DOCUMENT RESUME

ED 405 844 IR 018 291

| | |
|---|---|
| TITLE | Information Dissemination in Action. |
| INSTITUTION | ACCESS ERIC, Rockville, MD. |
| SPONS AGENCY | Office of Educational Research and Improvement (ED), Washington, DC. |
| REPORT NO | ISSN-1065-1160; NLE-97-2518 |
| PUB DATE | 96 |
| NOTE | 60p. |
| AVAILABLE FROM | ACCESS ERIC, 1600 Research Boulevard, Rockville, MD 20850 (subscription is free; obtain back issues form EDRS). |
| PUB TYPE | Collected Works - Serials (022) -- Information Analyses - ERIC Clearinghouse Products (071) |
| JOURNAL CIT | ERIC Review; v5 n1-2 1996 |
| EDRS PRICE | MF01/PC03 Plus Postage. |
| DESCRIPTORS | Access to Information; *Clearinghouses; *Delivery Systems; Diffusion (Communication); *Education; Education Service Centers; Futures (of Society); *Information Dissemination; *Information Industry; Information Networks; Information Transfer; Information Utilization; Reference Services; Users (Information) |
| IDENTIFIERS | Department of Education; *ERIC; National Library of Education DC; Organizational History |

ABSTRACT

The "ERIC Review" announces research results, publications, and new programs relevant to each issue's theme topic. This double issue commemorates ERIC's 30th anniversary and focuses on the dissemination and use of education information. The issue includes "A Quick Guide To ERIC" (Lynn Smarte)--a reproducible training guide for learning how to use ERIC, descriptions of the products and services available from the various components of the ERIC system, and a detachable bookmark and phone directory cards. The first article, "Issues in Dissemination: An ERIC Perspective" (Lilian G. Katz and Dianne Rothenberg), looks at the dissemination of ERIC information, including issues of optimum amount of information, optimum information redundancy, optimum conceptual size, vividness effect in presentation medium, propitiousness, and users' orientations to knowledge. Additional articles include: "What Is an Information Clearinghouse?" (Dianne Rothenberg); "What Is Teacher Research" (excerpted from an ERIC Digest by Ismat Abdal-Haqq); "Dissemination Under Renovation" (Cynthia Hearn Dorfman); "The National Education Dissemination System" (Robert Stonehill); "ERIC Highlights and Future Directions" (from the "ERIC Annual Report 1996"); "Great Moments in ERIC History"--an ERIC timeline; and "NLE: ERIC's Institutional Home"--about the National Library of Education. (SWC)

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ED 405 844

# THE ERIC

Volume 5 • Numbers 1 and 2 • 1996

# Information Dissemination in Action

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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- Issues in Dissemination: An ERIC Perspective
- Specialty Reproducibles
- Quick Guide to ERIC

CELEBRATING 30 YEARS

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# An Important Message to Our Readers

This special double issue of *The ERIC Review* commemorates the 30th anniversary of the Educational Resources Information Center. In addition to substantive pieces on the dissemination and use of education information, the issue includes reproducible training materials, descriptions of the products and services available from the various components of the ERIC system, and a detachable bookmark and phone directory cards. We hope you'll find this issue an interesting and helpful reference.

The ERIC system encompasses the world's largest and most frequently used education database and a network of 16 subject-specific clearinghouses and supporting services. ERIC is sponsored by the U.S. Department of Education, Office of Educational Research and Improvement, and administered by the National Library of Education.

The mission of the ERIC system is to improve American education by increasing and facilitating the use of educational research and information on practices in learning, teaching, educational decision making, and research—wherever and whenever these activities take place.

The ERIC audience includes teachers and professors; school and college administrators, counselors, media staff, and support personnel; educational researchers; educational policy makers at every level; students and nonformal learners at every age and level, including adult learners; parents; health and social services personnel and caregivers who support families, parents, students, and children; and the media and the business community as they relate to education.

Among the goals we've set for ourselves by the Year 2000 are:

- Easy, affordable access to ERIC resources from every school, library, household, and point of educational decision making.
- Expansion of ERIC's database and services to make useful information available to all categories of users.
- Expansion of the ERIC information-synthesizing function to include a greater variety of publications and to utilize a greater variety of dissemination methods.
- Delivery of documents in full-text electronic format as well as in microfiche and on paper.
- Further development of ERIC access on the Internet, including virtual libraries and World Wide Web sites.

We invite your suggestions for further strengthening ERIC and its products and services and encourage you to turn to ERIC for help with your education information needs.

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*Director, Educational Resources Information Center*

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Richard W. Riley
*Secretary*

**Office of Educational Research and Improvement**
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*Assistant Secretary*

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Blane Dessy
*Director*

THE ERIC *Educational Resources Information Center*

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ISSN 1065–1160


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The Educational Resources Information Center is a nationwide information service designed to make education literature readily accessible.

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You can access ERIC at more than 1,000 locations around the world. Typically, university, state, and large city public libraries offer access to ERIC through their microfiche collections and online or CD-ROM searches. The ERIC database is also accessible through some computer networks.

In addition, documents selected for the database are abstracted and announced in ERIC's monthly journal, *Resources in Education*. The full text of most documents announced in ERIC is available in microfiche or paper copy from the ERIC Document Reproduction Service, 1–800–443–ERIC. ERIC announces journal literature in a separate monthly publication, *Current Index to Journals in Education*.

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# Issues in Dissemination: An ERIC Perspective

by Lilian G. Katz and Dianne Rothenberg

As we approach the 30th anniversary of the founding of the ERIC system and the 29th anniversary of our clearinghouse (the ERIC Clearinghouse on Elementary and Early Childhood Education at the University of Illinois at Urbana–Champaign), it seems appropriate to examine some of the issues that we face in the dissemination of information in education. In particular, we suggest considering six issues related to the dissemination and adoption of the knowledge now so readily accessible to the hundreds of thousands who use the rapidly growing ERIC database and clearinghouse network. (See Figure 1 on p. 6 for an overview of these issues and their possible implications for ERIC.) Our thoughts about these issues have emerged from extensive experience in dissemination, gained over the last 25 years within the ERIC system.

## Too Much Information: The Optimum Information Hypothesis

West (1981) suggests that the more information that is available to individuals, the more selective they have to be in what they attend to and that the more selective they are, the more likely they are to attend to what is agreeable, compatible, or even identical with what they already hold to be true or right. In other words, the more information that is available, the less likely users are to attend to what is new or what departs from what they already know and accept.

West's suggestion can be stated as the hypothesis that there is an optimum amount of information below and above which new information—in the form of facts, knowledge, concepts, and ideas—is not acquired, adopted, or used. In many cases, the availability of too much or too little information is equally unlikely to advance the acquisition of new ideas. Wilson (1977) has described complex internal decision making based on "information style" in similar terms, suggesting that information systems should aim at achieving *relative satisfaction* (that is, supplying the smallest amount of information on which satisfactory decisions can be made) rather than at providing the greatest possible amount of information.

No doubt individuals' perceptions vary about what constitutes an optimum quantity or rate of information availability. The optimum amount or flow of information for given individuals would be difficult to determine empirically. In some contexts, there may be need for the maximum amount of information. But the optimum information hypothesis and Wilson's work serve to remind us that most of the time we need to inhibit our dissemination impulses and be wary of simply churning out more and more discrete pieces of information. What is likely to be needed is more succinct reporting of new developments and better syntheses of best research and practice, such as ERIC Digests and an upcoming TRIPP (Translating Research into Policy and Practice) series, planned by our clearinghouse, that will report to the field on research related to children and families. (See "What Is an Information Clearinghouse?" on pp. 4 and 5.)

The World Wide Web and electronic communications in general continue to increase the amount of information available to us in our homes and workplaces. We suggest two implications of this development (among many other possibilities) based on what we know about dissemination.

The first implication is that the availability of more information is likely to result in greater selectivity by users and even greater reliance on information systems that systematically select high-quality materials for dissemination. After all, time availability and the human ability to process information have not increased to match the increases in computer storage capacity!

The second implication is that over time, systems will become easier to use in order to better provide the

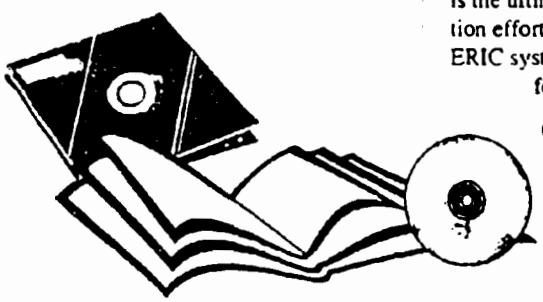
Lilian G. Katz is Director of the ERIC Clearinghouse on Elementary and Early Childhood Education at the University of Illinois. Dianne Rothenberg is Associate Director at the clearinghouse.

information we need to solve problems and choose among options. In the electronic environment, as Marchionini (1992) points out, users do not want to be distracted from their real tasks by having to locate and learn how to use idiosyncratic information resources. During the past few years, the Internet has become easier to use; this user-friendly trend can be expected to continue.

## Repetition: Optimum Redundancy in Information Dissemination

Klapp (1986) points out that the term *redundancy*, though often used to imply criticism, has positive attributes that are not always appreciated. He suggests that there is both "good" and "bad" redundancy (p. 71), and he identifies four functions of good redundancy: continuity, communication, identity, and social resonance. When information is repeated within a message or series of messages that come from several channels or when cues are provided in the context about the source and intention of the message, the message is much less likely to be lost, misunderstood, or forgotten. Redundancy is, in part, a means for testing the reliability of information in a "noisy" environment.

Like Klapp, Lieb-Brilhart (1989) suggests that people acquire information best when it is available redundantly through multiple channels. She points out that when there is knowledge worthy of dissemination, "planned, coordinated redundancy is key to the implementation" (p. 8). However, there is an optimum or appropriate level of redundancy; too little increases the chance that the message will be lost in the larger information environment, and too much increases the chance that so much time will be spent accessing and absorbing the message that it will detract from the energy and time available to implement the action recommended in the message.



## Concepts Too Small or Too Large for Practical Application: Optimum Conceptual Size

Another characteristic that may influence the applicability and adoptability of new knowledge is the "size" of the ideas and concepts being presented. If, for example, we inspect the tables of contents of research journals such as *Child Development*, *Developmental Psychology*, and the *Journal of Educational Psychology*, we are very likely to find that the majority of articles deal with relatively small-scale phenomena or with molecular or even micro-level variables. However, ideas or concepts of that micro-level size are unlikely to stimulate new practices directly, which is the ultimate goal of most dissemination efforts as exemplified by the ERIC system and by publications for practitioners.

> ***"Users do not want to be distracted from their real tasks by having to locate and learn how to use idiosyncratic information resources."***

On the other hand, while large-scale concepts may be useful for structuring and classifying information, many of the concepts and ideas found in the practitioner's literature seem too large to be useful, applicable, or adoptable. What are the practical implications of such statements as "All children are individuals" or "Each child has his or her own learning style"? Should the teacher say "good morning" 25 different ways or use an unlimited number of storytelling strategies? Of course all children are individuals! The assertion is so true that in a sense, it is uninformative. It does not help a practitioner determine the events, situations, learnings, or other phenomena to which it does and does not apply.

## Effective Information Presentation: Vividness Effect

Another issue in information dissemination is what might be called the "after they've seen the movie they'll read the book" phenomenon. At least when it comes to entertainment, it appears that reading *follows* exposure to ideas presented through a more vivid medium. After a film adaptation, there is frequently a rush on books that had been gathering dust on library shelves for years (witness the current revival of Jane Austen's works). There also exists the process of "novelization," or writing a book after a film or television series has already been produced. Ideas, images, thoughts, and feelings stirred through the visual media seem to whet appetites for further exposure to the original material.

If the pattern of reading the book "after they've seen the movie" can be generalized to nonfiction reading, then we should consider what vivid media offer the most effective mechanisms for disseminating educational research and development findings. We have often observed that following oral presentations that include references to articles and books, many members of the audience ask for complete citations and references and show strong interest in obtaining copies of the paper presented, presumably with the

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intention of following up what has been made vivid in an aural medium. The extent of actual followup is difficult to guess, and we do not know of any empirical studies of this phenomenon. However, if this is a common phenomenon and if the probability of studying research reports increases after a "live" or "lively" presentation, what dissemination practices should we consider?

World Wide Web sites offer the potential for presenting concepts and ideas in a lively fashion using color, graphics, sound, animation, and interactivity. These features may be particularly well-suited for presenting case studies or vivid predicaments typically faced by teachers, along with options that users can choose to address them. In each case, a practical problem could be presented and relevant textual materials could be linked on the Web to create a coherent and thought-provoking presentation, augmented by relevant references and full-text materials. Such online presentations may enable new information and its implications for practice to be fleshed out in a way that helps make it more vivid. We would like to see the experimental use of these presentations by information dissemination researchers.

## Information Presented When Relevant or When Needed: Propitiousness

The popularity of the expression "an idea whose time has come" is probably well deserved. Not just in terms of cosmic chronology but in more specific and concrete terms, educational knowledge may be most wanted and best used when a problem occurs and a teacher or parent has reached the end of his or her tether. For example, when parents learn that their child has been diagnosed with a mental or physical illness or learning disability, they make themselves experts on that condition to ensure that their child receives the best possible treatment.

## What Is an Information Clearinghouse?

More than a decade ago, Young (1983) defined an "information clearinghouse" as:

> *An independent organization or an administrative unit of an organization which serves as a central agency for the collection, organization, storage, and dissemination of documents, and performs referral services, such as maintaining records of research in the planning stage, in progress, and in completion, and referring questions regarding research to the source (p.118).*

Few information clearinghouses today would fit the definition of function or content coverage Young attributed to them in 1983. The ERIC Clearinghouses, for example, offer access to many kinds of resources. In addition to collecting, organizing, and storing documents, they share information with constituencies through newsletters, ERIC Digests, bibliographies, research syntheses, and other publications, and they are frequently proactive as well as responsive in the dissemination of information.

ERIC Clearinghouses provide direct question-answering services; offer training and technical assistance in the use of information resources (especially Internet resources); are accessible to users through toll-free telephone numbers, fax machines, and the Internet; prepare and disseminate information in multiple languages; supply information at points of contact in public places (for example, providing parenting information at doctors' offices); and build public-access Internet sites that often contain ERIC information and resources from organizations outside the ERIC system.

**Trends Affecting Clearinghouse Operations**

ERIC Clearinghouse staff and other education information providers operate within the context of several social trends that affect the provision of information, including the opposing forces of specialization, fragmentation, and interdisciplinarity.

**Specialization** has resulted in audiences that are interested in the literature of a narrow "slice" of educational research and practice. Specialized databases, clearinghouses, information centers, and special library collections that deal with specific subsets of education reflect this general intellectual and societal trend toward specialization.

**Fragmentation,** or the scattering of relevant literature on a topic into related (or apparently unrelated) domains, has been documented in the sciences (Swanson, 1986) and is common in education. Too often, the result of fragmentation is that researchers working on related topics are unaware of each others' work and may pursue lines of inquiry that have already proved uninformative or miss potentially relevant research results. For example, research centers on adult literacy may conduct research on early childhood education, volunteerism, or other apparently disparate topics. Large computerized databases of information enable specialized education information centers to identify information from groups that may be outside the mainstream of a particular subdiscipline and make their work accessible to those who could benefit from it.

A kind of geographic fragmentation also complicates information flow. School districts commonly market program materials and research studies; city and

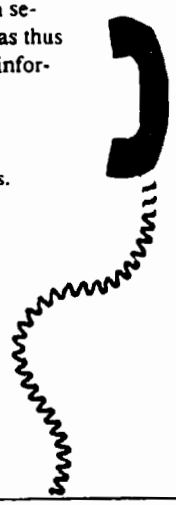
state interagency councils prepare position papers; and various networks have been set up explicitly to foster replication of effective practices. Federal and state governments emphasize sharing information about successful local practices—a "bottom-up" approach to educational reform that requires teachers, parents, administrators, and policy makers in schools, at the school district level, and in state education agencies to know how their counterparts in similar situations are addressing these problems. Tracking only national information sources is clearly insufficient for responding to questions from constituents.

**Interdisciplinarity** in education counters the divisiveness of specialization and fragmentation. At every grade and age level, interdisciplinarity has blurred the lines among the disciplines of education, social services, and health services. Within the field of education, we see the emerging recombination of some traditionally separate education subdisciplines, such as early childhood special education and early childhood education.

### Quality, Comprehensiveness, and User Preferences

The increasing number of education stakeholders who have a variety of backgrounds and want different types of information carries serious implications for selection and dissemination practices of ERIC Clearinghouses. Indeed, as the cost of data storage decreases and the potential for large-scale automated indexing systems increases, the identification and selection of materials may well become one of the most important activities of education information centers during the next decade. Although information seekers want comprehensive coverage of education literature, they complain about quality and lack of selectivity. Criticisms of the ERIC database frequently reflect this paradox (Stonehill, 1992).

Once items have been selected for a database, some information providers assume a level of quality that may or may not be warranted. The information science literature suggests that this problem may be related to user preference. There is some evidence that researchers, for example, would rather review for themselves the broadest possible range of information available on a topic and choose what they consider the best or most important sources (Tenopir, 1987). Other education information users may prefer information already evaluated for quality and synthesized to increase its immédiate usefulness, such as ERIC Digests. The ability to provide reliable syntheses of information selected from a sizable body of relevant research and other data has thus become an important characteristic of contemporary education information providers.



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—Dianne Rothenberg

Making ideas, concepts, and facts available when people are near or at the beginning of a process appears to be ineffective. At that point, the information is merely taken for granted or cast aside. This "feed forward" or "anticipatory socialization" phenomenon is a concern in teacher education and all other professional preparation because it typically provides answers to questions not yet asked by students. In all professional preparation programs, students often complain that their education is impractical and too theoretical. As they look back on it after being engaged in the occupation, however, the meaning and value of past experiences may change for them as the information becomes useful and may even approach life-or-death importance. Thus, in retrospect, they say things like, "I was annoyed then, when I had to read all those articles on social development, but now I am so glad they made me do it!"

If the "feed forward" hypothesis is valid, it means we cannot provide students with experiences that are based only on what pleases them at the time (any more than we can raise young children that way); instead, we must make assumptions about how the value and meaning of current experiences are likely to change in the future. Of course, this hypothesis also implies that students could, in later years, say something like, "I loved that course then, but now I see it was a waste of time." A theory related to the developmental stages of teachers (Katz, 1995) suggests that it is a huge burden on those in professional development to know and predict how the perceived meaning and value of experiences are changed by subsequent experiences. Again, this problem suggests that much new information might be better utilized if explicated in the context of standard predicaments or case studies of situations that most teachers confront frequently.

Some information research suggests that information use is mostly situational (Savolainen, 1995). The role we are in or the situations we work in

**Figure 1: Dissemination Issues and ERIC**

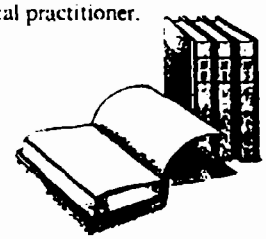
| Dissemination Issue | Possible Implications for ERIC |
|---|---|
| **Optimum Information Hypothesis** There is an optimum amount of information below and above which new information (ideas, concepts, knowledge, facts) is unlikely to be acquired, adopted, or used. | Publications such as ERIC Digests that synthesize and integrate disparate sources of information and research findings should have a high priority because they help users stay in touch with developments in current topics and feel less overwhelmed by the sheer volume and flow of information. |
| **Optimum Redundancy in Information Dissemination** People acquire information best when it is available redundantly through a variety of channels. | ERIC information should continue to be made available through multiple channels, including print, audiovisual, electronic, and person to person (for example, presentations, phone conversations). |
| **Optimum Conceptual Size** Education topics should not be treated in ways so large and general that they are meaningless or so focused and narrow that they are impossible to adopt. | New synthesis products should be developed at an optimum length and depth to efficiently explain the complexities of research findings and delineate the principles of practice (that is, reliable generalizations that warrant consideration when decisions are made about what actions to take). |
| **Vividness Effect** People seem to be more inclined to seek additional information on a topic when their initial exposure is through a lively visual medium. | ERIC needs to disseminate education information through presentations at conferences, videos, and engaging use of electronic media. |
| **Propitiousness** Information is most fully used when it is available at the exact time it is relevant to a person. | The electronic media provide a means to make ERIC summaries and syntheses available at the most propitious moment for a teacher, parent, or student. |
| **Orientations to Knowledge** Scholars and researchers tend to approach education topics narrowly and scientifically, while practitioners are necessarily pragmatic in their interest about what will work in the complex environment of the classroom. | ERIC and other dissemination programs can help link the worlds of research and practice if staff have the knowledge and skills to translate information from researchers for practitioners, parents, and policymakers. |

may be more powerful determinants of the information we want and can use than we often realize. While there may be some things one can learn before one feels the actual need to know them, it seems likely that reception and use of information is most effective when it is most needed.

## Differences in Orientations to Knowledge

Another issue in the adoption of new knowledge in education concerns the possibility that those who produce it and those expected to adopt and apply it have different ways of valuing, apprehending, and using such knowledge. The growing popularity of action research and active teacher participation in research has the potential to reduce the gap between these two camps. (See "What Is Teacher Research?" on p. 7.) However, discussions among practicing teachers about researchers and the usefulness of their research, as exemplified in a recent discussion on MIDDLE-L, a listserv operated by our clearinghouse for educators of young adolescents, suggests that the gap remains wide. (See July 1996 MIDDLE-L archives at http://ericir.syr.edu.)

Potential differences in orientation to knowledge can be examined by adopting the framework presented by Freidson (1972) in his study of the sociology of knowledge in the medical profession. Freidson classifies members of the medical profession in terms of two distinct types of "mentalities," or orientations to knowledge and research: Those with the *scientific mentality*, embodied in the professors on the medical faculties, who are usually scientists rather than practicing physicians, and those with a *clinical mentality*, reflected in the perspective of the medical practitioner.





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# What Is Teacher Research?

A common thread running through various conceptions of teacher research is that the teacher is an active constructor of knowledge rather than a passive consumer of it (Miller and Pine, 1990; Williamson,1992). In recent literature, action research appears to be the most common designation for teacher research because it suggests most vividly the inherent empowering quality of the process and the immediacy and concreteness of its outcomes (McKay, 1992; Miller and Pine, 1990).

Action research seeks to answer questions and solve problems that arise from the daily life of the classroom and put findings into immediate practice (McKay, 1992; Twine and Martinek, 1992). Teacher researchers may work alone or collaboratively with other teachers, student teachers, or university researchers.

McCutcheon and Jung (1990) identify the core components of action research as systematic inquiry, reflexivity, and focus on the practical. Systematic inquiry is the hallmark of effective teacher research (Shalaway, 1990). Various techniques and approaches are employed, including experimental designs, systematic observation, descriptive research, and ethnographic/case studies (Wessinger, 1992; Eisenhart and Borko, 1993; Neubert, 1989; Downhower and others, 1990).

McKay (1992) describes action research as a six-step cyclical process: (1) identifying an issue or problem to study, (2) gathering and reviewing related information, (3) developing a plan of action, (4) implementing the plan, (5) evaluating results, and (6) repeating the cycle, using a revised problem or strategy derived from what was learned in the first cycle, until the question is answered.

Effective teacher research empowers teachers, giving them greater confidence in their ability to individually and collectively promote change (Downhower and others, 1990; Nihlen, 1992). In addition to developing new intellectual and technical skills, conducting research often creates new career opportunities and roles for classroom teachers as writers, college instructors, and teacher leaders (Shalaway, 1990). Downhower and others (1990) and Nihlen (1992) indicate that teacher researchers become more critical and responsive in their roles as readers and users of research.

Miller and Pine (1990) suggest that when teachers become agents of inquiry, the locus of knowledge about teaching shifts from sources outside the classroom (for example, researchers, textbook publishers, and administrators) to sources of practical classroom experience. This shift enhances the professional status of teaching because teachers, through this knowledge construction, actively help to shape the knowledge base of their profession (Johnson, 1993). Generally, teacher research is driven by the practitioner's desire to improve his or her own practice with respect to a specific problem and a specific set of students. Thus, students reap immediate benefits from the teacher's learning.

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—This information was excerpted from *ERIC as a Resource for the Teacher Researcher* (ERIC Document Reproduction Service No. ED 381 530), an ERIC Digest written by Ismat Abdal-Haqq and published by the ERIC Clearinghouse on Teaching and Teacher Education in March 1995. You may access this and other ERIC Digests in full text from several World Wide Web sites, including http://www.aspensys.com/eric and http://ericir.syr.edu.

**Figure 2: Orientations to Knowledge and Research**

| Researchers (Scientific Orientation) | Teacher Educators/ Information Disseminators | Practitioners (Clinical Orientation) |
|---|---|---|
| 1. Reflective | ⟷ | 1. Active |
| 2. Conceptual | ⟷ | 2. Pragmatic |
| 3. Theoretical | ⟷ | 3. Subjective |
| 4. Skepticism | ⟷ | 4. Faith |
| 5. Determinacy | ⟷ | 5. Indeterminacy |

## Two Cultures Within the Field

The two groups within the field of education—the scholars and the practitioners—can be thought of as two subcultures, each with its own orientations or habits of mind and, to some extent, each with its own language, technical jargon, clichés, and buzzwords. Figure 2 depicts the two orientations in opposing columns. Katz (1986) has suggested that those who train practi-tioners might occupy the column between the scientist (educational researcher) and the practitioner (teacher). What would the positions of this middle group be on the five dimensions? What positions would be desirable ones?

These differences in orientation, by the way, may be integral to the roles played by teachers and researchers. Effective teaching —or medical practice—depends to some extent on the certainty with which the practitioner approaches his or her task. And by definition, the researcher's task is to prize doubt and uncertainty and be open to being wrong. Therefore, it is a good idea to balance being sufficiently convinced of the rightness of one's actions to send clear signals to children about what is expected and accepted and being sufficiently skeptical to continue learning.

Given the deep differences in ways of thinking in the scientific and practitioner subcultures, those responsible for information dissemination have an important and complex role to play in helping the two cultures understand each other. It seems reasonable to suggest that educational information specialists, disseminators, and those who actually train professionals—teacher educators, advisors, and consultants—have to be "bicultural" and "bilingual." They have to be comfortable, accepted, and conversant in both cultures and languages and able to translate one culture/language into the other.

Some research suggests that the disseminator or other interpreter (for example, the teacher educator or ERIC disseminator) may be unwelcome by either group. Students and teachers may fault us as too impractical and theoretical, while researchers may fault us as too practical and atheoretical. The burden seems clearly on those in education dissemination to be highly competent in both cultures and to participate in both. Perhaps we as disseminators have to think about how both parties, the knowledge producer and the knowledge applier, are affected by each other. This would seem to be part of the theoretical base for dissemination.

—Lilian G. Katz

These contrasting orientations to knowledge are depicted on five interrelated dimensions, as shown in Figure 2. The first dimension, *reflective versus active*, suggests that scientists—or for our purposes, educational psychologists and other education scholars and researchers—are well served by the disposition to be reflective and to consider alternative courses of action and competing explanations, theories and interpretations. Practitioners, on the other hand, including teachers, administrators, child care workers, and parent educators, need the disposition to act in situations of high ambiguity, even in situations when no relevant reliable information is available.

The second dimension, *conceptual versus pragmatic*, suggests that psychologists and other scholars in the field seek concepts to explain *how* something works, whereas the practitioner may settle more quickly for "what works," even without explanations. For the latter, the premium is on doing something, on responding to the practicalities of the pressing situation at hand.

The third dimension, *theoretical versus subjective*, similarly suggests that the scholar is looking for theories that help organize and explain observations and build a system of understandings and concepts that fit together coherently and sensibly. According to Freidson, the practitioner is more disposed to be reassured by direct, firsthand experiences or even by the secondhand reports of other practitioners' firsthand experiences than by a theory. Practitioners are likely to accept scientists' data if, and only if, these data correspond to their own subjectively derived views (in other words, if they know it from their own experience or at "gut level"); they seem unlikely to abandon their subjectively acquired views when the scientifically developed knowledge contradicts them.

The fourth dimension, *skepticism versus faith*, refers to dispositional or orientational differences such as the



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scientist's tendency to prize doubt and to be concerned about the reliability and generalizability of the results of experiments and the practitioner's need to believe in the appropriateness of the action chosen even when no supportive or conclusive evidence is available. For practitioners, doubt and skepticism may be dysfunctional. Strong conviction about the rightness of a course of action may influence its effectiveness. Uncertainty in teaching may result in sending children mixed signals, which may in turn cause the children to resist the adult, which may further undermine the adult's confidence and hence the effectiveness of the action taken. For example, in a study comparing the differential effects of three preschool curriculum models on inner-city 4-year-olds (Marcon, 1992), the data showed that the children whose teachers strongly believed in the curriculum model they were implementing "did better on standardized measures of development than children whose teachers were torn between opposing models" (p. 527).

The fifth dimension, *determinacy versus indeterminacy*, refers to the scientist's search for lawfulness or the discovery of the underlying laws and theories that allow him or her to make good predictions. The practitioner, on the other hand, tends to believe that events in the real world are far too complex to make discovery of the operating laws possible.

Whether we accept Freidson's formulation of the two "mentalities" as generalizable to the field of education or instead posit that the immediate requirements of the role of scientist or practitioner bring about the same result, the implications are worthy of our consideration as we develop dissemination strategies for the 21st century.

## Conclusion

Effective dissemination of education information must take into account the volume of information already available, the most effective channels through which to work, the appropriate level of detail for a given audience, the liveliness of the presentation, the need to serve individuals at the appropriate time, and the divergent thinking of researchers and practitioners.

> **"For practitioners, doubt and skepticism may be dysfunctional."**

As we take advantage of the rapidly developing information systems and media available through modern technology, we have an opportunity to address the issues outlined here. Because we have reason to believe that more information is not by itself better, we may be able to improve our value to the education community by focusing on the kind of information that is most likely to be used and the conditions and media in which it will be used.

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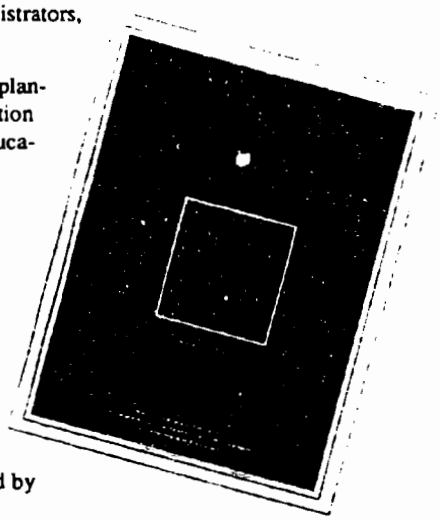

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# Dissemination Under Renovation

by Cynthia Hearn Dorfman

*As I was cleaning out my basement the other day to get ready for some renovation, I stopped to look at the empty bookcases that had been so precious to me after college because they stored the wit and wisdom of all that I had studied. I wondered whether I would be seeing a lot of bookcases at yard sales—relics of the past, just like old library card catalogs that have been replaced by intelligent computerized search systems. Why was I thinking like this? Because dissemination and how to get information to the public is always on my mind.*

Between late January and August 1996, Media and Information Services, the National Library of Education, and the National Research Institutes have conducted an extensive outreach project in response to the congressional mandate that the Office of Educational Research and Improvement (OERI) "actively solicit recommendations from education researchers, teachers, school administrators, cultural leaders, parents, and others throughout the United States to develop the Research Priorities Plan" for the next 15 years (Educational Research, Development, Dissemination, and Improvement Act of 1994).

Working on behalf of OERI Assistant Secretary Sharon P. Robinson and the National Educational Research Policy and Priorities Board, we held more than 50 discussions with people representing a broad range of interests and concerns. The message that permeated all conversations was that broad dissemination is needed: "We need to know what we have learned from the investment in education research to date. Tell us what is known, and we can determine what else we need to know."

## Education Information Must Be Easy To Use

Participants also told us that they need information that is easy to use and does not require analysis on the part of the reader. OERI supports education research that is tested and proven. Our customers—the American taxpayers—are paying for this service. What OERI can do is release the findings in understandable, easy-to-read language.

Teachers told us that some of the products they find useful are:

- Small, pocket-sized booklets.
- Two- to four-page summaries.
- Tabloids with blocks of copy that help the reader focus.
- Well-designed graphs and charts.
- Videotapes that show a teacher being interviewed about the goals of a lesson, then actually teaching the lesson, and finally being interviewed again about how the lesson went.
- E-mail and World Wide Web sites that allow information to be stored and forwarded easily.
- Person-to-person communication through teleconferencing.
- Interesting ways of presenting research, such as using anecdotal snapshots, beginning with conclusions of studies, and including teacher and student voices.

## Electronic Media Are Changing Education Dissemination

Electronic dissemination has broad implications for the work we do. At education conferences where OERI exhibits, we have noticed people putting printed material back when they find out that the content is available on the Internet. *This leads me back to the image of the empty bookcase.* Researchers, too, have told us that they are moving toward paperless offices and electronic dissemination through the World Wide Web and the rest of the Internet. With these media, brevity is particularly important; however, depth of information is also important. That's why CD-ROMs with complete data sets that provide ready access to statistics of large samples are particularly useful, too.

People are interested in technology not only for its application to education dissemination, but also for teaching and learning. A recurring theme in our discussions about the Research Priorities Plan was the need for research on the use and effects of technology. How can technology best be used in the classroom? How will it affect learning? How will it affect teaching methods?

Cynthia Hearn Dorfman is Director of Media and Information Services in the Office of Educational Research and Improvement, U.S. Department of Education.

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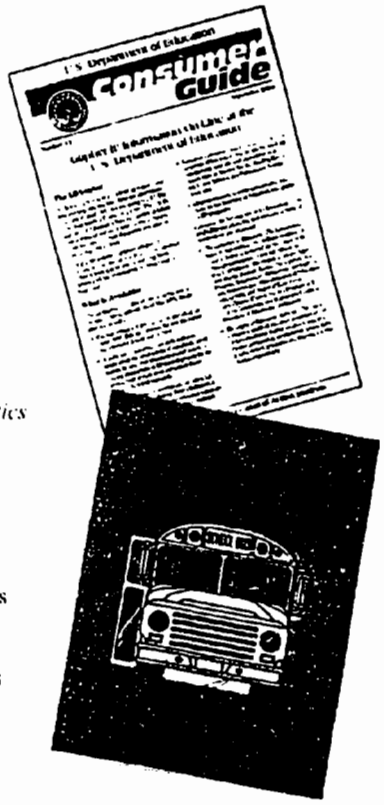


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—Cynthia Hearn Dorfman

Will it be a great equalizer in terms of access to reference material? Will it widen the division between those who are economically advantaged and those who are disadvantaged?

## Audience Needs Shift

In our discussions about dissemination and what kinds of information people want, we observed an apparent shift in perspectives. Members of the traditional research community—psychologists, sociologists, biologists—said we need more qualitative studies. For example, they want to hear the stories of successful as well as unsuccessful reform efforts so they may learn from them. On the other hand, teachers and teacher educators, who have traditionally preferred qualitative approaches, expressed a need to see their work in more quantitative ways. One teacher summarized this preference by saying that she had been teaching for 20 years; so from her point of view, she had a sample size of at least 600 students. She also had a longitudinal perspective in being able to see the changes in a 4th grade student population over 20 years.

Regardless of the research methodology used, most of the people we spoke with wanted to hear the voices of people involved in education, including teachers, students, parents who have ushered their children through the enthusiastic early childhood learning of play, and the business and community leaders who have


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worked successfully with schools to bridge the gaps between school and work or school and social services.

## Empty Bookcases or Open Doors?

What this exploration under the umbrella of the Research Priorities Plan has taught us is that we can disseminate materials in many ways, and these materials can take many forms. Empty bookcases don't necessarily signal the end of the printed product. Rather, technology widens our possibilities for sharing information and widens the audience available to receive it. Technology reduces the time it can take to convey information and it enhances the accessibility of information for those with special needs or people living in remote areas. It provides us with more and faster options. Movies did not replace live theater; musical recordings (first records, then tapes, then CDs) did not replace live performance. So technology adds to the repertoire of possibilities for dissemination.

We also realize that audiences can shift. Scientists see the need for qualitative studies, and those in the humanities crave statistics. The key is to constantly renovate our perspectives as disseminators to provide the public with the types of information it wants and in the formats it needs.

## Lessons Learned

One of the most popular products in OERI's history has been the *Helping Your Child Learn* series. These booklets contain learning activities that families can do at a low cost using items found around the house. We learned four lessons from the dissemination of these products.

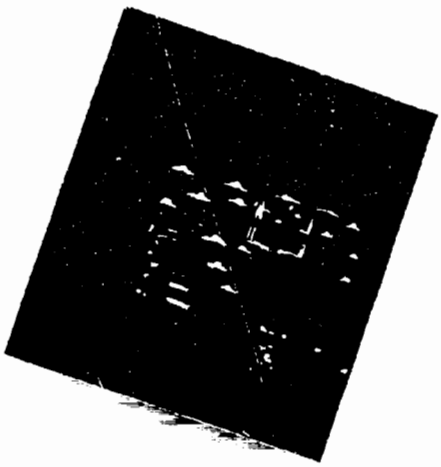
**Audiences May Change**
The booklets were designed for parents, but we found that one of our biggest audiences was teachers. They used the activities to supplement their classroom lessons. The booklets provided material that teachers could pass on to parents to help their children learn. One of the booklets, *Helping Your Child Learn Responsible Behavior*, has also been used by police departments.

**Stretch Resources Through Cooperative Publishing**
OERI invested in the original printing by providing the Consumer Information Center with copies that could be disseminated to the public for 50 cents each (the cost of postage). Because material produced by the federal government is in the public domain, we encouraged commercial publishers and nonprofit organizations to publish the booklets under their own logos. To date, the series has been reproduced by commercial publishers, state departments of education, local school districts, community organizations, libraries, and education associations. This cooperative publishing has stretched the federal dollar during a time of scarce government resources.

**Attractive Design Can Help**
The distinguishing characteristic of this series is that, unlike most government publications, the booklets are colorful, easy to read, and illustrated. Given the availability of competing sources of information, government-produced material needs to be of high quality and attractive as well as informative.

**Keep Production Costs Low**
Through careful planning and negotiation, the production costs of the booklets were kept low. Printing for the majority of the booklets cost about 25 cents per copy. This is efficient use of taxpayers' money and enables OERI to offer the books as a service to the public far below commercial costs.

—Cynthia Hearn Dorfman



Titles in the *Helping Your Child Learn* series include the following:

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# The National Education Dissemination System

The work of the National Library of Education and Media and Information Services, along with that of the Office of Reform Assistance and Dissemination (ORAD), is part of the National Education Dissemination System authorized in Public Law 103-227, Title IX, Educational Research, Development, Dissemination, and Improvement Act of 1994. This system responds to the congressional mandate that the Office of Educational Research and Improvement "develop a national dissemination policy that will advance the goal of placing a national treasure chest of research results, models, and materials at the disposal of the education decisionmakers of the United States."

In the U.S. Department of Education, no one person, office, or system can ever be "responsible" for all dissemination—every program, every contractor and grantee, and every staff member in the Department of Education speaks and writes to customers and the public, answers questions, and distributes information. What we are attempting to create are integrated information and technical assistance resources, accessible to anyone on demand through low-tech (letters or phone calls), middle-tech (e-mail), or high tech (direct access through the World Wide Web at http://www.ed.gov). Much progress has been made, but there is much more to do. The information provided on the EdWeb (including exemplary programs and promising practices) would originate from many sources—not only the Department of Education but also our contractors and grantees, professional organizations and associations, foundations, and state and local educational agencies. (See figure below.)

Creating and maintaining on-demand access to comprehensive, integrated resources is a challenging prospect. OERI is working to enhance the Department's already-formidable online presentation of information and services, through the following:

- The development of a state resources directory (a clickable map showing specific services available to each state).
- The development of cross-site indexing and retrieval mechanisms.
- The expansion of available information on topics of high public interest (such as lesson plans, research summaries, and curriculum standards).

And as a complement to providing comprehensive on-demand access to our services, we have begun considering ways in which we can selectively disseminate information across the Internet that is tailored to the interest profiles of individual subscribers. So, stay tuned!

—Robert Stonehill is Director of the State and Local Services Division/ORAD/OERI.

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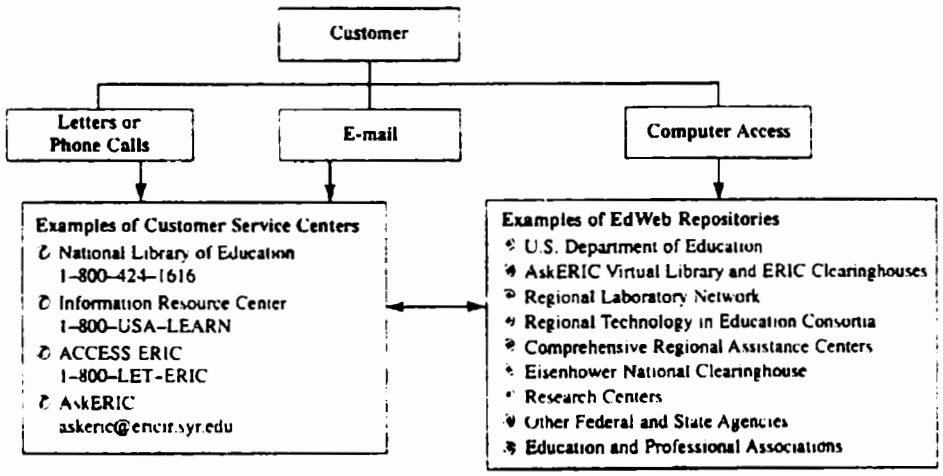




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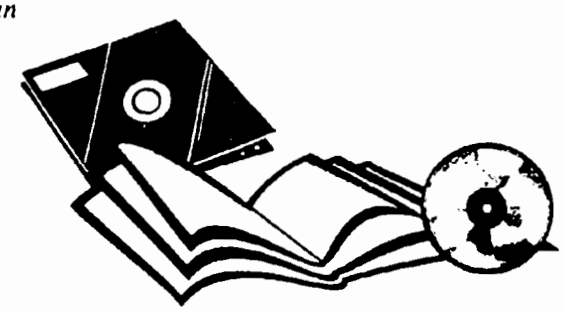

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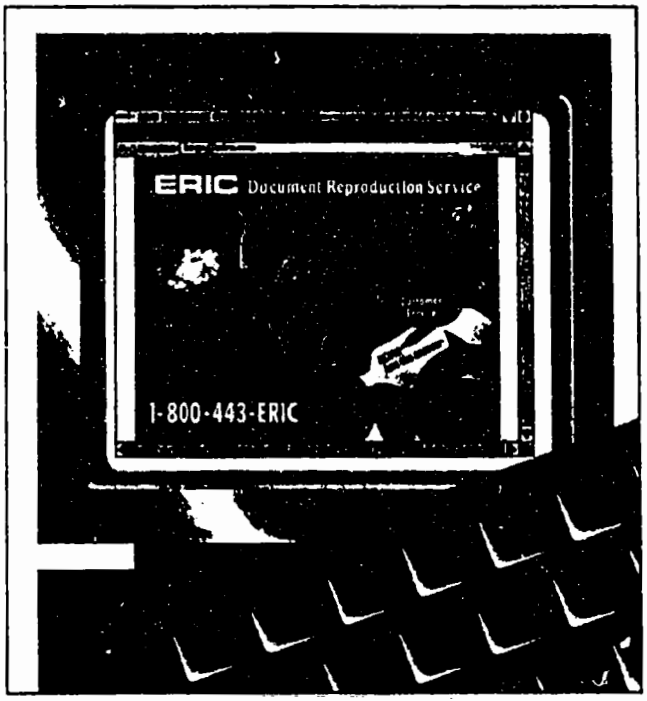


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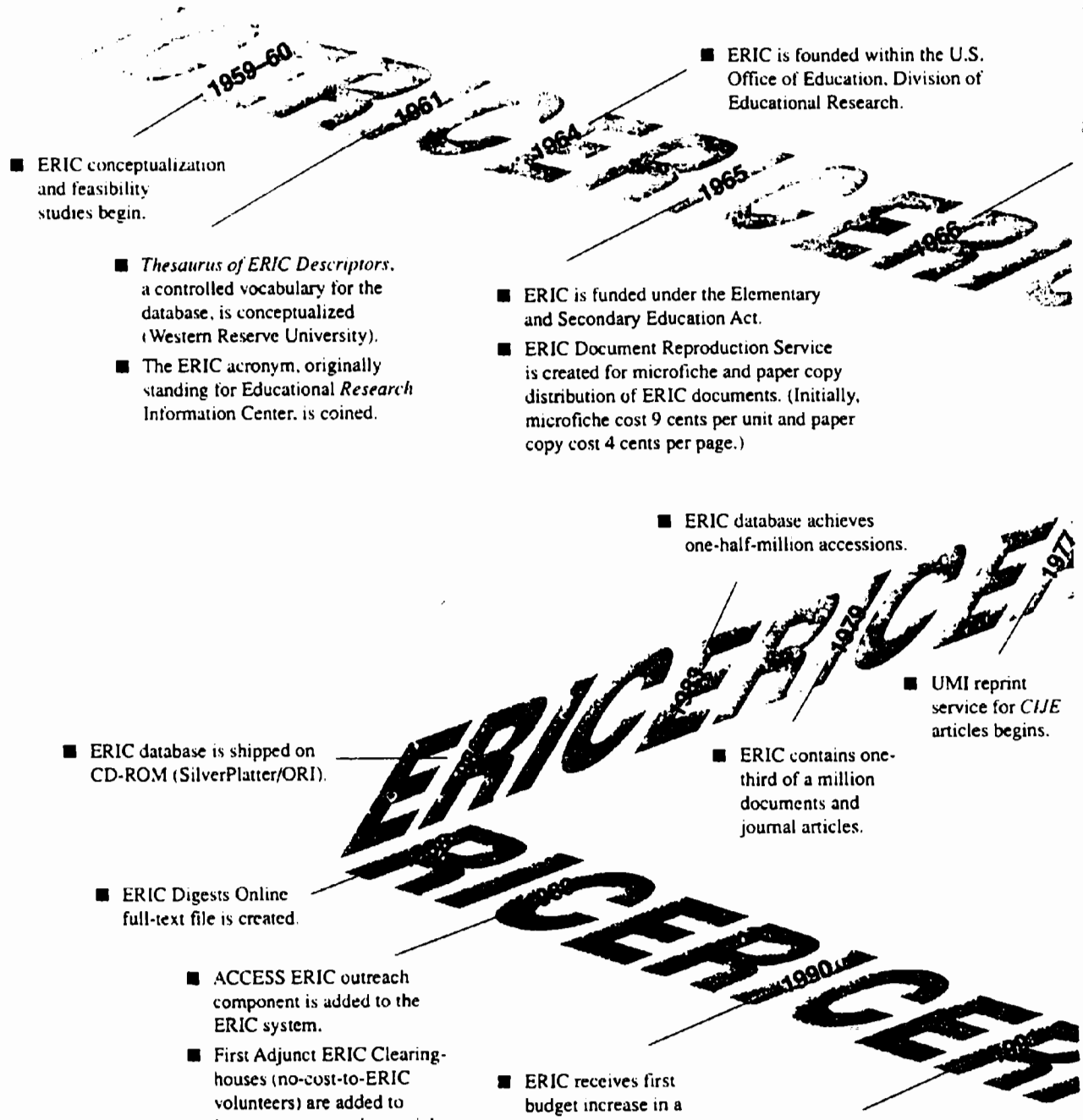
*DynCorp Information & Engineering Technology*
7420 Fullerton Road, Suite 110, Springfield, VA 22153 • USA

DOCUMENT SUPPLIER FOR ERIC
**1-800-443-ERIC**
**703-440-1400**


1959–60
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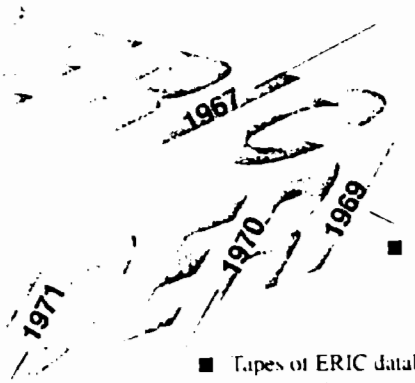
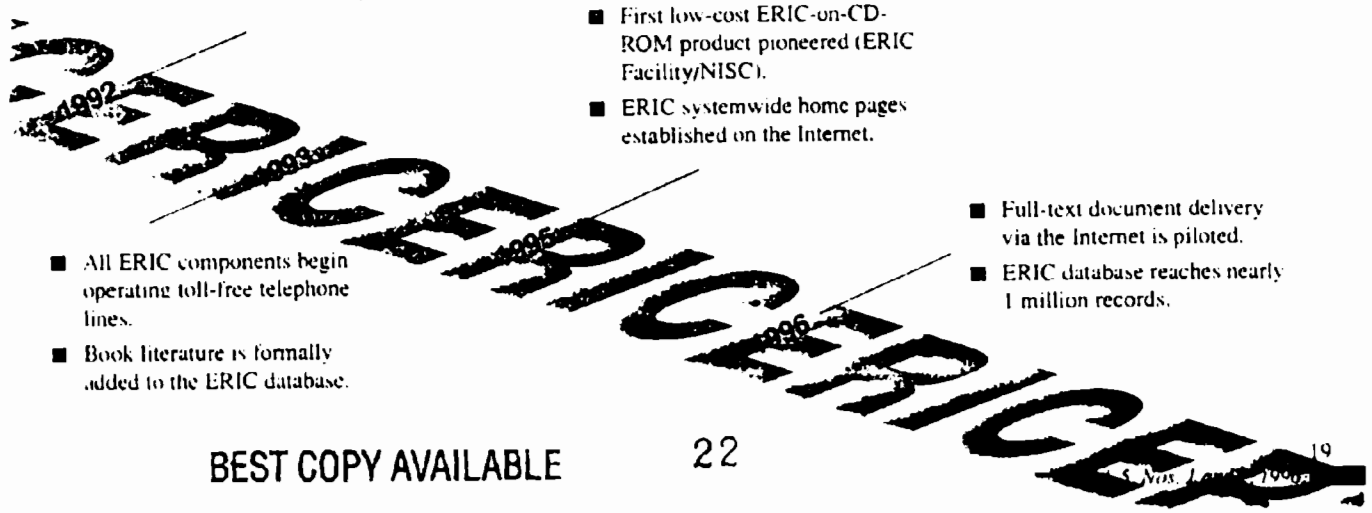
# Great Moments in ERIC History

- First 12 subject-specific ERIC Clearinghouses are established to acquire and prepare documents for the ERIC database.
- ERIC Processing and Reference Facility is created to maintain the ERIC database.
- *Research in Education*, a print version of ERIC document abstracts, appears.




- Six additional ERIC Clearinghouses are established.
- ERIC's acronym is changed to Educational Resources Information Center.
- First *Thesaurus of ERIC Descriptors* is published.
- *Current Index to Journals in Education*, a print version of ERIC journal article abstracts, appears (Oryx Press).
- Tapes of ERIC database are made available for commercial and local mounting.
- ERIC goes online commercially (DIALOG).

- AskERIC, a pilot Internet-based question-answering service, begins operating at the ERIC Clearinghouse for Information & Technology.
- ERIC develops presence on America Online and CompuServe.
- First low-cost ERIC-on-CD-ROM product pioneered (ERIC Facility/NISC).
- ERIC systemwide home pages established on the Internet.




- All ERIC components begin operating toll-free telephone lines.
- Book literature is formally added to the ERIC database.
- Full-text document delivery via the Internet is piloted.
- ERIC database reaches nearly 1 million records.

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## NLE: ERIC's Institutional Home

ERIC is part of the National Library of Education (NLE), the federal government's principal center for one-stop information and referral on education. NLE carries out three major activities: reference and referral services, collection and technical services, and resource sharing and cooperation, including the U.S. Department of Education's Internet services.

Reference services at NLE include specialized subject searches, search and retrieval of electronic databases, document delivery by mail and fax, bibliographic instruction and other training services, interlibrary loans, legislative reference services, and selective information dissemination.

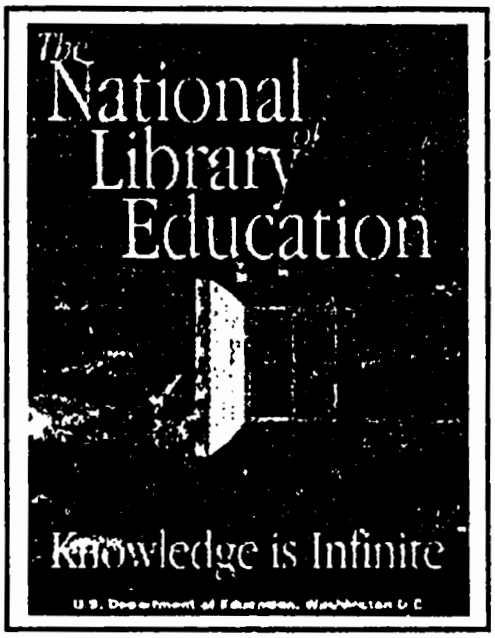
NLE houses more than 200,000 books on education management, public policy, and related social sciences and maintains about 800 periodical subscriptions in addition to studies, reports, ERIC microfiche, and CD-ROM databases. Special collections include rare education books published before 1800; historical books from 1800 to 1964; early American textbooks, 1775–1900; modern American textbooks, 1900–1959; U.S. Department of Education archives; and children's classics.

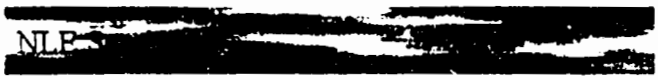
The Library's collection, cataloged on the MAXCESS online public access system and on CD-ROM, is open to the public on weekdays from 9 a.m. to 5 p.m. NLE is located at 555 New Jersey Avenue NW, Washington, DC 20208–5721. Library information may be obtained by calling 202–219–1692 or sending e-mail to *library@inet.ed.gov*. Reference, research, and statistical questions may be directed to 1–800–424–1616.

The U.S. Department of Education maintains several types of Internet servers and tries to make all of its holdings accessible to the public through numerous channels commonly used by educators. Internet users can access and download education legislation, publication summaries and full texts, program and grant information, data sets, and directories via:

- **World Wide Web.** Set your Web browser to *http://www.ed.gov*.
- **Gopher.** Gopher to *gopher.ed.gov* or select the following from the All/Other Gophers menu on your system: *North America—>USA—>General—>U.S. Department of Education*.
- **FTP.** Access information through *ftp.ed.gov* (log on as "anonymous").
- **E-mail.** Get a catalog and instructions for using the mail server by sending e-mail to *almanac@inet.ed.gov*. In the body of the message, type *send catalog*. (Avoid using a signature block in this message.)

Users who do not have access to the Internet but do have a modem can obtain much of the information that is available on the Department's Internet site by dialing into the toll-free electronic bulletin board at 1–800–222–4922. The local direct number is 202–219–1511.




Reference/Statistics

Interlibrary Loan

Publications

Bibliographies

Resource Sharing

ERIC

**National Library of Education**
http://www.ed.gov/NLE/index.html



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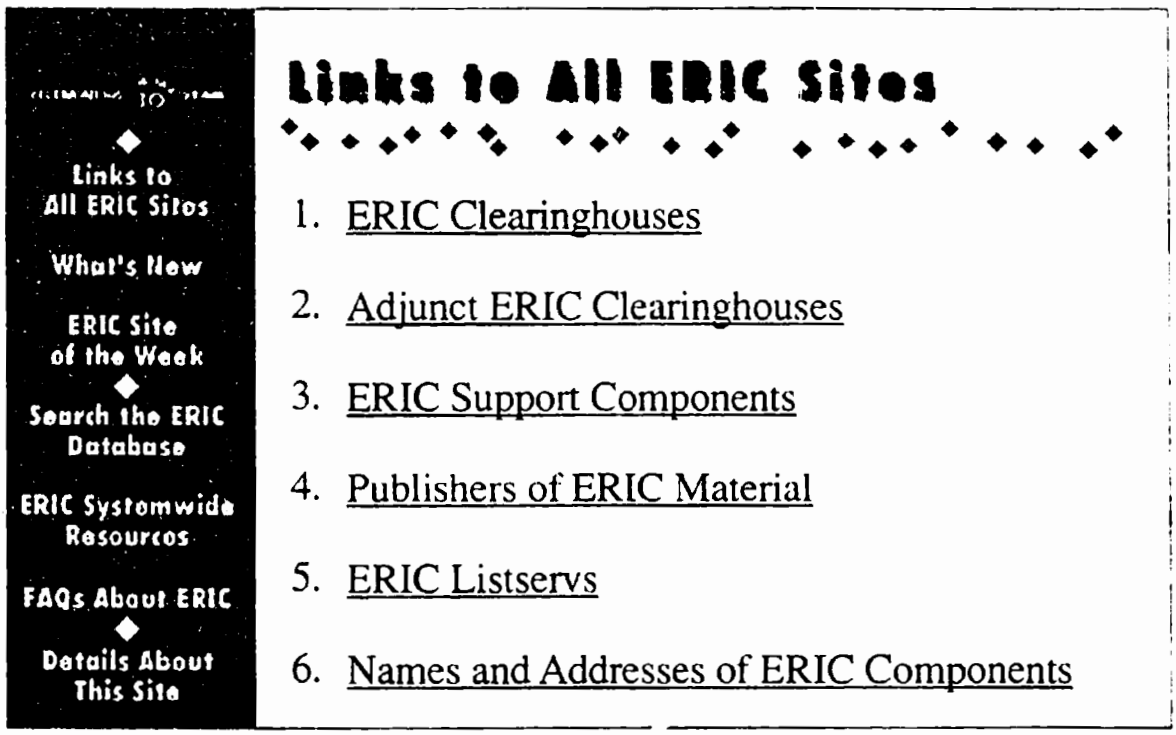
# ANNOUNCING

# the NEW ERIC Web Site




## http://aspensys.com/eric/

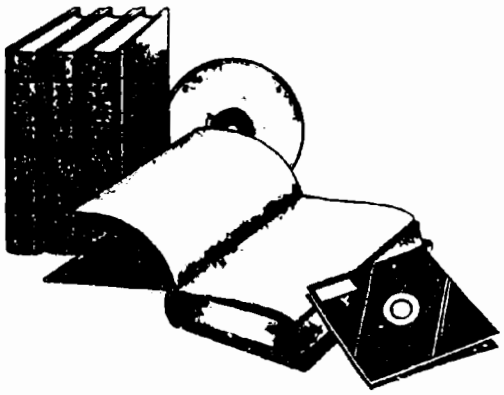
## Are You Information Literate?

Briefly defined, information literacy is an individual's ability to:

- Recognize a need for information.
- Identify and locate appropriate information sources.
- Know how to gain access to the information contained in those sources.
- Evaluate the quality of information obtained.
- Organize the information.
- Use the information effectively (Doyle, 1992).

Teachers trying to create an information literate environment for their students have given up the view that teaching is telling, that learning is absorbing, and that knowledge is static. They constantly make difficult choices about old curricula, examining subject-area requirements closely, setting priorities, and considering process as well as content. They look beyond their classrooms for resources that will enrich the learning environment. They engage in collaborative activities that enrich their own professional development and their students' learning experiences. They seek the expertise of their school library media specialists as partners in the curriculum planning process.

Teachers involve students in complex tasks that have purposes beyond the limits of the classroom and the teacher's critical evaluation. They also create collaborative situations to develop students' social skills and problem-solving skills. They are familiar with a variety of



learning tools, both print-based and electronic, and they encourage their students to move beyond the textbook when seeking information and solving problems.

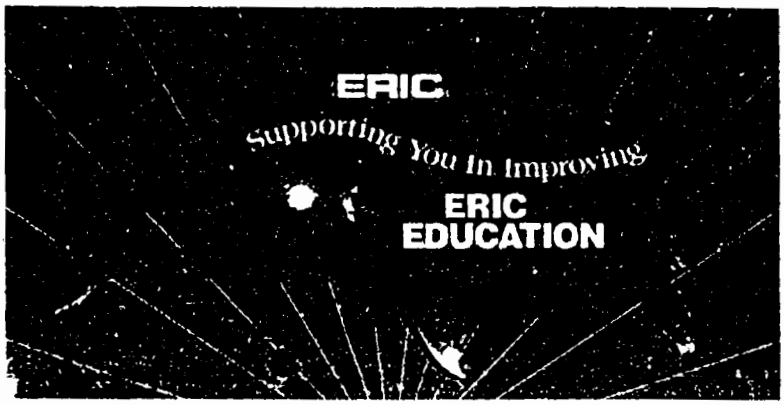
### Reference

Doyle, Christina S. (1992). *Outcome Measures for Information Literacy Within the National Education Goals of 1990*. Final Report to the National Forum on Information Literacy. Summary of Findings. ERIC Document Reproduction Service No. ED 351 033.

—This information was excerpted from *Information Literacy for Lifelong Learning* (ERIC Document Reproduction Service No. ED 358 870), an ERIC Digest written by Vicki E. Hancock and published by the ERIC Clearinghouse on Information & Technology in May 1993. You may access this and other ERIC Digests in full text from several World Wide Web sites, including http://www.aspensys.com/eric and http://ericir.syr.edu.

## Help Others Become ERIC Literate

Remove the following 8-page section, *A Quick Guide to ERIC*, and reproduce it for distribution to teachers, school library media specialists, and other educators. See the pages following the *Quick Guide* for detailed information about the ERIC Clearinghouses, Adjunct ERIC Clearinghouses, and support components.




# A Quick Guide to ERIC

ERIC, the Educational Resources Information Center, is celebrating 30 years of service to people dedicated to improving American education.

ERIC has hundreds of free resources to help you improve teaching, learning, parenting, and decision making.

You are invited to:

- ✔ Use this *Quick Guide* to learn how to use ERIC.
- ✔ Call toll free or send e-mail to talk with an education specialist about your education interests.
- ✔ Visit ERIC's home page on the Internet. It's fun, and it's free.
- ✔ Check your favorite library for ERIC resources.
- ✔ Copy this *Quick Guide* to share with colleagues.

***"The ERIC database is a must for anyone working in education!"***

Sharan Merriam
*Professor, School of Leadership and Lifelong Learning*
*University of Georgia*
*Athens, Georgia*

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**1–800–LET–ERIC (538–3742)**
**Web: http://www.aspensys.com/eric**
**E-mail: askeric@ericir.syr.edu**

# What Can You Get From ERIC?

ERIC is celebrating 30 years of making the latest education information available to anyone who needs it:

- Teachers can use ERIC to improve their classrooms by exploring best practice ideas in areas such as cooperative learning, peer tutoring, and integrated curriculum. And of course, ERIC is an essential resource for graduate and undergraduate students requiring education-related information.
- Principals can turn to ERIC for practical information on topics such as how and why to implement block scheduling, how to ensure children's safety in school, and how to form partnerships with local businesses and community organizations.
- Parents can use ERIC to get overviews of current issues that may affect their child's education, such as performance assessment, full-day kindergarten, foreign language programs in the elementary grades, or college preparation for gifted children.

Accessible by phone, mail, modem, fax, or a visit to your local public or university library, ERIC was created in 1966 to capture federally funded education research and make copies available on paper or microfiche. Today, ERIC also provides information on CD-ROM and online. You can use ERIC to search the literature on virtually any education-related topic or get a brief summary of topics such as school violence prevention, exploring science with your child, the benefits of mixed-age grouping, or school-based management.

## The ERIC System

Sponsored by the U.S. Department of Education's National Library of Education, the ERIC system consists of 16 ERIC Clearinghouses, several Adjunct Clearinghouses, and additional support components. ERIC Clearinghouses collect, abstract, and index education materials for the ERIC database; respond to thousands of requests for information; and produce special publications each year on current research, programs, and practices.

## Publications Produced by ERIC

The ERIC system produces more than 250 special publications each year. These publications provide you with the latest research and practice information on current, high-interest topics. Clearinghouses produce free and low-cost publications, including brochures, newsletters, pamphlets, monograph series, bibliographies, journals, and digests.

The following is a sample of free and low-cost publications currently available from ERIC, organized by topic.

For information on how to get copies, call ACCESS ERIC at 1–800–LET–ERIC. To obtain electronic full text of the Digests, indicated by a (D), see the ERIC Digests box on page E3.

**Assessment**

*Emerging Student Assessment Systems for School Reform* (D)

*Portfolios for Assessment and Instruction* (D)

*Questions To Ask When Evaluating Tests* (D)

*Understanding Achievement Tests*

**Early Childhood**

*A to Z: The Early Childhood Educator's Guide to the Internet*

*Full-Day Kindergarten Programs* (D)

*School Readiness and Children's Developmental Status* (D)

**Middle Schools**

*Gifted Learners and the Middle School: Problem or Promise?* (D)

*Making Mathematical Connections in Middle School* (D)

*Middle Level Education in Rural America* (D)

*Parent, Family, and Community Involvement in the Middle Grades* (D)

**Mixed-Age Grouping**

*The Benefits of Mixed-Aged Grouping* (D)

*Children at the Center: Implementing the Multiage Classroom*

*Implementing the Multiage Classroom* (D)

**Reading/Literacy**

*Teaching Literature by Women Authors*

*Workplace Literacy: Its Role in High Performance Organizations* (D)

*Writing Across the Social Studies Curriculum*

**School-to-Work Transition**

*School-to-Work Transition*

*SCANS and the New Vocationalism* (D)

*Community Colleges as Facilitators of School-to-Work* (D)

*Counseling Employment-Bound Youth*

**Technology**

*An Educator's Guide to Electronic Networking: Creating Virtual Communities*

*Electronic Portfolios: A New Idea in Assessment* (D)

*Infusing Technology Into Preservice Teacher Education* (D)

*Local Area Networks for K–12 Schools* (D)

**Violence Prevention/Conflict Resolution**

*Preparing Teachers for Conflict Resolution in the Schools* (D)

*School Violence Prevention* (D)

*The ERIC Review*, a free journal produced by ACCESS ERIC, reports critical trends and issues in education as well as new ERIC system developments. Copies are still available of recent issues containing articles and resources on school-to-work transition and inclusive schools. To subscribe, call ACCESS ERIC at 1–800–LET–ERIC.

## Reference and Referral Services

ERIC offers free reference and referral services to the public through its network of clearinghouses, ACCESS ERIC, and electronic question-answering services. Staff are available to provide ERIC publications, answer questions about ERIC, locate hard-to-find documents, and refer you to other appropriate information sources. It is best to call an ERIC Clearinghouse if you have subject-specific questions. (See ERIC Directory on page E8). You can call ACCESS ERIC (1–800–LET–ERIC) for help in using the ERIC system or for the latest information on electronic services.

## The ERIC Database

At the heart of ERIC is the largest education database in the world—containing more than 900,000 bibliographic records of journal articles, research reports, curriculum and teaching guides, conference papers, and books. Each year approximately 30,000 new records are added. The ERIC database is available in many formats, including paper copy, CD-ROM, and online, and at hundreds of locations.

## ERIC Digests

Each year ERIC Clearinghouses produce more than 200 ERIC Digests. These popular two-page research syntheses—now numbering more than 1,500—provide brief overviews of current education issues. Digest topics are determined largely by the questions most frequently asked of the 16 subject-specific ERIC Clearinghouses. Digests are often presented in question-answer format and always include additional resources for more information.

You can get copies of ERIC Digests:

- On CD-ROM versions of the ERIC database.
- From the ERIC Document Reproduction Service or any library that has the ERIC microfiche collection.
- On several Internet sites, including the Department of Education's site:

  Web: http://www.ed.gov/databases/ERIC_Digests/index/

  Gopher: gopher.ed.gov

  —> Educational Research, Improvement, and Statistics.../

  —> Educational Resources Information Center (ERIC)/

  —> Search the ERIC Digests/

ERIC DIGEST

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# The ERIC Database: Search Tips

Wherever you choose to run a computer search of the ERIC database, the result of the search on your topic will be a standardized annotated bibliography; journals are indicated by EJ and documents by ED. To ensure that your search meets your needs, keep these important tips in mind:

## Decide Where To Search ERIC

You can search the ERIC database at hundreds of libraries around the world. Many of these libraries offer ERIC via online search vendors or CD-ROMs; some institutions purchase tapes of the database and make it available on their online public access catalogs. Several organizations allow public access to the database via the Internet. Although Internet access is appealing, keep in mind that these sites currently do not offer the *Thesaurus of ERIC Descriptors* and none contain the entire database dating from 1966. (For a list of public Internet access points to the ERIC database and step-by-step login instructions, send an e-mail message to ericdb@aspensys.com.) For help locating the best place for you to search ERIC, call 1–800–LET–ERIC.

## Use the *Thesaurus of ERIC Descriptors*

Every one of the more than 900,000 abstracts of articles and documents in the ERIC database has been given subject indexing terms called ***descriptors***. Before you run an ERIC search, take a few minutes to find the ERIC descriptors that best capture your topic.

For example, articles and documents about the development of children's social skills would be indexed under the descriptor ***interpersonal competence***. The ERIC descriptor for children at risk is ***at risk persons***. When you search for information about high school students, you can use the descriptor ***high school students***, but you would miss a lot of material if you did not also use the descriptor ***secondary education***.

Locations that offer ERIC searches should have reference copies of the *Thesaurus of ERIC Descriptors*. Some search systems also allow you to access the *Thesaurus* while running your search.

## Plan Your Search Strategy

To plan your ERIC search, follow these steps:

1. Write the topic in your own words.
2. Divide the search into major concepts.
3. Use the *Thesaurus of ERIC Descriptors* to locate the subject descriptors for each concept of the topic.

Although the kind of software used to search ERIC depends upon the system used, all searching is based on Boolean logic; the computer creates sets of information based on the way you tell it to combine subject terms.

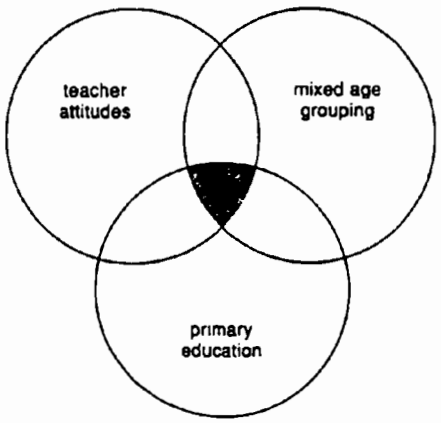
For example, to find out about teachers' attitudes toward multiage grouping of primary age students, you could use the *Thesaurus* to find these subject descriptors:

***teacher attitudes***

***mixed age grouping***

***primary education***

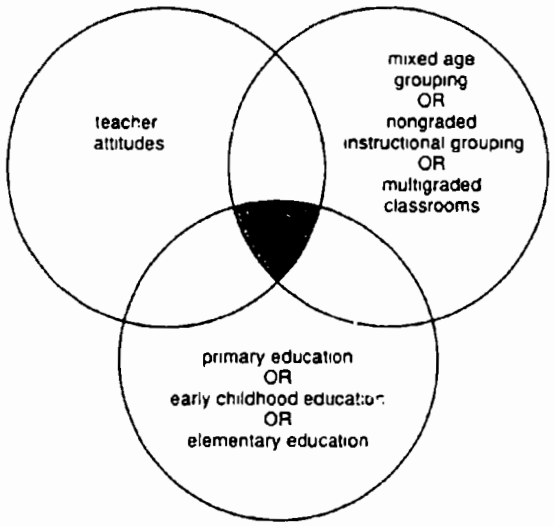
You want to find records that are indexed under *all three* of these concepts: ***teacher attitudes*** AND ***mixed age grouping*** AND ***primary education***. The diagram below illustrates that the AND command tells the computer to find the intersection of these three concept sets:




If *more* information on this topic is needed, use the *Thesaurus* to locate additional relevant descriptors and add them to your concept sets by using the OR operator.

If you need help planning your search strategy, call the ERIC Clearinghouse that covers your topic (see the ERIC Directory on page E8).

When the OR command is used, documents and articles indexed with either descriptor are searched and combined in a set:




You can use the blank ERIC Search Worksheet below to plan your next ERIC search.

## Search Strategy: What To Do . . .

**If you get way too much, you can limit your search by:**

Specifying publication type (for example, research or program descriptions)—this is also called document type.

Narrowing dates of publication—for example, request only those published in the past 2 years.

Limiting to major descriptors—most search systems allow you to target descriptors that capture the main focus of the document.

**If you get way too little, you can expand your search by:**

Adding more descriptors for each concept—look at the records retrieved in your search for additional relevant indexing terms.

Calling an ERIC Clearinghouse for advice—clearinghouse staff process and index the articles and documents and can often help you find what you're looking for.

## ERIC Search Worksheet

***Topic:***

***Concepts and Descriptors:***

| CONCEPT 1 | AND | CONCEPT 2 | AND | CONCEPT 3 |
|---|---|---|---|---|
| OR | | | | |

***Additional Search Restrictions:***

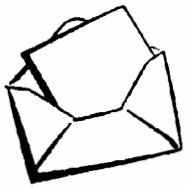
(for example, document types, educational level/age group, publication dates)

# ERIC on the 'Net

ERIC strives to provide easy and affordable access to education resources for a diverse, global audience. The Internet has been an ideal vehicle for expanding ERIC's availability to busy students, parents, and professionals.

## E-mail

If you have an e-mail account, you can use it to communicate with ERIC Clearinghouses, order ERIC documents from the ERIC Document Reproduction Service (EDRS), or send a question to the award-winning AskERIC question-answering service. (See the ERIC Directory on page E8 for e-mail addresses.)



## World Wide Web

The first ERIC site appeared on the Internet in 1992 when the ERIC Clearinghouse on Information & Technology introduced AskERIC—an electronic question-answering service and virtual library. Today there are 30 ERIC World Wide Web sites, all linked by one systemwide site run by ACCESS ERIC (http://www.aspensys.com/eric).

Users now turn to ERIC Internet sites *more than 300,000 times each week* to access resources, including:

- Hundreds of lesson plans
- A calendar of education-related conferences
- Full-text parent materials from a variety of organizations
- A test locator database
- Excerpts from ERIC Clearinghouse publications

### Q A [illegible] Ensure Service

AskERIC provides education information through a personalized question-answering service via e-mail. If you have a question about education or parenting, send an e-mail message to *askeric@ericir.syr.edu*. Within 48 hours you'll receive a response that may include the full text of an ERIC Digest, a list of relevant journal articles and documents from the ERIC database, or the names of listservs and Web sites related to your topic.

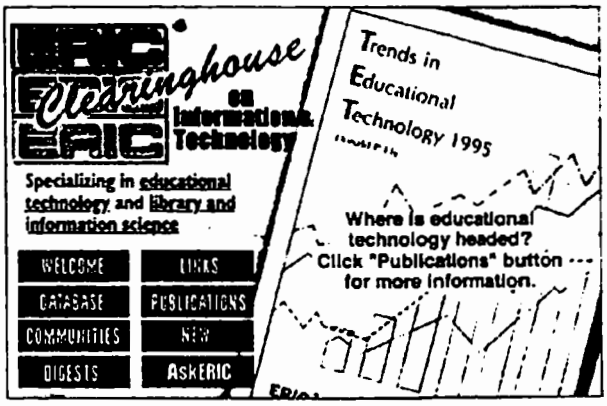
## Sample ERIC Internet Tours

The quality of the ERIC Internet sites is indicated by the level of usage as well as the 23 awards they have received. Here are some quick sample tours of ERIC on the Internet:

A **reading teacher** might use ERIC on the 'Net by starting with the ERIC Clearinghouse on Reading, English, and Communication (http://www.indiana.edu/~eric_rec) where he would find exemplary lesson plans, an online magazine for parents and their children, and an invitation to join READPRO, an electronic discussion group for professionals.

A **school principal** could use the ERIC Clearinghouse on Educational Management (http://darkwing.uoregon.edu/~ericcem/home.html) to find the full text of brief ERIC Digests on work teams, block scheduling, and leadership. Before deciding whether to subscribe to the K12ADMIN listserv, she could browse through recent messages posted to that listserv using the AskERIC listserv archives (http://ericir.syr.edu/Virtual/; select Education Listserv Archive). If she's looking for alternatives to tracking and ability grouping, the Urban Education site offers a bibliography (http://eric-web.tc.columbia.edu/).

A **school board** member preparing for a meeting on improving student access to technology would be interested in the text of an *ERIC Review* issue on K–12 networking (http://www.aspensys.com/eric/ter; select *The ERIC Review* K–12 Computer Networking). Or the board member could order a copy of a recent publication from the ERIC Clearinghouse on Information & Technology (http://ericir.syr.edu/ithome).




A **graduate student** in early childhood education could run a search of the ERIC database on the project approach and order the most relevant documents from the ERIC Document Reproduction Service (http://edrs.com).



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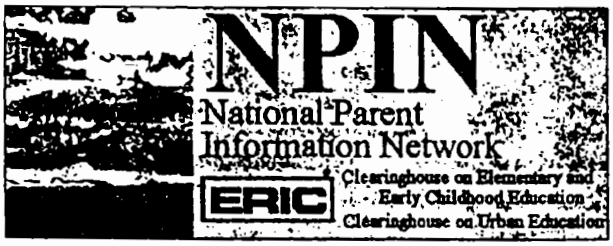
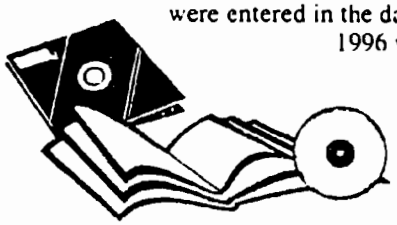
A **parent** could check the National Parent Information Network (http://ericps.ed.uiuc.edu/npin/npinhome.html) for monthly parent news items (such as tips on how to help your children behave in the grocery store) as well as articles on assessment, the effects of video games, and parent involvement in schools.




To conduct your own tour of ERIC on the Internet, start with the ERIC systemwide site (http://www.aspensys.com/eric). The section called "Links to All ERIC Sites" includes links to all ERIC-sponsored Web and Gopher sites and allows you to send e-mail to ERIC Clearinghouses.

### Coming Soon! ERIC Documents in Electronic Format

Soon Internet users will be able to obtain electronic full-text copies of ERIC documents, identified by ED and a publication number, from the EDRS site (http://edrs.com). EDRS is scanning most documents entered into the database since January 1996. Documents that were entered in the database prior to 1996 will be scanned and become part of the electronic collection as customers order them.



## Other Frequently Asked Questions About ERIC

**How can you submit publications to ERIC?**

If you have recently authored a research report, program description or evaluation, literature review, teaching guide, conference paper, or other education-related work, you can make it permanently available and accessible to others through ERIC. Send one legible printed copy to the ERIC Clearinghouse that covers your topic or to the ERIC Processing and Reference Facility. (See addresses on page E8.)

**Where can you get ERIC training materials?**

If you're a teacher educator or can give a workshop or presentation to help spread the word about ERIC, you can receive additional materials for free from ACCESS ERIC. Call ACCESS ERIC at 1–800–LET–ERIC and ask about transparency masters, posters, bookmarks, and other handouts for training.

**How can you get copies of documents and articles that are in the ERIC database?**

Materials in the ERIC database with an ERIC document number (ED followed by six digits) can be found in more than 900 libraries that have ERIC microfiche collections (call 1–800–LET–ERIC for the location nearest you). You can also purchase microfiche or paper copies from EDRS. Fax and express mail service are offered, and you can use the EDRS Web site (http://edrs.com) to order online.

Records with an ERIC journal number (EJ followed by six digits) are journal articles that can be found in library periodical collections, through interlibrary loan, or from article reprint services such as UMI InfoStore (1–800–248–0360) or the Institute for Scientific Information (1–800–523–1850).

If you enjoy communicating via e-mail and want to be part of an ongoing discussion on a topic of interest to you, consider joining one or more ERIC-sponsored listservs. To subscribe to a listserv, send a message to: listserv@[address]. Leave the subject line blank. In the body of the message, type: subscribe [listservname firstname lastname]. More than 27 listservs are currently managed by ERIC Clearinghouses, including:

ECENET-L@postoffice.cso.uiuc.edu
Early childhood education

K12ADMIN@listserv.syr.edu
Elementary and secondary school administration

LM_NET@listserv.syr.edu
School library and media services

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## ERIC Directory

**Educational Resources Information Center (ERIC)**
U.S. Department of Education
Office of Educational Research and Improvement
National Library of Education
555 New Jersey Avenue NW
Washington, DC 20208–5721
Phone: (202) 219–2221
E-mail: eric@inet.ed.gov
Web: http://www.ed.gov

### Clearinghouses

**Adult, Career, and Vocational Education**
The Ohio State University
1900 Kenny Road
Columbus, OH 43210–1090
Phone: (614) 292–4353; (800) 848–4815
E-mail: ericacve@magnus.acs.ohio-state.edu
Web: http://coe.ohio-state.edu/cete/ericacve/index.htm

**Assessment and Evaluation**
The Catholic University of America
210 O'Boyle Hall
Washington, DC 20064–4035
Phone: (202) 319–5120; (800) GO4–ERIC
E-mail: eric_ae@cua.edu
Web: http://ericae2.educ.cua.edu

**Community Colleges**
University of California at Los Angeles
3051 Moore Hall
Los Angeles, CA 90095–1521
Phone: (310) 825–3931; (800) 832–8256
E-mail: ericcc@ucla.edu
Web: http://www.gseis.ucla.edu/ERIC/eric.html

**Counseling and Student Services**
School of Education
University of North Carolina at Greensboro
101 Park Building
Greensboro, NC 27412–5001
Phone: (910) 334–4114; (800) 414–9769
E-mail: ericcas2@dewey.uncg.edu
Web: http://www.uncg.edu/~ericcas2

**Disabilities and Gifted Education**
The Council for Exceptional Children
1920 Association Drive
Reston, VA 20191–1589
Phone: (703) 264–9474; (800) 328–0272
TTY: (703) 264–9449
E-mail: ericec@cec.sped.org
Web: http://www.cec.sped.org/ericec.htm

**Educational Management**
5207 University of Oregon
1787 Agate Street
Eugene, OR 97403–5207
Phone: (541) 346–1684; (800) 438–8841
E-mail: ppiele@oregon.uoregon.edu
Web: http://darkwing.uoregon.edu/~ericcem

**Elementary and Early Childhood Education**
University of Illinois at Urbana–Champaign
Children's Research Center
51 Gerty Drive, Champaign, IL 61820
Phone: (217) 333–1386; (800) 583–4135
E-mail: ericeece@uiuc.edu
Web: http://ericps.ed.uiuc.edu/ericeece.html
National Parent Information Network Web:
http://ericps.ed.uiuc.edu/npin/npinhome.html

**Higher Education**
The George Washington University
One Dupont Circle NW, Suite 630
Washington, DC 20036–1183
Phone: (202) 296–2597; (800) 773–ERIC
E-mail: eriche@inet.ed.gov

**Information & Technology**
Syracuse University
4–194 Center for Science and Technology
Syracuse, NY 13244–4100
Phone: (315) 443–3640; (800) 464–9107
ERIC/IT E-mail: eric@ericir.syr.edu
AskERIC E-mail: askeric@ericir.syr.edu
ERIC/IT Web: http://ericir.syr.edu/ithome
AskERIC Web: http://ericir.syr.edu

**Languages and Linguistics**
Center for Applied Linguistics
1118 22nd Street NW
Washington, DC 20037–1214
Phone: (202) 429–9292; (800) 276–9834
E-mail: eric@cal.org
Web: http://www.cal.org/ericcll

**Reading, English, and Communication**
Indiana University, Smith Research Center
2805 East 10th Street, Suite 150
Bloomington, IN 47408–2698
Phone: (812) 855–5847; (800) 759–4723
E-mail: ericcs@indiana.edu
Web: http://www.indiana.edu/~eric_rec

**Rural Education and Small Schools**
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325–1348
Phone: (304) 347–0400; (800) 624–9120
TTY: (304) 347–0401
E-mail: lanhamb@ael.org
Web: http://www.ael.org/erichp.htm

**Science, Mathematics, and Environmental Education**
The Ohio State University
1929 Kenny Road
Columbus, OH 43210–1080
Phone: (614) 292–6717; (800) 276–0462
E-mail: ericse@osu.edu
Web: http://www.ericse.org

**Social Studies/Social Science Education**
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408–2698
Phone: (812) 855–3838; (800) 266–3815
E-mail: ericso@indiana.edu
Web: http://www.indiana.edu/~ssdc/eric-chess.html

**Teaching and Teacher Education**
American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610
Washington, DC 20036–1186
Phone: (202) 293–2450; (800) 822–9229
E-mail: ericsp@inet.ed.gov
Web: http://www.ericsp.org

**Urban Education**
Teachers College, Columbia University
Main Hall, Room 303, Box 40
New York, NY 10027–6696
Phone: (212) 678–3433; (800) 601–4868
E-mail: eric-cue@columbia.edu
Web: http://eric-web.tc.columbia.edu

### Adjunct Clearinghouses

**Child Care**
National Child Care Information Center
301 Maple Avenue West, Suite 602
Vienna, VA 22180
Phone: (800) 616–2242
E-mail: agoldstein@acf.dhhs.gov
Web: http://ericps.ed.uiuc.edu/nccic/nccichome.html

**Clinical Schools**
American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610
Washington, DC 20036–1186
Phone: (202) 293–2450; (800) 822–9229
E-mail: iabdalha@inet.ed.gov
Web: http://www.ericsp.org

**Consumer Education**
National Institute for Consumer Education
Eastern Michigan University
207 Rackham Building
Ypsilanti, MI 48197–2237
Phone: (313) 487–2292
E-mail: rosella.bannister@emich.edu
Web: http://www.emich.edu/public/coe/nice/nice.html

**Entrepreneurship Education**
The Center for Entrepreneurial Leadership
Ewing Marion Kauffman Foundation
4900 Oak Street
Kansas City, MO 64112–2776
Phone: (816) 932–1000; (888) 4–CELCEE
E-mail: celcee@ucla.edu
Web: http://www.celcee.edu

**ESL Literacy Education**
Center for Applied Linguistics
1118 22nd Street NW
Washington, DC 20037–1214
Phone: (202) 429–9292, Extension 200
E-mail: ncle@cal.org
Web: http://www.cal.org/NCLE

**International Civic Education**
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408–2698
Phone: (812) 855–3838; (800) 266–3815
E-mail: patrick@indiana.edu

**Law-Related Education**
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408
Phone: (812) 855–3838; (800) 266–3815
E-mail: ericso@indiana.edu
Web: http://www.indiana.edu/~ssdc/lre.html

**Service Learning**
University of Minnesota
College of Education and Human Development
1954 Buford Avenue, Room R-290, VoTech Building
St. Paul, MN 55108
Phone: (612) 625–6276; (800) 808–SERV
E-mail: serv@maroon.tc.umn.edu
Web: http:// www.nicsl.coled.umn.edu

**Test Collection**
Educational Testing Service
Princeton, NJ 08541
Phone: (609) 734–5737
E-mail: mhalpern@ets.org
Web: http://ericae2.educ.cua.edu/testcol.htm

**U.S.–Japan Studies**
Social Studies Development Center
Indiana University
2805 East 10th Street, Suite 120
Bloomington, IN 47408–2698
Phone: (812) 855–3838; (800) 266–3815
E-mail: japan@indiana.edu
Web: http://www.indiana.edu/~japan

### Support Components

**ACCESS ERIC**
1600 Research Boulevard, 5F
Rockville, MD 20850–3172
Phone: (301) 251–5789; (800) LET–ERIC
E-mail: acceric@inet.ed.gov
Web: http://www.aspensys.com/eric

**ERIC Document Reproduction Service (EDRS)**
7420 Fullerton Road, Suite 110
Springfield, VA 22153–2852
Phone: (703) 440–1400; (800) 443–ERIC
E-mail: service@edrs.com
Web: http://edrs.com

**ERIC Processing and Reference Facility**
Computer Sciences Corporation
1100 West Street, 2nd Floor
Laurel, MD 20707–3598
Phone: (301) 497–4080; (800) 799–ERIC
E-mail: ericfac@inet.ed.gov
Web: http://ericfac.piccard.csc.com



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**Adult, Career, and Vocational Education**
The Ohio State University
1900 Kenny Road, Columbus, OH 43210-1090
(800) 848-4815 ◆ (614) 292-4353 ◆ Fax: (614) 292-1260
E-mail: ericacve@magnus.acs.ohio-state.edu
Web: http://coe.ohio-state.edu/cete/ericacve/index.html

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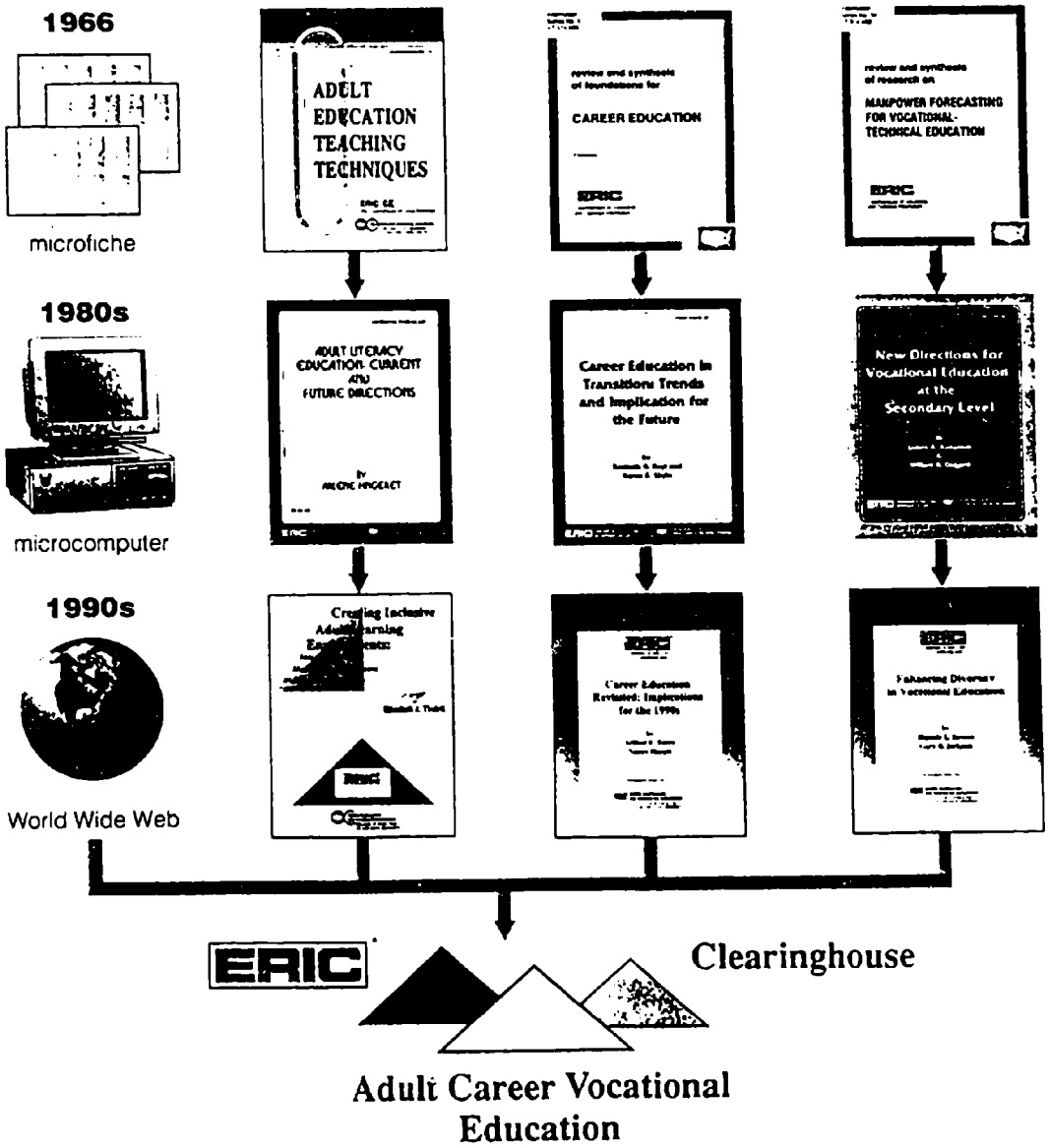
*ERIC Clearinghouse*

## The ERIC/ACVEvolution



# Assessment and Evaluation

The Catholic University of America
210 O'Boyle Hall, Washington, DC 20064–4035
(800) GO4–ERIC ◆ (202) 319–5120 ◆ Fax: (202) 319–6692
E-mail: eric_ae@cua.edu ◆ Gopher: gopher.cua.edu (Special Resources)
Web: http://ericae2.educ.cua.edu

*ERIC Clearinghouse*


ERIC

The ERIC Clearinghouse on Assessment and Evaluation (ERIC/AE) is one of 16 clearinghouses in the ERIC system. We seek to provide resources to encourage responsible test use.

Our scope of interest covers:

- methodology of measurement, research, and evaluation;
- application of tests, measurement, or evaluation in educational projects or programs;
- tests and other measurement devices; and
- learning theory in general.

ERIC/AE serves the education community in the following capacities: answering user questions, performing searches for users interested in educational assessment and evaluation related topics, acquiring new documents for inclusion in the ERIC database, and providing access to documents.

**World Wide Web**
http://ericae2.educ.cua.edu

**To Access Our Gopher Service**

1. Gopher to GOPHER.CUA.EDU
2. Choose Special Resources
3. Choose ERIC Clearinghouse on Assessment and Evaluation

## Resources for the Measurement Community at Our Web and Gopher Sites

◆ ◆ ◆

**Search ERIC (*CIJE and RIE*)** — Forms and pointers to all known publicly accessible sites for searching ERIC on the Internet.

**ERIC/AE Test Locator** — A joint project of ERIC/AE, the Educational Testing Service (ETS), the Buros Institute of Mental Measurements, and Pro-Ed test publishers, the Test Locator describes more than 10,000 assessment instruments and their availability.

**FAQs and InfoGuides on Assessment, Evaluation, and Learning Theory** — FAQs are responses to frequently asked assessment and learning theory questions. Responses include: ERIC database document citations, Internet pointers, and other print resources. Coverage includes: fairness in testing, block scheduling, authentic assessment, GRE and SAT preparation, and much more.

**Assessment and Evaluation on the Internet (Drake, 1996)** — World Wide Web sites, listservs, and full-text essays are identified and annotated for measurement professionals, researchers, curriculum developers, evaluation personnel, and others involved or interested in assessment issues. These records are organized by assessment topic and by sponsoring association.

CUA

**1,700 Full-Text Essays on Assessment Topics** — You can search all the newsletters, ERIC Digests, essays, and other full-text resources at ERIC/AE.

## Special Projects

***Testing In America: A Collection of Titles from the ERIC Clearinghouse on Assessment and Evaluation*** — A catalog of outstanding books in the field of evaluation and measurement providing solutions to contemporary education problems.

**Partners Program for Professors of Education Research** — Our partnership program seeks to increase faculty and student awareness of the ERIC system and products available through ERIC/AE, develop the information research skills of faculty and students who enroll in measurement and research courses, promote the sharing of education research resources, and expand the use of systematic searches of the ERIC database and ERIC/AE resources to enhance research, writing, and decision making in the areas of measurement and evaluation.

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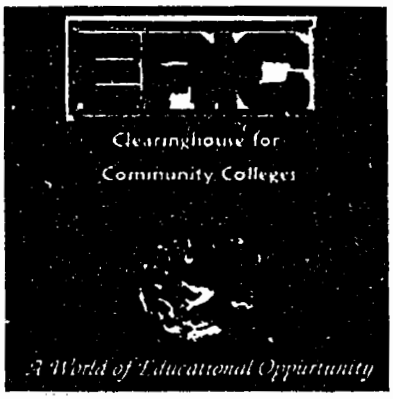
**Community Colleges**
University of California at Los Angeles
3051 Moore Hall, P.O. Box 951521, Los Angeles, CA 90095-1521
(800) 832-8256 ◆ (310) 825-3931 ◆ Fax: (310) 206-8095
E-mail: ericcc@ucla.edu ◆ Web: http://www.gseis.ucla.edu/ERIC/eric.html

CELEBRATING 1966-1996 30 YEARS

*ERIC Clearinghouse*

Arthur Cohen
Founding Director, 1966



Arthur Cohen
Current Director, 1996

# 1966 Community College Highlights 1996

| | | |
|---|---|---|
| | *Number of Community Colleges* | |
| 503 | Public | 1,291 |
| 268 | Independent | 181 |
| | *Average Annual In-State Tuition* | |
| $99 | Public (Current Dollars) | $1,114 |
| $702 | Independent (Current Dollars) | $6,343 |
| | *Enrollment* | |
| 792,006 | Full-Time | 2,082,106 |
| 664,157 | Part-Time | 3,641,111 |

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CELEBRATING 1966–1996 30 YEARS

## Counseling and Student Services

University of North Carolina at Greensboro, School of Education
101 Park Building, Greensboro, NC 27412-5001
(800) 414-9769 ◆ (910) 334-4114 ◆ Fax: (910) 334-4116
E-mail: ericcas2@dewey.uncg.edu ◆ Web: http://www.uncg.edu/~ericcas2

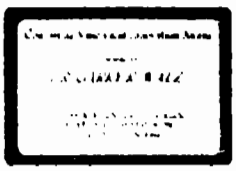
*ERIC Clearinghouse*

It all started here in 1966 at the University of Michigan

Popular Publications

Web Site

National Conferences



One of many awards received by the Clearinghouse and staff

and now in the School of Education, University of North Carolina at Greensboro

◆ *Improving Decision Making Through Increased Access to Information* ◆

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# Disabilities and Gifted Education

The Council for Exceptional Children
1920 Association Drive, Reston, VA 20191–1589
(800) 328–0272 ◆ (703) 264–9474
Fax: (703) 620–2521 ◆ TTY: (703) 264–9449
E-mail: ericec@cec.sped.org ◆ Web: http://www.cec.sped.org/ericec.htm

ERIC CELEBRATING 1966–1996 30 YEARS

***ERIC Clearinghouse***

Since June 1966, the ERIC Clearinghouse on Disabilities and Gifted Education (ERIC EC) has gathered, selected, and abstracted the best of the professional literature on disabilities and gifted education to meet the information needs of the education community and the public. More than 60,000 records in the ERIC database relate to the education of exceptional infants, toddlers, children, and adults. ERIC EC addresses all aspects of the education and development of individuals with disabilities and individuals who are gifted.

- Delivery of education and related services
- Identification and assessment
- Special instruction
- Early intervention and early childhood
- Specific exceptionalities
- Inclusive schools
- Professional standards
- Prevention of disability
- Adaptive and assistive technology
- Enrichment
- Transition and postsecondary
- Families and parents
- Procedural safeguards
- Collaboration

## ALL ASPECTS — ALL AGES — ALL SETTINGS

ERIC EC also includes the ERIC/OSEP Special Project, which is funded by the U.S. Department of Education, Office of Special Education Programs. This project promotes research to practice by facilitating the exchange of research information through focus groups and conferences, developing publications that summarize recent research on critical topics, and disseminating the research to teachers, trainers, administrators, policy makers, researchers, families, and others who develop and deliver special education services.

| *Services* | *Products* |
|---|---|
| Information. Contact us by letter, toll-free phone, or e-mail. | ERIC Digests on current topics. |
| Reference and referrals to other useful sources. | Free information packets on selected topics. |
| Research-based responses through the AskERIC service on the Internet. | Books, reports, directories, minibibliographies, and databases on diskette. |
| | Custom searches for a fee. |

# Educational Management

5207 University of Oregon
1787 Agate Street, Eugene, OR 97403–5207
(800) 438–8841 ◆ (541) 346–1684 ◆ Fax: (541) 346–2334
E-mail: ppiele@oregon.uoregon.edu
Web: http://darkwing.uoregon.edu/~ericcem

*ERIC Clearinghouse*

## 30 Years By the Numbers

30,526 journal articles indexed and annotated
23,939 documents indexed and abstracted
697 books, monographs, and other items published
103 ERIC Digests published
7,146,577 publications disseminated
26 ERIC Partners welcomed

## All-Time Best Sellers

***School Leadership: Handbook for Excellence***
Stuart C. Smith and
Philip K. Piele, Eds.
Two editions; third edition in press • 19,256 copies

***Managing the Incompetent Teacher***
Edwin M. Bridges
Two editions • 14,140 copies

## Current Titles

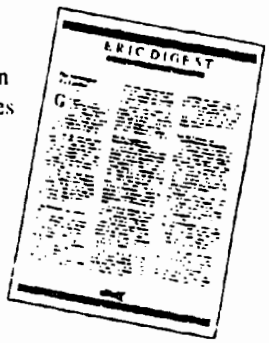
***Transforming School Culture: Stories, Symbols, Values, and the Leader's Role***
Stephen Stolp and Stuart C. Smith • 1995
$12.50

***Roadmap to Restructuring: Policies, Practices, and the Emerging Visions of Schooling***
David T. Conley • 1993 (second edition in progress) $19.95

***Implementing Problem-Based Learning in Leadership Development***
Edwin M. Bridges and Philip Hallinger • 1995
$14.95

***Children at the Center: Implementing the Multiage Classroom***
Bruce Miller • 1994
$15.95

## Key ERIC Partners




- American Association of School Administrators—In the 1970s, printed 37 issues of *ERIC Abstracts*. Since the mid-1980s, has made ERIC Digests available to members.
- National Association of Elementary School Principals—Has printed 30 issues and 750,000 copies of *Research Roundup*.
- National Association of Secondary School Principals—Reprinted for its members nearly 2.5 million copies of *The Best of ERIC on Educational Management* in the 1970s, and since 1982, more than 2 million copies of ERIC Digests.
- National School Boards Association—Distributes ERIC Digests to its state affiliates. Hosts the Clearinghouse's National Advisory Board meetings.
- University Council for Educational Administration—Copublished a series of monographs in the 1970s on preparation of school administrators.

### Veteran staff members

| | |
|---|---|
| Philip K. Piele | Professor and Director (1967 to present) |
| Stuart C. Smith | Associate Director (1967 to present) |
| Mary Lou Finne | User Services Coordinator (1969 to present) |



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# Elementary and Early Childhood Education

University of Illinois at Urbana–Champaign
Children's Research Center, 51 Gerty Drive, Champaign, IL 61820
(800) 583–4135 ◆ (217) 333–1386 ◆ Fax: (217) 333–3767
E-mail: ericeece@uiuc.edu
Web: http://ericps.ed.uiuc.edu/ericeece.html

CELEBRATING 1966–1996 30 YEARS

*ERIC Clearinghouse*

NPIN
National Parent Information Network
ERIC Clearinghouse on Elementary and Early Childhood Education · Clearinghouse on Urban Education

http://ericps.ed.uiuc.edu/npin/npinhome.html

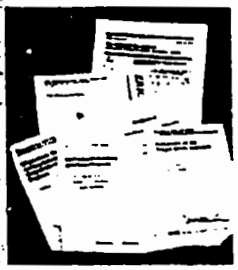
*ReadyWeb*
A resource especially for Parents and Educators

http://ericps.ed.uiuc.edu/readyweb/readyweb.html

ERIC
Clearinghouse on Elementary and Early Childhood Education
*University of Illinois at Urbana-Champaign*

http://ericps.ed.uiuc.edu/ericeece.html

ERIC/EECE at Professional Conferences



Recent Publications

Dr. Lilian Katz, Director

Clearinghouse Staff

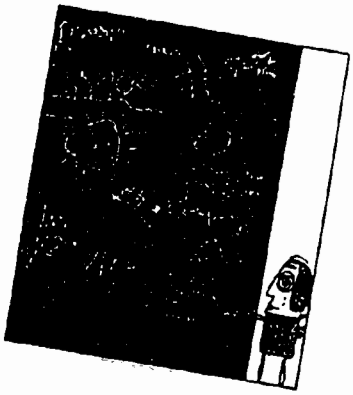
◆ Providing Information for Educators and Parents since 1967 ◆

ERIC
CELEBRATING 30 YEARS 1966–1996

**Higher Education**
The George Washington University
One Dupont Circle NW, Suite 630, Washington, DC 20036–1183
(800) 773-ERIC ◆ (202) 296-2597 ◆ Fax: (202) 452-1844
E-mail: eriche@inet.ed.gov

*ERIC Clearinghouse*

## ASHE-ERIC Higher Education Reports



Since 1983, the Association for the Study of Higher Education (ASHE) and the Educational Resources Information Center (ERIC) Clearinghouse on Higher Education, a project of the Graduate School of Education and Human Development at The George Washington University, have cosponsored the ASHE-ERIC Higher Education Report Series.

The ASHE-ERIC Report Series is among the most comprehensive reviews of higher education literature available to higher education professionals. Each report is the definitive analysis of a tough higher education problem, based on thorough research of pertinent literature and institutional experiences. Reviewers include scholars and practitioners, and the highest quality is ensured through the most extensive peer-review process of any comparable publication. Individual monographs are available for $18 plus $3.75 for shipping.

To subscribe to the series or to order a free catalog, call or write to the Clearinghouse.

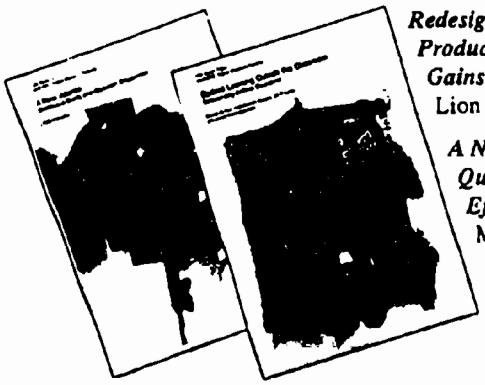
### Recent Titles

***Empowering the Faculty! Mentoring Redirected and Renewed***
Gaye Luna and Deborah L. Cullen

***Taking Teaching Seriously: Meeting the Challenge of Instructional Improvement***
Michael B. Paulsen and Kenneth A. Feldman

***Tenure, Promotion and Reappointment: Legal and Administrative Implications***
Benjamin Baez and John A. Centra

***Student Learning Outside the Classroom: Transcending Artificial Boundaries***
George D. Kuh, Katie Branch Douglas, Jon P. Lund, and Jackie Ramin-Gyurnek



***Redesigning Higher Education: Producing Dramatic Gains in Student Learning***
Lion F. Gardiner

***A New Alliance: Continuous Quality and Classroom Effectiveness***
Mimi Wolverton

### Forthcoming Topics

- Partnerships with business and industry
- Improving teaching
- Total Quality Management
- Student achievement
- Student discipline
- Service learning
- Instructional technology and distance learning
- Assessment



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# Information & Technology

Syracuse University
4-194 Center for Science and Technology, Syracuse, NY 13244-4100
(800) 464-9107 ◆ (315) 443-3640 ◆ Fax: (315) 443-5448
E-mail: eric@ericir.syr.edu ◆ Web: http://ericir.syr.edu/ithome

ERIC CELEBRATING 1966-1996 30 YEARS

*ERIC Clearinghouse*

## Happy 30th Anniversary ERIC from Mike Eisenberg and everyone at ERIC/IT. Thirty years! What a ride!

In reviewing the work of the ERIC system and our own Information & Technology Clearinghouse, it is gratifying to be able to say that ERIC continues to be an innovator in using technology to improve education in the United States and around the world.

From the beginning, technology was central to the mission of ERIC—to put high-quality information into the hands of classroom teachers, administrators, librarians, researchers, educators-to-be, parents, and anyone else interested in education. And technology is even more important today. Our challenge is to continue to use every means possible to provide superior education information in support of learning and literacy.

The ERIC Clearinghouse on Information & Technology is proud of its role in collaborating with others within the ERIC system on technological innovation. We are the clearinghouse responsible for information and instructional technology as a content area as well as a means. We have worked hard to provide valuable content by adding more than 51,000 records to the database and publishing more than 180 monographs and 104 digests supporting library and information science and educational technology issues. We and the other ERIC Clearinghouses and components have worked hard to use the latest technologies to better meet the needs of our users.

Today, ERIC is widely recognized as the premier education information service in the world. ERIC was an early user of the Internet to reach out to users, and our Internet services and resources, highlighted by AskERIC, continue to win awards and accolades for quality, value, and effectiveness.

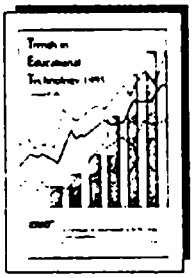
But as we celebrate the ERIC system's accomplishments of the past 30 years, we also realize that technology will continue to evolve at a challenging pace. We therefore use this occasion to rededicate ourselves to focusing on the real needs of all education users and to study and use current and future technologies to meet those needs.

**ERIC/IT is pleased to announce a Web presence! Our address:**

**http://ericir.syr.edu/ithome**

Our new home page offers links to the ERIC database, ERIC/IT publications, Web sites specializing in library and information science and educational technology, electronic communities, AskERIC, and more.

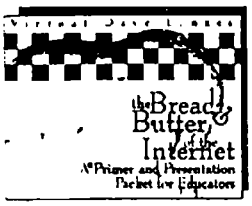
## *Announcing New ERIC/IT Publications*



***Trends in Educational Technology 1995***

Donald P. Ely

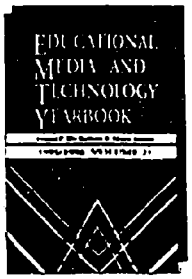
The fourth volume in this popular series. Provides a content analysis and interpretation of educational technology periodicals, conference programs, doctoral dissertations, and ERIC input. 60 pp. $10




***The Bread & Butter of the Internet: A Primer and Presentation Packet for Educators***

Virtual Dave Lankes

Tap into the Internet! This book includes a ready-made Internet training presentation and discusses the basics of the World Wide Web, client/server, telnet, e-mail, FTP, gopher, and the Internet in schools. 120 pp. $20




***Educational Media and Technology Yearbook, 1995-96***

Donald P. Ely and Barbara B. Minor

Provides an up-to-date overview and assessment of the field of educational technology. 409 pp. $60

***Satisfaction guaranteed or your money back! • For ordering information, call 1-800-464-9107***

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# AskERIC

E-mail: askeric@ericir.syr.edu
Gopher: ericir.syr.edu
Web: http://ericir.syr.edu

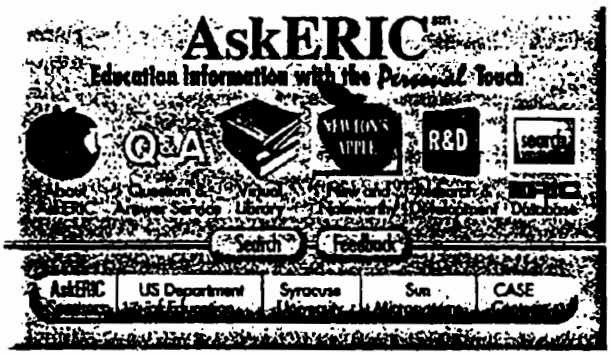
***AskERIC Electronic Service***

The ERIC system established the AskERIC service in November 1992 to provide access to education information on the information superhighway and to respond to the challenges of the rapid evolution of Internet technology. AskERIC provides free education information through a personalized online question-answering service (askeric@ericir.syr.edu). The Virtual Library, located at the AskERIC Web site (http://ericir.syr.edu), stores the largest education database in the world.

In December 1993, AskERIC became the first registered education site on the World Wide Web. The AskERIC Virtual Library now offers a database of more than 900 lesson plans, more than 20 listserv archives, 125 AskERIC InfoGuides, and the AskERIC Toolbox.

retrieval software for searching the ERIC database through a World Wide Web interface on the AskERIC Internet site. Syracuse University graduate students develop AskERIC InfoGuides under the direction of ERIC and AskERIC professionals.

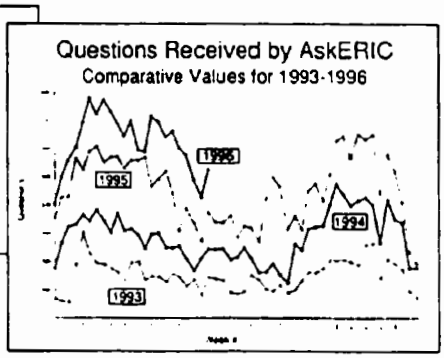
AskERIC also works closely with Parents AskERIC and with the National Parent Information Network (NPIN), in cooperation with the ERIC Clearinghouse on Early Childhood and Elementary Education and the ERIC Clearinghouse on Urban Education.




## The Q & A Service and Virtual Library

The AskERIC question-answering service, with its 48-hour response time, continues to soar in popularity. Teachers, librarians, administrators, researchers, students, parents, and others access AskERIC 24 hours a day, 7 days a week.

| | 1993 | 1994 | 1995 | 1996 |
|---|---|---|---|---|
| April 1 | 135 | 246 | 569 | 588 |
| April 8 | 148 | 297 | 468 | 715 |
| April 15 | 147 | 300 | 492 | 696 |




Early users expressed an interest in accessing AskERIC information independent of the question-answering service. Those queries led to the debut of the AskERIC Virtual Library in February 1993 as an FTP/Gopher site of frequently asked questions (FAQs); ERIC Minisearches, Digests, and Helpsheets; and a listserv archive.

## Partnerships

As one of SUN Microsystems' SUNSites, AskERIC receives support for research in cutting-edge multimedia development. Personal Librarian Software provides AskERIC with powerful information

## AskERIC Awards

AskERIC was a finalist in the 1994 Computerworld Smithsonian Awards, given in recognition of innovative use of technology in education. In 1995, AskERIC was named winner in GNN's Best of the Net Awards in the professional education category. In 1996, AskERIC was one of 30 K-12 education sites given a grade of A+ by Classroom Connect. AskERIC was chosen for its "exceptional educational content, design, and interactive innovations."



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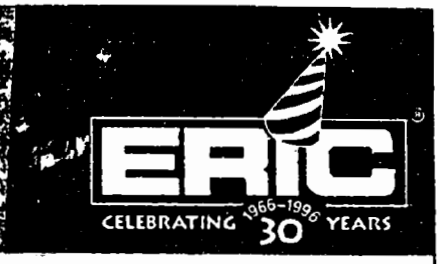
# Languages and Linguistics

Center for Applied Linguistics
1118 22nd Street NW, Washington, DC 20037–1214
(800) 276–9834 ◆ (202) 429–9292 ◆ Fax: (202) 659–5641
E-mail: eric@cal.org ◆ Web: http://www.cal.org/ericcll




***ERIC Clearinghouse***

The ERIC Clearinghouse on Languages and Linguistics (ERIC/CLL) collects and disseminates information on current developments in education research, instructional methods and materials, program design and evaluation, teacher training, and assessment in the following areas:

- Foreign languages
- English as a second or foreign language
- Bilingualism and bilingual education
- Psycholinguistics and sociolinguistics
- Theoretical and applied linguistics
- Intercultural communication and cultural education
- Study abroad and international exchange

Many of ERIC/CLL's materials and services for language educators are free, including two-page information digests and short bibliographies, a semiannual newsletter, and a question-answering service (eric@cal.org). Ready-made computer searches of the ERIC database are available for a nominal fee.

ERIC/CLL NEWS BULLETIN

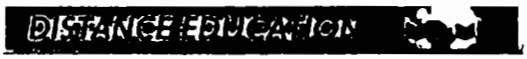
*Pilot Sites Help Chart the National Foreign Language Standards*

ERIC/CLL encourages practitioners and researchers working in language education to submit curriculum materials, program descriptions and evaluations, research reports, teaching guides, assessment and evaluation instruments, and conference proceedings for possible inclusion in the ERIC database.

**Reading, English, and Communication**

Indiana University, Smith Research Center
2805 East 10th Street, Suite 150, Bloomington, IN 47408–2698
(800) 759–4723 ◆ (812) 855–5847 ◆ Fax: (812) 855–4220
E-mail: ericcs@indiana.edu ◆ Gopher: gopher.indiana.edu
Web: http://www.indiana.edu/~eric_rec

*ERIC Clearinghouse*



The ERIC Clearinghouse on Reading, English, and Communication (ERIC/REC) is dedicated to providing educational materials, services, and coursework to parents, educators, students, and others interested in the language arts.

ERIC/REC is exploring new technology through which information can be captured and disseminated more effectively and efficiently. No activity performed by our clearinghouse better illustrates this effort than the ERIC/REC World Wide Web site.

ERIC/REC online reference services include bibliographies and summaries of recently published research, access to the ERIC database, and links to other databases, library catalogues, listservs, and Web sites.

For educators and parents interested in professional training, we offer an online version of our clearinghouse bookstore and a calendar of workshops offered through our family literacy program.

Our Web site also acts as a free worldwide delivery vehicle for ERIC/REC's popular *Parents and Children Together Online (PCTO)* magazine and offers Indiana University Language Education coursework to students.

---

**The ERIC/REC and *PCTO* Web sites are pleased to have received the following awards:**

# Rural Education and Small Schools

Appalachia Educational Laboratory
P.O. Box 1348, Charleston, WV 25325–1348
(800) 624–9120 ◆ (304) 347–0400 ◆ Fax: (304) 347–0487
E-mail: lanhamb@ael.org ◆ Web: http://www.ael.org/erichp.htm

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*ERIC Clearinghouse*

## What do

American Indians and Alaska Natives

Outdoor Educators

Mexican Americans

Rural Educators

Migrant Educators

Supporters of Small Schools

## all have in common?

ERIC®

## The ERIC Clearinghouse on Rural Education and Small Schools!

Sign up online for our print newsletter (http://www.ael.org/subform.htm) and call, e-mail, or write to us for our catalog of free and low-cost publications.

### New Books

*Children of La Frontera*
Judy Flores, Ed.
Mexican and American binational educational efforts.

*Sustainable Small Schools*
Craig Howley and John Eckman
Handbook to help communities improve small, rural schools.

*Local Schools of Thought*
Clark Webb and colleagues
Reflective practice for small, rural schools.

*Just Beyond the Classroom*
Cliff Knapp
Community adventures for interdisciplinary learning.

*Doing Our Homework*
Andrea Bermúdez
How schools can engage Hispanic communities.

*1997 Native Education Directory*
National, regional, and state programs and organizations.

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The Clearinghouse is hosted by AEL, Inc., which serves as the U.S. Department of Education's Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia.

# Science, Mathematics, and Environmental Education

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The Ohio State University
1929 Kenny Road, Columbus, OH 43210–1080
(800) 276–0462 ◆ (614) 292–6717 ◆ Fax: (614) 292–0263
E-mail: ericse@osu.edu ◆ Gopher: gopher.ericse.ohio-state.edu
Web: http://www.ericse.org

*ERIC Clearinghouse*


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*Director*

**Linda A. Milbourne**
*Associate Director*

**Nicki Beckrum**
*Database Coordinator*

**Mark V. Lorson**
*Science Education Associate*

## Our Mission

To facilitate improved teaching, learning, and scholarship in science, mathematics, and environmental education through the active exchange of information and services. In pursuing this mission, particular attention is given to:

- Promoting lifelong education for all, particulary among those populations that have historically been underserved or underrepresented in the pursuit of science and mathematics.
- Fostering equity in access to information and quality of life in the environment.
- Celebrating diversity in cultural identity, instructional approaches, learning styles, and indicators of success.

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*Multicultural Mathematics and Science*
*Making Mathematical Connections*
*Doing Mathematics With Your Child*

## Recent Publications

### *Improving Learning in Science and Basic Skills Among Diverse Student Populations*

Francis X. Sutman and Ana Guzman
Item # 516S • $12.95

This practical guide shows how hands-on science investigations can be used to strengthen science and basic skills teaching among limited English proficient minority student populations.
(64 pp., 1995)

### *Science Education in the Rural United States*

Paul B. Otto, Ed.
Item # 515S • $22.50

This yearbook of the Association for the Education of Teachers in Science (AETS) presents the issues, trends, and challenges of rural science education, including distance education, integration of subject matter, and the special needs of diverse student populations.
(138 pp., 1995)

### *Perspectives of Hands-On Science Teaching*

David L. Haury and Peter Rillero
Item # 510S • $14.50

This book presents answers to frequently asked questions about hands-on approaches to science teaching and learning, including the benefits of the approach, how to use hands-on approaches with textbooks, and where to get materials. (142 pp., 1994)

### *Assessing Habits of Mind: Performance-Based Assessment in Science and Mathematics*

Margaret Jorgensen
Item # 511S • $16.75

This book presents performance-based assessment as a means of determining if students can complete, demonstrate, or perform the actual behaviors of interest. Assessment is presented as a tool for improving classroom instruction.
(102 pp., 1994)




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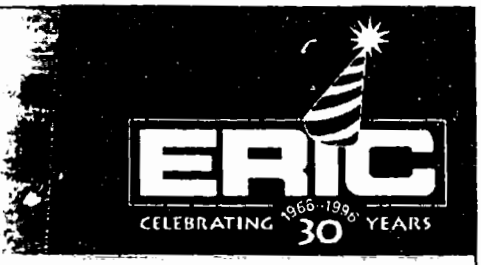
# Social Studies/Social Science Education

Social Studies Development Center, Indiana University
2805 East 10th Street, Suite 120, Bloomington, IN 47408–2698
(800) 266–3815 ◆ (812) 855–3838 ◆ Fax: (812) 855–0455
E-mail: ericso@indiana.edu
Web: http://www.indiana.edu/~ssdc/eric-chess.html




***ERIC Clearinghouse***

Serving social studies educators and students since 1972, the ERIC Clearinghouse for Social Studies/ Social Science Education monitors issues about the teaching and learning of history, geography, civics, economics, other subjects in the social studies/social sciences, art, and music and acquires and reports on significant educational literature in the field. Today, the Clearinghouse and its four Adjunct Clearinghouses offer the education community:

- ERIC Digests featuring current topics
- Question-answering services with timely responses
- Internet access with World Wide Web pages and e-mail addresses
- Publications for scholars

Adjunct ERIC Clearinghouse on Service Learning

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Adjunct ERIC Clearinghouse for Law-Related Education

Adjunct ERIC Clearinghouse for United States-Japan Studies

John J. Patrick, Director
Jane E. Henson, Associate Director

## Teaching and Teacher Education

American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610. Washington. DC 20036–1186
(800) 822–9229 ◆ (202) 293–2450 ◆ Fax: (202) 457–8095
E-mail: ericsp@inet.ed.gov ◆ Web: http: www.ericsp.org

***ERIC Clearinghouse***

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## You don't have to be a detective to find the best information on:

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*program accreditation*
*integrated services*

**All the clues you need are right here:**

***1–800–822–9229***
***ericsp@inet.ed.gov***
***http://www.ericsp.org***

# Urban Education

Institute for Urban and Minority Education
Teachers College, Columbia University
Main Hall, Room 303, Box 40, New York, NY 10027–6696
(800) 601–4868 ◆ (212) 678–3433 ◆ Fax: (212) 678–4012
E-mail: eric-cue@columbia.edu ◆ Web: http://eric-web.tc.columbia.edu

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## Urban Education Web

http://eric-web.tc.columbia.edu

**Welcome to UEweb, dedicated to urban students, their families, and the educators who serve them.**

## Sections of UEweb

| | | | |
|---|---|---|---|
| About UEweb | Urban/Minority Families | Hot Topics | Publications |
| HBCU Home Page | Major Subject Areas | Links | ERIC Databases |

- About UEweb: Who we are, what we do, how you can contact us, and what you will find at our Web site.
- Urban/Minority Families: Part of the National Parent Information Network, cosponsored by the ERIC Clearinghouse on Elementary and Early Childhood Education and the ERIC Clearinghouse on Urban Education.
- Hot Topics: Information about school reform, school safety, and technology in urban education.
- Publications: Includes links to full-text versions of Clearinghouse publications on UEweb and ordering information for all products.
- HBCU: Highlights Internet-based resources and cultural, historical, and educational materials from Historically Black Colleges and Universities (HBCUs).
- Major Subject Areas: Sections on equity and cultural diversity, urban teachers, curriculum and instruction, compensatory education, and administration and finance. Features digests, short bibliographies, parent guides, key abstracts (short summaries), and other publications.
- Links: Includes an extensive list of links to other urban education resources on the World Wide Web.
- ERIC Databases: Links to search the entire ERIC database and the database of all ERIC Digests online.

UEweb has been named to the "Top 5% of All Web Sites" by Point Communications Corporation.

# ERIC Document Reproduction Service

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(800) 443–ERIC ◆ (703) 440–1400 ◆ Fax: (703) 440–1408
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Eureka! The report you've been looking for is in ERIC. How can you get the full text of that document now that you've found the citation in the database? The answer is the ERIC Document Reproduction Service (EDRS), the document delivery component of the ERIC system.

EDRS can satisfy your requirements for ERIC documents (denoted by the prefix ED in the accession number; for example, ED 382760), whether you need the full ERIC microfiche collection to enhance your library's resource offerings, or a paper copy of a single curriculum guide you discovered in the database.

## EDRS offers:

- The complete ERIC collection on microfiche (subscription and back files).
- Subject-specific ERIC Clearinghouse collections on microfiche (subscription and back files).
- ERIC documents on demand (both paper copy and microfiche).
- Online services through the World Wide Web, including ERIC database searches, document ordering, and full-text sample resources.

EDRS is revolutionizing ERIC on-demand document delivery by digitizing most ERIC documents issued from January 1996 forward. New delivery options will include document faxback and online delivery. Some digitized documents should be available to the public in spring 1997.

EDRS is accessible 7 days a week, 24 hours a day. The EDRS Customer Service staff look forward to introducing you to the new world of electronic document delivery.

**The EDRS Customer Service Group**
Pictured top to bottom, left to right are T.G. Kassa, Chantique Vandurina, Nga Le, Daisy Ramos (customer accounts), and Christopher Byrne.
Not pictured, Don Frank, customer service manager.

# ERIC Processing and Reference Facility

Computer Sciences Corporation
1100 West Street, 2nd Floor, Laurel, MD 20707–3598
(800) 799–ERIC ◆ (301) 497–4080 ◆ Fax: (301) 953–0263
E-mail: ericfac@inet.ed.gov ◆ Web: http://ericfac.piccard.csc.com

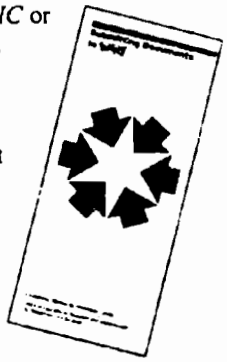
***ERIC Support Component***

The ERIC Processing and Reference Facility is responsible for centralized management of the ERIC database, which contains abstracts of nearly a million education-related documents, journal articles, and books acquired since 1966. The database is growing by more than 30,000 abstracts per year.

We provide the database in electronic form to commercial vendors and academic institutions, which make it available to the public via online, CD-ROM, and Internet systems. Online vendors currently offering ERIC are Knight-Ridder (DIALOG and DataStar), Ovid Technologies, and OCLC. CD-ROM vendors offering ERIC are SilverPlatter, Knight-Ridder (DIALOG), EBSCO, Oryx Press, and the National Information Services Corporation (NISC).

Contact our staff if you:

- Have questions about the ERIC database's structure or format, selection criteria, copyright, or reproduction release forms.
- Would like to receive the free brochure *Submitting Documents to ERIC* or Ready References on various ERIC topics.
- Would like to submit a document to ERIC and aren't sure which of the subject-specific ERIC Clearinghouses to send it to.
- Would like to purchase the ERIC database for loading onto a local system.



## Low-Cost, Easy-to-Use ERIC on CD-ROM

The ERIC Processing and Reference Facility, through a special arrangement with NISC, sells their ERIC-on-CD-ROM product for the exceptionally low subscription price of $100 per year (quarterly updates). The current disc spans 1980 to the present; an archival disc covering 1966 to 1979 may be purchased for an additional $25.

The NISC disc includes the new *Thesaurus of ERIC Descriptors* (13th edition) and the full text of more than 1,500 ERIC Digests. LAN/WAN use is available at no extra charge. For more information, or to become a subscriber, contact the ERIC Facility at 1–800–799–ERIC or send e-mail to ericfac@inet.ed.gov.

## Child Care

National Child Care Information Center
301 Maple Avenue West, Suite 602, Vienna, VA 22180
(800) 616–2242 ◆ Fax: (800) 716–2242 ◆ TTY: (800) 516–2242
E-mail: agoldstein@acf.dhhs.gov
Web: http://ericps.ed.uiuc.edu/nccic/nccichome.html

*Adjunct ERIC Clearinghouse*

Linking you to child care resources
NCCIC

**Disseminating Information**
**Building Networks**
**Serving States, Territories, and Tribes**

The National Child Care Information Center (NCCIC) promotes child care linkages and serves as a mechanism for supporting quality, comprehensive services for children and families. NCCIC also publishes the *Child Care Bulletin* for child care grantees, national child care organizations, and others interested in child care issues.

The National Child Care Information Center is funded by the Child Care Bureau, Administration for Children and Families, U.S. Department of Health and Human Services. For more information, please contact Anne Goldstein, Director.

*Child Care Bulletin*

## Clinical Schools

American Association of Colleges for Teacher Education
One Dupont Circle NW, Suite 610, Washington, DC 20036–1186
(800) 822–9229 ◆ (202) 293–2450 ◆ Fax: (202) 457–8095
E-mail: iabdalha@inet.ed.gov ◆ Web: http://www.ericsp.org

*Adjunct ERIC Clearinghouse*

***Are you looking for answers in all the wrong places?***

**Look no further!**

The Adjunct ERIC Clearinghouse on Clinical Schools has the information you need on:

- Professional Development Schools
- Partner Schools
- Clinical Schools
- Professional Practice Schools

bibliographies ◆ directories ◆ PDS database ◆ digests ◆ searches

## Consumer Education

National Institute for Consumer Education, Eastern Michigan University
207 Rackham Building, Ypsilanti, MI 48197–2237
(313) 487–2292 ◆ Fax: (313) 487–7153
E-mail: rosella.bannister@emich.edu
Web: http://www.emich.edu/public/coe/nice/nice.html

***Adjunct ERIC Clearinghouse***

The mission of the National Institute for Consumer Education (NICE), a service arm of the College of Education at Eastern Michigan University, is to empower people through education to become informed consumers, reasoned decision makers, and participating citizens in a global marketplace. Since its establishment in 1973, NICE has served as an advocate for personal finance education in the nation's schools, workplaces, and communities.

NICE's Internet site offers:

- Mini-lessons on consumer economics
- Up-to-date resource lists on consumer credit, personal finance, textbooks, and more
- Upcoming events such as courses, conferences, and workshops
- Full-text resources on economic and consumer issues
- Immediate links to other useful consumer information

## Entrepreneurship Education

The Center for Entrepreneurial Leadership
Ewing Marion Kauffman Foundation
4900 Oak Street, Kansas City, MO 64112–2776
(888) 4–CELCEE ◆ Fax: (310) 825–9518
E-mail: celcee@ucla.edu ◆ Web: http://www.celcee.edu

***Adjunct ERIC Clearinghouse***

The Adjunct ERIC Clearinghouse on Entrepreneurship Education (CELCEE) was established in January 1996 by the University of California, Los Angeles and the Ewing Marion Kauffman Foundation to serve as a catalyst for stimulating entrepreneurship through education. CELCEE's purpose is to give educators and managers better access to the rich array of materials related to entrepreneurship education that are now scattered throughout public and private educational organizations. These materials include:

- Curriculum guides
- Program reports
- Training support
- Analyses and evaluations

## Test Collection

Educational Testing Service
Princeton, NJ 08541
(609) 734–5737 ◆ Fax: (609) 683–7186
E-mail: mhalpern@ets.org ◆ Gopher: gopher.cua.edu (Special Resources)
Web: http://ericae2.educ.cua.edu/testcol.htm

***Adjunct ERIC Clearinghouse***

The Adjunct Test Collection Clearinghouse prepares descriptions of commercially available and noncommercially available tests, checklists, instruments, questionnaires, and other assessment and evaluation tools.

To access the Educational Testing Service (ETS) test collection database via the Internet, Gopher to gopher.cua.edu, then arrow to the following selections, pressing the enter key after each one:

- Special Resources
- Test Locator
- ERIC Clearinghouse on Assessment and Evaluation
- ERIC/ETS Test File

Type in the keywords you want to search, using AND, OR, and NOT. You will get descriptions of relevant tests, including the publisher, distributor, or source.

## ESL Literacy Education

National Clearinghouse for ESL Literacy Education
Center for Applied Linguistics
1118 22nd Street NW, Washington, DC 20037–1214
(202) 429–9292, Ext. 200 ◆ Fax: (202) 659–5641
E-mail: ncle@cal.org ◆ Web: http://www.cal.org/NCLE

***Adjunct ERIC Clearinghouse***

The National Clearinghouse for ESL Literacy Education (NCLE), an adjunct to the ERIC Clearinghouse on Languages and Linguistics at the Center for Applied Linguistics, focuses on literacy education—including family literacy, workplace literacy, and native language literacy—for adults and out-of-school youth learning English as a second language.

NCLE provides literacy instructors and volunteers, researchers, and program administrators with:

- Responses to questions regarding literacy education for adults learning English.
- Free publications, including ERIC Digests, annotated bibliographies, and the twice-yearly newsletter, *NCLE notes*.
- Books and issue papers on literacy education.
- A link to other national and local literacy contacts.
- An e-mail listserv on ESL issues, sponsored by the National Institute for Literacy.

NCLE distributes a popular series on ESL literacy through Delta Systems Corporation. Titles include:

*Writing Our Lives: Reflections on Dialogue Journal Writing with Adults Learning English* (1996)
Joy Kreeft Peyton and Jana Staton, Eds. • 149 pp. • $11.95

*Immigrant Learners and Their Families: Literacy To Connect the Generations* (1995)
Gail Weinstein-Shr and Elizabeth Quintero, Eds. • 125 pp. $13.50

## ACCESS ERIC

1600 Research Boulevard, Rockville, MD 20850–3172
(800) LET–ERIC ◆ (301) 251–5789 ◆ Fax: (301) 309–2084
E-mail: acceric@inet.ed.gov ◆ Web: http://www.aspensys.com/eric


CELEBRATING 1966–1996 30 YEARS

***ERIC Support Component***

ACCESS ERIC promotes awareness and use of the ERIC system through outreach, publications, and general reference and referral. Our friendly and knowledgeable information specialists are standing by to help new and experienced ERIC users.

### Call 1–800–LET–ERIC to:

- Request the free publications *All About ERIC* and *A Pocket Guide to ERIC*.
- Find out where you can search the ERIC database.
- Be referred to one of ERIC's subject-specialty clearinghouses.
- Learn more about ERIC's Internet-based resources, including AskERIC, the National Parent Information Network, and ERIC Digests Online.

ACCESS ERIC maintains the ERIC system's Web site, http://www.aspensys.com/eric, with links to all ERIC-sponsored Internet sites. ACCESS ERIC also produces education reference publications, including the *ERIC Calendar of Education-Related Conferences* ($20), the *ERIC Directory of Education-Related Information Centers* ($17), and the *Catalog of ERIC Clearinghouse Publications* ($12).

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**ERIC Clearinghouses** (continued)

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| Information & Technology | 800-464-9107 |
| Languages and Linguistics | 800-276-9834 |
| Reading, English, and Communication | 800-759-4723 |
| Rural Education and Small Schools | 800-624-9120 |
| Science, Mathematics, and Environmental Education | 800-276-0462 |
| Social Studies/Social Science Education | 800-266-3815 |
| Teaching and Teacher Education | 800-822-9229 |
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**Adjunct ERIC Clearinghouses**

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| International Civic Education, Law-Related Education U.S.-Japan Studies | 800-266-3815 |
| Child Care | 800-616-2242 |
| Clinical Schools | 800-822-9229 |
| Consumer Education | 800-336-6423 |
| Entrepreneurship Education | 888-423-5233 |
| ESL Literacy Education | 202-429-9292 x200 |
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You are invited to:

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- check your favorite library for ERIC resources.

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**ERIC Clearinghouses**

Call the ERIC Clearinghouses with your subject-specific education questions

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| Adult, Career, and Vocational Education | 800-848-4815 |
| Assessment and Evaluation | 800-464-3742 |
| Community Colleges | 800-832-8256 |
| Counseling and Student Services | 800-414-9769 |
| Disabilities and Gifted Education | 800-328-0272 |
| Educational Management | 800-438-8841 |
| Elementary and Early Childhood Education | 800-583-4135 |
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For information about the Educational Resources Information Center (ERIC) contact

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| **ACCESS ERIC** for general ERIC information | **800-LET-ERIC**<br>acceric@inet.ed.gov |
| **ERIC Document Reproduction Service** (EDRS) to order ERIC documents | **800-443-ERIC**<br>service@edrs.com |
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