This guide explains features of the Internet and compiles Internet resources useful to those interested in the education, growth, and development of young children. Chapter 1 of the guide, "An Introduction to the Internet," explains what is needed to connect to the Internet. The chapter then discusses electronic mail, mail lists, newsgroups, Internet etiquette (netiquette), File Transfer Protocol, TELNET, gopher, the World Wide Web, and the Mosaic and Netscape Web browsers. The chapter concludes with suggestions for finding information on the Internet. Chapter 2 explains several common commands used on Internet mail/discussion lists and presents fact sheets on eight mail lists. Each fact sheet includes a description of the mail list and the list's name, sponsor, electronic mail address, contact person, and subscription directions. Chapter 3 provides fact sheets on 38 Internet sites. Each fact sheet includes a description of the site and the site's name, sponsor, type (Gopher, Web, TELNET), Internet address, and contact person. Information on how to find and use ERIC system resources on the Internet is provided in Chapter 4, while Chapter 5 is a bibliography of ERIC documents and journal articles on "The Internet and Early Childhood Educators." The guide concludes with a glossary of Internet-related terms, an index, and an appendix of materials from and about the ERIC system and the ERIC Clearinghouse on Elementary and Early Childhood Education. (BC)
A to Z:

The Early Childhood Educator’s Guide to the Internet

Compiled by ERIC/EECE Staff

With an Introduction by Bonnie Blagojevic

ERIC

June 1995
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The Internet boils down to communication and information. As our society becomes more information-driven, the importance of the Internet increases.


We are quickly moving from the era when the network itself was the project to an era when the network is a tool to be used in ‘real’ projects.


History has dealt computer and information science a special role in the inevitable restructuring of the educational system in the United States. In the coming decade computing and information technology will be the backbone of the most significant change in education in over 100 years. Rather than being an adjunct to learning and teaching, technology is facilitating a fundamental rethinking of what should be learned and how.


In our view, the real potential of network communication has less to do with [work efficiency] than with influencing the overall work environment and the capabilities of employees.

Acknowledgements

This publication was planned and prepared by Dianne Rothenberg and Bernard Cesarone on the staff of the ERIC Clearinghouse on Elementary and Early Childhood Education, with the assistance of other staff members. The contributions of Lisa Janicke and Charles Lembke are gratefully acknowledged.
The Internet, an international network of computer networks, puts the world at your fingertips. Connecting via your computer to people and information from around the world, what benefits can you imagine?

One benefit of the Internet is that it allows us to be in meaningful communication with others interested in early education. Teachers, parents, day care providers, administrators, professors, researchers, college students—a wide variety of individuals and organizations interested in, and dedicated to the care, growth, and development of the young child—can meet online. Computer networking allows us to "join hands" and collaborate with an expanded group of people, sharing and exchanging information, supporting each other, and taking advantage of years of life experience and knowledge. These networking exchanges occur in just seconds using the Internet.

Another important benefit of Internet use is the expanded opportunity to access and manage information. Head Start co-founder Edward Zigler has stated, "We have all the knowledge necessary to provide healthy, growth-inducing child care to children of every age...."1 If this is so, how do we work with this information, and how do we make it available to large numbers of people?

Using the Internet, we can dramatically improve the organization and dissemination of information for use by early childhood educators. Research studies, reports describing exemplary programs, early childhood curricula, day care policies, public domain software, teacher training materials—these are just some of the materials that can be shared electronically and used to increase the skills and knowledge of caregivers and others involved in the field of early childhood.

It is also possible to use the Internet as a teaching and networking tool with young children to enrich their lives and make learning experiences meaningful. Children can exchange letters and stories and cooperate on a variety of projects with other classes and teachers, nationally and internationally. Internet use provides a pathway for creative exploration and promotes global awareness. The concept of world comes alive, when you have friends in faraway places.

For example, at my day care center last year we contributed to a collaborative book about play. Children from Iceland, Russia, Hawaii, South Africa, Ohio, Florida, Japan, Maine, and Australia shared drawings and stories about what they like to play. We learned that many games were the same, just played slightly differently, and we enjoyed new games we had never played before.

Using the Internet, we can put our heads together, combine efforts, search for facts, and exchange ideas in ways that have not been possible before. We can reduce isolation, strengthen our sense of community, and work together toward common goals. It is an empowering experience to contribute to, and benefit from, a constantly evolving and expanding knowledge base.

The benefits of Internet use are numerous. Whether you feel technologically nervous or eager, we hope this guide will enable you to become involved, and accept the challenge to explore, tap into, and develop the potential of this resource. Let’s get started!

---

1 Dr. Edward Zigler, Pre-K Today, February 1993.
The *A to Z* Internet Looseleaf Service

Resources available on the Internet grow, change, and disappear daily. For this reason, most Internet guides are outdated before they are published. We are pleased to be able to offer a loose-leaf service with two updates each year to keep early childhood educators informed about the changing landscape of the Internet, and to offer frequently updated information about particularly useful sites. Pages are 3-hole-punched to fit in standard notebooks without additional preparation.

We have chosen a loose-leaf format for this publication so that users can easily replace obsolete pages with new updates as they are issued. The first update of the *A to Z Guide* will be issued in December 1995; the second update will be issued in May 1996. Purchasers of the original guide will receive these two updates at no additional charge.

The format of the *A to Z* is designed with the busy educator, parent, student, and teacher educator in mind. Included are one-page descriptions of specific Internet features, such as Gopher and the World Wide Web; single-page entries describing each Internet site, with room for notes at the bottom of each page; and a reproducible form in each issue that will enable you to suggest sites that you have found useful and that you think we should include in the next update. The names of contributors of sites will be included in the acknowledgements page of each update.

We have chosen to include in this publication information that we think will be useful for the professional development of adults interested in young children and their education, care, and development. Please note that Internet sites for children are not covered systematically by this service.

Whether you prefer the image of the Internet as a vast library, warehouse, or sea, you should be aware that no one verifies every piece of information that is on the Internet, no one can guarantee the quality of the information provided, and no one currently polices the Internet for materials of questionable veracity. The result is a remarkable, user-built, grassroots feast served up by groups that promote many points of view for a great variety of purposes. Just as we have learned to cope with the variability in quality offered by other media, such as television, so will we all need to learn to become wise users of Internet information.

Some sites on the Internet offer publications or other materials or services for sale, while others encourage free and open use of their materials. It is important to remember that everyone is still entitled to recognition of his or her work, even if you have retrieved it in the form of a full-text file from the Internet. Standard rules for citing materials retrieved from the Internet, from electronic databases, and from electronic discussion groups are now included in most major style guidelines for good writing. The bibliography in Chapter 1 lists a style guide that is useful for those who plan to refer to electronic resources frequently in their writing.

We at ERIC/EECE are very fortunate to have had input from many Internet "surfers" for this project. Every site listed here, however, has been visited by us and reviewed so that we can provide an accurate description of content. Please note that sites change very rapidly, and it is possible that when you visit the site we describe, it will no longer look the same way that we have described it! No endorsement of any of the points of view represented in this guide should be inferred from inclusion. All errors are our responsibility. If you detect an incorrect address, please let us know immediately (1-800-583-4135; or ericeeece@ux1.cso.uiuc.edu).
Chapter 1
An Introduction to the Internet
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This chapter provides some general information that we think you will find useful as you begin to use the Internet to find information on early childhood education, child care, and child development. The information contained here is not exhaustive; there are many Internet guides in bookstores that provide comprehensive information (see the bibliography at the end of this chapter). Instead, the goal of this chapter is to introduce some basic concepts related to Internet use and to provide you with enough information to get started. Throughout this book, Internet addresses are provided in a consistent format called the "Universal Resource Locator" (URL) address. An example is the address of the ERIC/EECE Gopher site:

Gopher://ericps.ed.uiuc.edu

What You Need To Connect to the Internet

1. A computer — Either Macintosh or DOS\(^1\) machines work fine, provided they have, at a minimum:

- **Minimum configuration: 4 megabytes (MG) of memory**
- **Recommended configuration: 8 or more megabytes (MG) of memory**

*4 megabytes (MG) of memory are an absolute minimum* for any new purchases. Eight MG of memory is highly desirable and rapidly becoming essential, especially for using the World Wide Web (WWW) as well as other applications, such as word processing programs. If your computer has 2 MG of memory, we recommend that you upgrade at least to 4. Memory is not decreasing in price right now (May 1995), but we recommend that you purchase as much memory as you can afford.

- **Minimum configuration: 50 MG hard drive**
- **Recommended configuration: 200 MG or more of hard drive space**

*A hard drive of at least 50 MG will enable you to run some programs, but you will soon find that you are running out of storage space. A larger hard drive is highly desirable, and rapidly becoming less expensive, unlike added memory. While 50 to

\(^1\) A word (or several) about Apple IIs: These indestructible old machines, which many of us bought in the 1980s, can theoretically be used for extremely low-end Internet access such as electronic mail and gopher purposes. But they are really inadequate for Internet use, even if they are equipped with a hard drive. With computers coming down in price, it is time to purchase a DOS or Macintosh machine rather than to "make-do" with an Apple II.
100 MG are desirable, new computers usually are advertised with 200 to 400 MG. A large hard disk is useful for a variety of other applications besides the Internet.

- Minimum configuration: VGA monitor
  
  Recommended configuration: SVGA monitor; for the Macintosh, a 256 color monitor is recommended

  A VGA monitor is acceptable for word processing, but, if you intend to make use of the graphics on the Internet, a high-quality, high resolution (SVGA) color monitor makes sense.

2. A modem — Modems have become so standardized and reliable that the best advice we can provide is to purchase a modem that transfers data at 14.4 baud or higher rates. If you purchase a 28.8 modem, there will be very few places that can make use of its capabilities right now, and there may still be some technical problems with many 28.8 modems. Slower rates than 14.4 will soon seem intolerable. The 14.4 modems available now cost less than $125 in catalogs. If you are buying a modem now, purchase one that has fax capabilities.

3. A telecommunications program — Whether you have an education account with a nonprofit Internet service provider or use a commercial service, your Internet service provider will provide you with or recommend a telecommunications program.

4. An account with an Internet service provider — The options for Internet access for the general public are increasing rapidly, but this question remains a central concern for many parents and educators who want to use the Internet. At the federal level, a number of possibilities are being explored for increasing Internet access for the education community, including telecommunications legislation that promotes the use of telecommunications in the classroom and funding for access for educators. Vice President Al Gore and many others advocate the connection of every classroom to the information superhighway by the year 2000. Right now, however, there are four broad categories of access.

  **Access through state or regional educational networking systems.** Many states (Texas, Florida, North Dakota, Virginia, and others) now provide or are planning to provide low-cost or free access for educators. Inquiries should be directed to local school district offices, regional education service providers, or state departments of education to find out if this option exists in your area. If your state is in the planning stages of providing access for all educators, become an advocate for including Internet access for pre-kindergarten educators and caregivers.

  **Access through community computing networks.** Local FreeNets and community computing networks are already operational in dozens of cities across the U.S., and many more are in the planning stages; a few states, such as Maryland, offer Internet access to every citizen who requests it through a state-wide network. Local public libraries are a good source of information on community information networks that
may be close by and reachable through a local or low-cost telephone call.

*Access through special projects at universities and colleges.* Many universities and colleges provide access to the Internet for undergraduate and graduate students, and for nearby schools that take part in research or learning projects. If you are in a pre-K setting, suggest a project to a nearby college that experiments with ways to further professional development of caregivers and preschool teachers.

*Access through commercial services.* Dozens of commercial services, including some telephone companies, now offer connectivity to parents and educators. In addition, some professional associations offer subscriptions to online services that offer their own information and Internet access.

To find out if there is a FreeNet in your area, or to find out how to start one, contact:

National Public Telecomputing Network  
30680 Bainbridge Rd., Suite 100B  
Solon, OH 44139  
(216) 498-4050  
info@nptn.org  
http://www.nptn.org

**Commercial Internet Service Providers**

There are literally hundreds of commercial Internet service providers, and many of them provide local or regional service. Check with your local public library and the yellow pages of your telephone book to find out about local providers. The providers listed below are well known and offer their services to a national audience. This is an incomplete list (based on the ones we are asked about most frequently). No attempt is made to provide cost information because it changes frequently. Prodigy and HandsNet offer the most information of use to early childhood educators.

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prodigy</td>
<td>800-776-3449</td>
</tr>
<tr>
<td>America Online</td>
<td>800-827-6364</td>
</tr>
<tr>
<td>CompuServe</td>
<td>800-848-8199</td>
</tr>
<tr>
<td>Delphi</td>
<td>800-695-4005</td>
</tr>
<tr>
<td>eWorld</td>
<td>800-775-4556</td>
</tr>
<tr>
<td>ATHENS</td>
<td>301-229-1067</td>
</tr>
<tr>
<td>HandsNet</td>
<td>408-257-4500</td>
</tr>
</tbody>
</table>

5. An appropriate level of Internet access — Regardless of your Internet provider—a university or college, an education consortium or state or regional education provider, or
commercial provider—there are several questions you should ask in order to know what capabilities the provider offers, and how to use the Internet effectively once you get access. Among these questions are the following:

A. How will I use electronic mail? Will I be able to belong to Internet mail list groups? Are there limits to message length, or charges for electronic mail use?

B. Will I be able to use TELNET and Gopher? Are there any extra charges for using this software? Can I use TELNET and Gopher from home and at work (many universities and colleges offer different capabilities for home use compared to capabilities offered on-campus).

C. Does the system offer a SLIP or PPP connection? If the service offers these types of connections, it increases the chances that you will be able to use a graphical interface to the World Wide Web. An important question to ask is, Can I use the graphical interface from work and at home (again, many universities and colleges may offer different capabilities for home use compared to the capabilities of computers wired directly to the computer system in a university building).

D. For commercial providers: What are the charges for accessing the Internet rather than accessing the information on the commercial services?

E. Can I access my account by using a local telephone number, or a toll-free telephone number?

F. How do I check my electronic mail and use the Internet from my portable computer if I am away from home?

G. What do I do if I need help? Whom do I call? During what hours is help available in my geographic area?

Electronic Mail

The most popular feature of the Internet is electronic mail (email), which reaches areas of the world with no other type of Internet access. Email is the most common denominator of being considered "on" the Internet. Electronic mail is popular partly because, of all Internet features available, it most closely resembles activities that are already part of our daily lives. We know how to send letters and leave telephone messages for co-workers and others whose judgment we value or from whom we want information, and electronic mail is an extension of those behaviors. Research indicates, in fact, that educators' most frequently used source of information is their colleagues. Electronic mail simply expands educators' immediately accessible peer group to include anyone in the world with an Internet connection.
Electronic mail is fast (most of the time) and largely reliable. Messages can be composed and sent from home or work at the sender's convenience, and received and responded to when convenient for the receiver. Internet email is extremely reliable, but it does have a few quirks. Most messages are received and read only by the person for whom they were intended, but email should not be considered absolutely secure or private.

Electronic mail addresses vary, as do postal addresses, and carry specific bits of information. Knowing a little about email addresses can be useful for knowing whether an address is likely to be correct. Sometimes understanding the format of the address can also help you determine someone's location or host institution. All addresses have the following format:

<table>
<thead>
<tr>
<th>unique identifier</th>
<th>@ sign</th>
<th>domain names (up to 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>eric</td>
<td></td>
<td>ux1.cso.uiuc.edu</td>
</tr>
</tbody>
</table>

The Domain Name System (DNS) is used to give meaningful information in email addresses. There are often several different domain names in the same address, all determined locally by someone who is responsible for allocating the names. Each machine attached to the Internet has a name, which will appear as one of the domain names. Originally, six "highest level" (listed last) domains were used:

<table>
<thead>
<tr>
<th>Domain name</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>com</td>
<td>commercial organizations</td>
</tr>
<tr>
<td>edu</td>
<td>educational organizations</td>
</tr>
<tr>
<td>gov</td>
<td>government organizations (non-military)</td>
</tr>
<tr>
<td>mil</td>
<td>military</td>
</tr>
<tr>
<td>org</td>
<td>other organizations</td>
</tr>
<tr>
<td>net</td>
<td>network resources</td>
</tr>
</tbody>
</table>

These domain names are still used, but in recent years, as the Internet has expanded globally, a set of two-letter domains for countries has been developed. Some common country domain suffixes are:

| au  | australia                      |
| ca  | canada                         |
| dk  | denmark                        |
| fr  | france                         |
| de  | germany                       |
| fi  | finland                        |
| au  | australia                      |
| ca  | canada                         |
| dk  | denmark                        |
| fr  | france                         |
| de  | germany                       |
| fi  | finland                        |

How do you find someone's email address? The best way is to ask the person (using an old technology, like the postal service or the telephone!) prior to attempting to send him or her
electronic mail. If you know the name of a machine at the same institution and the format of someone else’s address there, you can try an address that seems likely to be correct. If it is not correct, the machine will "bounce" the mail back to you.

Why isn’t there a telephone book for the Internet? Well, there are many Internet address books, but like the yellow and white pages in our telephone books, the Internet "address books" are intended for local use. Every time you send a message, Domain Name Server (DNS) software checks to see if the intended recipient is on the system to which you have sent the message, and advises you if he or she does not have an address on that machine. A worldwide "phone book" of Internet mail addresses is yet to be developed.

Dozens of mail programs exist that make it easy to use electronic mail. Pine and Elm are often available on UNIX (a kind of operating system) machines, while Eudora and NuPop are popular on PC-based systems. Each program has unique commands, screen displays, and features. Check with your local system administrator for some printed documentation of how your mail program works and keep it by your computer for reference.

Internet Mail Lists

Internet mail lists build on our sense of comfort with electronic mail as a communication medium. Internet mail lists simply mail a message from you to many people, rather than to one person, when the message is mailed to a mail list discussion address. The software developed for these lists usually automates subscribing and signing off from the list and may offer other features, such as "digesting" (sending you one message per day that contains all the messages posted to the mail list discussion address in one day). Early childhood educators are relative newcomers to the Internet, and arguably the best evidence of our recent migration to this new medium is the small (but rapidly growing) number of electronic mail lists that carry information pertinent to the field of early childhood education.

By some estimates, there are more than 6,000 mailing lists (also known as *listservs*, after one kind of popular mail list software) and more than 9,000 Usenet Newsgroups worldwide. No central, up-to-date list of all these mail lists and Newsgroups exists (Krol, 1994). In our field, perhaps a dozen mail lists are central; several dozen sometimes carry information or conversations of interest to us; and perhaps a few hundred occasionally refer to our field or to outlying areas of our concerns.

Ellsworth (1994) points out that discussion lists have been compared to faculty lounge discussions, conference presentations, and conversations. Individual lists develop their own personality and conventions, and the discussion may vary in quality and importance to you on a daily basis. The general pattern of usage is that one person posts a message requesting information or suggesting a topic for discussion, and others who subscribe to the list respond. Mail lists do not subdivide discussions by topic, although there may be several strands of discussion taking place during the same period of time.
Here are some guidelines for using mail lists.

- Understanding the distinction between the administrative address and the discussion address is critical. The administrative address is a clerical robot that responds to commands. This address is used for subscribing and signing off a list and for other commands, such as "review" (a command which tells the listserv software to send you a list of all the members of the mail list). Messages to the administrative address typically have no subject line and should not contain your signature.

- The discussion address is used ONLY for messages that should go to the entire list. Always check the To: section of the header of your message before you send it. If you are responding to an individual on the list, check to be sure the individual's address is in To:---. Many embarrassing episodes have resulted from mis-sending a message to 700+ people that was intended for just one person!

- Read messages from the list for a few days before posting your first message, so that you can gauge the flavor of the conversation. After that, introduce yourself and let others know what your particular interests are.

- Before sending descriptions or ordering information on commercial items to a discussion group, check with the list manager to be sure you have complied with any policies that may have been established by the group through earlier conversations.

Chapter 2 of this guide profiles several mail lists relevant to early childhood education. The chapter begins with a set of instructions on using some common commands on three types of mail lists.

Newsgroups

Usenet Newsgroups are similar to listservs and other Internet mail lists and, in fact, many lists are simply redistributed on Usenet from identical Internet discussion group lists. Newsgroups are read on a "newsreader" available on many systems. Popular newsreaders include nn, rn, news, vnews, pcnews, etc. Most have features that allow the user to choose only those "threads" (or subjects) that you know in advance that you are interested in. Newsreaders require a little practice to learn to use them properly. Their advantage of electronic mail is that, because messages are distributed from a common database, Usenet cuts down on the number of messages sent directly to your mail box.

While many people prefer Newsgroups so that their mailboxes will not be cluttered with messages, others find that they forget to check the Newsgroups they are interested in, and miss information or discussion they would have liked to know about. Messages are deleted from Usenet Newsgroups automatically on a regular schedule. Some people feel that, compared to Internet mail lists, Newsgroups tend to me more "chatty" and less scholarly or professional.
There are various categories of Newsgroups, and there are some Newsgroups that deal with educational topics. For example, "k12" Newsgroups are dedicated to various topics in which teachers and students, kindergarten through grade 12, may be interested (for example, "k12.chat.teacher," "k12.ed.music," and "k12.ed.science"). There is a group of "bit" Newsgroups that contains postings to popular BITNET Listserv mail lists (for example, "bit.listserv.edpolyan"). There are other Newsgroups which may have some interest to parents and early childhood professionals, such as "rec.arts.books.childrens," a Newsgroup that discusses children's books in the "rec" (that is, recreational) Newsgroup category.

If you are unsure that Usenet Newsgroups are available to you at your site, ask your system administrator. If Newsgroups are available to you, the system administrator will provide you with information on the specific news reader to be used.

Internet Ethics and Etiquette (Netiquette)

The Internet has been likened to the Wild West. Indeed many of its metaphors and much of its terminology suggest an unruly and dangerous environment (for example, the wording of many system Internet messages includes emotionally loaded terms such as "Danger" or "Warning!" or "kill." It is common practice for an organization (such as a university) to give related names to a number of machines that are intended to act as a group, frequently a group of names with a theme. Story characters are sometimes used, or geographical names. At the University of Illinois, when you log in to the system from home, you begin your Internet session at a prompt that has the name of a gun manufacturer, such as "beretta>" or "ruger>" or "colt>.

In the Wild West, the laws were different from the rest of the United States and were based on individualism and the preservation of the free-wheeling frontier lifestyle (Krol, 1994). The early phase of Internet development seemed to some observers to develop this same pattern of response to dealing with a rapidly growing, largely undefined environment. But all that is changing rapidly, and for early childhood educators, the Internet can be a very friendly place to be. If you are concerned about Internet use policies and the wilder parts of this electronic frontier, there are discussions in the literature of these problems that you might find interesting (see Chapter 5).

In general, however, few early childhood educators will find themselves exposed to the wilder parts of the Internet. Instead, we will use the information in responsible ways, and we will find that Internet usage is governed by the same rules that govern the rest of our behaviors. As in other parts of life, the golden rule in Internet computing manners is to treat others as you wish to be treated. Don’t send junk, objectionable, or "flaming" electronic mail. Don’t use electronic mail to advertise business services, especially on Internet discussion groups. Take care not to confuse administrative and message addresses for Internet discussion groups, and learn how to use the discussion group commands. If you are a college instructor who is teaching his or her students about Internet use, don’t instruct 30 students to post the same
question to an Internet discussion list or to send out surveys without checking with list managers first. The goal is to create a welcoming environment in which real discourse about our profession can take place.

You will find that Internet users are extremely helpful and caring of their colleagues who ask for information and advice. There is a great tradition of helping each other that is apparent on Internet discussion groups. Help others if you think you can do so, but be careful not to exceed the amount of your expertise; giving incorrect or bad advice may do damage. Remember to indicate your level of knowledge if you choose to provide information or give advice. For example, in response to a curriculum question, you might say, "I've been teaching for 15 years, and my experience in this area has been ..."

**File Transfer Protocol (FTP)**

An easy way to understand FTP is to think of it as a way of copying files. File transfer protocol used to be the primary method of copying files stored on one computer on the Internet to another computer on the Net. It is still very useful, but other software, like Gopher and WWW, are also used to retrieve files now. Using basic FTP requires that you follow directions step-by-step to retrieve files, images, and data.

To use FTP, you will need three pieces of information:

- the address of the FTP site
- the directory in which the file is stored
- the exact name of the file

Many FTP servers offer anonymous FTP. This means that any users are allowed to access selected files on that server. If an FTP server is not an anonymous FTP server, you will need a Logon and password to access files on that server. Typically, anonymous FTP servers require you to use the login name "anonymous" and your email address as a password.

Login to the Internet, and type `ftp` at the main prompt to be sure your Internet access provider offers `ftp`. If a new prompt `ftp>` comes up, you will know that you have access to this Internet feature. Type quit to return to your main Internet prompt.

Before examining how FTP works, here are some basic FTP commands:

- **open** opens a connection to a new machine
- **close** closes a connection to a machine and returns to the ftp prompt
- **binary** (or **bin**) enters binary mode to transfer binary files (e.g., software)
- **get** gets a file from the remote machine to the local machine
- **put** puts a file from the local machine to the remote machine
cd changes the working directory on the remote machine
ls lists the files in the working directory on the remote machine
pwd gives the name of the working directory on the remote machine
quit (or bye) closes the connection and quits FTP.

Here is an example of how FTP works in getting ASCII text files.

You have become interested in knowing more about how the Internet works, but the prices of the big Internet guides in the bookstore are discouraging. You could borrow one from the local library, but they are always checked out. Then, you learn about The Big Dummies Guide to the Internet and you are told that it is available by FTP (and you are given the address of the FTP site and the directory where the text is located). You don’t like the name of the guide (you know that calling anyone a "dummy" is neither developmentally appropriate, culturally sensitive, nor acceptable in polite company), but if you can have a copy of the Big Dummies Guide as a reference, well...it would be handy. Following these directions, you can "download" (e.g., transfer to your own computer), a copy of The Big Dummies Guide to the Internet.

At the main Internet prompt, type:

```
ftp
```

The system will respond with the prompt:
```
ftp>
```

Then open a connection to the FTP server (the machine where The Big Dummies Guide is stored) by typing:
```
open ftp.eff.org
```

Or alternatively, at the main Internet prompt, type:
```
ftp ftp.eff.org
```
to go directly to the FTP site.

You will see some messages, including:
```
Connected to ftp.eff.org.
220 ftp.eff.org FTP server (Version wu-2.4(16) ...
Name (ftp.eff.org:your-logon-name):
```

At this "Name," prompt, which uses your local computer logon name as a default, type:
```
anonymous
```

Now you will see the message:
```
331 Guest login ok, send your complete e-mail address as password.
Password:
```

At the password prompt, type, as instructed:
   your-email-address

Now you are logged on to the FTP site. You will see some messages, such as:
   230-************************ Welcome to the EFF Online Library *******************
   etc.
   230-Please read the file README

It is a good idea, the first time you visit a site, to read through some of these messages, so that you can get an idea of what is available at the site.

After you have finished browsing, you will want to change to the directory on the remote computer (i.e., the FTP site) where the text you are interested in is located. Note that, since the FTP server is a UNIX machine, file and directory names are case sensitive, and all words must be typed in upper and lower case letters exactly as given to you. Therefore, type:

   cd pub/EFF

There will be more information in that directory to read, if you wish to browse. The prompt you will see next does not indicate which directory you have entered. To make sure you are in the right directory (the one containing the Guide), you can use the "print working directory" command by typing:

   pwd

You will get a message back saying:
   257 "/pub/EFF" is current directory.

To make sure the text you want is there, you can use the "list" command by typing:

   ls

You will see a list of all the files in the /pub/EFF working directory, among which is the file you want, netguide.eff. To "get" this file, i.e., to have the file copied from the remote computer to your computer, type:

   get netguide.eff

You will get a series of messages as the file is transferred, such as:
   200 PORT command successful.
   150 Opening BINARY mode data connection for netguide.eff (463479 bytes).
   226 Transfer complete.
   463479 bytes received in 12 seconds (38 Kbytes/s)

Now that you have the file you want, you can quit FTP by typing:
   quit (or bye)
You will see the courteous message:
   221 Goodbye.

and then you will be returned to the prompt on your computer. You should find the copied file on your computer.

**Getting binary (software, graphics) files using FTP.**

The example above described the process of getting an ASCII text file. You can also get non-ASCII files, such as software and graphics, using FTP. The process is exactly the same except that, before you get the file, you need to send the command "bin" to set FTP for binary transfer.

Follow the previous instructions for starting FTP and logging on to an FTP site. After you have connected to the FTP site, at the ftp> prompt, type:

    bin

Then proceed with the get command as in the instructions for ASCII file transfer.

**TELNET**

TELNET, one of the earliest Internet tools, is a software program that allows you to log in to a remote computer and use its applications. Logging in with TELNET requires that you provide a password accepted by the other system as you log on. Logging in to another system almost always requires a password, and in many cases, computers accessible through TELNET are available to the public. At some early point in the login process you will be told the password that you should use. For example, if you want to search the University of Saskatchewan's version of the ERIC database on the Internet, you are told to use the password ERIC when you choose Saskatchewan from the menu.

**Gopher**

The Internet Gopher allows you to look for Internet resources, using menus, as if they were all in the same place (or on the same server). Gopher software was created at the University of Minnesota, where the name took advantage of a double pun: gopher software is primarily intended to "go-for" things, and, of course, the University of Minnesota mascot is a gopher. So what could be more fitting?

Gopher is software that (in early 1994) more than 1300 sites used to organize their Internet resources. At this point in time (mid-1995), Gophers are considered "low-tech" by Internet standards because minimal equipment and software are needed to use the simple, text-only, ASCII files that make up gopher resource collections.
Many organizations just coming "online" on the Internet are bypassing Gopher to format and offer their information only through World Wide Web browsers. While the trend is definitely in the direction of WWW browsers, Gopher access is much more widespread at the present time than World Wide Web access. We will see a dramatic decrease in the number of Gopher sites maintained when a critical mass in the number of Web users has been reached, been reached and the number of WWW user begins to overtake the number of Gopher users.

To find information on Gopher sites, VERONICA software was developed. You may use the VERONICA search feature by choosing an item on a gopher menu that says "Search..." or that uses the word VERONICA in its title. When you choose a search option, a small box appears on the screen where you can enter the key word or key words you are looking for. VERONICA searches for keywords in gopher menus. While this search feature is helpful, it can also be frustrating. Different rules for searching apply on different servers, and you may not know if you are searching for EARLY OR CHILDHOOD or EARLY AND CHILDHOOD when you do a search.

**World Wide Web (WWW)**

The World Wide Web (WWW) is access through Internet software that has wonderful capabilities for showing graphics and animation, sound, and nice-looking text. This part of the Internet is growing faster than any other sector, largely because of the popularity of easy-to-use WWW browsers, which allow hypertext links from documents at one location to documents or files at another site, rather than linking files by server identification as gopher software does. With a web browser such as Mosaic and Netscape you can access WWW sites as well as gopher and FTP sites. WWW allows you to pursue the strands of a "web" of information distributed across the network. (This edition of *A to Z* introduces WWW and its browser software. The next edition will provide information on viewers and other accompanying software.)

To use the World Wide Web, you will need to have special "Web Browser" software on your computer (software that resides on your own computer for this purpose is called "client software"), and the organization with which you have an Internet account will have to be able to support WWW access. (You can find out if Web access is available to you by asking your system administrator; if you have a commercial Internet provider account, call the toll-free telephone number supplied with your account information). Commercial Internet providers supply the Web browser software on disk to subscribers who have Windows or Macintosh and Internet access.

**Mosaic**

The National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign makes available NCSA Mosaic at NCSA's anonymous FTP server at this FTP...
address:
FTP://ftp.ncsa.uiuc.edu/mosaic

Users without FTP access can order software by contacting
orders@ncsa.uiuc.edu

or (217) 244-4130. Inquiries about NCSA Mosaic client software can be emailed to
mosaic-x@ncsa.uiuc.edu

for the X client; mosaic-mac@ncsa.uiuc.edu for the Macintosh client; or mosaic-
win@ncsa.uiuc.edu for the Microsoft Windows client.

Netscape

Another popular Web browser is Netscape. Netscape was developed by the original team that
developed Mosaic, and is widely used. Capabilities and features of Mosaic and Netscape
change with each new release, and if you have enough hard disk space, it is helpful to have
both Web browsers available to you. All Web browsers access the same sites. Please note that
there are licensing restrictions on who can use Netscape for free. Please read the license
agreement information carefully. You are always given the option to read this information
before making a decision.

Netscape Navigator FTP Sites and Mirror Sites

If you are eligible for a free copy of Netscape, you will be able to download the latest
Netscape Navigator software from any of the sites listed below. To speed downloads, it is a
good idea to use the site closest to your location during evening or nighttime hours at the
server’s location.

U.S. and Canadian residents can currently purchase the high-security, nonexportable version
of Netscape Navigator by calling (415) 528-2555 or using Netscape’s online order form.

Netscape Communications operates these sites for obtaining Netscape:

ftp://ftp2.netscape.com/ netscape1.1/
http://download1.netscape.com/

You can find out more about Netscape by sending a request for information to
info@netscape.com. Many Internet sites point to the FTP sites from which Netscape can be
downloaded. Other North America Sites include the following:
### FTP Site Address

<table>
<thead>
<tr>
<th>FTP Site Address</th>
<th>Directories</th>
<th>File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ftp://wuarchive.wustl.edu/</td>
<td>packages/www/Netscape/</td>
<td>netscape1.1/</td>
</tr>
<tr>
<td>ftp://ftp.cps.cmich.edu/</td>
<td>pub/</td>
<td>netscape/</td>
</tr>
<tr>
<td>ftp://ftp.micro.caltech.edu/</td>
<td>pub/</td>
<td>netscape/</td>
</tr>
<tr>
<td>ftp://unicron.uno maha.edu/</td>
<td>pub/netscape/</td>
<td>netscape1.1/</td>
</tr>
<tr>
<td>ftp://server.berkeley.edu/</td>
<td>pub/</td>
<td>netscape/</td>
</tr>
<tr>
<td>ftp://SunSITE.unc.edu/</td>
<td>pub/packages/infosystems/WWW/clients/</td>
<td>Netscape</td>
</tr>
<tr>
<td>ftp://ftp.orst.edu/</td>
<td>pub/packages/</td>
<td>netscape/</td>
</tr>
<tr>
<td>ftp://magic.umeche.maine.edu/</td>
<td>pub/Mirrors/nscape/</td>
<td></td>
</tr>
<tr>
<td>ftp://consult.ocis.temple.edu/</td>
<td>Big_Kahuna/Pub/MAC/ (Mac only)</td>
<td>Comm/</td>
</tr>
</tbody>
</table>

If you want to try to download Netscape from one of these sites, follow the ftp directions listed earlier in this chapter for binary files.

### Finding What You Want on the Internet

Many new Internet users think that finding what you want on the Internet is the most difficult and frustrating part of Internet use. The World Wide Web and various finding tools for the Internet make that task much easier, but the best way to get started is to ask a friend or colleague what sites are most useful. If your learning style makes you yearn for a "roadmap" to what’s on the Internet, check out the May 1995 *MacUser* magazine, which contains an overview of Internet sites in all domains (not just education) in the format of those hard-to-fold interstate roadmaps.

Here are several strategies for finding what you want on the Internet.

**Ask Discussion Group participants.** Customized help in finding resources on particular topics can be obtained by participating in discussion groups or listservs.

**Learn to Use Internet Finding Tools.** Several Internet finding tools are available. These include general search tools, such as JUGHEAD and VERONICA (which allow an Internet users to do a keyword search) for gopher sites and the Web Crawlers for World Wide Web sites. Many education sites offer extensive listings of Internet resources on topics of interest to educators, such as Stanford University and the Illinois Learning MOSAIC.

**Send an email message to AskERIC.** The ERIC Internet question-answering service called AskERIC can provide pointers to specific resources, such as penpal programs for children. Requests for information should be mailed to askeric@ericir.syr.edu. AskERIC (and its parent-related component, PARENTS AskERIC) is a good source for information on all topics related to education and can be used by parents, educators, or anyone else interested in education. "InfoGuides" housed at the AskERIC
Gopher and Virtual Library offer pointers to Internet (and print) resources on such topics as children's literature, child abuse, home schooling, and the media and children.

Or, obviously,

*Use this book to get started!*
For More Information

Books


(See also the ERIC bibliography in Chapter 5.)

Newsletters and Magazines

Of the dozens of magazines, newsletters, and journals that offer information useful to early childhood educators, these are the two that we hear the most about from early childhood educators already online. A longer listing will be available in the next update, but these two can help you get started.

*Classroom Connect*. A monthly educator's guide to Internet and commercial online services. A free sample copy available by calling (800) 638-1639. $39/year for 9 issues.
Online Workshops

If there is an online Internet workshop called Roadmap for the Information Superhighway: Interactive Internet Training Workshop.

What is Roadmap?

Roadmap is an interactive Internet training workshop designed to teach new and old "Net travellers" how to travel around the rapidly expanding (and frequently confusing) Information Superhighway without getting lost. Using the latest information available coupled with guest lectures from some of today's most respected Internet leaders, Roadmap '95 is one of the best known Internet training workshops. Roadmap is offered at no cost.

To participate in Roadmap, you will need electronic mail access (although TELNET is also useful). Roadmap is presented through the "NewbieNewz" mail list. When you subscribe to NewbieNewz you will receive all the information you need to participate, including the materials and information on the topics being covered. Each lesson in Roadmap takes no more than 10 or 15 minutes to read. There are 30 lessons.

For more information about Roadmap and about the next Roadmap training workshop, contact:

Owner-NewbieNewz@io.com

Organizations that offer more information on Internet use

CoSN (The Consortium for School Networking)
1555 Connecticut Avenue, Suite 200
Washington, DC 20036
Telephone: (202) 466-6296
Email: ferdi@cosn.org
Chapter 2
Internet Mail Lists for Early Childhood Educators
Some Common E-mail Discussion List Commands

Each electronic mail discussion list has two electronic addresses associated with it: (1) a "list address," which is the address to use when you want to send a message to be read by all the list subscribers; and (2) an "administrative address," which is the address to use when you want to send commands or requests concerning your list subscription.

There are several types of e-mail discussion lists, depending on the type of software on which the list is based. These instructions present some common commands for three types of lists: (1) LISTSERV; (2) MAJORDOMO; and (3) LISTPROC. Note that not all commands are available on all types of lists.

For each of the commands, send the command in an e-mail message to the administrative address of the list. Leave the subject line of the message blank. In the body of the message, type the information as indicated.

1. **Subscribing to a list**

LISTSERV
   subscribe LISTNAME YourFirstName YourLastName

MAJORDOMO
   subscribe LISTNAME YourEmailAddress

LISTPROC
   subscribe LISTNAME YourFirstName YourLastName

2. **Leaving a list**

LISTSERV
   signoff LISTNAME

MAJORDOMO
   unsubscribe LISTNAME YourEmailAddress

LISTPROC
   unsubscribe LISTNAME

3. **Setting mail options for digest format** (that is, all the day’s messages compiled into a single message)

LISTSERV
   Set LISTNAME digest

LISTPROC
   set LISTNAME mail digest
4. Setting mail options for individual messages (this is the default setting when you subscribe; you might use this command if you've set your option to digests and you decide you want individual messages instead)

LISTSERV
   Set LISTNAME mail

LISTPROC
   Set LISTNAME mail ack

5. Temporarily suspending mail from a list (e.g., when you go on vacation)

LISTSERV
   Set LISTNAME nomail

LISTPROC
   Set LISTNAME mail postpone

6. Resuming mail from a suspended list

Send the commands for individual messages or for digest messages that are explained above.

7. Obtaining a list of commands

LISTSERV
   help
   OR
   info refcard

MAJORDOMO
   help
CSHCN-L

Name: CSHCN-L@nervm.bitnet

Sponsor: Institute for Child Health Policy

Description: The purpose for CSHCN-L is to establish an electronic network of individuals with shared interests, both professional and personal, in children with special health care needs. The CSHCN-L provides the opportunity to exchange ideas, identify exemplary programs addressing the needs of the population of children with special health care needs and their families, and initiate a dialogue on the critical issues which need to be identified and articulated to inform current debates on health care.

Type of Resource: Listserv mail list

Address: Administrative Address: LISTSERV@nervm.bitnet
Discussion Address: CSHCN-L@nervm.bitnet

Contact: Donna Hope Wegener
donnahope_wegener@qm.server.ufl.edu

MCH-NetLink Project
5700 SW 34th Street, Suite 323
Gainesville, FL 32607-5367
(904) 392-5904
(904) 392-8822 (fax)

Subscription Directions: To subscribe, send the following message to
LISTSERV@nervm.nerdc.ufl.edu
or LISTSERV@nervm.bitnet
Ignore the “Subject” header of the e-mail.
In the message body type
SUBSCRIBE CSHCN-L your first name your last name

To sign-off, send the following message to the listserv address
LISTSERV@NERVM.NERDC.UFL.EDU
or LISTSERV@NERVM.BITNET
Ignore the “Subject” header of the e-mail.
In the message body type
SIGNOFF CSHCN-L your first name your last name

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Notes:
Name: CYE-L@cunyvms1.gc.cuny.edu

Sponsor: Graduate Center of the City University of New York

Description: This multidisciplinary list is open to professionals in the social sciences, environmental and design disciplines, early childhood education, child psychology and child development, and other related fields. The owners welcome children and youth interested in the same issues. The goal of the list is to establish and increase communication among individuals who work with children and youth and the physical (designed and natural) environment. CYE-L was born as a result of discussions that took place at the 26th annual meeting of the Environmental Design Research Association (EDRA) in Boston, March 1994. It will operate as a part of the EDRA Children, Youth, and Environments Network, though other non-EDRA members are cordially welcome to join the list (and, if you later wish, to join the CYE Network and EDRA).

Type of Resource: Listserv mail list

Address: Administrative Address: LISTSERV@vmd.cso.uiuc.edu
Discussion Address: REGGIO-L@vmd.cso.uiuc.edu

Contact: Gary Moore of the University of Wisconsin-Milwaukee (gtmoore@alpha1.csd.uwm.edu)
Sheridan Bartlett of the University of Massachusetts, Amherst
Selim Ilitus (ssi@cunyvms1.gc.cuny.edu)

Subscription Directions: To indicate your wish to subscribe to this list, please do either of the following:

1. If using a "Request" interface, send a message to: CYE-L-REQUEST@cunyvms1.gc.cuny.edu
   Leave the subject line blank.
   In the body of the message, type:
   SUBSCRIBE first-name last-name

2. If using a "Listserv" interface, send a message to:
   LISTSERV@cunyvms1.gc.cuny.edu
   Leave the subject line blank.
   In the body of the message, type:
   SUBSCRIBE CYE-L first-name last-name
   If unsure which interface your computer system uses, try #2 first.
This is a closed list, meaning that Selim Il tus will review subscription requests, and, more importantly, only those who are members of the list can post to the list, i.e., no unwanted solicitations. Once you are subscribed and receive a confirmation message, you can post messages to the list by sending e-mail to:

CYE-L@cunyvms1.gc.cuny.edu

Further administrative requests regarding this list should be sent to:
CYE-L-request@cunyvms1.gc.cuny.edu

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Notes:
ECENET-L

Name: ECENET-L@vmd.cso.uiuc.edu

Sponsor: ERIC Clearinghouse on Elementary and Early Childhood Education

Description: ECENET-L is a discussion list for anyone interested in young children from birth through eight years of age, and early childhood education. Operated by the ERIC Clearinghouse on Elementary and Early Childhood Education (ERIC/EECE) at the University of Illinois, ECENET-L is the place where parents, teachers, representatives of professional associations and government agencies, faculty and researchers, students and teachers, librarians, and anyone else interested in early childhood education come together to share ideas, resources, problems, and solutions.

Type of Resource: Listserv mail list

Address: Administrative Address: LISTSERV@vmd.cso.uiuc.edu Discussion Address: ECENET-L@vmd.cso.uiuc.edu

Contact: Dianne Rothenberg (rothenbe@uiuc.edu)

ERIC/EECE
University of Illinois at Urbana-Champaign
805 W. Pennsylvania
Urbana, IL 61801-4897
(217) 333-1386
(800) 583-4135
ericeece@ux1.cso.uiuc.edu

Subscription Directions: To subscribe, send a message to listserv@vmd.cso.uiuc.edu Leave the subject line blank. Then type sub ECENET-L YourFirstName YourLastName in the first line of the message area.

NOTE: Any messages to LISTSERV should not include a "signature" if at all possible. The computer will try to interpret the lines of your signature as commands.

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Notes:
ECEOL-L (Early Childhood Educators Online)

Name: ECEOL-L@Maine.Maine.edu

Sponsor: University of Maine

Description: Goals of Early Childhood Education On Line include the support of early childhood educators, parents, and the children they care for, through information exchange at a variety of levels. Topics of interest include practical issues and questions related to caring for young children and the sharing and exchanging of ideas.

Type of Resource: Listserv mail list

Address: Administrative Address: LISTSERV@Maine.Maine.Edu
         Discussion Address: ECEOL-L@Maine.Maine.Edu

Contact: Bonnie Blagojevic (bonnieb@maine.maine.edu)
         Bonnie Blagojevic
         The Sharing Place
         Talmar Wood, The Housing Foundation
         Orono, Maine 04473

Subscription Directions: To subscribe, send a message to
                         LISTSERV@Maine.Maine.Edu
                         Leave the subject line blank. Then type
                         sub eceol-1 YourFirstName YourLastName
                         in the first line of the message area.

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Notes:
ECPOLICY

Name: ECPOLICY@ux1.cso.uiuc.edu

Sponsor: National Association for the Education of Young Children and the ERIC Clearinghouse on Elementary and Early Childhood Education

Description: ECPOLICY provides a forum for discussion of policy issues related to young children. Discussion centers on (1) providing information about the development, care, and education of young children for state, federal, and local policymakers; (2) raising the awareness of policymakers, educators, the media, and parents about the issues important to the future of young children; and (3) encouraging responsiveness of the early childhood community to public issues affecting children.

Type of Resource: Majordomo mail list

Address: Administrative Address: MAJORDOMO@ux1.cso.uiuc.edu
Discussion Address: ECPOLICY@ux1.cso.uiuc.edu

Contact: Barbara Willer (AAUJ82A@prodigy.com)
Dianne Rothenberg (rothenbe@uiuc.edu)

National Association for the Education of Young Children
1509 16th St., SE
Washington, DC 20036-1426
(800) 424-2460

ERIC/EECE
University of Illinois at Urbana-Champaign
805 W. Pennsylvania
Urbana, IL 61801-4897
(217) 333-1386
(800) 583-4135
ericeece@ux1.cso.uiuc.edu

Subscription Directions: To subscribe, send a message to
majordomo@ux1.cso.uiuc.edu

Leave the subject line blank. Then type
subscribe ECPOLICY <Your Email Address>
in the first line of the message area. Then, send the message.
You will be notified that you have been added as a subscriber to the group.
To unsubscribe from ECPOLICY, send a message to
majordomo@ux1.cso.uiuc.edu
Leave the subject line blank. Then type
unsubscribe ECPOLICY <Your Email Address>
in the first line of the message area. Then, send the message.

Archive
Site: ECPOLICY is archived on the ericir.syr.edu gopher site.

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Notes:
Multiage Discussion List

Name: Multiage@services.dese.state.mo.us

Sponsor: Ridgeway Elementary School, Columbia, Missouri

Description: This discussion list is devoted to the interests of multiage schooling and aims to create a knowledge base of multiage learning and teaching via electronic networking. This list aims to provide an avenue for persons interested in multiage learning to interface through the list. Possible topics of discussion include, but are not confined to: sharing curriculum ideas; discussing social interplay in development of students in multiage learning settings; providing and requesting pertinent research; and providing a forum for related questions and answers. The list was established as part of a grant received by Ridgeway Elementary school.

Type of Resource: Listprocessor mail list

Address: Administrative Address: LISTPROC@services.dese.state.mo.us
Discussion Address: MULTIAGE@services.dese.state.mo.us

Contact: catchley@mail.coin.missouri.edu

Subscription Directions: To subscribe to the list, send a message to:
LISTPROC@services.dese.state.mo.us
Leave the subject line blank.
In the body of the message, type:
subscribe MULTIAGE first-name last-name

Further administrative requests regarding this list should be sent to:
LISTPROC@services.dese.state.mo.us

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Notes:
REGGIO-L

Name: REGGIO-L@vmd.cso.uiuc.edu

Sponsor: ERIC Clearinghouse on Elementary and Early Childhood Education and the Merrill-Palmer Institute at Wayne State University

Description: REGGIO-L is a forum in which early childhood educators, researchers, students, parents, and others who have an ongoing interest in the Reggio Emilia approach to early childhood education can discuss the educational philosophy of the Reggio Emilia program, the teaching approaches and essential elements of the program, the adaptation of the Reggio Emilia approach in the United States, and related topics.

Type of Resource: Listserv mail list

Address: Administrative Address: LISTSERV@vmd.cso.uiuc.edu
Discussion Address: REGGIO-L@vmd.cso.uiuc.edu

Contact: Amy Aidman (a-aidman@uiuc.edu)

ERIC/EECE
University of Illinois at Urbana-Champaign
805 W. Pennsylvania
Urbana, IL 61801-4897
(217) 333-1386
(800) 583-4135
ericeecee@ux1.cso.uiuc.edu

Subscription Directions: To subscribe, send a message to
listserv@vmd.cso.uiuc.edu
Leave the subject line blank. Then type
sub reggio-l YourFirstName YourLastName
in the first line of the message area.
To signoff from REGGIO-L:
All you need to do is send a one-line e-mail message that reads:
signoff REGGIO-L
Note there is no reason to include a subject, your name, or your email address.
Send the message to:
listserv@vmd.cso.uiuc.edu
DO NOT SEND THE SIGNOFF MESSAGE TO REGGIO-L!

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Notes:
SAC

Name: SAC@ux1.cso.uiuc.edu

Sponsor: ERIC Clearinghouse on Elementary and Early Childhood Education and the School-Age Child Care Project (SACCProject) at the Center for Research on Women at Wellesley College

Description: SAC is a discussion list for anybody interested in school-age care planning, resources, activities, funding, staff and staff development, and related subjects.

Type of Resource: Majordomo mail list

Address: Administrative Address: MAJORDOMO@ux1.cso.uiuc.edu Discussion Address: SAC@ux1.cso.uiuc.edu

Contact: Dianne Rothenberg (rothenbe@uiuc.edu)
Susan Hafer (shafer@wellesley.edu)

ERIC/EECE
University of Illinois at Urbana-Champaign
805 W. Pennsylvania
Urbana, IL 61801-4897
(217) 333-1386
(800) 583-4135
ericeece@ux1.cso.uiuc.edu

School-Age Child Care Project
Center for the Study of Women
Wellesley College
Wellesley, MA 02181
(617) 283-2547

Subscription Directions: To subscribe, send a message to majordomo@ux1.cso.uiuc.edu
Leave the subject line blank. Then type subscribe SAC <Your Email Address>
in the first line of the message area. Then, send the message.

To unsubscribe from SAC, send a message to majordomo@ux1.cso.uiuc.edu
Leave the subject line blank. Then type unsubscribe SAC <Your Email Address>
in the first line of the message area. Then, send the message. You will be notified that you have been added as a subscriber to the group.

Archive Site: SAC is archived on the ericir.syr.edu gopher site.

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Notes:
Chapter 3
Internet Sites for Early Childhood Educators
ACCESS ERIC

Name: ACCESS ERIC


Description: ACCESS ERIC is a component of the ERIC system which provides information on system-wide activities, refers inquirers to the appropriate unit within the ERIC system, and produces a variety of publications for educators about ERIC. This Gopher and Web site contains the complete text of many systemwide ERIC publications, such as the *Pocket Guide to ERIC*, a series of parent brochures, and recent issues of *The ERIC Review* (including the 1993 issue on K-12 computer networking).

Type of Resource: Gopher; Web

Address: gopher: gopher.aspensys.aspensys.com:6/2
http://access_eric.aspensys.com:82/eric.html

Contact: Lynn Smarte, Director
acceric@inet.ed.gov

ACCESS ERIC
Aspen Systems Corporation
1600 Research Boulevard
Rockville MD 20850-3172
(301) 251-5506
(800) LET-ERIC (538-3742)
(301) 251-5767 (fax)

5/95

Notes:
| Name: Administration for Children and Families |
| Sponsor: U.S. Department of Health and Human Services |
| Description: This site provides information on programs and services, staff information, and "ACF in the News," as well as additional Internet connections to other sites. |
| Type of Resource: Web |
| Address: http://www.acf.dhhs.gov |
| Contact: www@www.acf.dhhs.gov |
| 6/95 |
| Notes: |
American Psychological Association Gopher

Name: American Psychological Association Gopher

Sponsor: American Psychological Association (APA)

Description: Provides convention, membership information, and a description of each APA Division, including the "Child, Youth, and Family Services," "Family Psychology," and "Developmental Psychology" Divisions. Currently, the site includes selected articles from the April 1995 APA Monitor and a brochure on helping children cope with the Oklahoma City bombing.

Type of Resource: Gopher

Address: gopher://gopher.apa.org

Contact: Internet Manager

Public Communications
American Psychological Association
750 First St., NE
Washington, DC 20002

3/95

Notes:
<table>
<thead>
<tr>
<th><strong>Name:</strong></th>
<th>NASA K-12 Internet Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sponsor:</strong></td>
<td>National Aeronautics and Space Administration</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>The Quest Educational Server provides support and services to schools, teachers and students in order to enable them to use the internet and its underlying information technologies as one of the fundamental tools of learning and acquiring knowledge. The Internet Initiative encourages classroom use of NASA projects and datasets in science and mathematics education. In addition to topical materials, this site offers extensive and informative grant information. This site includes a listing of Internet Learning Resources and NASA K-12 Resources. Highlights <em>Live from Antarctica: Virtual Field Trip to Antarctica (Dec 94 - Jan 95)</em>. Many of these resources are also available on the Quest Educational Gopher.</td>
</tr>
<tr>
<td><strong>Type of Resource:</strong></td>
<td>Gopher; Web</td>
</tr>
</tbody>
</table>
| **Address:**  | http://quest.arc.nasa.gov  
gopher://quest.arc.nasa.gov |
| **Contact:**  | Steven Hodas (hodas@nsipo.nasa.gov)  
Chris Bero (cbero@quest.arc.nasa.gov)  
webmaster@quest.arc.nasa.gov |
<p>| <strong>Notes:</strong>    | 2/95 |</p>
<table>
<thead>
<tr>
<th><strong>AskERIC Virtual Library</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> AskERIC Virtual Library</td>
</tr>
<tr>
<td><strong>Sponsor:</strong> ERIC Clearinghouse on Information and Technology, Syracuse University; U.S. Department of Education, Office of Educational Research and Improvement</td>
</tr>
<tr>
<td><strong>Description:</strong> The AskERIC Virtual Library is a large site that contains lesson plans for pre-K through grade 12; AskERIC &quot;collections,&quot; including InfoGuides to Internet resources on a wide range of topics (child abuse, children's literature, home schooling, and many others), mail list archives, bibliographies, ERIC Digests, education conferences listed by month, the AskERIC &quot;toolbox&quot; of Internet search tools; and a new interface for searching the ERIC database on the Web. This is the home of AskERIC, an award-winning, Internet-based question-answering service which currently responds within 2 working days to approximately 500-700 questions per week. Questions from AskERIC are routed to the ERIC Clearinghouse best suited to respond to the request.</td>
</tr>
<tr>
<td><strong>Type of Resource:</strong> Gopher; Web</td>
</tr>
</tbody>
</table>
| **Address:** gopher://ericir.syr.edu  
http://ericir.syr.edu |
| **Contact:** Nancy Morgan (nancy@ericir.syr.edu) |
| ERIC Clearinghouse on Information and Technology  
Syracuse University  
Center for Science and Technology  
4th Floor, Room 194  
Syracuse, NY 13244-4100  
(315) 443-3640  
(800) 464-9107  
(315) 443-5448 (fax)  
eric@ericir.syr.edu |
| **6/95** |
| **Notes:** |
### BBN’s National School Network Testbed

<table>
<thead>
<tr>
<th>Name:</th>
<th>BBN’s National School Network Testbed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Bolt, Beranek and Newman’s NSF-Funded National School Network Testbed</td>
</tr>
<tr>
<td>Description:</td>
<td>A resource for addressing the fundamental problems in establishing a universally accessible network of K-12 schools, the National School Network Testbed works to extend the national information infrastructure into schools and bring together classroom communities, teachers, collaborating institutions, and technology. This site include descriptions of Testbed projects, including <em>Community of Explorers, InternNet, MicroMouse (Middle Schools), Urban Math Collaboratives and Shadows (Elementary Schools).</em></td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Gopher</td>
</tr>
<tr>
<td>Address:</td>
<td>gopher://copernicus.bbn.com</td>
</tr>
<tr>
<td>Contact:</td>
<td>Martin Huntley (<a href="mailto:mhuntley@bbn.com">mhuntley@bbn.com</a>)</td>
</tr>
<tr>
<td>4/95</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
Child Health Forum

Name: Child Health Forum

Sponsor: The Virtual Children's Hospital of Delphi

Description: This site provides a listing of child health sites on the Internet and contains a section on pediatric newsletters and brochures that contains full text materials particularly relevant to young children's safety and health. The section on "health topics" focuses right now (6/95) on the ebola virus. Several discussion forums on pediatric health issues are also available if you are a Delphi subscriber (Delphi is a commercial Internet access provider; see Chapter 1 for more information).

Type of Resource: Web

Address: http://www.acy.digex.net/~vpeds/cf264/cf264.html#start

5/95

Notes:
CICNet K-12 Gopher

Name: CICNet K-12 Gopher

Sponsor: CICNet

Description: Based on Jeanne Baugh's dissertation project Best of K-12 on the Internet, this site consists of descriptions of and pointers to a wide variety of internet resources for K-12 educators, administrators and students. Menus are searchable. Users are invited to submit resource descriptions for inclusion in the pointers from this site.

Type of Resource: Gopher

Address: gopher://gopher.cic.net 3005

Contact: Rhana Jacot, Information Services Coordinator (rjacot@cic.net)

CICNet, Inc.
2901 Hubbard Drive
Upper Pod A
Ann Arbor, MI 48105-2467
(313) 998-6521
(313) 998-6105 (fax)

4/95

Notes:
### Classroom Connect

<table>
<thead>
<tr>
<th>Name:</th>
<th>Classroom Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Wentworth Publications</td>
</tr>
<tr>
<td>Description:</td>
<td>This site is complementary to the print publication <em>Classroom Connect</em>, a periodical which aims to help educators bring the Internet and other electronic resources into the K-12 classroom. Included are full-text sample articles and links to educational Internet sites of interest to &quot;little ones,&quot; K-12 students, and educators, as well as to K-12 schools on the Internet.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Web</td>
</tr>
<tr>
<td>Address:</td>
<td><a href="http://www.wentworth.com/classroom/edulinks.htm">http://www.wentworth.com/classroom/edulinks.htm</a></td>
</tr>
<tr>
<td>Contact:</td>
<td><a href="mailto:connect@wentworth.com">connect@wentworth.com</a></td>
</tr>
<tr>
<td>5/95</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
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</tbody>
</table>
Consortium for School Networking

Name: Consortium for School Networking

Sponsor: Consortium for School Networking (CoSN)

Description: The Consortium helps educators and students access information and communications resources that will increase their productivity, professional competence, and opportunities for learning and collaborative work. A section of the gopher on policy and legislation contains information about educational policy and recent legislation that affects education. A section on Network Projects describes the electronic networking efforts (including general resources) of several states, school districts, and local K-12 schools, and provides connections to several FreeNets with education resources.

Type of Resource: Gopher; Web

Address: gopher://cosn.org
          http://cosn.org

Contact: Connie Stout, CoSN Board Chair (cstout@tenet.edu)
         William Wright, CoSN Executive Director (wright@cosn.org)

          for
          membership questions: membership@cosn.org
          gopher questions: Ferdi Serim, ferdi@cosn.org
          WWW questions: Jay Pfaffman, pfaffman@cosn.org

Consortium for School Networking
P.O. Box 6519
Washington, DC 20035-5193
(202) 466-6296
(202) 872-4318

4/95

Notes:
<table>
<thead>
<tr>
<th>Name:</th>
<th>U. S. Department of Health and Human Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>U.S. Department of Health and Human Services</td>
</tr>
<tr>
<td>Description:</td>
<td>Useful in identifying programs, grant recipients, and organizations funded by DHHS, this site provides links to many other places on the Web, as well as to DHHS staff.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Web</td>
</tr>
<tr>
<td>Address:</td>
<td><a href="http://www.os.dhhs.gov">http://www.os.dhhs.gov</a></td>
</tr>
<tr>
<td>Contact:</td>
<td><a href="mailto:tthompso@os.dhhs.gov">tthompso@os.dhhs.gov</a></td>
</tr>
<tr>
<td>6/95</td>
<td></td>
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<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
Name: Eisenhower National Clearinghouse

Sponsor: The Ohio State University; U.S. Department of Education, Office of Educational Research and Improvement

Description: Supports the national goals to improve teaching and learning in mathematics and science by providing better access to resources for those interested in creating effective learning environments. The Clearinghouse Catalog of Curriculum Resources is a searchable, comprehensive listing of multi-media materials and programs for K-12 science and mathematics education. The full-text of ENC Update, a newsletter issued by the Clearinghouse, is also available.

Type of Resource: Gopher; Web

Address: gopher://enc.org
http://www.enc.org

Contact: Eisenhower National Clearinghouse for Mathematics and Science Education
Ohio State University
1929 Kenny Road
Columbus, OH 43210-1079
(614) 292-7784
(614) 292-2066 (fax)

6/95

Notes:
<table>
<thead>
<tr>
<th>Name:</th>
<th>ERIC Clearinghouse on Assessment and Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Catholic University; U.S. Department of Education, Office of Educational Research and Improvement</td>
</tr>
<tr>
<td>Description:</td>
<td>This ERIC Clearinghouse site has become a basic resource for those interested in assessment issues. It contains a guide to assessment information on the Internet and links to other ERIC sites. Also included are the &quot;Test Locator&quot; database and the ETS (Educational Testing Service) Test Collection, basic sources for finding survey instruments and information and descriptions of tests; information about testing projects in progress; and a section on alternative assessment techniques.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Gopher; Web</td>
</tr>
</tbody>
</table>
| Address:      | gopher: gopher.cua.edu, Special Resources  
http://www.cua.edu/www/eric_ae |
| Contact:      | Larry Rudner, Director (rudner@cua.edu) |

ERIC Clearinghouse on Assessment and Evaluation  
Catholic University of America  
320 O'Boyle Hall  
Washington, DC 20064-4035  
(202) 319-5120  
(800) 464-3742  
(202) 319-6692 (fax)  

5/95  

Notes:
### ERIC Clearinghouse on Rural Education and Small Schools

<table>
<thead>
<tr>
<th>Name:</th>
<th>ERIC Clearinghouse on Rural Education and Small Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Appalachia Educational Laboratory; U.S. Department of Education, Office of Educational Research and Improvement</td>
</tr>
<tr>
<td>Description:</td>
<td>This site describes ERIC/CRESS products and services. Of special interest to early childhood educators is <em>A Parent's Guide to the ERIC Database</em> and a set of links to Native American Web and Gopher sites. This site also provides connections to other ERIC Clearinghouse Web and Gopher sites.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Web</td>
</tr>
<tr>
<td>Address:</td>
<td><a href="http://aelvis.ael.org/~eric/eric.html">http://aelvis.ael.org/~eric/eric.html</a></td>
</tr>
<tr>
<td>Contact:</td>
<td><a href="mailto:ericinfo@ael.org">ericinfo@ael.org</a></td>
</tr>
</tbody>
</table>

Rural Education and Small Schools  
Appalachia Educational Laboratory  
1031 Quarrier Street, P.O. Box 1348  
Charleston, West Virginia 25325-1348  
(304) 347-0465  
(800) 624-9120  
(304) 347-0487 (fax)  
u56e1@wvnvm.wvnet.edu

6/95

Notes:
**ERIC/EECE Web and Gopher Site**

<table>
<thead>
<tr>
<th>Name:</th>
<th>ERIC/EECE Web and Gopher Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>ERIC Clearinghouse on Elementary and Early Childhood Education, University of Illinois at Urbana-Champaign; U.S. Department of Education, Office of Educational Research and Improvement</td>
</tr>
<tr>
<td>Description:</td>
<td>ERIC/EECE offers full-text information for early childhood educators and individuals interested in child care and child development. Included are sample chapters from ERIC/EECE major publications; all ERIC/EECE Digests, arranged by year and searchable by a keyword in the title; ERIC database entries for documents and journal articles for materials soon to be added to the ERIC database (these entries provide a &quot;current awareness&quot; service for educators and others looking for the most current literature on early childhood education before it is added to the ERIC database); a new but growing section on project work in early childhood education; a section on technology in early childhood education; and the National Parent Information Network (see separate entry). Also included is a link to a dozen sites where the ERIC database can be searched. The Gopher mirrors the Web site.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Gopher; Web</td>
</tr>
</tbody>
</table>
| Address: | gopher://ericps.ed.uiuc.edu  
http://ericps.ed.uiuc.edu/ericeece.html |
| Contact: | Bernard Cesarone (b-cesarone@uiuc.edu) |

ERIC Clearinghouse on Elementary and Early Childhood Education  
University of Illinois at Urbana-Champaign  
805 W. Pennsylvania Avenue  
Urbana, IL 61801-4897  
(217) 333-1386  
(800) 583-4135  
(217) 333-3767 (fax)  
ericeece@ux1.cso.uiuc.edu |

6/95 | Notes: |
ERIC Clearinghouse on Science, Mathematics, and Environmental Education Gopher/WWW

Name: ERIC Clearinghouse on Science, Mathematics, and Environmental Education Gopher/WWW

Sponsor: The Ohio State University; U.S. Department of Education, Office of Educational Research and Improvement

Description: Offering ERIC digests and curriculum materials on science, mathematics, and environmental education, the ERIC/SE gopher has three areas of special interest to those interested in early childhood education: ERIC/SMEE Bulletins and Curriculum Files, ERIC/SMEE Digests, and the section on other gophers of interest (which includes AIDS/HIV, medical, and psychology gophers).

Type of Resource: Gopher; Web

Address: gopher://gopher.ericse.ohio-state.edu  
http://gopher.ericse.ohio-state.edu

Paths: /ERIC/SMEE Bulletins and Curriculum Files  
/PRIME: Parent Resources in Mathematics Education  
/Science Resources for Families  
/ERIC/SMEE Digests  
/Other gophers of interest

Contact: J. Eric Bush (jbush@magnus.acso.ohio-state.edu)

ERIC/SMEE  
Ohio State University  
1929 Kenny Road  
Columbus, OH 43210-1080  
(800) 276-0462

5/95

Notes:
Name: Exploratorium

Sponsor: Palace of Fine Arts, San Francisco, California

Description: A museum of science, technology, and human perception located in the Palace of Fine Arts in the Marina district of San Francisco. Contains ordering information for "cookbooks," or texts that explain how to construct more than 200 hands-on science exhibits for educators and students. Contains information on Exploratorium publications, and connections to gopher sites that provide resources related to physics and astronomy. Contains general information about the Exploratorium; information about "Exploring," the Exploratorium's quarterly magazine; images of Exploratorium exhibits and by artists in residence; and electronic versions of some Exploratorium exhibits. The Web site duplicates information from the gopher site.

Type of Resource: Gopher; Web

Address: gopher://gopher.exploratorium.edu
              http://www.exploratorium.edu

Contact: Ron Hipschman, ronh@exploratorium.edu
         Rose Falanga, rosef@exploratorium.edu
         Larry Shaw, larrys@exploratorium.edu

4/95

Notes:
Family World

Name: Family World

Sponsor: Family World, Inc.

Description: This family-oriented electronic magazine is a collaborative publication of members of the trade association called Parenting Publications of America. Includes monthly feature articles on a variety of topics such as child development, health, infants, parenting, and dads, daily-updated event calendars of family activities across the United States, and a Parent’s Forum which allows parents to post questions and share anecdotes. Graphical and text-only versions of the information are offered.

Type of Resource: Web

Address: http://family.com

Contact: family@family.com

Family World, Inc
1900 Superfine Lane, Suite 6
Wilmington, DE 19802
(302) 575-0935
(302) 575-0933 (fax)

4/95

Notes:
Franklin Institute Science Museum

Name: Franklin Institute Science Museum

Sponsor: Unisys Corporation; The National Science Foundation

Description: Providing easily accessible and up-to-date information for K-8 science educators, this information server includes virtual exhibits (a virtual exhibit is a narrative, multimedia presentation that includes text, graphics, animation, video, and sound, and is accessible through the Internet) such as an exhibit on Benjamin Franklin's contributions to science or on the "virtual" heart, and units of study to stimulate critical thinking, and a publications library with science education resources, activities and an opportunity to "Ask an Expert" science-related questions. The Franklin Institute Science Museum is a member of the Science Learning Network.

Type of Resource: Web

Address: http://sln.fi.edu/

Contact: webmaster@sln.fi.edu

Franklin Institute Science Museum
20th Street and Benjamin Franklin Parkway
Philadelphia, PA
(215) 448-1373

4/95

Notes:
<table>
<thead>
<tr>
<th>Name:</th>
<th>GSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>General Services Administration (GSA)</td>
</tr>
<tr>
<td>Description:</td>
<td>GSA operates a Consumer Information Center that provides the full text of booklets on children and on parenting for those with gopher or Web access.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Gopher; Web</td>
</tr>
</tbody>
</table>
| Address:      | gopher://gopher.gsa.gov/Children  
               | http://www.gsa.gov |
| Notes:        | 4/95          |
|              | 3-20          |
MCHNET

Name: MCHNet
Sponsor: Institute for Child Health Policy
Description: MCHNet supports the timely exchange of MCH related program and policy information. The mission of the Institute for Child Health Policy, funded by the Florida Board of Regents, is to contribute to improving the health status of infants and children in the state of Florida and the nation by improving the information available on child health policy. The "Early Childhood" section on the main menu leads to information on children with special needs as well as general information related to the healthy development of infants, toddlers, and young children; a search on the word "preschool" done by choosing the option "Search MCHNet" from the main menu yielded 4 screens of titles.

Type of Resource: Gopher
Address: gopher://mchnet.ichp.ufl.edu
Contact: Pat Hackett-Waters, M.Ed., Project Coordinator (Pat_Hackett-Waters@qm.server.ufl.edu)
Institute for Child Health Policy
5700 SW 34th Street, Suite 323
Gainesville, FL 32608-5367
(904) 392-5904, ext. 241/233
(904) 392-8822 (fax)

3/95
Notes:
Media Literacy Project

Name: Media Literacy Project

Sponsor: College of Education, University of Oregon

Description: Devoted to making electronic information available to people interested in the influence of electronic media on children, youth and adults, this site contains resources intended to encourage exploration of and awareness and knowledge about media literacy. Includes a listing of professional organizations and associations focusing on media topics, a directory of media education professionals, announcements of conferences and workshops, bibliographies of materials valuable for educators integrating media studies into the K-6 curriculum and pointers to other internet resources for media literacy. Of special interest to early childhood educators are the following articles: "Effects of Electronic Media on the Developing Brain," "To Morph or Not to Morph" (about the Mighty Morphin Power Rangers), and "Television: How Much is Too Much for Children." Users are invited to submit media materials to the project, and to list themselves in the directory of media literacy professionals.

Type of Resource: Gopher

Address: gopher://interact.uoregon.edu

Path: \
Institutes, Projects and Centers

\Media Literacy Project

Contact: Gary Ferrington (Garywf@oregon.uoregon.edu)

College of Education
University of Oregon
Eugene, OR 97403-1215
(503) 346-3405

3/95

Notes:
Name: National Child Care Information Center

Sponsor: Child Care Bureau, U. S. Department of Health and Human Services

Description: The new National Child Care Information Center, which is an adjunct ERIC Clearinghouse for Child Care, offers the complete text of its bimonthly bulletins, listings of child care organizations and related fields, a description of the Early Childhood Technical Assistance Program, and announcements of upcoming conferences. NCCIC's future publications will be available on this Web site.

Type of Resource: Web

Address: http://ericps.ed.uiuc.edu/nccic/nccichome.html

Contact: Anne Goldstein, Project Director (agoldstein@acf.dhhs.gov)

National Child Care Information Center
301 Maple Avenue West, Suite 602
Vienna, VA 22180
(800) 616-2242
(800) 716-2242

5/95

Notes:
National Child Rights Alliance

Name: National Child Rights Alliance

Description: A national organization directed by youth and adult survivors of neglect and abuse, NCRA focuses on changing practices that harm youth, on changing attitudes toward youth, and on youth empowerment. Features full-text documents on preventing child abuse, "divorces" between parents and children, and the history of NCRA and the Youth Bill of Rights.

Type of Resource: Web

Address: http://www.ai.mit.edu/people/ellens/NCRA/ncra.html

Contact: Jim Senter (JIMSENTER@delphi.com)

National Child Rights Alliance
P.O. Box 61125
Durham, NC 27705
(919) 479-7130

4/95

Notes:
National Parent Information Network

Name: National Parent Information Network

Sponsor: ERIC Clearinghouse on Elementary and Early Childhood Education, University of Illinois at Urbana-Champaign; U.S. Department of Education, Office of Educational Research and Improvement

Description: The National Parent Information Network (NPIN) offers information for parents and for those who work with them. Included are materials on raising children of every age, from birth through adolescence; information on parent education programs, innovative program ideas, and parents as partners in their children's education. Materials from the National Urban League and other organizations are included, along with a monthly "Parent News" section which translates research findings from the education, child care, and child development literatures into readable articles for parents.

Type of Resource: Gopher; Web

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

Contact: Bernard Cesarone (b-cesarone@uiuc.edu)

ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois at Urbana-Champaign
805 W. Pennsylvania Avenue
Urbana, IL 61801-4897
(217) 333-1386
(800) 583-4135
(217) 333-3767 (fax)
ericeece@ux1.cso.uiuc.edu

4/95

Notes:
Northwest Regional Educational Laboratory

Name: Northwest Regional Educational Laboratory (NWREL) Gopher

Sponsor: Northwest Regional Educational Laboratory; U.S. Department of Education, Office of Educational Research and Improvement

Description: This Gopher site provides descriptions of the program and content areas of NWREL. Included is access to a promising practices database in K-12 education, a unique set of links to sites in the U.S. Northwest region, and abstracts of many NWREL documents. A WAIS search on this site produced two screens of documents that contained the term "preschool education."

Type of Resource: Gopher

Address: gopher://gopher.nwrel.org

Contact: 101 S.W. Main Street, Suite 500
Portland, OR 97204
(503) 275-9500
4/95

Notes:
Name: OAK Software Repository

Sponsor:

Description: Repository of MS-DOS and MS-Windows software. Includes educational software for preschool and elementary-aged children.

Type of Resource: Web

Address: http://www.acs.oakland.edu/oak.html

Path: http://www.acs.oakland.edu/oak/SimTel/msdos/educatin.html http://www.acs.oakland.edu/oak/SimTel/win3/educate.html

Contact: Jeff Marraccini (jeff@oakland.edu)

4/95

Notes:
### Oklahoma Geological Survey Observatory

<table>
<thead>
<tr>
<th>Name:</th>
<th>Oklahoma Geological Survey Observatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Oklahoma Geological Survey</td>
</tr>
<tr>
<td>Description:</td>
<td>Although focusing primarily on providing seismic and magnetic data, this well-organized gopher contains numerous resources for teaching students about the geography of the internet. A section titled &quot;The Internet and Its Uses in K-8&quot; addresses parent concerns about Internet use. Directions are included for teaching students how information travels around the internet (TRACEROUTE) and how gophers can be used to illustrate the geographical vastness of the internet. A special section on South Africa includes a list of South Africa schools with electronic mail.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Gopher</td>
</tr>
<tr>
<td>Address:</td>
<td>gopher://wealaka.okgeosurvey1.gov/K12</td>
</tr>
<tr>
<td>Contact:</td>
<td>Jim Lawson (<a href="mailto:jim@leonard.okgeosurvey1.gov">jim@leonard.okgeosurvey1.gov</a>)</td>
</tr>
<tr>
<td></td>
<td>Number One</td>
</tr>
<tr>
<td></td>
<td>Observatory Lane</td>
</tr>
<tr>
<td></td>
<td>Box 8</td>
</tr>
<tr>
<td></td>
<td>Leonard, Oklahoma 74043-0008</td>
</tr>
<tr>
<td></td>
<td>(918) 366-4152</td>
</tr>
<tr>
<td>Notes:</td>
<td>3-28</td>
</tr>
</tbody>
</table>

4/95
Oryx Press

Name: Oryx Press

Sponsor: Oryx Press

Description: This commercial site offers the full text of selected articles from the National Teaching and Learning Forum Newsletter and sample chapters from Oryx Press' K-12 Professional Series of books. Current topics of interest to early childhood educators include multicultural children's literature.

Type of Resource: Gopher; Web

Address: gopher://oryxpress.com
http://www.oryxpress.com

Contact: webmaster@oryxpress.com

Oryx Press
4041 North Central Avenue at Indian School
Suite 700
Phoenix, AZ 85012-3397

5/95

Notes:
Parents Helping Parents

<table>
<thead>
<tr>
<th>Name:</th>
<th>Parents Helping Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Family Resource Center, Santa Clara, CA</td>
</tr>
<tr>
<td>Description:</td>
<td>This site provides links to many other sites containing information on special education, child support in California, the National Parent Information Network, services for children under social security, and some sites that offer fun and educational activities for parents and children together.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Web</td>
</tr>
<tr>
<td>Address:</td>
<td><a href="http://www.portal.com/~cbntmkr/php.html">http://www.portal.com/~cbntmkr/php.html</a></td>
</tr>
<tr>
<td>Contact:</td>
<td><a href="mailto:sysop@php.com">sysop@php.com</a></td>
</tr>
</tbody>
</table>

6/95

Notes:
Prevention Primer

Name: Prevention Primer

Sponsor:

Description: A reference tool for prevention practitioners, this summary of issues in and strategies for preventing alcohol, tobacco and other drug problems includes sections on Youth -- Facts About Attitudes and Use (including information for preschool and elementary drug prevention education), Birth Defects and Adverse Birth Outcomes and Children of Alcoholics.

Type of Resource: Web

Address: http://www.health.org/primer/toc.html

Path: http://www.health.org/primer/youthatt.html
     http://www.health.org/primer/birthdef.html
     http://www.health.org/primer/coal.html

Internet: info@prevline.health.org

Postal address: National Clearinghouse for Alcohol and Drug Information
               P.O. Box 2345
               Rockville, MD 20847-2345
               (800) 729-6686
               (301) 468-2600

4/95

Notes:
**Sea World/Busch Gardens Information Data Base**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Sea World/Busch Gardens Information Data Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor:</td>
<td>Busch Gardens</td>
</tr>
<tr>
<td>Description:</td>
<td>In order to increase student competency in science and other disciplines while creating an appreciation and respect for living creatures and the natural environment, this database aims to be an educational resource for all members of the community. The <em>Animal Information Database</em> contains detailed information and graphics about various animals. <em>Shamu TV: Sea World and Busch Gardens Video Classroom</em> provides opportunities to learn about marine science. <em>Teachers' Guides</em> are provided at three educational levels: K-3, 4-8 and 9-12. <em>What's New on the Database?</em> provides updated information about additions and changes to the database as well as a monthly animal quiz.</td>
</tr>
<tr>
<td>Type of Resource:</td>
<td>Web</td>
</tr>
<tr>
<td>Address:</td>
<td><a href="http://www.bev.net/education/SeaWorld/homepage.html">http://www.bev.net/education/SeaWorld/homepage.html</a></td>
</tr>
</tbody>
</table>
| Contact: | Sea.World@bev.net  
Busch.Gardens@bev.net  
Shamu.TV@bev.net |
| 4/95 |  |
| Notes: |  |

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3-32
Name: UE Web

Sponsor: ERIC Clearinghouse on Urban Education

Description: This ERIC Clearinghouse site is fairly new and growing. It contains materials, including manuals, brief articles, and ERIC Digests and bibliographies, related to urban families and urban communities. The section on Urban and Minority Families contains several full text publications issued by the U.S. Department of Education and the National Urban League and is part of the National Parent Information Network. Of special interest is a listing of other urban education resources on the WWW. While many resources are intended for families with older children, "Strong Families, Strong Schools" will be of interest to early childhood educators.

Type of Resource: Web

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

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

Contact: Larry Yates, Associate Director

Internet: eric-cue@columbia.edu

Postal address: ERIC Clearinghouse on Urban Education
Institute for Urban and Minority Education
Teachers College Box 40
Columbia University
New York, NY 10027-9998
(800) 601-4868

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Notes:
**UMASS K12 TELNET SITE**

<table>
<thead>
<tr>
<th><strong>Name:</strong></th>
<th>UMASS K12 Telnet Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sponsor:</strong></td>
<td>University of Massachusetts</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>Teacher resources are featured at this site. The menu lists various topics such as bulletins, USENET Newsgroups, etc. Although much of the information is local in nature and specific to Massachusetts, the sections on Internet Policies and on Internet resources relevant to African-Americans and Jewish-Americans are interesting to browse in. Very little on preschool education.</td>
</tr>
<tr>
<td><strong>Type of Resource:</strong></td>
<td>Telnet site (log on as GUEST)</td>
</tr>
<tr>
<td><strong>Address:</strong></td>
<td>telnet://k12.ucs.umass.edu</td>
</tr>
<tr>
<td><strong>Path:</strong></td>
<td>/Internet Information, Policies; Subject Resource Guides</td>
</tr>
<tr>
<td></td>
<td>/Subject matter resources on the Internet</td>
</tr>
<tr>
<td></td>
<td>/Black, African, and African-American Information Resources</td>
</tr>
<tr>
<td></td>
<td>/Jewish and Israeli Internet Resources</td>
</tr>
<tr>
<td><strong>6/95</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
</tbody>
</table>

78
Name: UNICEF Gopher

Sponsor: United Nations Children's Fund

Description: The United Nations Children's Fund is the United Nations organization devoted to the well-being of the world's children. UNICEF focusses on child survival and development, the rights of children, and human development. Several full-text UNICEF publications are available at this site, including State of the World's Children, First Call for Children (a newsletter), the text of the Convention of the Rights of the Child, and the World Summit for Children papers.

Type of Resource: Gopher

Address: gopher://hqfaus01.unicef.org

Internet: rpadolina@unicef.org

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Notes:
Name: U. S. Department of Education

Sponsor: U. S. Department of Education

Description: This web and gopher site provides a wide range of information of interest to early childhood educators and many links that make it a central site in finding and using education-related information on the Internet. Of special interest is the Teacher’s Guide to the U.S. Department of Education and the Researcher’s Guide to the U.S. Department of Education. The site contains listings and contact information for Department personnel; press releases and speeches; and points to all regional educational laboratories, ERIC clearinghouses, and federally funded research centers which have gophers or webs. The full texts of many publications for parents and for early childhood and K-3 educators are also included. You will want to follow many links from the main menu, or do a keyword search of titles on this site, to find materials of interest to you.

Type of Resource: Gopher; Web

Address: gopher://gopher.ed.gov
http://www.ed.gov

Contact: wwwadmin@inet.ed.gov

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Notes:
**WEB66**

Name: Web66: A K12 World Wide Web Project

Sponsor: An extension of the Hillside Elementary Cooperative Project with the University of Minnesota College of Education and the Center for Applied Research and Educational Improvement.

Description: Intended to invoke the image of the original Route 66, which became a symbol of the highway system that first linked the United States geographically, Web66 offers information to educators who want to set up their own servers. Provides a "cookbook" for setting up a WWW, Mail and FTP server on a Macintosh computer. A key feature is a registry of K-12 schools on the Web. This site also features a "Web66 What's New" Page" and gives information about the Web66 Mailing List, which is a support list for those educators working on the WWW.

Type of Resource: Web

Address: http://web66.coled.umn.edu

Internet: webmaster@web66.coled.umn.edu

4/95

Notes:
World Link Newsletter

Name: World Link Newsletter

Sponsor: Originally funded by the Martha Holden Jennings Foundation and the Department of Library Media Services of the Columbus Public School; now sponsored by Fas-Track Computer Products.

Description: An electronic and print newsletter targeted to the K-12 community for finding curriculum resources on the Internet. Many of the resources listed will be of interest to the early childhood community.

Type of Resource: Electronic Newsletter; 9 issues each school year.

Address: gopher://ericir.syr.edu
Electronic Journals, Books, and Reference Tools
Electronic Journals
\Electronic Journals
World Link Newsletter

Contact: Linda Joseph
l joseph@magnus.acs.ohio-state.edu

World Link
c/o Linda Joseph
Department of Library Media Services
Columbus Public Schools
737 East Hudson Street
Columbus, OH 43211

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Notes:
Chapter 4
Finding and Using ERIC on the Internet
The ERIC database, ERIC Gophers, and ERIC World Wide Web sites are among the most heavily used sites on the Internet by educators and students. This chapter describes options for finding these locations, searching ERIC on the Internet and using the ERIC database to find information of interest to you.

The basic Gopher and World Wide Web site for early childhood educators on the Internet is operated by the ERIC Clearinghouse on Elementary and Early Childhood Education (ERIC/EECE) at the University of Illinois at Urbana-Champaign. An equipment grant from Apple Computer, Inc., supplied the server for these services for the early childhood education community.

The gopher address is:

```
gopher://ericps.ed.uiuc.edu
```

The Web site address is:

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

The ERIC/EECE Web and Gopher sites "mirror" each other, which means that you have access to the same information, arranged the same way, on either the Gopher site or the Web site. On the main menu of each site is a menu item titled "Search the ERIC Database and ERIC Digests," which conveniently groups together many of the options for searching ERIC materials on the Internet. Choosing "Search ERIC" retrieves a menu that includes sites in North America and Europe that currently offer the ERIC database for searching; sites that offer ERIC Digests and AskERIC InfoGuides to Internet resources; sites with lesson plans for all levels of education; and other databases, such as the ETS (Educational Testing Service) Test File.

All of the ERIC database sites listed offer the ERIC database to Internet users at no charge. Because of the popularity of the ERIC database sites, however, they are often busy and can be difficult to access. The degree of difficulty you encounter in connecting to a database site often depends on the time of day at the geographic location of the server; a good rule of thumb is to try connecting again when it is early in the day or late in the evening.

One consistently available site is at the University of Saskatchewan. This site offers a tutorial and good help screens for those of us who search the ERIC database only occasionally. Saskatchewan is a TELNET site (telnet://sklib.usask.ca); the login is ERIC.

ERIC clearinghouse Gopher and Web sites of particular interest to early childhood educators are listed and described in Chapter 3. A complete list of clearinghouse sites is at the end of this chapter.
Although Gopher sites that offer a searchable version of the ERIC database are listed on the ERIC/EECE gopher, the ERIC Clearinghouse on Information and Technology (ERIC/IT) provides a Web-searchable version of the ERIC database free for Internet users. We think that the ERIC/IT version offers the easiest access for searching ERIC on the Internet. The address is:

http://ericir.syr.edu/ERIC/eric.html

Searching ERIC

An effective search of the ERIC database gives consideration to:

1. a term or terms that describe the topic you are interested in;
2. a term or terms that describe the age or educational level you are interested in; and,
3. publication types or other codes that further narrow your search to the types of materials you want to retrieve.

If you are searching the ERIC database in a library on CD-ROM or on a library network, ask a librarian for assistance in constructing your search. If you need more assistance or cannot find what you are looking for, or if you are searching the ERIC database on the Internet and need help constructing your search, call us at 800-583-4135. We offer no-cost advice on constructing search strategies.

Subject Terms

ERIC indexes documents and journal articles according to the specific concepts discussed in the text. While the software to search the ERIC database (on the Internet or on CD-ROM) is becoming easier to use every year, occasional users of ERIC may be unable to find what they are looking for unless they use multiple terms to describe the topic of their search. ERIC calls terms that describe the subject of a document descriptors and identifiers.

Descriptors are terms assigned to documents and journal articles by the people who prepare the ERIC database records. The format of descriptors is not always intuitive (for example, descriptors are not consistently plural or singular forms of words). For that reason, you will want to look up the descriptor terms that you want to use so that you use the form of the term that ERIC uses. The advantage of using descriptors in your search is that your search results are more likely to be "on target" and will contain fewer off-topic citations.

Many systems require that you specify whether you are searching in the descriptor "field" for the term that you specify. If you do not indicate that you are searching the descriptor field, the system MAY assume you want to look for the term in the title, abstract, descriptor,
and/or other fields. Looking for the term anywhere in a record (rather than in the descriptor field) will increase the number of items that you retrieve, but some of those items will not contain much information about the topic represented by the term. On the other hand, if you are unable to find what you want while searching by descriptor, try entering the words that describe what you are looking for and browse through the records you retrieve. If you are able to locate even one document that is "on target," note how that document is indexed, and try the combination of descriptors and other terms that ERIC seems to have used to index that item.

In the appendix is a listing of the descriptors used most frequently by the ERIC Clearinghouse on Elementary and Early Childhood Education to index documents and journal articles. The list does not include all the descriptors we use, but it is a helpful list to have when you are designing a search and want to know the format of a specific term (singular, plural, etc.).

**Identifiers** are either proper nouns or terms that may become descriptors. These terms can also be extremely useful in your search. For example, if you are looking for information about Piaget, you can look for the term

Piaget (Jean)

in the identifier field, and be assured that Piaget and his work are actually discussed in the document.

**Age Level and Education Level Terms**

Age level and education level terms are found in many ERIC database records. Education level terms are assigned to every document and journal article, unless it is entirely inappropriate. Age level terms are not required in each record, but most records about early childhood topics do include an age level term. Lists of education level and age level terms are included at the end of this chapter.

**Example 1:** If you want to retrieve information on early childhood development or education and you use only the term "early childhood" in your search, you will miss whole categories of information you are probably interested in. To retrieve documents and journal articles that include all the age groups of children in the early childhood years (birth through age eight), you must use ALL of the following terms:

- Young Children
- Infants
- Toddlers
- Kindergarten Children
- Elementary School Students

4-3

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Of course, by using elementary school students in your search, you will retrieve a lot of documents that really deal with older children as well as younger ones but, if you do not include this term, you will miss the documents that discuss K-3 children in K-8 settings. For many purposes, using the first four terms is sufficient, but it is useful to remember the fifth term as well.

Example 2: If you are interested a comprehensive set of documents on the education of children in the early childhood years, the following terms should be used:

- Early Childhood Education
- Preschool Education
- Primary Education
- Grade 1
- Grade 2
- Grade 3
- Elementary Education
- Elementary Secondary Education

The same cautions apply here as in the earlier example. For many situations, the last two terms may be unnecessary. You should experiment and see which strategy suits your information needs best.

Publication Types

Publication type codes are assigned to every document and journal article and refer to the "form" of the publication. For example, if you are interested only in research on a particular topic, or only in teacher-produced materials, or only in journal articles, ERIC has features that allow you to narrow your search to materials that fit your needs. A list of publication types is included in the appendix.

AskERIC and Parents AskERIC

If you need information about an education topic and are unable to find what you want on CD-ROM or on the Internet, you can always send an electronic mail message, containing your request for information and describing the topic you are interested in, to:

askeric@ericir.syr.edu

An ERIC staff member will do a search for you and return the results to you via electronic mail within two working days. The search will not be exhaustive, but it will include recent citations on the topic you request. This service is free to parents, teachers, administrators, and anyone else interested in education.
Toll Free Access to ERIC Services

If you are unable to use any of the services described above, you may call the ERIC Clearinghouse on Elementary and Early Childhood Education (800-583-4135) and ask for a search of the ERIC database. Short searches are provided at no charge to all requesters.
ERIC Clearinghouse Gopher/WWW Sites

ERIC Clearinghouses

Assessment and Evaluation
Gopher: gopher.cua.edu, Special Resources
WWW: http://www.cua.edu/www/eric_ae

Elementary and Early Childhood Education
Gopher: ericps.ed.uiuc.edu
WWW: http://ericps.ed.uiuc.edu/ericeece.html

National Parent Information Network (NPIN)
Gopher: ericps.ed.uiuc.edu
WWW: http://ericps.ed.uiuc.edu/npin/npinhome.html

Information & Technology
AskERIC (Internet-based question-answering service): askeric@ericir.syr.edu
AskERIC Virtual Library Gopher: ericir.syr.edu
AskERIC Virtual Library WWW: http://ericir.syr.edu

Reading, English, and Communications
Gopher: gopher.indiana.edu 1067
OR gopher.indiana.edu (Library and research services -> subject approach to IU libraries -> education library gopher -> ERIC Clearinghouse-Reading)
WWW: http://www.indiana.edu/~eric_rec

Rural Education and Small Schools
WWW: http://aelvis.ael.org/~eric/eric.html

Science, Mathematics, and Environmental Education
Gopher: gopher.ericse.ohio-state.edu
WWW: http://www.ericse.ohio-state.edu

Social Studies/Social Science Education
WWW: http://www.indiana.edu/~ssdc/eric-chess.html

Urban Education
WWW: http://eric-web.tc.columbia.edu
Adjunct Clearinghouses

Child Care (with ERIC/EECE)
WWW: http://ericps.ed.uiuc.edu/nccic/nccichome.html

United States—Japan Studies (with ERIC/ChESS)
WWW: http://www.indiana.edu/~japan/home.html

Support Components

ACCESS ERIC
WWW: http://access_eric.aspensys.com:82/eric.html

Oryx Press
Gopher: gopher.oryxpress.com
WWW: http://www.oryxpress.com
Chapter 5
The Internet and Early Childhood Educators:
An ERIC Bibliography
The Internet and Early Childhood Educators: An ERIC Bibliography

May 1995

ERIC Documents

ED362187 IR016343
Computers Extending the Learning Environment: Connecting Home and School.
McMahon, Teresa A.; Duffy, Thomas M.
Jan 1993
23p.; In: Proceedings of Selected Research and Development Presentations at the Convention of the Association for Educational Communications and Technology Sponsored by the Research and Theory Division (15th, New Orleans, Louisiana, January 13-17, 1993); see IR 016 300.
EDRS Price - MF01/PC01 Plus Postage.
Document Type: RESEARCH REPORT (143); CONFERENCE PAPER (150)

This paper examines themes from a cross case analysis of the Buddy System Project, a program that loans students and teachers in selected elementary classes in Indiana a networked home computer and provides schools with additional classroom computers. Qualitative data were collected from 28 homes and 19 classrooms at 4 participating schools. The three themes examined are the impact on the school's learning environments; the impact and use of the telecommunications functions; and the impact of home computers on the home environment. Buddy was considered a success in all of the schools. Computers were used extensively, and teachers noted that the project had a renewal effect on their careers and a positive impact on the culture of the classroom. They also reported that the majority of their current class computer activities were only possible because there were computers at school and at home. The Buddy home computers contributed to a general dissemination of computer knowledge. Teachers and parents reported that the written format of the electronic communications functions had a positive influence on students' reading, writing, and typing proficiency. A significant factor in successful implementation was the presence of innovators, i.e, teachers or administrators ready to take chances and lead the way for others. (Contains 17 references.) (KRN)

Descriptors: Case Studies; *Computer Assisted Instruction; Computer Literacy; Elementary Education; Family Involvement; Innovation; Language Arts; *Microcomputers; Parent Attitudes; *Student Attitudes; *Teacher Attitudes; *Telecommunications
Identifiers: Empowerment; *Home Computers; Indiana

ED359932 IR016148
The Ralph Bunche Computer Mini-School: A Design for Individual and Community Work.
Newman, Denis; And Others
Center for Technology in Education, New York, NY.
Jun 1993
10p.
EDRS Price - MF01/PC01 Plus Postage.
Document Type: PROJECT DESCRIPTION (141); EVALUATIVE REPORT (142)

In the fall of 1990, seven teachers at the Ralph Bunche School, a public elementary school in Harlem (New York) began an experiment in school restructuring they called the Computer Mini-School. An unexpected outcome of the project was an increase in standardized test scores among their 120 students. This outcome is explored. It is argued that the greater sense of stability and community
that the program brought about was a contributing factor. The background and history of the project are traced. Students and teachers developed a tradition of staying outside school hours, in many cases adding to the instructional time available. A whole language approach to literacy was used, and computers were used extensively for student writing and a student newspaper. From the experiences of the Ralph Bunche School, the following principles for design of a project-based school are presented: (1) students and teachers take increasing responsibility; (2) workplaces are the units of work and communication; and (3) connecting the local area network and wide area networks, such as the Internet, is very useful. The sense of community and emotional belonging that became possible with the smaller class sizes, educational technology, and teacher sense of ownership were probable contributors to improved achievement test scores. Two figures illustrate the discussion. (Contains 5 references.) (SLD)

Descriptors: *Achievement Gains; *Computer Assisted Instruction; Computer Networks; Educational Change; Educational Improvement; Elementary Education; *Elementary School Students; Elementary School Teachers; Literacy; Outcomes of Education; *School Restructuring; Scores; Standardized Tests; *Student Attitudes; Test Results; Urban Schools; Whole Language Approach; Writing Instruction

Identifiers: Internet; New York City Board of Education; *Sense of Community

ED352030 IR015877
Fine, Carole S.; Friedman, Lawrence B.
North Central Regional Educational Lab., Elmhurst, IL.
1 Jun 1991
154p.
Sponsoring Agency: Department of Education, Washington, DC.; Roy J. Carver Charitable Trust, Muscatine, IA.
EDRS Price - MF01/PC07 Plus Postage.
Document Type: EVALUATIVE REPORT (142); TEST, QUESTIONNAIRE (160)
This report is the result of an independent evaluation of a project conducted during the 1990-91 school year with 56 teachers and over 1,800 students from 28 elementary schools in Iowa. The goals of the project were to demonstrate the effectiveness of new technology to improve science and geography instruction at the elementary level; train teachers in the use of technology; and encourage the dissemination and use of the National Geographic Society’s Kids Network (KN) program, a telecommunications-based science program designed for students in grades 4-6. Kids Network, which is designed to foster critical thinking, recommends cooperative grouping for research and problem solving; promotes an interdisciplinary approach to science; allows students to conduct original research in the context of their community; and links students with teammates throughout the United States, Canada, and the world. The overview and introduction to the study include descriptions of the project, the network, the participants, and the significance of the project. The report also describes the study design and methodology; reports the findings; and provides a summary of the project and recommendations. It is concluded that this project was a success for the Iowa teachers and students and that the KN is satisfactory as is. Appendices, which constitute about half of the report, contain copies of the Project Application Form, the Teacher and Student Survey forms, and the Student Test; Results of the Teacher and Student Surveys; and copies of the Site Visit Protocols and the Hotline Form. (ALF)
Descriptors: *Computer Networks; Cooperative Learning; Critical Thinking; Educational Technology; Elementary Education; Geography Instruction; Global Approach; Inservice Teacher

5-2
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An effort to foster intergenerational bilingual literacy by setting up technology-mediated partnerships between—ally distant parents of school children is described. The ethnic and linguistically minority parents who participated were from San Diego, Denver, and Caguas, Puerto Rico. This partnership between distant parents is part of a larger computer-based network of teacher partnerships called ORILLAS, which is coordinated by Brooklyn College of the City University of New York and the University of Puerto Rico. The parents were invited to learn how to use computers with their children and in the process to communicate with other parents and children. The resulting communication and teamwork based on sharing of skills is described, including the value of Spanish language proficiency. Bilingual booklets and books (including a book of proverbs) were developed jointly, as were a community newspaper and a collection of articles on technology and self-esteem. Previous formal research into ORILLAS teacher partnerships is reviewed. Contains 20 references. (LB)

Descriptors: *Bilingualism; Computer Literacy; *Computer Networks; *Cooperative Programs; Educational Technology; Elementary Education; *Literacy Education; Outreach Programs; *Parent Child Relationship; *Parent Participation; Parent School Relationship; Spanish; Writing (Composition)

Identifiers: California (San Diego); Colorado (Denver); *Family Literacy; ORILLAS Network; Partnerships in Education; Puerto Rico

Technologies can play a role in restructuring schools, but they can also effectively support existing school structures depending on how they are designed and used. This paper contrasts the organizational impact of two technology systems in terms of the physical location in the school, the curriculum, how time is scheduled, and the opportunities afforded students to engage in long-term, open-ended projects. Considered first are integrated learning systems, a class of computer systems designed to fit in well with existing school organizations. In contrast, an environment called Earth Lab is described, and its application in the restructuring of a school is illustrated. The Earth Lab project has been designing, implementing, and observing the effects of a local area network (LAN)
system intended to facilitate collaborative work in elementary school earth science instruction. It is noted that the flexibility of location and time, the collaboratively constructed interdisciplinary curriculum, and the provision for student access to the tools, are critical components of this environment. A discussion of the complex relationship between school restructuring and the implementation of technology for schools concludes the report. (14 references) (Author/DB)

Descriptors: Computer Networks; Earth Science; Educational Technology; Elementary Education; *Instructional Systems; *Local Area Networks; Microcomputers; *School Restructuring; Science Instruction

Identifiers: Integrated Learning Systems

ED331797 SP033017
The Enhancement of Teacher Education through the Use of Communication Technology.
Durham, John Richard; Sunal, Dennis W.
16 Feb 1991
EDRS Price - MF01/PC02 Plus Postage.
Document Type: CONFERENCE PAPER (150)
The University of Alabama set up a communication network pilot program to enhance the early childhood and elementary methods block in the College of Education. The pilot program incorporated electronic mail (E-Mail), a fax machine, and a microcomputer communications network. The network made possible instructors’ clarifications of assignments, transmission of student progress reports, assistance in planning and implementing lessons, and other communications related to field placements. Some of the objectives were to save travel time and costs and to see if there would be any effect on students’ success. Four schools participated in the project: Two schools with appropriate technology served as experimental sites; one school was a restricted experimental site; and one school was a control site using traditional supervisory methods. Each participant was asked to keep a log of interactions with others on subject matter, type of communication used (telephone visit, fax, computer network, etc.), and comments about the result of the interaction. The logs, student evaluative essays, interviews, and the Microteaching Skills Rating System provided the data for the study. According to the data analysis, 75 percent of the professional contacts were via computer network, the control school had the fewest contacts per student, and most contacts concerned lesson planning and classroom activity. A similar communication network system associated with the College of Education at the University of Virginia, as well as networks in schools, are also discussed. (IAH)

Descriptors: *Computer Networks; *Computer Uses in Education; Demonstration Programs; *Electronic Mail; Elementary Education; Field Instruction; Higher Education; Methods Courses; Preservice Teacher Education; *Student Teaching; Teacher Education Curriculum; *Telecommunications

Identifiers: University of Alabama; University of Virginia

ED369838 TM021674
Behavior Rating Scales, Preschool - Grade 3. Annotated Bibliography of Tests.
Jan 1991
EDRS Price - MF01/PC03 Plus Postage.
Document Type: BIBLIOGRAPHY (131)
This bibliography of 142 scales contains measures requiring the observation of a particular set of actions and the recording, usually at a later time, of some inference or judgment concerning the observed actions. The ratings may be in terms of an indication of the presence, degree, or frequency of a behavior. The majority of instruments target the behavior of children in preschool, kindergarten, and primary grade classrooms. Many are concerned with the behaviors of children with disabilities. Measures of problem behaviors such as hyperactivity, aggression, and neuroticism are included as is information for some scales for use with Spanish speakers. This document is one in a series of topical bibliographies from the Test Collection (TC) at Educational Testing Service (ETS) containing descriptions of more than 18,000 tests and other measurement devices prepared by commercial publishers, teachers, educational institutions, professional associations, departments of education, counselors, etc. Each description contains the following basic information: TC Accession Number (a six-digit identification number assigned by the Test Collection); the title of the instrument; personal or institutional author; year of publication or copyright; availability source; grade level for which test is suitable; age level for which test is suitable; and abstract. Other information, which is provided when known, includes subtests, number of test items, and time required to complete the test. Information on accessing the Test Collection via Internet concludes the document. (HAC)

Descriptors: Annotated Bibliographies; Behavior Disorders; Behavior Problems; Behavior Rating Scales; Child Behavior; Early Childhood Education; Elementary Education; Parent Child Relationship; Personality Measures; Screening Tests; Social Behavior

Identifiers: Test Bibliographies; Test Collection (Educational Testing Service)

ED369810 TM021237

Attitudes Toward School and School Adjustment, Preschool-Grade 3. Annotated Bibliography of Tests.


Jun 1992


EDRS Price - MF01/PC02 Plus Postage.

Document Type: BIBLIOGRAPHY (131)

The 63 instruments in this bibliography describe a variety of attitude measures designed to assess teacher-student relationships and attitudes toward various school subjects, peers, and other school concerns. (Separate bibliographies on attitudes toward reading and mathematics are available.) Although all ages are represented, the tests target preschool through grade 3. This document is one in a series of topical bibliographies from the Test Collection (TC) at Educational Testing Service (ETS) containing descriptions of more than 18,000 tests and other measurement devices prepared by commercial publishers, teachers, educational institutions, professional associations, departments of education, counselors, etc. Each description contains the following basic information: TC Accession Number (a six-digit identification number assigned by the Test Collection); the title of the instrument; personal or institutional author; year of publication or copyright; availability source; grade level for which test is suitable; age level for which test is suitable; and abstract. Other information, which is provided when known, includes subtests, number of test items, and time required to complete the test. Information on accessing the Test Collection via Internet concludes the document. (HAC)

Descriptors: Annotated Bibliographies; Attitude Measures; Behavior Problems; Early Childhood Education; Learning Problems; School Attitudes; Student Adjustment; Student Attitudes; Teacher Student Relationship

Identifiers: Test Bibliographies; Test Collection (Educational Testing Service)
Among the individually administered 26 intelligence tests described in this bibliography are those for deaf persons, Spanish speakers, and other special populations. Tests requiring nonverbal responses are included. Most of the tests described in this bibliography provide I.Q. scores which are standard scores, with a mean of 100 and standard deviation of 15 or 16. Although all ages are represented, the majority of tests are targeted to preschool through grade 3. This document is one in a series of topical bibliographies from the Test Collection (TC) at Educational Testing Service (ETS) containing descriptions of more than 18,000 tests and other measurement devices prepared by commercial publishers, teachers, educational institutions, professional associations, departments of education, counselors, etc. Each description contains the following basic information: TC Accession Number (a six-digit identification number assigned by the Test Collection); the title of the instrument; personal or institutional author; year of publication or copyright; availability source; grade level for which test is suitable; age level for which test is suitable; and abstract. Other information, which is provided when known, includes subtests, number of test items, and time required to complete the test. Information on accessing the Test Collection via Internet concludes the document. (HAC)

Descriptors: *Academic Aptitude; Annotated Bibliographies; *Cognitive Ability; Diagnostic Tests; Early Childhood Education; Intelligence Quotient; *Intelligence Tests; *Screening Tests

Identifiers: Test Bibliographies; Test Collection (Educational Testing Service)
Diagnostic Tests; Early Childhood Education; Elementary Secondary Education; National Competency Tests; Standardized Tests

Identifiers: Test Bibliographies; Test Collection (Educational Testing Service)

ED368755 TM020768
Reading Readiness. Annotated Bibliography of Tests.
Mar 1991
EDRS Price - MF01/PC02 Plus Postage.
Document Type: BIBLIOGRAPHY (131)

The 81 tests described in this bibliography are designed to assess children's proficiency in those skill areas necessary for success in learning to read. Among the skills tested are visual perception, auditory discrimination, letter identification, vocabulary, and word recognition. Many of the tests measure a child's eligibility for kindergarten or 1st grade. This document is one in a series of topical bibliographies from the Test Collection (TC) at the Educational Testing Service (ETS) containing descriptions of more than 18,000 tests and other measurement devices prepared by commercial publishers, teachers, educational institutions, professional associations, departments of education, counselors, etc. Each description contains the following basic information: TC Accession Number (a six-digit identification number assigned by the Test Collection); the title of the instrument; personal or institutional author; year of publication or copyright; availability source; grade level for which test is suitable; age level for which test is suitable; and abstract. Other information, which is provided when known, includes subtests, number of test items, and time required to complete the test. Information on accessing the Test Collection via Internet concludes the document. (HAC)

Descriptors: Annotated Bibliographies; *Auditory Discrimination; Cognitive Tests; Early Childhood Education; Language Acquisition; *Language Tests; Preschool Tests; *Reading Diagnosis; *Reading Readiness Tests; Screening Tests; *Visual Perception

Identifiers: Placement Tests; Test Bibliographies; Test Collection (Educational Testing Service)

ED357829 PS021183
Groff, Warren H.
1993
174p.; For a related document, see ED 352 126.
EDRS Price - MF01/PC07 Plus Postage.
Document Type: EVALUATIVE REPORT (142)

This paper presents a description and formative evaluation of National (Multi-Tech) Cluster III, Nova University's third technology-intensive doctoral program in Child and Youth Studies (CYS) in which formal instruction occurs in clusters, or groups of professionals in different — locations who are connected via electronic communications technology. National clusters focus on understanding the basic concepts of leadership theory and research and applying these concepts to problems in a professional context. Following a brief introduction, a description of the preliminary planning for the technology delivery system used in the doctoral program is offered. Program development is discussed, an introduction to the telecommunications used in the program is presented, and the Leadership I course is described. The course uses technological aids, such as electronic classrooms, to
explore: (1) societal problems and issues; (2) leadership theory and practice; and (3) organizational, personal, and professional development. The paper concludes with a discussion of a conceptual framework for human resources development, emphasizing the advantages of multi-tech learning. Appendices include copies of instructions and memos to students in National Cluster III; materials from electronic classrooms; and examples of outstanding work by two students (Daniel R. Hayes and Deborah W. Whaley). The students' papers and other materials comprise the bulk of the document. (MM)

Descriptors: Curriculum Design; *Doctoral Programs; Early Childhood Education; *Educational Technology; Electronic Mail; Higher Education; Human Resources; *Labor Force Development; *Leadership; Program Descriptions; *Telecommunications

Identifiers: *Technology Utilization

ED339362 IR015313
Oakland County Schools, Pontiac, Mich. 1991
77p.
Available From: Oakland Schools, Computing & Technology, 2100 Pontiac Lake Rd., Waterford, MI 48328-2735 ($5.00).
EDRS Price - MF01/PC04 Plus Postage.
Document Type: RESEARCH REPORT (143); TEST, QUESTIONNAIRE (160)
The Teaching and Learning with Technology Project was funded by Oakland Schools, Oakland County (Michigan), in 1987 to bring together in an elementary school those technologies that will be key components of schools in the future with an instructional program designed to prepare students for the information age. The project had the following objectives: (1) to explore and identify classroom applications for educational technologies such as microcomputers, instructional television, videodiscs, CD-ROM, and telecommunications; (2) to design staff development programs to assist teachers in making effective use of technology to accomplish curricular objectives; and (3) to study the impact of technology on teaching and learning. The project focused on third, fourth, and fifth grade classrooms in one elementary school over a 3-year period; data was collected by classroom observation, interviews, and achievement tests. Results of comparisons between treatment and control classrooms indicated that the classrooms differed in the amount of technology available, number of technologies used, and ways in which technology was used to meet curricular objectives. The overall results of the experimental program were favorable. Appendices contain questionnaires, achievement test scores, a word checklist, a teacher survey instrument, statistical data, and 11 case studies of participating students. A separately published "Executive Summary" has been appended. (9 references) (DB)

Descriptors: *Academic Achievement; Curriculum Development; Educational Environment; *Educational Technology; Educational Television; Electronic Classrooms; Grade 3; Grade 4; Grade 5; *Inservice Teacher Education; *Instructional Effectiveness; Intermediate Grades; Interviews; Microcomputers; Optical Data Disks; Primary Education; Questionnaires; Staff Development; Telecommunications; *Use Studies; Videodisks

Identifiers: *Teaching and Learning with Technology Project MI

ED362214 IR016370
Evaluating the Impact of Technology at Peakview Elementary School.
Wilson, Brent G.; And Others
Jan 1993

5-8
Peakview Elementary School is a new elementary school that is implementing a number of organizational and teaching strategies advocated by the school restructuring reform movement. Among those strategies is the infusion of more than 80 networked microcomputers with their related technology and software. The impact of this technology on the school community was examined through a variety of data collection instruments, including classroom observation and surveys and interviews of 22 teachers and students at all grade levels. Survey data were collected in August 1991, when the school had just opened, and again in May 1992. Three other elementary schools were studied for comparison purposes. Consistent evidence was found that technology plays an essential role in facilitating the school’s goals, with positive effects on student learning and attitudes. Students use the technology extensively for research and writing, as well as for instructional support in many subjects. Technology has changed the way teachers work, resulting in a net increase in the number of hours they work, coupled with greater productivity, effectiveness, and satisfaction. The implementation factors identified as contributing to the success of the school’s use of technology form the basis of a set of recommendations for implementing technology in other schools. Four tables present study findings. (Contains 13 references.) (SLD)

Descriptors: Comparative Analysis; *Computer Assisted Instruction; Computer Networks; Educational Change; Educational Innovation; Educational Objectives; *Educational Technology; Elementary Education; *Elementary Schools; Elementary School Students; Influences; Interviews; Job Satisfaction; Microcomputers; School Surveys; *Student Attitudes; *Teacher Attitudes; *Teaching Methods

ED362187 IR016343

Computers Extending the Learning Environment: Connecting Home and School.
McMahon, Teresa A.; Duffy, Thomas M.
Jan 1993

This paper examines themes from a cross case analysis of the Buddy System Project, a program that loans students and teachers in selected elementary classes in Indiana a networked home computer and provides schools with additional classroom computers. Qualitative data were collected from 28 homes and 19 classrooms at 4 participating schools. The three themes examined are the impact on the school’s learning environments; the impact and use of the telecommunications functions; and the impact of home computers on the home environment. Buddy was considered a success in all of the schools. Computers were used extensively, and teachers noted that the project had a renewal effect on their careers and a positive impact on the culture of the classroom. They also reported that the majority of their current class computer activities were only possible because there were computers at school and at home. The Buddy home computers contributed to a general dissemination of computer knowledge. Teachers and parents reported that the written format of the electronic communications functions had a positive influence on students’ reading, writing, and typing proficiency. A significant
factor in successful implementation was the presence of innovators, i.e., teachers or administrators ready to take chances and lead the way for others. (Contains 17 references.) (KRN)

Descriptors: Case Studies; *Computer Assisted Instruction; Computer Literacy; Elementary Education; Family Involvement; Innovation; Language Arts; *Microcomputers; Parent Attitudes; *Student Attitudes; *Teacher Attitudes; *Telecommunications

Identifiers: Empowerment; *Home Computers; Indiana

ED357616 FL021165
Teaming with Text: Computer Networks To Develop Deaf Students' English Literacy.
Peyton, Joy Kreeft; And Others
147p.
EDRS Price - MF01/PC06 Plus Postage.
Document Type: PROJECT DESCRIPTION (141)

This report discusses the implementation of Electronic Networks for Interaction (ENFI) at Kendall Demonstration Elementary School at Gallaudet University in Washington, D.C., and William D. Clinite Center for the Hearing Impaired in Tulare, California. ENFI was developed to help improve deaf students' written English. The report will be useful to teachers and program administrators who desire to use computer networks and interactive writing to develop the English literacy of deaf students. Chapters include the following: "Introduction: The Concept Behind Teaming with Text" (Trent Batson, Linda Delk); "ENFI in the Classroom: What It Looks Like, How It Works, the Challenges It Poses" (Joy Kreeft Peyton); "Project Goals and Methods" (Joy Kreeft Peyton); "ENFI as Part of a Whole Language Program" (Martha French); "ENFI Activities at Kendall" (Joy Kreeft Peyton, Anne Marie Baer); "Factors that Can Influence the Quality of Network Discourse" (Joy Kreeft Peyton, Martha French); "Interactional Scaffolding in Network Conversations" (Joy Kreeft Peyton, Martha French); "Student Development" (Joy Kreeft Peyton with Heather Jilao, Leslie Brewer); "Institutionalizing ENFI at Kendall School" (Judy Lenard); "Implementing ENFI at Clinite" (Antonina Cardinalli); and "Disseminating ENFI beyond Kendall and Clinite" (Margaret Hallau).

Descriptors: *Computer Assisted Instruction; *Computer Networks; *Deafness; Elementary Education; Elementary School Students; *English; Interaction; *Literacy; Program Descriptions; Program Implementation; *Written Language

Identifiers: Clinite Center for the Hearing Impaired CA; *Electronic Networks for Interaction; Kendall Demonstration Elementary School DC

ED352030 IR015877
Fine, Carole S.; Friedman, Lawrence B.
North Central Regional Educational Lab., Elmhurst, IL.
1 Jun 1991
154p.
Sponsoring Agency: Department of Education, Washington, DC.; Roy J. Carver Charitable Trust, Muscatine, IA.
EDRS Price - MF01/PC07 Plus Postage.
Document Type: EVALUATIVE REPORT (142); TEST, QUESTIONNAIRE (160)

This report is the result of an independent evaluation of a project conducted during the 1990-91 school year with 56 teachers and over 1,800 students from 28 elementary schools in Iowa. The goals
of the project were to demonstrate the effectiveness of new technology to improve science and geography instruction at the elementary level; train teachers in the use of technology; and encourage the dissemination and use of the National — Society's Kids Network (KN) program, a telecommunications-based science program designed for students in grades 4-6. Kids Network, which is designed to foster critical thinking, recommends cooperative grouping for research and problem solving; promotes an interdisciplinary approach to science; allows students to conduct original research in the context of their community; and links students with teammates throughout the United States, Canada, and the world. The overview and introduction to the study include descriptions of the project, the network, the participants, and the significance of the project. The report also describes the study design and methodology; reports the findings; and provides a summary of the project and recommendations. It is concluded that this project was a success for the Iowa teachers and students and that the KN is satisfactory as is. Appendices, which constitute about half of the report, contain copies of the Project Application Form, the Teacher and Student Survey forms, and the Student Test; Results of the Teacher and Student Surveys; and copies of the Site Visit Protocols and the Hotline Form. (ALF)

Descriptors: *Computer Networks; Cooperative Learning; Critical Thinking; Educational Technology; Elementary Education; Geography Instruction; Global Approach; Inservice Teacher Education; Interdisciplinary Approach; *Program Evaluation; Questionnaires; School Surveys; *Science Instruction; Scientific Methodology; Student Research; *Telecommunications

Identifiers: Iowa; *National — Kids Network; National — Society; Networking

ED337148 IR015199
Newman, Denis
Center for Technology in Education, New York, NY.
June 1991
12p.
EDRS Price - MF01/PC01 Plus Postage.
Document Type: POSITION PAPER (120); PROJECT DESCRIPTION (141)
Technologies can play a role in restructuring schools, but they can also effectively support existing school structures depending on how they are designed and used. This paper contrasts the organizational impact of two technology systems in terms of the physical location in the school, the curriculum, how time is scheduled, and the opportunities afforded students to engage in long-term, open-ended projects. Considered first are integrated learning systems, a class of computer systems designed to fit in well with existing school organizations. In contrast, an environment called Earth Lab is described, and its application in the restructuring of a school is illustrated. The Earth Lab project has been designing, implementing, and observing the effects of a local area network (LAN) system intended to facilitate collaborative work in elementary school earth science instruction. It is noted that the flexibility of location and time, the collaboratively constructed interdisciplinary curriculum, and the provision for student access to the tools, are critical components of this environment. A discussion of the complex relationship between school restructuring and the implementation of technology for schools concludes the report. (14 references) (Author/DB)

Descriptors: Computer Networks; Earth Science; Educational Technology; Elementary Education; *Instructional Systems; *Local Area Networks; Microcomputers; *School Restructuring; Science Instruction

Identifiers: Integrated Learning Systems
ED331797 SP033017

The Enhancement of Teacher Education through the Use of Communication Technology.

Durham, John Richard; Sunal, Dennis W.

16 Feb 1991


EDRS Price - MF01/PC02 Plus Postage.

Document Type: CONFERENCE PAPER (150)

The University of Alabama set up a communication network pilot program to enhance the early childhood and elementary methods block in the College of Education. The pilot program incorporated electronic mail (E-Mail), a fax machine, and a microcomputer communications network. The network made possible instructors’ clarifications of assignments, transmission of student progress reports, assistance in planning and implementing lessons, and other communications related to field placements. Some of the objectives were to save travel time and costs and to see if there would be any effect on students’ success. Four schools participated in the project: Two schools with appropriate technology served as experimental sites; one school was a restricted experimental site; and one school was a control site using traditional supervisory methods. Each participant was asked to keep a log of interactions with others on subject matter, type of communication used (telephone visit, fax, computer network, etc.), and comments about the result of the interaction. The logs, student evaluative essays, interviews, and the Microteaching Skills Rating System provided the data for the study. According to the data analysis, 75 percent of the professional contacts were via computer network, the control school had the fewest contacts per student, and most contacts concerned lesson planning and classroom activity. A similar communication network system associated with the College of Education at the University of Virginia, as well as networks in schools, are also discussed. (IAH)

Descriptors: *Computer Networks; *Computer Uses in Education; Demonstration Programs; *Electronic Mail; Elementary Education; Field Instruction; Higher Education; Methods Courses; Preservice Teacher Education; *Student Teaching; Teacher Education Curriculum; *Telecommunications

Identifiers: University of Alabama; University of Virginia

Journal Articles

EJ491675 PS522340

An "On Ramp" in Every Classroom. From the Desk of the Secretary of Education.

Riley, Richard W.

Teaching Pre K-8, v25 n2 p6 October 1994

ISSN: 0891-4508

Available From: UMI

Document Type: POSITION PAPER (120); JOURNAL ARTICLE (080)

Discusses how the National Information Infrastructure (NII), the "information superhighway," can be used in classrooms to help reach the targets established by the Goals 2000: Educate America Act. Describes specific projects undertaken by schools to utilize the NII, and the role of computer technology in the classroom. (MDM)

Descriptors: *Classroom Techniques; *Computer Assisted Instruction; *Educational Technology; Elementary Education; *Information Technology; Optical Data Disks; Program Descriptions; School Activities; *Telecommunications

5-12

103
Discusses the various ways computers and related technology are being used in early childhood and elementary settings. Describes different types of educational software, local area networks and telecommunications, and online information services such as CompuServe and Prodigy. Gives examples of online curricular activities and advice on the mechanics of going online. (TJQ)

Descriptors: *Computer Assisted Instruction; Computer Networks; *Computers; Computer Software; *Computer Uses in Education; Early Childhood Education; Educational Technology; Elementary Education; Information Services

Describes activities at the Frost Lake (Minnesota) Magnet School of Technology that relate to global concepts including interdependence, economics, and cultural change. Projects in sixth-grade and second-grade classes are explained, and benefits of an integrated approach are discussed, including student motivation and the use of higher order thinking skills. (LRW)

Descriptors: Class Activities; Computer Assisted Instruction; Courseware; Economic Factors; *Educational Technology; Elementary Education; Grade 2; Grade 6; Magnet Schools; Student Motivation; Telecommunications; Thinking Skills

Identifiers: Cultural Change; *Global Studies; Interdependence; Minnesota

The Hellgate Elementary School District (Montana) installed a computer network that connects classrooms, three buildings, and the outside world. The computers are installed in each classroom. Students are achieving higher test scores, and working in pairs has enhanced cooperative learning. Offers advice to other elementary districts about installing a network. (MLF)

Descriptors: *Computer Networks; *Computer Uses in Education; *Educational Technology; Elementary Education; *Purchasing
Rhymes around the World.
Novelli, Joan
Instructor, v103 n4 p57-60 November-December 1993
ISSN: 1049-5851
Available From: UMI
Document Type: TEACHING GUIDE (052); PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)
Target Audience: Teachers; Practitioners
Examines how one teacher combined jump rope jingles and computerized telecommunications to
create a cross-cultural curriculum, having students use electronic mail to collect data from and play
games with other students nationwide. The article also describes technology tools to link students with
an international community of learners. (SM)
Descriptors: *Computer Assisted Instruction; *Computer Networks; *Cultural Exchange;
*Electronic Mail; Elementary Education; Elementary School Teachers; Multicultural Education;
Online Systems; Teaching Methods
Identifiers: *FrEdMail

There's Never Been a Better Time to Use Technology: What Got Me Hooked.
Novelli, Joan, Ed.
Instructor, v103 n3 p34-35,37-40 October 1993
ISSN: 1049-5851
Available From: UMI
Document Type: NON-CLASSROOM MATERIAL (055); JOURNAL ARTICLE (080)
Target Audience: Teachers; Practitioners
Two articles discuss changes that are making technology useful to teachers. After examining
computer uses in education, the articles describe new research and educational technology trends, and
products and projects that got three teachers hooked on technology. (SM)
Descriptors: *Computer Assisted Instruction; *Computer Networks; Computer Software Reviews;
*Cooperative Learning; *Courseware; Creative Teaching; Elementary Education; *Heterogeneous
Grouping; Microcomputers; Teaching Methods

Doing Homework on a Telecommunications Network:
Mountain, Lee
ISSN: 0047-2395
Document Type: JOURNAL ARTICLE (080); PROJECT DESCRIPTION (141)
Describes the use of a telecommunications network by elementary school students in Texas for
doing extra-credit homework. A pilot project in an innercity school that used equipment provided by a
local corporation is described, use of the network during summer vacation is examined, and
expansion of the program is discussed. (six references) (LRW)
Descriptors: *Computer Assisted Instruction; *Computer Networks; Courseware; Elementary
Education; *Elementary School Students; *Homework; Information Networks; Inner City;
ATLIS. Early Childhood Development and the Electronic Age.
Alexander, Nancy P.
Young Children, v49 n5 p26-27 July 1994
ISSN: 0044-0728
Available From: UMI
Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)
Describes the America Tomorrow Leadership Information Service (ATLIS) and how this information can benefit early childhood professionals. Discusses the future of telecommunications in the early childhood profession and includes a glossary of telecommunications terms. (HTH)
Descriptors: *Early Childhood Education; Educational Resources; Glossaries; *Information Networks; Information Sources; Online Systems; *Professional Development; *Telecommunications
Identifiers: ATLIS Computer Network

Online for New Learning Opportunities.
Brett, Arlene
Dimensions of Early Childhood, v22 n3 p10-13 Spring 1994
ISSN: 1068-6177
Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)
Discusses the various ways computers and related technology are being used in early childhood and elementary settings. Describes different types of educational software, local area networks and telecommunications, and online information services such as CompuServe and Prodigy. Gives examples of online curricular activities and advice on the mechanics of going online. (TJQ)
Descriptors: *Computer Assisted Instruction; Computer Networks; *Computers; Computer Software; *Computer Uses in Education; Early Childhood Education; Educational Technology; Elementary Education; Information Services

Evaluating the Benefits of a Computer Based Telecommunication Network: Telementoring and Teletraining for Educators in Rural Areas.
Kendall, Robbie M.
Journal of Research in Rural Education, v8 n1 p41-46 Winter 1992
ISSN: 6-0534
Document Type: JOURNAL ARTICLE (080); PROJECT DESCRIPTION (141)
Describes an inservice teacher training program for educators in early childhood special education in rural South Carolina using telecommunications, telementoring, and teletraining. The program evaluation shows significant improvements in participants' self-reported competency in using computers, understanding research journals, and using research information. (KS)
Descriptors: *Access to Information; *College School Cooperation; Early Childhood Education; Educational Technology; *Inservice Teacher Education; Networks; Program Evaluation; *Rural Schools; *Special Education; *Telecommunications
Identifiers: Telementoring; *Teletraining
Information Technology in Education.
Rothenberg, Dianne

Annual Review of Information Science and Technology (ARIST), v29 p277-302 1994
ISSN: 0066-4200
Available From: UMI
Document Type: REVIEW LITERATURE (070); PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)

Discusses information technology in teacher education, teaching, and learning in elementary and secondary education from 1991-93. Topics addressed include school reform; the effects of information technology on student achievement; networked schools; telecommunications; information services and technology in school library media centers; Internet use; information skills instruction; and future possibilities. (115 references) (LRW)

Descriptors: Academic Achievement; Computer Assisted Instruction; Computer Networks; *Educational Technology; Elementary Secondary Education; Futures (of Society); Higher Education; Information Skills; *Information Technology; Learning Resources Centers; Library Instruction; Library Services; School Libraries; School Restructuring; Teacher Education; Telecommunications
Identifiers: Internet

A Learning Organization Perspective on Training: Critical Success Factors for Internet Implementation.
Hert, Carol A.

Internet Research, v4 n3 p36-44 Fall 1994
ISSN: 1066-2243
Document Type: POSITION PAPER (120); EVALUATIVE REPORT (142); JOURNAL ARTICLE (080)

Argues that training is a critical success factor for Internet implementation in organizations, both in teaching Internet skills and in enabling trainees to participate in planning how the Internet could transform the organization. Conceptual areas relevant to the development of training and the associated theoretical perspectives are suggested. (26 references) (KRN)

Descriptors: Adult Learning; *Computer Networks; Course Organization; Creativity; Educational Objectives; Evaluation; *Information Networks; Learning Theories; Library Role; Organizational Change; *Staff Development; *Strategic Planning; *Training
Identifiers: *Internet; Organizational Learning

The Role of Technology in the Systemic Reform of Education and Training.
Lane, Carla; Cassidy, Sheila

ED Journal, v8 n6 p1-22 June 1994
Journal available from Applied Business Telecommunications, Box 5106, San Ramon, CA 94583.
Document Type: REVIEW LITERATURE (070); POSITION PAPER (120); PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)

Discusses the systemic reform of education and training based on a review of pertinent literature, including a conceptual framework; the GOALS 2000 legislation; models of learning, including constructivism, student empowerment, and andragogy; the potential of technology in systemic reform; equitable access; using the National Information Infrastructure; and inservice and preservice training.
Cases, Hypermedia, and Computer Networks: Three Curricular Innovations for Teacher Education.
Lacey, Catherine A.; Merseth, Katherine K.
ISSN: 0022-0272
Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)
Target Audience: Teachers; Administrators; Practitioners
Asserts that teacher educators struggle with how to represent the complexities of teaching in an isolated and sanitized undergraduate classroom. Describes three approaches: (1) case studies; (2) development of hypermedia environments; and (3) the integration of electronically based computer networks. (CFR)
Descriptors: *Case Studies; *Computer Networks; *Computer Uses in Education; Curriculum Development; *Educational Change; Educational Improvement; Educational Technology; Electronic Mail; Higher Education; *Hypermedia; *Teacher Education; Teacher Education Curriculum; Teacher Educators
Identifiers: Dewey (John); Electronic Networks; *HyperCard

The Internet: Educational Prospects—And Problems.
Maddux, Cleborne D.
Educational Technology, v34 n7 p37-42 September 1994
Special issue examining the educational implications of electronic publishing.
ISSN: 0013-1962
Available From: UMI
Document Type: POSITION PAPER (120); PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)
Examines some of the problems that must be solved before the Internet can realize its educational potential, including access that is educationally beneficial; hardware and software availability; charges for Internet access; technical and curriculum support; lack of coherent structure, stability, and documentation; censorship; and quality control. (Contains eight references.) (LRW)
Descriptors: Access to Information; Censorship; *Computer Assisted Instruction; *Computer Networks; Computer Software; Costs; *Educational Benefits; Electronic Publishing; Elementary Secondary Education; Higher Education; *Information Networks; Problems; Quality Control; Teacher Education
Identifiers: Access to Computers; *Internet; Support Services

Training Materials for Telecommunications: Eliminating "TeleConfusion."
Barron, Ann E.; Ivers, Karen S.
ISSN: 1059-7069

Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)

Describes the design and development of training materials to encourage the use of telecommunications by Florida teachers that was funded by the Florida Department of Education. Topics addressed include the need for training materials; electronic mail; booklets; computer tutorials/simulation; the use of HyperCard; and results of an effectiveness study. (Contains seven references.) (LRW)

Descriptors: *Computer Assisted Instruction; Computer Simulation; Electronic Mail; Higher Education; Hypermedia; Instructional Effectiveness; *Material Development; *Teacher Education; *Telecommunications

Identifiers: Florida; HyperCard; Printed Materials; *Training Materials; Training Needs; University of South Florida

EJ488495 PSS22229
Computers, Collaboration Take to the Road.
NHSA Journal, v13 n1 p39-41 Summer 1994

Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)

Describes a training program undertaken by the Kentucky River Foothills Head Start and Eastern Kentucky University that uses a computer-equipped mobile learning lab. The project brings staff training and adult education opportunities to Head Start programs that have limited technological resources. The van contains eight networked computer workstations, a video recorder, television monitor, generators, and a wheelchair lift. (MDM)

Descriptors: Computer Networks; *Computer Uses in Education; *Mobile Educational Services; *Parent Education; Partnerships in Education; *Preschool Education; Program Descriptions; *Staff Development

Identifiers: Eastern Kentucky University; Kentucky; *Project Head Start

EJ488357 IR529173
Bulletin Board Systems (BBSs) for Staff Professional Development and for at Risk Youth Training.
Graham, Lorrie
ISSN: 0892-4872

Document Type: PROJECT DESCRIPTION (141); JOURNAL ARTICLE (080)

Discusses the concepts, costs, and benefits of bulletin board services (BBSs) as a distance learning strategy for staff training and communication. The New York State Independent Living Bulletin Board System (NYS IL BBS) for caseworkers monitoring at-risk youth is described as an example of how to plan bulletin board content. (Contains six references.) (SLW)

Descriptors: Adolescents; At Risk Persons; Caseworkers; Cost Estimates; Distance Education; *Electronic Mail; *Information Networks; Information Services; Staff Development; State Programs; *Systems Development; Telecommunications

Identifiers: Examples; New York

EJ485319 IR528902
Factors Associated with Intensive Telecomputing Use among Teachers.
Grandgenett, Neal; Harris, Judith
_Journal of Technology and Teacher Education_, v2 n1 p3-16 1994
ISSN: 1059-7069

Document Type: REVIEW LITERATURE (070); RESEARCH REPORT (143); JOURNAL ARTICLE (080)

Describes a study that investigated statistical factors associated with teachers' telecomputing use during a graduate telecommunications course. Variables including age, teaching experience, telecommunications experience, computer anxiety level, and writing apprehension level were examined for relationships with login frequency. Implications for incorporating telecomputing into the elementary and secondary school curriculum are discussed. (Contains 36 references.) (LRW)

Descriptors: Age Differences; Computer Anxiety; *Computer Assisted Instruction; Correlation; Curriculum Development; Elementary Secondary Education; Graduate Study; Higher Education; Predictor Variables; Pretests Posttests; Prior Learning; *Teacher Characteristics; Teacher Education; Teaching Experience; *Telecommunications; Use Studies; Writing Apprehension

Identifiers: Pearson Product Moment Correlation

EJ485266 IR528838
_Telecommunications for Public Schools: A Need More than Ever Before._
Cannon, John R.
_Interpersonal Computing and Technology Journal_, v1 n4 October 1993

To retrieve this article, send the following e-mail message to LISTSERV at sign GUVM.GEORGETOWN.EDU: GET CANNON IPCTV1N4 F=MAIL.
ISSN: 1064-4326

Document Type: POSITION PAPER (120); EVALUATIVE REPORT (142); JOURNAL ARTICLE (080)

Examines telecommunication technology in education. The past, present, and future implications of telecommunications in schools are identified; and increased action by teacher preparation institutions and public schools to motivate future teachers in the promotion and application of telecommunication technology is recommended. (Contains 14 references.) (JLB)

Descriptors: *Educational Technology; Elementary Secondary Education; Futures (of Society); Higher Education; *Teacher Education; Technological Advancement; *Telecommunications

Identifiers: Information Age

EJ483709 IR528632
_Teacher Training in the Professional Development Model: Implications for Students at Risk._
Kjelgaard, Peggy A.; Norris, Cathleen A.
_Computing Teacher_, v21 n7 p12-14 April 1994
ISSN: 0278-9175
Available From: UMI

Document Type: EVALUATIVE REPORT (142); JOURNAL ARTICLE (080)

This last in a series of articles on at-risk students highlights Professional Development Schools, restructuring teacher training programs, and integrating modern technology. Topics discussed include university-school collaboration that integrates theory and practice using fieldwork; telecommunication networks; distance learning labs; and integrated learning systems and multimedia. (LRW)

Descriptors: College School Cooperation; Computer Assisted Instruction; Computer Networks; Distance Education; *Educational Technology; Elementary Secondary Education; *Field Experience Programs; Higher Education; *High Risk Students; Laboratories; Multimedia Instruction; Professional
An Internet Glossary
Glossary

Address
A location on a disk or in memory where a piece of information is stored. Also often used to refer to one's Internet address, which consists of letters followed by @ and two or more domain name server names (example: jsmith@uiuc.edu).

Archive
Storage of files for future use. Used in this book to indicate where Internet discussion group proceedings are stored and accessible.

ASCII
American Standard Code for Information Interchange.

ASCII Files
Contain only ASCII characters and can be sent directly over most networks because they do not contain program specific formatting codes.

BITNET
Because It's Time NETwork. Connects primarily IBM mainframes and minicomputers in research institutions and universities around the world. A low-cost, low-speed network, BITNET was developed to provide distributed network access beyond the limits of the original ARPANet network.

bits per second
Measure of digital communication speed that measures how many characters are transmitted across a datalink each second. Do not confuse with baud rate.

baud
Measure of digital communication speed that measure how many signals are transmitted per second. Do not confuse with bits per second.

body/subject
The body of an email message is the actual text of the message; the subject is a special field that briefly describes the content of the message.

bounced message
An email message that is undeliverable for some reason, and has been returned to the original sender.

CEULO

connect time
The length of time you are "logged on" to a computer system.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberspace</td>
<td>Term invented by William Gibson in the science fiction novel <em>Neuromancer</em> to refer to a futuristic computer network that people use by plugging their brains into it.</td>
</tr>
<tr>
<td>daemon</td>
<td>Part of the UNIX operating system that runs continuously to do housekeeping chores. Most visible to email users who send an email message to an improper address; the mail is returned by a mail daemon.</td>
</tr>
<tr>
<td>Domain Name</td>
<td>A naming system for use in UNIX networking. See Chapter 1. System (DNS)</td>
</tr>
<tr>
<td>DOS</td>
<td>Disk Operating System.</td>
</tr>
<tr>
<td>Download</td>
<td>To transmit data from a central computer to a remote computer.</td>
</tr>
<tr>
<td>FAQ</td>
<td>Frequently asked question. FAQs are files containing the answers to frequently asked questions and are frequently found at Internet site.</td>
</tr>
<tr>
<td>FreeNet</td>
<td>An organization set up to provide access to the Internet to a large group of users, usually at the community or regional level, at very low cost. The first FreeNet was the Cleveland FreeNet. See chapter 1 for address and other information on FreeNets.</td>
</tr>
<tr>
<td>FTP</td>
<td>File Transfer Protocol. Program that allows users to transfer files from one computer to another over a network. Some knowledge of the other computer's operating system is required.</td>
</tr>
<tr>
<td>Gopher</td>
<td>An information server that contains extensive information organized by menu. Gophers can also provide access to other information servers anywhere in the world by &quot;pointing&quot; to them from a menu item.</td>
</tr>
<tr>
<td>header</td>
<td>The part of an electronic mail message generated by the protocols that govern message transfer. Provides information about who originated a message, its pathway of travel across the Internet, and machine identifications along the way.</td>
</tr>
<tr>
<td>HTML</td>
<td>HyperText Markup Language (HTML) is a collection of embedded style commands used to define the various components of documents on the World Wide Web.</td>
</tr>
<tr>
<td>HTTP</td>
<td>A prefix in the URL (universal resource locator).</td>
</tr>
</tbody>
</table>
Internet
An international network of networks serving educational, military, government, and commercial institutions. The Internet is primarily the result of federal government sponsored research into high-speed networking.

IP Address
The numerical address assigned to each computer on a network so that its location and activities can be distinguished from other computers.

login
Your Internet address and/or the process you use to use your Internet account.

mail list
An umbrella term that includes all kinds of Internet discussion groups based on listserv, majordomo, listprocessor, or other kinds of software that works by automating the process of sending a message to many people at the same time.

MIME
Multi-Purpose Internet Mail Extensions. This is a specification for sending objects other than message text (most often text files, but sometimes software, or video) in email messages.

modem
A device that fits into or onto your computer for the purpose of exchanging information with another computer via the telephone network.

Mosaic
A World Wide Web browser that works with Microsoft Windows.

netiquette
Internet etiquette.

Netscape
A World Wide Web browser that works with Microsoft Windows.

Password
Your password is similar to a lock on a door; only the person with the right key can open it. Like keys and locks, a password is not totally secure and may not be effective in preserving your privacy and the safety of the network you belong to, especially if you share it with someone else.

PPP
Point-to-point protocol, or PPP, allows your computer to speak to a variety of network languages including AppleTalk, IPX, and IP, over the phone line. PPP is helpful if you use the Internet extensively from home from a university. To use it, you need a high-speed modem (at least 14.4 kbps) and special PPP software. Check with your local system administrator to see if PPP is available through your type of account.
signon  
Same as login.

SLIP  
Serial Line Internet Protocol.

surfing  
The enjoyable act of browsing for Internet information.

TCP/IP  
Transmission Control Protocol/Internet Protocol. A set of protocols used by the Internet to support services such as TELNET, file transfer (FTP), and mail (SMTP).

TELNET  
Internet standard protocol for remote terminal connection. Enables a user at one site to log on to a server as if his or her own computer were directly connected to the server.

UNIX  
UNIX is an operating system used on a variety of mainframes, workstations, and personal computers. It has short commands and advanced file sharing and networking capabilities. It works a lot like DOS.

URL  
Universal Resource Locator address format.

USENET  
An informal news network linking many sites around the world. The retriever of Netnews.

World Wide Web  
A graphical user interface program that uses hypertext links to other sites, and offers easy, attractive access to information servers on the Internet. Also called WWW. Several popular ones are available, such as CELLO, Mosaic, and Netscape.
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Concise reports on timely issues. There is no cost for digests. Up to five digests may be requested per order. No postage and handling charges required.

- Using Federal Funds To Improve Child Care. Helen Blank. PS-94-1.
- Multiple Perspectives on the Quality of Early Childhood Programs. Lilian G. Katz. PS-93-2.
ERIC/EECE Newsletters

- **ERIC/EECE Newsletter**
  To subscribe to the free, twice yearly **ERIC/EECE Newsletter**, check here.

- **The MAGnet Newsletter**
  To subscribe to The MAGnet, a twice yearly newsletter on mixed-age grouping, check here. The cost of the subscription is $6; postage and handling fees do not apply.

**Resource Lists**

- **Computer Programs for Young Children.** Mar. 1995.
- **Internet Resources for Early Childhood Educators.** Mar. 1995.

**Major Publications**

- **Perspectives Series.** Titles in this series include an extensive bibliography of citations from the ERIC database.

- **Other Major Publications**

**ReadySearches**

- **ReadySearches** are computer search reprints with 65 to 100 abstracts of ERIC documents and journal articles ($8.00 each).
  - **Developmentally Appropriate Programs for Young Children.** (Cat. #109). Nov, 1994.
  - **Mixed-age Groups in Early Childhood and Elementary Education.** (Cat. #112). Nov, 1994.
  - **Family Literacy.** (Cat. #114). Nov, 1994.
  - **Meeting Goal One: All Children in America Will Start School Ready to Learn.** (Cat. #115). Jan, 1995.
  - **Outcome Based Education.** (Cat. #117). Nov, 1994.
  - **Computer Networking in Grades K through 12.** (Cat. #118). Nov, 1994.
  - **Parent Teacher Conferences and Report Cards.** (Cat. #120). Nov, 1994.
  - **Team Teaching in Pre-K through Grade 8.** (Cat. #121). Nov, 1994.
  - **Parent Education.** (Cat. #123). Nov, 1994.
  - **Kindergarten Scheduling and Kindergarten Research.** (Cat. #127). Nov, 1994.
  - **Integrated Curriculum in Grades K through 6.** (Cat. #128). Nov, 1994.
  - **Multicultural Education in Pre-K through Grade 8.** (Cat. #130). Nov, 1994.
  - **Integrated Curriculum at the Middle Level.** (Cat. #131). Nov, 1994.
  - **Cooperative Learning in Pre-K through Grade 8.** (Cat. #132). Nov, 1994.
  - **Violence in the Schools.** (Cat. #133). Jan, 1995.

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The ERIC Clearinghouse on Elementary and Early Childhood Education

University of Illinois at Urbana-Champaign

Providing information for educators, parents and families, and all of us interested in the development, education, and care of children from birth through early adolescence, since 1967.

The ERIC Clearinghouse on Elementary and Early Childhood Education is one of 16 ERIC clearinghouses funded by the Office of Educational Research and Improvement, U.S. Department of Education. ERIC clearinghouses identify, select, and prepare entries describing documents and journal articles for the ERIC database, the world's most frequently used collection of information on education.

ERIC/EECE contributes to the database in the areas of child development, the education and care of children from birth through early adolescence, the teaching of young children, and parenting and family life.

Acquisitions and Database Building

ERIC/EECE identifies and selects conference papers, research reports, curriculum materials, government documents, opinion papers, and published books for possible inclusion in the ERIC database. About 70% of materials submitted to ERIC/EECE are accepted for inclusion. The clearinghouse also annotates and indexes articles from more than 40 journals for ERIC.

Information Services

The clearinghouse provides information in response to mail, telephone, and electronic requests. Responses may include a short search of the ERIC database, full-text articles, resource lists and flyers, and/or appropriate referrals. For parents and early childhood educators, ERIC/EECE operates the Parents AskERIC question-answering service, which is part of the nationally acclaimed AskERIC systemwide project to provide electronic information services over the Internet (askeric@ericir.syr.edu).

Publications

In support of its dissemination and question-answering activities, the clearinghouse produces ERIC Digests (2-page articles on topics of high interest) and two bi-annual newsletters (the ERIC/EECE Newsletter and The MAGnet Newsletter on Mixed-Age Grouping). Other ERIC/EECE publications include a major series titled Perspectives from ERIC/EECE, Resource Lists, and ReadySearches (searches of the ERIC database on popular topics), information packets, and occasional papers. A complete listing of all products is available from the clearinghouse upon request.

The clearinghouse supplies no-cost camera-ready copies of newsletters, Digests, and Resource
Lists for other organizations and individuals to use at conferences and meetings.

Internet Activities

For educators and parents with Internet access, ERIC/EECE offers gopher and World Wide Web (WWW) sites at the following addresses:

Gopher: ericps.ed.uiuc.edu

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

The clearinghouse also operates several Internet-based discussion groups — on early childhood education (ECENET-L), middle level education (MIDDLE-L), school-age care (SAC), early childhood policy issues (ECPOLICY), the Reggio Emilia (Italy) approach to early education (REGGIO-L), and parenting (PARENTING). Complete information on subscribing to the discussion groups is available on request.

National Parent Information Network

A major focus of clearinghouse activity is the National Parent Information Network (NPIN), which ERIC/EECE operates with the ERIC Clearinghouse on Urban Education. A national electronic resource for parents and those who work with them, NPIN offers full-text information on parenting, parenthood, and parent-education partnerships. NPIN is accessible from the ERIC/EECE gopher and WWW addresses.

ERIC/EECE Partners Program

ERIC/EECE also maintains an active partners program, working with organizations to exchange information to inform their constituencies about the education-related information available from ERIC. In return, partners receive special services and complimentary copies of ERIC/EECE publications.

Workshops and Conferences

ERIC/EECE staff offer periodic workshops and presentations on ERIC services and on Internet use at national conferences. A limited number of presentations are also made on a cost-recovery basis.

For More Information...

A complete publications list and sample copies of both ERIC/EECE newsletters are available upon request. Information on submitting documents to ERIC, the ERIC system, the partner program, workshops, Internet services, and NPIN activities is also available by contacting the clearinghouse.

ERIC/EECE is funded by the Office of Educational Research and Improvement, U.S. Department of Education. The University of Illinois at Urbana-Champaign has operated the clearinghouse since 1967.
The National Parent Information Network

A New National Resource for Parents, Families, and People Who Support Them

The ERIC Clearinghouses on Elementary and Early Childhood Education (ERIC/EECE) and on Urban Education (ERIC/CUE) invite you to join them on the National Parent Information Network, an Internet-based information network for parents and people who support them in raising and educating their children.

Why Is NPIN Needed?

Easy access to high-quality information is an essential component of any program that aims to help parents become informed partners in their children's education. Community organizations, health and social service agencies, libraries, parent centers, and schools are often asked for information on parenting or on how parents can be actively involved in their children's learning.

This information is already available from thousands of organizations, associations, and publishers. Before now, however, few efforts have been directed to creating a single point of access to this information. The National Parent Information Network is focusing its efforts on a national drive to acquire and disseminate high-quality, easy-to-understand parenting and parent-related materials. The focus is on creating an attractive, widely available information collection that incorporates graphics and other parent-friendly features on the Internet. NPIN is working to:

- build an information system that can be integrated with local parent and family resources;
- reach out to and train parents, especially low-income parents, and people who work collaboratively with them, to acquire the skills needed to use NPIN and to participate in the emerging national information infrastructure; and
- assure a simple, attractive, single point of access to high-quality parenting information.

What Does NPIN Do?

The University of Illinois and the U.S. Department of Education supported the initial development of NPIN. The national effort to collect information is well underway, and NPIN already includes one of the largest collections of information on parenting and child development on the Internet. NPIN now includes:

- short articles written for parents of children from birth through adolescence on a variety of topics, including child rearing and development; general health; behaviors; talents; disabilities; testing; working with teachers and schools; and home activities;
- PARENTS AskERIC, a question-answering service for parents, teachers, administrators, and parent education and parent involvement specialists that will link them to subject experts in
professional associations, clearinghouses, universities, and government agencies;
- listings of useful, usually inexpensive materials available from professional associations, publishers, and other organizations;
- descriptions of innovative or exemplary parent education and involvement programs in schools and communities; and
- access to relevant ERIC digests and other education-related materials.

**How Can You Participate?**

- *Use the system!* If you have Internet access, gopher to:

  ericps.ed.uiuc.edu

  Or, use NPIN on the World Wide Web. The URL for NPIN’s home page is

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

- *Work with NPIN* to share your materials with parents. The growing list of organizations contributing information to NPIN already includes the National Urban League, the National PTA, the Center for Early Adolescence, and several ERIC clearinghouses. Many other groups will soon provide materials.

- *Provide feedback* and suggest new materials to be acquired.

- *Contact ERIC/EECE* to contribute materials or for assistance in using NPIN, at:

  ERIC/EECE, University of Illinois
  805 W. Pennsylvania Ave., Urbana, IL 61801
  Phone: 800-583-4135; 217-333-1386
  Fax: 217-333-3767
  email: ericeece@ux1.cso.uiuc.edu

---

Apple Computer has donated a Workgroup 80 server which is now the home of NPIN.
Internet Starting Points for Early Childhood Educators

Internet Discussion Groups for Early Childhood Educators

If you are interested in subscribing, send an email request for more information to the address in the last column. Do NOT send a subscription request to the discussion address in the first column.

<table>
<thead>
<tr>
<th>Discussion address</th>
<th>Topic</th>
<th>For more information</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:ECENET-L@vmd.cos.uiuc.edu">ECENET-L@vmd.cos.uiuc.edu</a></td>
<td>Young children, birth to age 8</td>
<td><a href="mailto:ericeece@ux1.cso.uiuc.edu">ericeece@ux1.cso.uiuc.edu</a></td>
</tr>
<tr>
<td><a href="mailto:ECEOL-L@maine.bitnet">ECEOL-L@maine.bitnet</a></td>
<td>Early childhood educators online</td>
<td><a href="mailto:bonnieb@maine.bitnet">bonnieb@maine.bitnet</a></td>
</tr>
<tr>
<td><a href="mailto:REGGIO-L@vmd.cso.uiuc.edu">REGGIO-L@vmd.cso.uiuc.edu</a></td>
<td>The Reggio Emilia (Italy) approach to early education</td>
<td><a href="mailto:ericeece@ux1.cso.uiuc.edu">ericeece@ux1.cso.uiuc.edu</a></td>
</tr>
<tr>
<td><a href="mailto:SAC@ux1.cso.uiuc.edu">SAC@ux1.cso.uiuc.edu</a></td>
<td>School-age care</td>
<td><a href="mailto:ericeece@ux1.cso.uiuc.edu">ericeece@ux1.cso.uiuc.edu</a></td>
</tr>
<tr>
<td><a href="mailto:PARENTING@postoffice.cso.uiuc.edu">PARENTING@postoffice.cso.uiuc.edu</a></td>
<td>Parenting of children from infancy through adolescence</td>
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<td><a href="mailto:CYE-L@cunyvms1.gc.cuny.edu">CYE-L@cunyvms1.gc.cuny.edu</a></td>
<td>Children, Youth, and Environment</td>
<td><a href="mailto:ssi@cunyvms1.gc.cuny.edu">ssi@cunyvms1.gc.cuny.edu</a></td>
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<td><a href="mailto:MULTIAGE@Services.dese.state.mo.us">MULTIAGE@Services.dese.state.mo.us</a></td>
<td>Mixed-age grouping</td>
<td><a href="mailto:catchley@mail.coin.missouri.edu">catchley@mail.coin.missouri.edu</a></td>
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Databases and Library Catalogs

ERIC Database
Several options are available on the ERIC/EECE gopher (ericps.ed.uiuc.edu).

Or, telnet to ericir.syr.edu; login as gopher; press ENTER for password
WWW version is available at http://ericir.syr.edu/ERIC/eric.html

ETS Test Collection
Gopher to gopher.cua.edu and choose Special Resources
For Web access, go to http://www.cua.edu/www/eric_ae

Gopher and World Wide Web Sites

The gophers and Web sites in this list contain the full texts of materials of interest to the early childhood community on a variety of topics. The sites are organized by menus or by hypertext links (words highlighted in blue on the computer screen). Choosing a menu item or link takes you to another screen of information.

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<td>URL: <a href="http://ericps.ed.uiuc.edu/ericeece.html">http://ericps.ed.uiuc.edu/ericeece.html</a></td>
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<td>URL: <a href="http://ericps.ed.uiuc.edu/npin/npinhome.html">http://ericps.ed.uiuc.edu/npin/npinhome.html</a></td>
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<td>US DE</td>
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</table>
Books, Newsletter, and Magazines


Li, Xia; Crane, Nancy B. (1993). Electronic Style: A Guide To Citing Electronic Information.

Classroom Connect. A monthly educator's guide to Internet and commercial online services. A free sample copy available by calling (800) 638-1639. $39/year for 9 issues.

Classroom Connect
1866 Colonial Village Lane
Lancaster, PA 17605-0488

Electronic Learning. The Magazine for Technology and School Change. $23.95/year for 8 issues. (800) 544-2917.

Electronic Learning
P.O. Box 53797
Boulder, CO 80322

FreeNets and Community Networking
National Public Telecomputing Network
34555 Chagrin Boulevard
Moreland Hills, OH
Phone: 216-498-4050

Major Commercial Internet Access Providers
America Online (800) 827-6364
America Tomorrow (800) 456-8881
CompuServe (800) 848-8199
Prodigy (800) 776-0845

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The Internet and Early Childhood Educators: Some Frequently Asked Questions

Dianne Rothenberg

The Internet—the center lane of the information super-highway—is a world-wide computer network created more than two decades ago for researchers. Recently, early childhood educators at all levels and early childhood teacher education students have begun to use the Internet to communicate and to share information. Research suggests that use of electronic networking can help teachers (especially new teachers) reduce their sense of isolation, connect with peers, and increase their sense of professionalism and autonomy (Honey & Henriquez, 1993). Internet use provides access to high-quality research and practice information for practicing educators and college students (Means et al., 1993). This digest explores the uses of the Internet for early childhood educators and teacher education students, and provides basic information on popular features and access. Actual sites and resources are described in "Internet Starting Points for Early Childhood Educators," a resource list intended to accompany this digest.

What features of the Internet are most popular?

While electronic mail is the most frequently used feature of the Internet by all groups of users, participation in discussion groups and access to the growing number of information collections available via the Internet are increasingly viewed by educators as essential.

Electronic mail (email). Research indicates that educators' most frequently used sources of information are their colleagues; electronic mail provides educators with a worldwide group of peers with whom to share information and ideas. Messages can be composed and sent from home or work at the sender's convenience, and received and responded to when convenient to the receiver. Electronic mail is fast and reliable. Most messages are received and read only by the person for whom they were intended, but email should not be considered absolutely secure or private.

Internet discussion groups. Internet discussion groups are an extension of electronic mail and are essentially electronic mailing lists. They provide users with the opportunity to be part of electronic communities made up of individuals who share similar interests rather than geographic proximity. Thousands of discussion groups exist on the Internet covering everything from scuba diving to early childhood education. Mailing list capability is also used to provide online courses, such as the Internet "Roadmap" course, which provides hands-on Internet training to anyone wishing to "surf" by becoming part of an online "class."

Databases and library catalogs. The ERIC database, the ETS Test Collection (which catalogues and describes thousands of surveys, tests, and other measurement instruments), government databases (which often include the full text of materials), and university library catalogs are accessible through the Internet. Most are accessed using telnet software, which allows users to logon to remote databases as if their own computer were directly connected to the remote system.

Gopher and World Wide Web (WWW) sites. Other information collections on the Internet include easy-to-use gopher and WWW sites, which often contain the full text of many documents and articles. These collections frequently include articles, lesson plans, and other teaching materials; information on projects for children to participate in with their peers in other parts of the world; parenting, family, and health information; government information from a myriad of agencies and departments; and information about (and from) many cultures. "Gopher" software offers menus for easy access and usually allows users to search the information on the server by keyword. World Wide Web (WWW) sites offer graphics and links to materials housed in a variety of places on the Internet. WWW resources require that the user have available Web browser software (such as NCSA Mosaic or Netscape) and a special phone-line connection, or access to a Web browser through an online system such as Prodigy or America Online.

File transfer. On the Internet, files are easily transferred from one computer to another using File Transfer Protocol (FTP). Authors can share chapters they are working on together; large files containing software or lengthy documents can also be transmitted and retrieved.

Community computing networks. Individuals with access to a computer and modem can connect to a community computing network (or public access computer system), usually at little or no cost (NPTN, 1994). These networks exist in many communities and offer services that include electronic mail; information about health care, education, government, and technology; and connections to other networks such as the Internet. Local information is prominently featured on community computing networks, such as school schedules and directories of local social service organizations, but descriptions of exemplary national programs, tested lesson plans, and general information on education-related topics may also be included. A common type of community...
How can I get access to the Internet?

Access through state or regional educational networking systems. Many states (Texas, Florida, North Dakota, Virginia, and others) now provide or are planning to provide low-cost or free access for educators. Inquiries should be directed to local school districts, regional education service providers, or state departments of education to find out if this option exists in your area. If your state is in the planning stages of providing access for educators, become an advocate for including Internet access for pre-kindergarten educators and caregivers.

Access through community computing networks. Local Free-Nets and other community computing networks are already operational in dozens of cities across the U.S., and many more are in the planning stages; a few states, such as Maryland, offer Internet access to every citizen who requests it through a state-wide network. Local public libraries are a good source of information on community information networks that may be close by and reachable through a local or low-cost telephone call.

Access through special projects at universities and colleges. Many universities and colleges provide access to the Internet for undergraduate and graduate students, and for nearby schools that take part in research or learning projects.

Access through commercial services. Dozens of commercial services, including some telephone companies, now offer connectivity to parents and educators. In addition, some professional associations offer subscriptions to online services that offer their own information and Internet access. While most commercial providers allow subscribers to use electronic mail, some do not offer access to the valuable information collections and databases on the Internet. Before making a decision on subscribing to a commercial service, early childhood educators should find out if they will be able to (1) receive and send electronic mail on the Internet without restrictions; (2) join Internet discussion groups (listservs); (3) use Internet capabilities such as gopher, telnet, lynx (software that allows information created for graphical web browsers to be accessed by people with text-only systems), and graphical web browsers such as Netscape; and (4) access the system through a local telephone call. Many commercial vendors offer a free trial period so that you can try out their service.

Is the Internet hard to use?

The size and diversity of the Internet can make it difficult to find specific information, but a growing number of online and offline services and software can help. Basic Internet guides are now common in book stores, and some are available free on the Internet for "downloading" to your own computer.

Finding resources on particular topics can be obtained by participating in discussion groups or listservs.

Internet finding tools. Several Internet finding tools are available. These include general search tools, such as Jughead and Veronica (which allow Internet users to do a keyword search) for gopher sites and the Web Crawlers for World Wide Web sites. Many education sites offer extensive topical listings of Internet resources, such as Stanford University and the Illinois Learning Mosaic.

AskERIC. The ERIC Internet question-answering service called AskERIC can provide pointers to specific resources, such as penpal programs for children. Requests for information should be sent by email to askeric@ericir.syr.edu. AskERIC and its parent-related component, PARENTS AskERIC are good sources of information on all topics related to education and can be used by anyone interested in education. "InfoGuides" housed at the AskERIC gopher and Virtual Library offer pointers to Internet (and print) resources on such topics as children's literature, child abuse, home schooling, and the media and children.

For more information, request the companion Resource List. Internet Starting Points for Early Childhood Educators, from ERIC/EECE. This digest is based in part on A to Z: The Early Childhood Educator's Guide to the Internet, published by the ERIC Clearinghouse on Elementary and Early Childhood Education. For ordering information, call ERIC/EECE: (800) 583-4135.

For More Information


References identified with an ED (ERIC document), EJ (ERIC journal), or PS number are cited in the ERIC database. Most documents are available in ERIC microfiche collections at more than 900 locations worldwide, and can be ordered through EDRS: (800) 443-ERIC. Journal articles are available from the original journal, interlibrary loan services, or article reproduction clearhouses such as: UMI (800) 732-0616; or ISI (800) 523-1850.
ERIC/EECE Internet Services

The ERIC Clearinghouse on Elementary and Early Childhood Education (ERIC/EECE) sponsors several services available on the Internet. These include a World Wide Web (WWW) site, a gopher site, the National Parent Information Network, Parents AskERIC, and several electronic discussion groups.

AskERIC and PARENTS AskERIC

AskERIC is an Internet service of the ERIC system for anyone interested in education. AskERIC is coordinated by the ERIC Clearinghouse on Information and Technology (ERIC/IT) at Syracuse University. To use AskERIC, email your question about education to the AskERIC address.

PARENTS AskERIC is that part of AskERIC specifically designed for parents and others who have questions about the development, education, and care of children from birth through the high school years. Please send your question by email to the AskERIC address.

askeric@ericir.syr.edu

ERIC/EECE Gopher and World Wide Web Sites

For those with access to the Internet, ERIC/EECE maintains a "gopher" and World Wide Web server (computers on which information is stored). ERIC/EECE's gopher address is ericps.ed.uiuc.edu

To access the ERIC/EECE gopher, at the Internet prompt on your computer, type: gopher ericps.ed.uiuc.edu or use the gopher menu option on your system. By selecting various items on the gopher menu, you can obtain information on ERIC/EECE publications (including digests) and services, perform ERIC database searching, and connect to other gophers of interest to the early childhood education community.

Through the gopher menu, individuals can also access the National Parent Information Network (NPIN), a national electronic network for parents and parent educators, community planners, professional associations, and others who work with parents and families. NPIN is organized by ERIC/EECE and ERIC/CUE (the ERIC Clearinghouse on Urban Education) with contributions from various organizations. NPIN (on the main menu of the ERIC/EECE gopher) provides: (1) short articles written for parents; (2) a question-answering service; (3) listings of materials for parents and parent educators from professional associations; (4) descriptions of exemplary and innovative programs; and (5) access to ERIC digests and other education-related materials.

Individuals can also access ERIC/EECE's information through the World Wide Web using web browsers such as Mosaic or Netscape. The URL addresses for NPIN and ERIC/EECE are:

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

Electronic Discussion Groups

ERIC/EECE currently sponsors six electronic discussion groups (or lists) on the Internet. Of these groups, three use listserv software and three use majordomo software. To participate in these discussion groups, users must have Internet or BITNET access. The listserv and majordomo discussion groups are described on the back of this page.
Early childhood programs in Reggio Emilia, Italy, are internationally acclaimed. This discussion group, co-sponsored by ERIC/EECE and the Merrill Palmer Institute at Wayne State Univ., provides a forum for educators, researchers, students, and parents to discuss the Reggio Emilia approach to early education.

To subscribe to any of ERIC/EECE's listserv discussion groups, send an email message to:

listserv@vmd.cso.uiuc.edu

Leave the subject line blank. In the body of the message, type only the following:

sub listserv-name your-first-name your-last-name

For example, if you are Jane Doe who wants to subscribe to the ECENET-L listserv, simply type:

sub ECENET-L Jane Doe

You will automatically be subscribed to ECENET-L and will receive back (via email) a notice of subscription and information about the discussion list. Note that there are two email addresses associated with each list, an administrative and a discussion list address. The administrative address (listserv@vmd.cso.uiuc.edu), which is the same for all three lists, is used for sending subscription and other administrative messages. Do not send messages intended for the list administration to the discussion list address. To post a message to the listserv that you want all list members to see, send the message to the discussion list address:

REGGIO-L@vmd.cso.uiuc.edu
ECENET-L@vmd.cso.uiuc.edu
MIDDLE-L@vmd.cso.uiuc.edu

SAC is a discussion group for those interested in school-age care planning, resources, funding, and related topics. SAC is co-owned by the School-Age Child Care Project at the Center for Research on Women (Wellesley College) & ERIC/EECE.

To subscribe to any of ERIC/EECE's majordomo discussion groups, send an email message to:

majordomo@ux1.cso.uiuc.edu

Leave the subject line of the message blank. In the body of the message, type only the following:

subscribe listname your-email-address

For example, if your email address is janedoe@abc.def.ghi.edu and you want to subscribe to SAC, simply type:

subscribe SAC janedoe@abc.def.ghi.edu

You will automatically be subscribed to SAC and will receive back (via email) a notice of subscription and information about the list. Note that there are two email addresses associated with each discussion list, an administrative and a discussion list address. The administrative address (majordomo@ux1.cso.uiuc.edu), which is the same for all three lists, is used for sending subscription and other administrative messages. Do not send messages intended for the list administration to the discussion list address. To post a message to the list that you want all list members to see, send the message to the discussion list address:

SAC@ux1.cso.uiuc.edu
ECPOLICY@ux1.cso.uiuc.edu
PARENTING@ux1.cso.uiuc.edu

For more information on ERIC/EECE's Internet services, or other services offered by ERIC/EECE, contact the clearinghouse at:
ERIC/EECE, University of Illinois, 805 W. Pennsylvania Ave., Urbana, IL 61801
(217) 333-1386 (800) 583-4135 email: ericeece@ux1.cso.uiuc.edu
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A-58 ERIC Clearinghouse Scope of Interest Guide
ERIC MANDATORY "EDUCATIONAL LEVEL" DESCRIPTORS
(Procedure implemented February 1975)

- EARLY CHILDHOOD EDUCATION
  Scope Note: Activities and/or experiences that are intended to effect developmental changes in children, from birth through the primary units of elementary school (grades K-3).

- PRESCHOOL EDUCATION
  Scope Note: Activities and/or experiences that are intended to effect developmental changes in children, from birth to entrance in kindergarten (or grade 1 when kindergarten is not attended).

- PRIMARY EDUCATION
  Scope Note: Education provided in kindergarten through grade 3.

- ELEMENTARY SECONDARY EDUCATION
  Scope Note: Formal education provided in kindergarten or grade 1 through grade 12.

- ELEMENTARY EDUCATION
  Scope Note: Education provided in kindergarten or grade 1 through grade 6, 7, or 8.

- ADULT BASIC EDUCATION
  Scope Note: Education provided for adults at the elementary level (through grade 8), usually with emphasis on communicative, computational, and social skills.

- PRIMARY EDUCATION
  Scope Note: (See above.)

- INTERMEDIATE GRADES
  Scope Note: Includes the middle and/or upper elementary grades, but usually 4, 5, and 6.

- SECONDARY EDUCATION
  Scope Note: Education provided in grade 7, 8, or 9 through grade 12.

- JUNIOR HIGH SCHOOLS
  Scope Note: Providing formal education in grades 7, 8, and 9 — less commonly 7 and 8, or 8 and 9.

- HIGH SCHOOLS
  Scope Note: Providing formal education in grades 9 or 10 through 12.

- HIGH SCHOOL EQUIVALENCY PROGRAMS
  Scope Note: Adult educational activities concerned with the preparation for and the taking of tests which lead to a high school equivalency certificate, e.g., General Educational Development program.

- POSTSECONDARY EDUCATION
  Scope Note: All education beyond the secondary level — includes learning activities and experiences beyond the compulsory school attendance age, with the exception of adult basic education and high school equivalency programs. (Before APR75, restricted to "education beyond grade 12 and less than the baccalaureate level").

- HIGHER EDUCATION
  Scope Note: All education beyond the secondary level leading to a formal degree.

- TWO YEAR COLLEGES
  Scope Note: Public or private postsecondary institutions providing at least 2, but less than 4, years of academic and/or occupational education.
### ERIC OPTIONAL "AGE LEVEL" DESCRIPTORS

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<tr>
<th>Age Level</th>
<th>Scope Note</th>
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<tbody>
<tr>
<td>NEONATES</td>
<td>Aged birth to approximately 1 month</td>
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<tr>
<td>INFANTS</td>
<td>Aged birth to approximately 24 months</td>
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<tr>
<td>YOUNG CHILDREN</td>
<td>Aged birth through approximately 8 years</td>
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<tr>
<td>CHILDREN</td>
<td>Aged birth through approximately 12 years</td>
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<tr>
<td>TODDLERS</td>
<td>Approximately 1-3 years of age</td>
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<tr>
<td>PRESCHOOL CHILDREN</td>
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<tr>
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<td>Approximately 9-12 years of age</td>
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<tr>
<td>ADOLESCENTS</td>
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<tr>
<td>YOUNG ADULTS</td>
<td>Approximately 18-30 years of age</td>
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<tr>
<td>ADULTS</td>
<td>Approximately 18+ years of age</td>
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<tr>
<td>ADULTS (30 TO 45)</td>
<td>Age group between &quot;young adults&quot; and &quot;middle aged adults&quot;—approximately 30-45</td>
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<td>MIDDLE AGED ADULTS</td>
<td>Approximately 45-64 years of age</td>
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<tr>
<td>YOUNG OLD ADULTS</td>
<td>Approximately 65-75 years of age</td>
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<td>OLDER ADULTS</td>
<td>Approximately 65+ years of age</td>
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<td>OLD OLD ADULTS</td>
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