information on when and how to utilize it.

REQUEST FILES
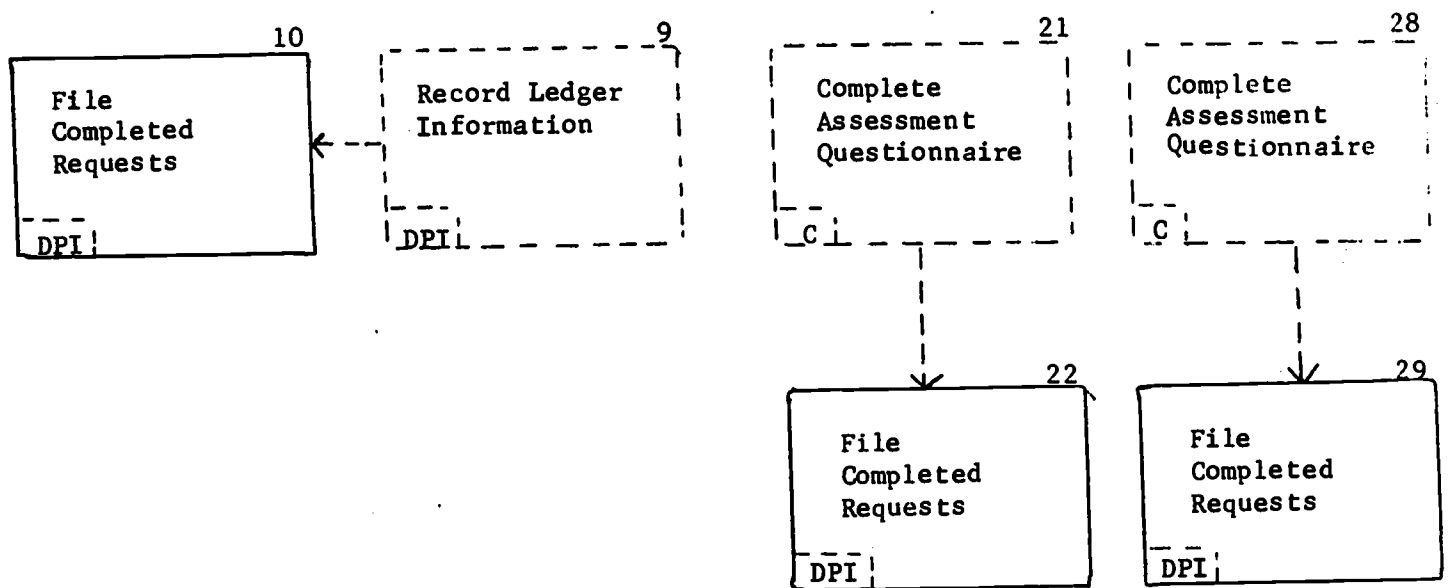
The final step in completing a search is to file the request. All
information pertaining to a request (Negotiation Form, Packet Contents,
Retrieval Request and Request Assessment) will be filed together according
to the general filing system code, |1|2|5|6|0|1|0|3| . There will be eight
general divisions. Under each general division, each request is filed by
specific categories taken from DPI and Local Number, |1|2|5|6|0|1|0|3| .
Under each specific number, searches are filed chronologically by search
number, |1|2|5|6|0|1|0|3| .

This system is used for evaluation purposes and to determine if
similar searches have been performed.

Evaluation
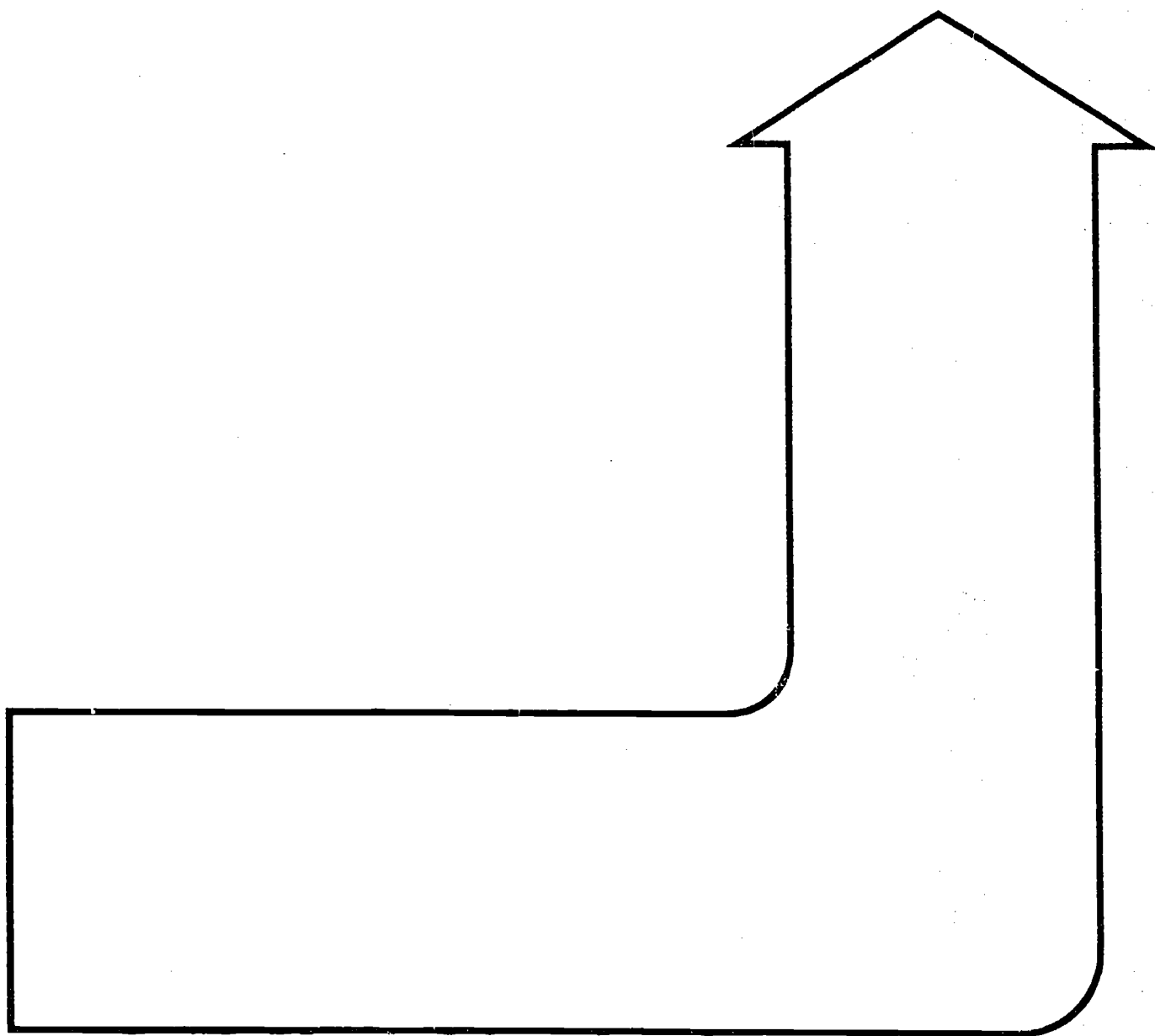
Several different modes of assessment can be used for process and product evaluation. The main concern in process evaluation is the determination of the degree of project implementation as planned. Hopefully, implementation problems can be identified and eliminated. Product evaluation pertains to the number of services provided, the acceptability and quality of the services and produced changes in educational opinions and operations. Subjects for the assessment process are clients, field representatives or INFORMS representatives and educators who have not utilized the service.

The main sources of information for process evaluation are direct observation of INFORMS operations, oral and written communications between INFORMS DPI office and field representatives and periodic field personnel reports. Assessment questionnaires for clients and other educators will also contribute information. Since the direct observations do not require special directions and the communiques will spontaneously originate, only field personnel reports are discussed in this section.

Data for determining numbers and kinds of information and assistance provided can be gathered from the DPI ledger and negotiation forms. The data will be tabulated and summarized by graphs and charts. Additional discussion of ledgers and negotiation forms is avoided in this section since they were characterized elsewhere.

Three assessment questionnaires and a personnel report form in a questionnaire format are characterized. When and how to use them is explained.

Educators who have not used INFORMS service should be assessed for awareness of Project INFORMS. The Promotional Assessment questionnaire (page V-5 and V-6) provides information on identification of INFORMS, how one became aware of the service, personal promotion of the service and reasons for not utilizing it. The questionnaire should be administered by mail during the first and last months of a school year to randomly selected educators. Each questionnaire should be accompanied by a standard letter (page V-4). Subjects are to be selected from the Iowa Professional School Employees Data Sheets. Present plans are to administer the instrument on a state-wide basis; however, the questionnaire is appropriate for regional or district use. A variety of statistical comparisons will be made with the data. The DPI INFORMS office staff will perform the analyses.

The Request Assessment questionnaire (page V-7 and V-8) should be administered to each client after a request is completed. Actually, as mentioned in the "Information Packet" section, the questionnaire is included as a packet contents component with all requested information. Information collected consists of INFORMS service utilization frequency, nature of information use, problems and satisfaction with service and usefulness of information or assistance provided. All data will be tabulated and characterized by

DPI office staff members. Each questionnaire is associated with a particular request by recording the appropriate DPI and/or Local number(s) in the upper right-hand corner. These codes should be the same as recorded in the ledgers.

Data on the educational impact of INFORMS can be collected by administering the Impact Assessment questionnaire (page V-10 to V-13) to randomly selected clients by ledger number. Categories of information are results of promotional efforts, personal promotional efforts, changes in levels of knowledge by topic, changes in initiating educational innovations and desirability of INFORMS type service. A standard letter (page V-9) should accompany each questionnaire. The number in the upper right-hand corner of the questionnaire identifies the randomly selected client by DPI ledger number, which is assigned by request arrival sequence. Approximately twenty-five percent of the clients should be selected. No client should be required to complete more than one questionnaire in a twelve month period beginning July 1 each year. Questionnaires will be mailed to and analyzed by DPI INFORMS office staff members.

The INFORMS Field Personnel Report (page V-14 to V-18) is to be completed and forwarded to the DPI office by each field representative or INFORMS representative every three months. Items on the questionnaire relate to the perception of a representative's role, nature and success of promotional activities, nature of client negotiations, preparation for information or assistance presentations, problems along with recommended solutions and proposals and innovations directly attributed to INFORMS service. The DPI office staff members will tabulate and characterize the information.

Acknowledgement:

The authors are indebted to Dr. Sam D. Sieber, Project Director, Evaluation of Pilot State Dissemination Program, for making available the assessment items used to evaluate the three trial projects in Utah, Oregon and South Carolina. Dr. Sieber is a member of the Bureau of Applied Social Research, Columbia University.

The assessment items were used as a guide in instrument construction. None of the items were used as originally worded. However, a number of items were restated to meet the needs of Project INFORMS. The items listed by INFORMS assessment instruments that were modified from Sieber's instruments are as follows:

     A.   INFORMS PROMOTIONAL ASSESSMENT
         Items: 1, 3, 4, 5 and 7

     B.   REQUEST ASSESSMENT
         Items: 3, 4 and 6

     C.   IMPACT ASSESSMENT
         Items: 1a, 1b, 2a, 6 and 9

STATE OF IOWA • DEPARTMENT OF PUBLIC INSTRUCTION

GRIMES STATE OFFICE BUILDING • DES MOINES, IOWA 50319

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iowa
a place to grow

Dear   :

　　　As you may know, the Iowa State Department of Public Instruction
is offering an information and assistance service to educators in Iowa.
It is possible that you have heard of the service as INFORMS which is the
acronym for Iowa Network For Obtaining Resource Materials for Schools.
The service is presently being funded by the U. S. Office of Education.
The purpose of this questionnaire is to assess your familiarity with
the service.

　　　Please do not sign your name on the questionnaire. The responses
will be used for statistical purposes that do not require an association
with your name. All information will remain confidential.

　　　The majority of the questions can be answered by a check mark.
A few minutes should be sufficient time for completing the question-
naire.

　　　Thank you for your cooperation.

Sincerely,

The INFORMS Staff

INFORMS PROMOTIONAL ASSESSMENT

Most Questions Can Be Answered With A Check Mark

1. Have you heard or read about the new information service called INFORMS,
    which seeks to furnish practical information or technical assistance to
    educators upon request?

    _____Yes   (If Yes: Skip to question 3)
    _____No   (If No: Go to question 2)

2a. Today, educators are realizing the value in being aware of educational
    innovations and developments outside their districts. Does someone
    retrieve this kind of information or perform other services for you
    such as identifying a consultant?

    _____Yes   _____No   (If No: Skip to question 8)

  b. Name and position of the individual who performs the majority of the
     duties mentioned in part a.

     Name:_____

     Position:_____

     (Skip to question 8)

3. Is there a representative of this service in your district or area
    (i.e., a Field Agent or INFORMS Information Representative)?

    _____Yes   _____No   _____Don't Know

    If Yes: Would you please list his or her name?

    _____

4. How did you first become aware of the service?
    (Please check as many as apply)

    _____Educational Newsletter
    _____Read an article in the local newspaper
    _____Saw a TV program about it
    _____Read informative sheet contained in packet of requested materials
    _____A State Department of Public Instruction representative spoke
         about it
    _____A local or district representative for information services spoke
         about it
    _____A superintendent informed me
    _____A principal informed me
    _____A teacher informed me
    _____I attended a faculty meeting where the service was mentioned
    _____I attended a special meeting to explain the program
    _____A Field Agent or Information Representative informed me personnally
    _____Do not remember
    _____Other; Specify_____

5. About how long ago did you first hear about the service?

  _____Less than 1 Month   _____13-15 Months
  _____1-3 Months   _____16-18 Months
  _____4-6 Months   _____19-21 Months
  _____7-9 Months   _____22-24 Months
  _____10-12 Months

6. Have you told anyone about the service?

    _____Yes   _____No

  If Yes: The number of each of the following:

    _____Superintendents
    _____Principals
    _____Supervisors
    _____Teachers
    _____Special Service Personnel

7. Have you personally used any of the services of INFORMS?

    _____Yes   _____No

  If No: a. Please check any of the following reasons for not having
        used the service:

      _____Did not have a problem or need that required the
          assistance of the service
      _____Too busy with my regular work
      _____Heard that the service was not very useful
      _____Did not know how to request information or assistance
          through the service
      _____Did not know enough about the service to determine what
          it offered
      _____Other; Specify_____

     b. Do you plan to use the service sometime in the near future?

      _____Yes   _____No   _____Do not know

8a. Your present position:_____

 b. If classroom teacher: What grade level(s) do you teach? _____

 c. If classroom teacher or principal: Approximate number of students in
   the school district:_____
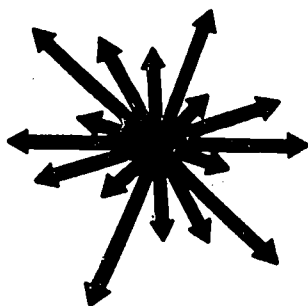
INFORMS

DPI NO. |___|___|___|___|___|___|___|

LOCAL NO. |___|___|___|___|___|___|

REQUEST ASSESSMENT

IOWA NETWORK FOR OBTAINING RESOURCE MATERIALS FOR SCHOOLS
Department of Public Instruction
Educational Media Section
Grimes State Office Building
Des Moines, Iowa   50319

1a. How many times have you requested information and technical assistance
from INFORMS? _____ (Include present request)

b. Length of time between this request and the last request.
(If first request, leave blank)

_____ Less than one month   _____ 13-15 months
_____ 1-3 months   _____ 16-18 months
_____ 4-6 months   _____ 19-21 months
_____ 7-9 months   _____ 22-24 months
_____ 10-12 months

2. At what level of planning will the information or assistance
from this request be utilized?

_____ To alleviate needs immediately
_____ To plan for next year
_____ To develop intermediate plans (2-4 years)
_____ To develop long range plans (5-10 years)

3. Problems in making request, if any: (If additional space is needed,
use the back side)

4a. After you defined the need to the INFORMS representative, about
how long did it take for you to receive information or technical
assistance?

_____ days or   _____ the same day
(No.)

b. In terms of your needs, would you say that this was:

_____ too long   _____ a reasonable length of time

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5. Based on the initial information or technical assistance received
    for this request, did you make another request on the same topic
    by returning the Retrieval Request form?

    _____ Yes   _____ No

    If Yes: a. Check reason for making another request

                     _____ Desired information listed in abstracts,
                             citations or bibliographies
                     _____ Information received from the initial request
                             was inappropriate
                     _____ Desired more specific information

             b. About how many days did it take to receive a response
                 to the second request?

                     _____ days or   _____ the same day
                      (No.)

    If No: c. Check the reason for not making another request

                     _____ Information received from initial request
                             was sufficient
                     _____ Decision to not make a second request was not
                             related to the degree of satisfaction with the
                             initial request information
                     _____ It would be a waste of time to make a second
                             request since information from the initial
                             request was inappropriate
                     _____ No information could be identified for the
                             initial request

6. Indicate the amount of time an information service representative spent
    with you:

        a. in trying to understand or specify your need or problem
            before requesting information   _____ hour   _____ minute

        b. in helping you interpret or use the information after it was
            received   _____ hour   _____ minute

Dear   :

Recently you were given information or technical assistance as part of a new information and assistance dissemination project called INFORMS. Since this is an experimental service, we would appreciate learning about your experience with it, how the service has influenced you and your opinions of it. The information will assist us in improving the service. The changes in your educational operations and your satisfaction with our service will influence the probability of continuing support for INFORMS.

We are not interested in identifying responses by name so please do not sign the evaluation form. The respondent will remain anonymous as the data is processed. However, we will utilize the number on the first page of the questionnaire in efforts to seek return of all evaluation forms.

The questionnaire is structured to require less than ten minutes to complete.

Sincerely,

The INFORMS Staff

IMPACT ASSESSMENT

1a. Prior to receiving information or technical assistance from the retrieval and dissemination service called INFORMS, had you heard or read anything about the new information service?

    _____Yes   _____No

b. How did you first become aware of the service?
(Please check as many as apply)

    _____Educational Newsletter
    _____Read an article in the local newspaper
    _____Saw a TV program about it
    _____Read informative sheet contained in packet of requested materials
    _____A State Department of Public Instruction representative spoke about it
    _____A local or district representative for information services spoke about it
    _____A superintendent informed me
    _____A principal informed me
    _____A teacher informed me
    _____I attended a faculty meeting where the service was mentioned
    _____I attended a special meeting in my school or district to explain the program
    _____A Field Agent or Information Representative informed me personally
    _____Other; Specify_____

c. Length of time between first becoming aware of the service and utilizing it.

_____Less than one month	_____13-15 months
_____1-3 months	_____16-18 months
_____4-6 months	_____19-21 months
_____7-9 months	_____22-24 months
_____10-12 months	

2. If you received printed information or technical assistance, answer question 2; otherwise skip to question 4.

a. Did you talk about any of the contents or advice with anyone other than the information service representative?

_____Yes   _____No   (If No: Skip to question 3)

If Yes: Number of Individuals_____

b. Why did you discuss the contents or advice with someone else? (Check as many as apply)

_____To understand the information, interpreting its meaning
_____To evaluate the information, judging its worth or reliability
_____To determine the relevance of the information to my situation
_____To decide how to apply the information
_____To use the information on my work
_____To disseminate the information to the other individual; Number of Individuals_____

c. Estimate the number of individuals you disseminate information to that you anticipate will actually utilize the information. _____

3. List the topic described or mentioned in the information or technical assistance provided by the retrieval and dissemination service called INFORMS. Then rate your level of knowledge before (b) and after (a) receiving assistance on a "0" to "4" scale with "0" representing no knowledge and "4" a substantial understanding.

	No knowledge				Substantial knowledge
	b			a	
Example: Open Classroom	0	1	2	3	4
1. _____	0	1	2	3	4
2. _____	0	1	2	3	4
3. _____	0	1	2	3	4

4a. How many attempts did you make to identify, analyze, or evaluate educational innovations during the 12 month period preceding your awareness of the services provided by INFORMS?

_____Estimated Attempts or _____Unknown
(No.)

b. How many attempts have you made to identify, analyze, or evaluate educational innovations since becoming aware of the services provided by INFORMS?

_____Estimated Attempts or _____Unknown
(No.)

c. How many of the attempts (Part b) involved information or technical assistance provided by INFORMS?

_____Estimated Attempts or _____Unknown
(No.)

5a. How many times did you adapt or adopt research and development ideas during the 12 month period preceding your awareness of the services provided by INFORMS?

_____Estimated Times or _____Unknown
(No.)

b. How many times have you adapted or adopted or intend to adapt or adopt research and development ideas since becoming aware of services provided by INFORMS?

_____Estimated Times or _____Unknown
(No.)

c. How many times were or will information or technical assistance provided by INFORMS be involved?

_____Estimated Times or _____Unknown
(No.)

6. Overall, would you say the information service is valuable to educators?

_____Yes   _____No   _____Don't Know

7. Do you think the information service called INFORMS should be continued by local funding after federal funding stops?

_____Yes   _____No   _____Don't Know

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8. Do you plan to continue using this service?

_____Yes   _____No   _____Don't Know

9. Would you recommend this service to other educators?

_____Yes   _____No   _____Don't Know

10. How many times have you requested information and technical assistance from INFORMS? _____

11a. Your present position:_____

b. If classroom teacher: What grade level(s) do you teach? _____

c. If classroom teacher or principal:
   Approximate number of students in your school district:_____

INFORMS FIELD PERSONNEL REPORT

1. Check the operations or duties you believe a field agent or INFORMS
representative should perform and those actually performed by you.

Should Perform	Do Perform	
_____	_____	Diagnose problems
_____	_____	Perform needs assessment
_____	_____	Determine cause(s) of performance problems
_____	_____	Generate alternative solutions to problems
_____	_____	Choose a solution to a problem
_____	_____	Accept problems stated by clients without viewing situations
_____	_____	Identify information for clients
_____	_____	Assist client in interpreting retrieved materials
_____	_____	Initiator of change
_____	_____	Change attitudes toward change
_____	_____	Disseminate materials to make educators aware of problems you know exist
_____	_____	Disseminate information upon request
_____	_____	Give technical assistance upon request
_____	_____	Notify educators of problems and needs you identify in their schools

2. The role of a field agent or INFORMS representative may vary from one
location to another. Regardless of the nature of your role, answer
each of the following items. If an item refers to a role you do not
perform, answer according to the reaction you would predict from
performing the operation.

   a. Rate the acceptance of you as a disseminator of knowledge by other
   educators. (Circle the number)

	Not Accepted	Not Accepted with Reservations	Neutral	Accepted with Reservations	Accepted without Reservations
Superintendents	1	2	3	4	5
Principals	1	2	3	4	5
Classroom Teachers	1	2	3	4	5
Special Service Personnel	1	2	3	4	5

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b. Rate the acceptance of you as an educational analyzer or diagnostician by other educators.

Superintendents   1 2 3 4 5
Principals   1 2 3 4 5
Classroom Teachers   1 2 3 4 5
Special Service Personnel 1 2 3 4 5

c. Rate the acceptance of you as a change agent by other educators.

Superintendents   1 2 3 4 5
Principals   1 2 3 4 5
Classroom Teachers   1 2 3 4 5
Special Service Personnel 1 2 3 4 5

3. List the number of times each of the following different modes were used to advertise INFORMS.

_____Personally explained to an educator
_____Personally explained to a group of educators
_____Sent letters to explain the services
_____Disseminated bulletin board type information by leaflets
_____Advertised in school newsletter or bulletin

4. List the number of personal contacts made with each of the following sized groups. Then rate the success in explaining the services of INFORMS to each size group.

	Very Unsuccessful	Moderately Unsuccessful	Neutral	Moderately Successful	Very Successful
_____One Individual	1	2	3	4	5
_____2-10 Individuals	1	2	3	4	5
_____11-20 Individuals	1	2	3	4	5
_____21-30 Individuals	1	2	3	4	5
_____31-50 Individuals	1	2	3	4	5
_____51-100 Individuals	1	2	3	4	5
_____Over 100 Individuals	1	2	3	4	5

5. Which of the following factors are emphasized when explaining the services provided by INFORMS?   (May check more than one)

_____Usefulness of in-depth diagnosis of problems
_____Need for change in education
_____Kinds of information and technical assistance provided
_____Procedures for requesting services
_____Procedures for performing needs assessment
_____How to identify problems
_____Lag in time between discovery and utilization of new knowledge

6a. Do you have sufficient time to solicit requests?

_____Yes   _____No   (If No: answer 6b)

b. List cause(s) of solicitation time limitations:

7. Rate each group according to your sense of being at ease when working with them.   (Check one for each group)

	Normal Relaxation	Moderately Tense	Very Tense
Superintendents	_____	_____	_____
Principals	_____	_____	_____
Classroom Teachers	_____	_____	_____
Special Service Personnel	_____	_____	_____

8a. Do you have sufficient time to acquaint yourself with packet contents before presenting the information to a client?

_____Yes   _____No   (If No: answer 8b)

b. List cause(s) of time limitations:

9. Check the operations you perform before presenting the packet contents to a client.

_____Read the information
_____Write summaries of research reports to assist in their interpretation
_____Check for presence of all packet contents
_____Order the information according to importance
_____Determine limitations of contents information
_____Arrange for meeting with client
_____Identify the "best" solution to the problem
_____Other; Specify_____

10. Check the operations you perform during the presentation of the packet contents to a client.

_____State the negotiated problem
_____Describe the order of the packet contents
_____Describe limitations of the information
_____Explain procedures for obtaining additional services
_____Volunteer to assist in implementing innovation(s)
_____Explain the solution the client should select
_____Give the packet contents to the client without an explanation
_____Other; Specify_____

11. List situations that arose in which the INFORMS Activities Manual was incomplete relative to providing guidance. (Use back side if additional space is needed)

a.

b.

c.

12. Have you developed strategies for the operations of a field agent or INFORMS representative in addition to those specified in the INFORMS Activities Manual.

_____Yes   _____No

If Yes: List the strategies you would like to share with other INFORMS members.

a.

b.

c.

13. List problem areas of operations between the Department of Public Instruction INFORMS office staff and field agents or INFORMS representatives and recommend ways to improve the cooperative efforts.

a.

b.

c.

14. List problems you have in performing your duties that have not already been listed in a different questionnaire item.

    a.

    b.

    c.

15. State the number of proposals that you assisted in writing by providing information or technical assistance as an INFORMS service. _____

16. Describe innovations by title, innovator's name, and school that you assisted in implementing by providing information or technical assistance as an INFORMS service.

    a.

    b.

    c.