

DOCUMENT RESUME

ED 100 382

IR 001 482

TITLE ERIC Literature Search on Needs Assessment.  
INSTITUTION Merrimack Education Center, Chelmsford, Mass.  
PUB DATE 74  
NOTE 20p.

EDRS PRICE MF-\$0.75 HC-\$1.50 PLUS POSTAGE  
DESCRIPTORS Abstracts; \*Annotated Bibliographies; \*Computer Programs; Educational Innovation; \*Educational Needs; Educational Planning; Educational Research; \*Educational Resources; Information Retrieval; \*Search Strategies

IDENTIFIERS \*Educational Resources Information Center; ERIC; National Center for Educational Communication; Query

ABSTRACT

A search of ERIC literature was undertaken in order to assess research on educational needs. A set of ERIC descriptors was selected, and criteria for evaluation of each abstract established. Approximately 1800 abstracts were retrieved; 150 survived the first screening and 75 the second. Priorities were then assigned to decide which documents should be retrieved. A list of the priority documents is appended with a matrix of their contents and value. (SK)

ERIC LITERATURE SEARCH  
ON NEEDS ASSESSMENT\*

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Educational information systems have been of great assistance both in improving the quality of service and in saving valuable time which otherwise would have to be spent at research. Educational Resources Information Center (commonly known as ERIC) is invaluable in attempting to grasp the present state of any question in educational research - especially for the following research on needs assessment.

Through Dr. Lee G. Burchinal and Dr. James Eller of the National Center for Educational Communication in Washington, QUERY - the computerized ERIC data base - has been installed at the Mitre Corporation for dissemination by the Merrimack Education Center. In addition to being of massive assistance for the research on needs assessment, MEC has also utilized this service in order to disseminate information on bilingual education, individualized instruction and management information systems. This data base also plays a significant role in MEC's projected plans for disseminating information to targets where a felt need has already been ascertained.

Needs Assessment is the most critical area both in educational planning and knowledge utilization. Nevertheless, it is impossible to respond to real needs without adequate information and facilities. The possibilities of ERIC, especially with its QUERY data base, present great hope of meeting this need.

\*Adapted from the report of the Massachusetts Needs Assessment Task Force

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# ERIC LITERATURE SEARCH ON NEEDS ASSESSMENT

## PROCEDURE AND CRITERIA

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In initiating an ERIC search pertaining to needs assessment, it first was necessary to arrive at a set of descriptors in order to limit the search. There was no descriptor labelled "need assessment." As a result, this concept was translated into other terms such as "educational needs," "educational planning," "educational change," "educational innovation," and "school planning." Planning-Programming-Budgeting Systems (PPBS), although related to the overall scope of the project, was de-emphasized because its primary focus is not on needs assessment and because the Task Force is familiar with this particular management tool.

After selection of the descriptors, MEC conducted a trial manual search through the 1970 issues of Research and Education, the periodical which contains information on the literature deposited in the ERIC data base. EDCO conducted another trial search, using the on-line DIALOGUE retrieval capability, which provided additional insights on search strategy. This capability was made available to the Task Force through the National Center for Educational Communication, USOE.

The results of the trial searches convinced the Task Force that it was worth the investment to conduct a computer-aided off-line QUERY search from the beginning of ERIC (1966) through 1970. This search was conducted by MITRE and MEC without cost to the project because a computerized copy of the ERIC data base and the QUERY retrieval capability were made available to MEC and installed at MITRE's Computer Facility. Installation and checkout were borne by the USOE and MEC.

At the conclusion of the QUERY search, information had been retrieved on approximately 1800 abstracts which appeared to be of relevance to the project. The next step was to reduce this enormous number of abstracts to a reasonable size. Thus, the Task Force established a set of criteria and evaluated each abstract in terms of its ability to meet one or more of the following:

- (1) indications that the scope of the needs assessment approach documented was broad enough to cover various types of problems;
- (2) indications that the focus of the need assessment approach being reported had a focus that centered on improving the quality of educational services delivered;
- (3) indications that the needs assessment approach reflected a high degree of validity and precision, and that it was sufficiently objective to allow valid data analysis;
- (4) indications that the approach used in the study would be useful in setting priorities and in improving the rationale for decisions made in regard to resource allocation and planning;
- (5) indications that the approach was extensive enough to accommodate different points of view;
- (6) indications that the approach being reported would reinforce previously implemented needs assessment exercises;
- (7) indications that the approach would be useful in the identification of emerging future needs;
- (8) indications that the approach was linked to a design and/or to a process of planned change;
- (9) indications that the length of time it took to develop and implement the approach was reasonable in terms of the results achieved; and
- (10) indications that the costs associated with developing and implementing the approach were reasonable in terms of the results achieved.

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Approximately 150 abstracts survived this screening. After some discussion, the members of the team developed an even greater familiarity with the task, and reduced the number to 75. These were next placed into one of three categories of priority for action.

### Priority 1

Retrieve document; abstract indicates that study reported is incisive in its discussion of needs assessment and/or planning, and/or describes an apparently feasible needs assessment technique.

### Priority 2

Do not retrieve document; abstract indicates study reported has some attributes as those in above category, but the techniques are already well understood or sufficiently described in the abstract.

### Priority 3

Defer retrieval of document; abstract indicates that study relates to special interests in needs assessment but is not of immediate value.

Microfiche films for the first category were obtained, enlarged into hard copy and analyzed. The titles which were assigned either a Priority 2 or a Priority 3 rating are attached.

In conclusion, the Task Force considered the search worth the effort. However, the exercises revealed a number of insights which would make future searches less laborious and more cost-effective. For instance, more relevant descriptors (needs assessment) would have facilitated search effectiveness. With the exception of simulation (the relevant articles here were also listed under "educational planning"), techniques applicable to needs assessment were not among the descriptors. Also, reorganization of the ERIC data base and modifications to the QUERY program and user manual would cut retrieval time and costs.

Upon final reflection, the search could have been initially limited to three descriptors: educational needs, educational innovation, and educational planning. This would have yielded at least 1500 documents. The contents of many of the abstracts were not pertinent to the task while others lacked the necessary quality to be utilized in this study. Future improvements in data quality and in retrieval system design, some of which are being considered by USOE, would certainly facilitate the search task and significantly lower the cost.

PRIORITY DOCUMENTS PERTAINING TO NEEDS  
ASSESSMENT IN THE ERIC DATA BASE

BEST COPY AVAILABLE

- ED 011761 Looking Ahead to Better Education in Missouri. A report on organization, structure and financing of schools and junior colleges.
- ED 014360 Planning At The Grass Roots.
- ED 014662 Experimental Explorations in Programmed Instruction and Objective Testing Measures. Report of the "Variables Influencing Behavior."
- ED 017685 Curricula Needs of North Bay Schools.
- ED 018008 Cooperative Planning for Education in 1980 -- Objectives, Procedures, and Priorities.
- ED 018325 Planning for Educational Innovation in a Rural State.
- ED 018509 A Survey of the Educational Needs of Santa Clara County.
- ED 018865 Long Range Planning for Public Schools. Presenting an Outline to Indicate Scope of Long Range Development Program.
- ED 019737 Planning and Implementing Change in Ontario Schools. A report of the committee on the implementation of change in the classroom.
- ED 020571 An Analysis of the Rationale and Procedures for Long-Range Planning -- Found in Selected Govt. Enterprises, Govt. Agencies or Dept. and School Systems -- Which are Appropriate for Educ. and Adm. Planning in Local Sch. Sys.
- ED 021338 Cooperative Project for Educational Development.
- ED 026741 From Research to Development to Use.
- ED 027394 A Study to Identify Educational Needs of Non-College Bound Students in a Rural Public High School of Six Hundred Students.
- ED 027633 An Operational Application of the Stufflebeam-Guba Cipp Model for Evaluation.
- ED 028113 The Center for Study of Educational Innovations. A statement of intent. Current and future projects.
- ED 029382 The Use of Computer Simulation Techniques in Educational Planning.

- ED 030985 Identifying and Formulating Educational Problems.
- ED 036018 Selected Bibliography on Mathematics for the Blind.
- ED 038743 Brainstorm. A sub-project assessing ed. needs as perceived by school staff. Interagency planning for urban ed. needs.
- ED 038744 Speak-Up. A sub-project assessing ed. needs as perceived by the Community. Project design. Interagency planning for urban ed. needs.
- ED 038745 Student "Speak-Up." A sub-project assessing educational needs as perceived by secondary students. Project design. Interagency planning for urban ed. needs.
- ED 038747 Analysis of Achievement. Project design. Interagency planning for urban ed. needs.
- ED 038748 Problems Perceived by Ed. Leadership. Project design. Interagency planning for urban ed. needs.
- ED 038767 Conclusions from Needs Assessment Publications. Project design. Interagency planning for urban ed. needs.
- ED 038768 Summary Fresno Ed. Needs Assessment. Project design. Interagency planning for urban ed. needs.
- ED 038769 The Process of Ed. Planning. Project design. Interagency planning for urban ed. needs.
- ED 038740 The First Step in Ed. Problem Solving -- A Systematic Assessment of Student Benefits.
- ED 039631 Determining Ed. Needs. An Overview.
- ED 039749 Systems Analysis in Ed.
- ED 041351 Citizens for the 21st Century. Long-range considerations for California Elementary and Secondary Education.
- ED 041357 A Survey of the Decision Processes and Related Informational Requirements for Educational Requirements for Educational Planning and Innovation.
- ED 041389 Comprehensive Planning for School Districts.

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**MATRIX  
OF  
PRIORITY DOCUMENTS**

EPIC Retrieval No.	Objectives	Focus	Means of Collecting Data	Implemented?		Needs Identified
				Yes	No	
ED 011 761	Determine SEA Needs	Assessment of Current Practices	<ul style="list-style-type: none"> <li>Interaction of Task Force of National Educators Interviews Conferences</li> </ul>	X		<ul style="list-style-type: none"> <li>Reorganized/Expand Role of SEA</li> <li>Statutory Changes</li> <li>Increased Budget</li> <li>Statewide Achievement Testing</li> </ul>
ED 014 360	Determine Where Focus of Planning Initiative Should Be	Assessment of Local, Regional & National Involvement in Planning	<ul style="list-style-type: none"> <li>Analysis of Existing Documentation</li> </ul>		X	<ul style="list-style-type: none"> <li>Planning Process Based on Local, Regional and National Participation</li> </ul>
ED 014 662	Investigate, Analyze and Experiment with Methods and Tools for Studying Impact of Future Trends in Education	<ul style="list-style-type: none"> <li>Determination of "Wants" of Selected Groups</li> <li>Determination of Future Roles for Educators</li> </ul>	<ul style="list-style-type: none"> <li>Survey of Current Forecasting Methods</li> <li>Contextual Mapping</li> <li>Survey of Mathematical Models for Planning</li> </ul>		X	<ul style="list-style-type: none"> <li>Philosophy to Guide Policy and Planning Decisions</li> <li>Establishment of Educational Policy Research Centers</li> </ul>
ED 017 685	<ul style="list-style-type: none"> <li>Assess Curricular Objectives</li> <li>Determine Curricular Needs of 4 Calif. Counties</li> </ul>	<ul style="list-style-type: none"> <li>Development of Priorities for Program Development</li> </ul>	<ul style="list-style-type: none"> <li>Questionnaires to 90 School Administrators</li> </ul>		X	<ul style="list-style-type: none"> <li>Increased Emphasis on Affective Learning</li> <li>Expansion of Vocational Training, Social Studies, Home Economics</li> <li>Increased Emphasis on Synthesizing and Evaluating Knowledge</li> </ul>

EPIC Retrieval No.	Objectives	Focus	Means Collecting Data	Imple-mented?		Needs Identified
				Yes	No	
EE 018 008	Characterize Trends that may Shape Emerging (through 1980) Educational Needs	<ul style="list-style-type: none"> <li>Improvement of Long-Range Planning for Education</li> </ul>	<ul style="list-style-type: none"> <li>Analysis of Current/Future Trends</li> </ul>		X	<ul style="list-style-type: none"> <li>Improved/Cooperative Planning</li> <li>Structuring Productive Context</li> <li>Better Planning Data</li> <li>Better, More Alternatives</li> <li>Earlier "Sensitivity" to Anticipated Change</li> <li>Instill Awareness of Need for Planned Change</li> </ul>
ED 018 325	Conduct Inventory of Innovative Practices	<ul style="list-style-type: none"> <li>Non-Disruptive Introduction of Innovative Practices in Vermont</li> </ul>	<ul style="list-style-type: none"> <li>On-Site Visits</li> <li>Workshops</li> </ul>		X	<ul style="list-style-type: none"> <li>Regional "Action" Centers</li> <li>Conferences and Classroom Demonstrations to Disseminate Innovations</li> </ul>
ED 018 509	Re-examine, Assess Curricular Objectives	<ul style="list-style-type: none"> <li>Determination of Educational Needs in one Calif. district as a Basis for Assigning Priorities to Changes in School Programs.</li> </ul>	<ul style="list-style-type: none"> <li>Questionnaires Completed by 4000 Students, 1600 Teachers, 850 Parents</li> </ul>		X	<p><u>Programs</u></p> <ul style="list-style-type: none"> <li>Drug Education</li> <li>Family Life</li> <li>Vocational Training</li> <li>Communication Skills</li> <li>Problem-Solving, etc.</li> </ul>

ERIC Retrieval No.	Objective	Focus	Means of Collecting Data	Implemented?		Needs Identified
				Yes	No	
ED 026 741	Increase Innovative Activity	<ul style="list-style-type: none"> <li>Survey of Schools with Outstanding Innovations to Determine Problems in Research-to-Development-to-Use Process</li> </ul>	<ul style="list-style-type: none"> <li>Traveling Seminar of 120 Educators</li> <li>Conference</li> <li>Research</li> </ul>	X		<ul style="list-style-type: none"> <li>Better Measures for Evaluating Innovative Practices</li> <li>More Federal Funding to Support Implementation</li> <li>Better Dissemination Instruments, etc.</li> </ul>
ED 027 294	Assess Needs of Non-College Bound Students	Vocational Education	<ul style="list-style-type: none"> <li>Questionnaires to               <ul style="list-style-type: none"> <li>President Students</li> <li>Graduates</li> <li>Community</li> </ul> </li> </ul>	X		<ul style="list-style-type: none"> <li>In-Service Counseling</li> <li>Lay Advisory Committee</li> <li>Expanded Guidance</li> <li>Curricula and Instructional Innovations, etc.</li> </ul>
ED 027 633	Develop Systematic Procedures to Determine the Potential Value of a Proposed Innovation	Four of the Categories in Which Decisions are Made: Context Process Design Product	Exercise Theoretical Model (Theoretical Study Only)		X	Better Information for Model
ED 028 113	Improve Process of Innovative Development	University Center for a Study of Educational Innovations	Research Analysis (Theoretical Study Only)		X	Coordinated Central Focal Point for Systematic Improvement of Process

EPIC Retrieval No.	Objective	Focus	Means of Collecting Data	Implemented?		Needs Identified
				Yes	No	
ED 018 865	<ul style="list-style-type: none"> <li>Characterization of Current Environment (Community, School)</li> </ul>	Implement Improved Long-Range Planning Activities	Analysis		X	Guidelines Matrix for Planners
ED 019 737	Adoption of Innovative Practices for Program Development	Development of Model of Planned Change for Curricula	<ul style="list-style-type: none"> <li>Observation</li> <li>Exercise of Planned Change Model</li> </ul>		X	<ul style="list-style-type: none"> <li>Initiation of Continuous Progress Plan</li> <li>Team Teaching at Secondary Level</li> </ul>
ED 020 571	Inventory of Current Practices	Long-Range Planning	<ul style="list-style-type: none"> <li>Questionnaires</li> <li>Interviews</li> </ul>		X	<ul style="list-style-type: none"> <li>Systematic Long-Range Planning Process</li> <li>Dissemination of Planning Skills, Techniques to Educational Administrators</li> </ul>
ED 021 338	<ul style="list-style-type: none"> <li>"Sense" Existing Organizational Climate</li> <li>Show Schools Ways of Self-Renewal</li> </ul>	<ul style="list-style-type: none"> <li>Development of Alternative Strategies for Planned Change</li> </ul>	<ul style="list-style-type: none"> <li>Questionnaires</li> <li>Case Studies</li> </ul>		X	<ul style="list-style-type: none"> <li>Formulate Set of Variables Relevant to Operation of School System</li> <li>Develop Measurement Instruments</li> <li>Effective Use of Outside Consultants</li> </ul>

ERIC Retrieval No.	Objectives	Focus	Means of Collecting Data	Implemented?		Needs Identified
				Yes	No	
ED 029 382	Establish Goals, Guidelines and Constraints for Educational Planning	Use of Computer-Based Simulation Models in Educational Planning	Exercise Model (Theoretical Study Only)		X	Development of two Models Applicable to Computer Simulation <ul style="list-style-type: none"> <li>° Descriptive</li> <li>° Normative</li> </ul>
ED 030 985	Development of Effective Techniques for Identifying Educational Needs and Formulating Them into Well-Defined Problem Statements	Representative Sample of West Coast School Districts	Critical Incident Technique		X	Participation of Trained/Experienced Leaders in Group Problem-Finding Exercises
ED 036 018	Stimulate Community Participation in Planning a New School	Provide Basic Inputs for Design of an Urban School Facility	Face-to-Face Meetings of: School Staff Community Architects		X	<ul style="list-style-type: none"> <li>° Curriculum Innovation</li> <li>° Improved Guidance in Education</li> <li>° Community Service Coordination</li> <li>° 24-hour Educational Community</li> </ul>

EPIC Retrieval No.	Objective	Focus	Means Collecting Data	Imple-mented?		Needs Identified
				Yes	No	
ED 038 -743 -744 -745 -747 -748 -757 -768 -769	Determine Dimensions of Educational Needs in Fresno, Calif.	<ul style="list-style-type: none"> <li>◦ Curriculum</li> <li>◦ Health Problems</li> <li>◦ In-Service Training, etc.</li> </ul>	<ul style="list-style-type: none"> <li>◦ Brainstorming</li> <li>◦ "Speak-Ups"</li> <li>◦ Interviews</li> <li>◦ Testing (to Analyze Student Achievement)</li> <li>◦ Interagency Participation</li> </ul>	X		<ul style="list-style-type: none"> <li>◦ Ethnic Minority Needs</li> <li>◦ Communication Needs</li> <li>◦ Program Objective Needs</li> <li>◦ Evaluation Measures</li> <li>◦ In-Service Training</li> <li>◦ Curriculum Level</li> <li>◦ Vocational Education</li> <li>◦ Adult Education, etc.</li> </ul>
ED 039 749	Improve Quality of Educational Services	Teacher/Student Agreement on Learning Objectives	<ul style="list-style-type: none"> <li>◦ Research</li> <li>◦ Analysis</li> <li>◦ Observation</li> </ul>		X	Improved Information for Decision Making
ED 039 631	Clarification of "Semantic Smoke" Clouding Definition of Educational Need	Formal, Systematic Process	<ul style="list-style-type: none"> <li>◦ Research</li> <li>◦ Analysis</li> </ul>		X	<ul style="list-style-type: none"> <li>◦ Models for Clarifying Needs</li> <li>◦ Hard Data</li> </ul>
ED 039 749	Use of General Systems Theory in Problem-Solving	Comparison of Computer Systems Attributes to School System Attributes	Simulation Model (Theoretical)		X	Improvement of Schools' Production "Subsystems" via Curriculum Innovation

ERIC Retrieval No.	Objective	Focus	Means of Collecting Data	Imple- mented?		Needs Identified
				Yes	No	
ED 041 351	Formulation of Recommendation to California State Govern- ment	Future Educational Needs	<ul style="list-style-type: none"> <li>° Task Force (24 Local Professors) Interactions on Trends, Projections, etc.</li> <li>° Study of Public Opinion</li> </ul>	X		<ul style="list-style-type: none"> <li>° Racial Integra- tion</li> <li>° Teacher Training</li> <li>° Experimental Laboratory Schools</li> <li>° Budgeting Techniques</li> <li>° Improved Public Opinion</li> <li>° Curriculum</li> </ul>
ED 041 357	Determine Processes of Information Utilization and Decision Making	LEA (San Francisco)	Questionnaires	X		<ul style="list-style-type: none"> <li>° Better Inter- pretation of Statistical Data</li> <li>° Understanding Procedures for Using Informa- tion Systems</li> <li>° Low Profile of Teacher Participation in Decision Making</li> <li>° Lack of Time to Study Problems, Etc.</li> </ul>
ED 041 389	Use of Cost/ Benefit Analysis in Planning	Assignments of Weights/ Priorities to Needs	Analysis (Theoretical)	X		Improve Relation- ship of Inputs (Needs) to Out- puts (Results)

PRIORITY 2 AND PRIORITY 3 DOCUMENTS

CATEGORY 2

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Philip I. Coombs,  
"Educational Planning, A Directory of Training and Research  
Institutions"  
International Institute for Educational Planning, Paris,  
France, 1964. ED 011244

Philip H. Coombs,  
"Educational Planning - An Inventory of Major Research Needs;"  
International Institute for Educational Planning, Paris,  
France, 1965. ED 015136

Robert E. Corrigan,  
"Methods-Means Selection: An Inquiry/Decision-Making Process  
Approach;"  
Paper presented at Planning Conference, California Polytechnic,  
Los Angeles, 1969. ED 037817

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"Saint Paul - A Center for Learning;"  
Harvard University, Cambridge, Massachusetts, 1967. ED 021424

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"Inventing Education for the Future;"  
Science Research Associates, Inc.,  
Chicago, Illinois, 1969. ED 021450

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"Can the Behavioral Sciences Assist Planning." An Address to the  
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Ann Arbor, Michigan,  
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"Systems Analysis and Its Relationship to Educational Planning;"  
Paper presented at Western Canada Administrators Conference,  
Banff, Alberta, October 9-11, 1969. ED 036895

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Research on the Characteristics of Selected School Systems as they  
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Arthur D. Little, Inc., 1968. ED 022262

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"A Diagnostic Procedural Model for Identifying Real Educational  
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"Needs--of People and Their Communities--and the Adult Educator:  
A Review of the Literature of Need Determination:"  
New York Syracuse University, July 1970. ED 038551

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Regional Conference on Education, Training and Employment;"  
Great Cities Program for School Improvement, Chicago, Illinois,  
1966. ED 019443

Helen R. Burchell, William B. Castetter,  
"Educational Administration and the Improvement of Instruction;"  
Pennsylvania University, Philadelphia, Pennsylvania, 1967. ED 020576

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Project Selection, and Program Management;"  
Ohio State University, Columbus, Ohio, 1966. ED 020580

Desmond L. Cook,  
"Better Project Planning and Control Through the Use of System  
Analysis and Management Techniques;" District of Columbia, 1967.  
ED 019729

Desmond L. Cook,  
"PERT Applications In Educational Planning;"  
Ohio State University, Columbus, Ohio, 1966. ED 019751

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"The Administrative Team and Long-Range Planning;"  
Georgia University, Athens, Georgia, 1967. ED 019736

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"Evaluation and Change in Education;"  
National Institute for the Study of Educational Change, Bloomington,  
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