Rowan University

Rowan Digital Works

5-7-1998

A quantitative analysis of educational resources on the World Wide Web

Nicole A. Fedeli
Rowan University

Recommended Citation

A QUANTITATIVE ANALYSIS OF

EDUCATIONAL RESOURCES ON THE

WORLD WIDE WEB

by
Nicole A. Fedeli

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree in the Graduate Division
of Rowan University
May 8, 1998

Approved by _____
                                    Professor

Date Approved __5_/_7_/_98_____

ABSTRACT

Nicole A. Fedeli. A Quantitative Analysis of Educational Resources on the World Wide Web. 1998. (Under the direction of Dr. Jay Kuder, Program in Special Education).

The purpose of this study was to provide educators with a sampling of the educational resources that are available on the world wide web. It was also designed to determine the different categories of web sites available. The study was conducted by using the Yahoo! search engine. A search was entered for areas such as Social Studies and Special Education. The resulting web sites were then navigated to determine their relevancy to the study. Relevant web sites were placed into the following categories: Information sites and Lesson Plan sites. The sub-categories of Information sites are: For the Classroom, Special Education, Teacher Resources, References, and Content Areas. A quantitative analysis of the data was performed in order to find the number and percentage of web sites contained in each category. Two hundred ninety-two web sites were examined. Fifty-four of these sites were Lesson Plan sites and two hundred thirty-eight were Information sites. The Content Area sub-category contained the most number of sites with one hundred fifteen and Social Studies was the dominant subject with forty-two sites.

MINI-ABSTRACT

Nicole A. Fedeli. A Quantitative Analysis of Educational Resources on the World Wide Web. 1998. (Under the direction of Dr. Jay Kuder, Program in Special Education).

This study surveyed the types of educational resources available to teachers on the internet. The web sites were placed into two main categories: Lesson Plan sites and Information sites. Fifty-four Lesson Plan sites and 238 Information sites were found. Content Area and Social Studies were the predominant sub-categories.

Table of Contents

Chapter One

<u>Introduction</u>

The internet is a valuable tool for educators and can provide information and ideas in a matter of minutes. As computer technology increases and becomes more available, teachers need to know how to use it to their advantage. However, this increasing technology also makes finding resources more and more complicated. Therefore, teachers need help and direction when searching for these resources.

There is an abundance of information available to educators via the internet. Many teachers may not know what kind of information is available to them and how or where to find such resources. This thesis will address this problem by researching the types of educational web sites available by using the world wide web.

I am interested in providing some insight to educators about the types of resources available via the internet because I am currently working in a computer lab and have daily access to the internet. I often encounter people who are lost when using the internet for education purposes and need someone or something to give their inquiries direction. I myself often feel overwhelmed by the plethora of information available. Therefore, I am interested in researching the types of web sites that can be accessed by and useful to educators.

<u>Problem Statement</u>

This thesis will examine the different types of educational resources that

1

can be found on the internet. It will examine the different categories of web sites, such as Teacher Resources, Lesson Plans, and Reference, as well as the various subject areas in which sites can be found.

Hypothesis

A teacher looking for educational resources on the internet will find at least twice as many sites that give information than sites that give lesson ideas and at least three times as many Language Arts related sites than other content area sites.

Terms

Information Web Sites: Information web sites are those sites that provide information related to subjects such as Science, Social Studies, and Special Education. These sites only provide information that teachers can use to plan a lesson or in a professional manner. These sites can also provide links to other sites, but do not give teachers lesson plans or projects.

Lesson Plan Sites: Lesson plan sites are those sites that give teachers pre-made lesson plans for use with a particular subject. These lesson plans can be provided by other teachers or by publishers.

Purpose

The purpose of this thesis is to provide educators with an idea of what types of internet resources are available to them and also an idea of the proportion of purely informational sites to idea/application sites. This information is important for all types of teachers as the internet is easily accessible, fast, and has the ability to search many more items than one could find on his or her own.

The internet is capable of finding information and ideas which may not have been found without it and educators need to be able to find these resources.

By doing this research, I hope to find different types of web sites that can be useful to special education teachers. I wish to provide a comprehensive sample of web sites for teachers who are looking for factual information, research findings, classroom ideas, lesson plans, and the like. I hope this will enable people who may need help with the internet find the resources they need.

Overview of Remainder of Thesis

In Chapter 2, I will examine the research that is available on using the internet in the classroom, what the internet is, the impact the internet will have on the future of education, and other educational technology.

In Chapter 3, I will describe the instruments and procedure I will use to gather my data as well as briefly describe the analysis I will perform on my data.

In Chapter 4, I will present the results of my data collection in the form of graphs and a narrative.

In Chapter 5, I will analyze the data and comment on the problems I encountered, what else I could have done in my research, and give ideas for future research on this topic.

Chapter Two

The internet and the World Wide Web are both relatively new concepts and services. Due to this newness, there is not much empirical research available on these topics. There is also a limited amount of information that involves education and the internet and World Wide Web. The information that is available is narrative in nature and can be categorized into four topics: what the internet is and how to use it, ideas for internet use by educators in the classroom, the impact the internet will have on the future, and other educational technology.

The internet is a worldwide network of computers that connects millions of users. Using a computer that is connected to the internet, users are able to access databases, press releases, text material, library card-catalogs, news information, pictures, sound clips, and many other information sources. This information is made available to the public from any location on the network. The internet also provides a means for one individual to communicate with other individuals or with a group of people that have common interests (Boldt, Gustafson, and Johnson 1994).

The World Wide Web is the most user-friendly navigational tool for finding and retrieving information on the internet computer network. It is a powerful tool for teachers as it allows one to overcome the isolation sometimes felt by providing fast and easy communication with other teachers. Another use for the internet is a newsgroup. Newsgroups are electronic bulletin boards that millions of people all over the world can use to exchange information about any topic.

The internet also can be used for electronic field trips because there are many sites that provide a view of a museum or other places and events that would otherwise be inaccessible to some people (Metzger 1995).

For many people, including educators and students, the most challenging step is actually using the internet for the first time. One suggestion that could be used to overcome this obstacle is providing a hands-on demonstration of basic internet tools and procedures. When learning how to use the internet, one should become familiar with such tools. One of these tools is Gopher. Gopher is a very popular and easy to use tool which allows a user to "burrow" through the internet and its resources. Gopher gives easy access to numerous on-line databases and other resources by allowing a user to make selections from a main menu. By selecting menu choices, it is possible to search different networks in the United States or around the world. Another tool similar to Gopher is Veronica. Veronica helps a user locate a particular piece of information without calling up endless menus. It is a challenge for many to learn about electronic communications. The difficulty lies in finding time to learn how to use this technology and not in the internet itself. Gopher and Veronica are basic tools which give a person the basic skills to explore the internet and acquire information needed (Boldt, Gustafson, and Johnson 1994).

Before using the internet in a classroom, a teacher must realize that there is an enormous amount of information available on the internet, but not all of it is of good quality. Unlike printed publications, information on the internet has not been through a review process and ranges from accurate to inaccurate and from useful to trivia (Metzger 1995). Students need to learn to evaluate the technical aspects and subject content of information to determine if it meets their needs. Students should be trained to evaluate this medium of information and know that

before accepting any information found on the internet they must verify it with another source (Schrock 1996). Teachers will also want to provide a focus for any searches on the internet in order to avoid getting "detoured" by useless and/or unrelated information (Metzger). Due to the number of web sites on the internet today, information is available but not always easy to find (North, Hubbard, and Johnson 1996). This vast amount of information and the lack of control over accuracy creates the need for search and selection strategies. Teachers need to help their students through any internet activities and provide guidance and assistance. Students need to learn critical and evaluative skills and the use of appropriate strategies in order to gather resources and information. These skills are needed throughout life, not just when using the internet so there is no better way to acquire such skills than in the classroom (Niederhauser 1996).

Technology is a great motivational tool for students and properly used, it enhances teaching because it builds upon the interactive relationship teachers build with their students. However, teachers must be provided with the knowledge and comfort level to use technology in the classroom to its fullest potential (Branstad 1996). Teachers rarely receive the professional development and support needed to use the available technologies effectively in the classroom. Current educational reforms advocate a shift away from the traditional teacher-directed instructional methods. Therefore, teachers are being asked to change their fundamental instructional practices and integrate appropriate uses of technology into their teaching (Niederhauser 1996).

In order to use technology and computers in the classroom, teachers need to become comfortable and familiar with it. Diane Morrison offers some tips for educators. Morrison suggests that educators explore the computer-open files,

click, double click, and enjoy. Educators will soon learn that a computer can aide them in doing grades, writing lesson plans, and making student databases. Morrison also suggests exploring the internet. The internet gives teachers access to many resources such as lesson plans and informational databases. The internet allows teachers to "link up" with people they would not meet otherwise. Once teachers become familiar with the internet, then they can open that avenue to their students. It is important to remember that teachers need to be comfortable with technology before they can incorporate it into their teaching (Morrison 1996).

There are many activities that can be integrated into classrooms to facilitate effective learning. These activities include person-to-person exchanges, keypals, electronic mentoring, impersonations, tours, information searches, and home pages. Person-to-person exchanges are accessible through Electronic Mail and allow students to practice communication and writing skills by composing and sending messages to other students. Keypals are a variation on this activity and are simply electronic penpals and can also be used in group settings. Electronic mentoring involves students communicating with leaders, authors, professionals, etc. who are experts in their fields. Impersonations are projects in which all of the participants communicate with each other "in character". Tours can be taken of government agencies, museums, schools, and the like. They often include pictures as well as textual information. Information searches require students to use critical thinking abilities and various sources to search out answers to problems and questions. Home pages provide links to other sites on the World Wide Web, information, and any additional things an individual wants to include. Home pages can be created by students in a classroom (North, Hubbard, and Johnson 1996).

Another way to integrate the internet into the classroom is to use integrated curriculum-based projects. A teacher develops a curriculum that crosses content areas and helps students develop cooperative projects that integrate content from several areas. The internet can be integrated at all levels with this type of project as can other educational technologies (Niederhauser 1996). Finally, teachers can employ internet-based lessons. In such lessons, students can work in small groups, use primary sources, and use the internet and on-line periodical databases to complete a project (Milbury 1997).

Telecommunications is a diverse and growing technology with multiple applications and international networks. Developments in instructional and learning technology, when combined with both information technology and telecommunications, provide new forms and new capabilities for learning (Bailey and Cotlar 1996).

Telecommunications and cooperative learning combined have the potential to maximize the learning experience for students. Through the internet, students located remotely from one another can successfully explore, experience, and better understand each other. Integration of internet assignments into coursework can provide a global experience for students without having to travel. The internet can reduce the effects of national boundaries and distance to provide a better understanding of diverse cultures through personal interactions (Bailey and Cotlar 1996).

Computer programs allow students to project multiple scenarios and project results can be shared through e-mail. Computer simulations can be used to provide immediate reinforcement and feedback. Assessments and involvement with students can be facilitated with database technology. This would allow students access to performance evaluations on a regular basis

(Bailey and Cotlar 1996).

Electronic lectures are another use of new technology. Electronic formats allow a high level of interaction for everyone involved, especially in raising questions and sharing access to the discussion. Interaction with "discipline giants" provides students with an otherwise unattainable resource. Furthermore, electronic panel discussions can overlay course content throughout the year.

With current technology resources, students can get exposure to the processes of seeking information from global sources, such as remote libraries and discussion groups. Students can also gain experience with utilities such as archive, gopher, veronica, and the world wide web (Bailey and Cotlar 1996).

Telecommunications also offer new opportunities for special education teachers and their students by providing a network of informational resources that open up a world with which to communicate. New uses of telecommunications can enable teachers to overcome a variety of barriers that they face in providing appropriate and motivating services to their students (Werner 1994).

Teachers and teacher educators need to become better informed about the variety of possible uses of telecommunications in special education classrooms and the rationale for their use. Special educators need to develop an awareness and knowledge of the use of step-by-step teacher training materials that can be used in developing skills, the educational potential of telecommunications across the curriculum, the hardware and software aspects of telecommunications, and internet resources that can be utilized in special education classrooms. Telecommunications also offer new sources of support for rural special education teachers and their students by providing this network of informational resources (Werner 1994).

In order to implement telecommunications activities in special education classrooms, teachers need to develop general knowledge and specific skills in evaluating and obtaining necessary hardware and software; planning for implementing and overcoming the particular barriers in a school; developing skills in using the hardware and software; and generating ideas for integrating use in a variety of content areas (Werner 1994). Teachers also need to develop skills in planning lessons with technology. Some example activities are electronic class discussions of journal articles, using internet resources to answer questions, using on-line library services, and using a bulletin board. Most importantly, teachers need to develop the philosophy of telecommunications as a tool to be integrated within content areas and not just as an end in itself (Werner 1994).

Teachers know, and researchers confirm, that the most meaningful learning takes place when students interact with concrete materials. In other words, students learn best by doing. In that respect, computer-based telecommunications holds tremendous instructional power since the medium itself requires learners to interact with resources. One must also have the skills to take students beyond introductory activities and coordinate a range of experiences designed for specific purposes (Kinnaman and Dyrli 1996). The internet makes "webbed" learning possible and links can be followed in many different directions. Teachers and students can go beyond being information consumers to become producers of their own content and participate in education communities that encompass the world (Kinnaman and Dyrli 1996).

First and foremost, students need to be comfortable with a variety of online tools before one can move on to more sophisticated uses of telecommunications in the classroom. Teachers should develop both content-based and information-

processing activities and integrate telecommunications within broader units. Each online activity should be related to student experience. A variety of online research tools should be introduced and students should be taught to document their online experiences (Kinnaman and Dyrli 1996).

Teachers need to learn to manage online time and resources. Kinnaman and Dyrli suggest the following strategies: develop record keeping systems; when introducing new online skills and locations, provide unstructured time; give instructions in small "chunks"; make instructions as concrete as possible; when a telecommunications activity starts, check 100 percent of the students; separate "talk" time and "work" time cleanly; and maximize off-line time. Kinnaman and Dyrli also suggest techniques for guided questioning, such as resolving differences through online evidence and encouraging students to dig deeper, in order to help make telecommunications one of the most powerful tools available to teachers (Kinnaman and Dyrli 1996).

In designing and implementing a new technology-powered classroom curriculum, it is important for teachers to take the lead. Teachers must be willing to invest the time and energy required to become as familiar with technology-based resources as they are with traditional ones (Kinnaman and Dyrli 1995). Teacher initiative, however, is not enough. School administrators must also provide teachers with resources as well as a climate that encourages and enables them to innovate, invent, reflect, and develop. Technology integration can be seen as having three levels: 1) enhancing and enriching the existing curriculum, 2) extending the existing curriculum, and 3) transforming the curriculum (Kinnaman and Dyrli 1995).

Using technology to enhance and enrich the existing curriculum means to increase the value or power of the classroom curriculum within the confines of

existing school structures. Two examples of this are to use technology as a learning tool across content areas and to learn specific content (Kinnaman and Dyrli 1995).

Extending the existing curriculum involves using technology to increase the power of the classroom curriculum by providing opportunities which go beyond the limitations of existing school structures, but without serious disruption to them. The easiest way to do this is through the use of networking and telecommunications (Kinnaman and Dyrli 1995).

Transforming the classroom means using technology not just to leverage the basic power of the existing curriculum, but to do so in ways that require changes to the basic organizational structures of schooling (Kinnaman and Dyrli 1995). Some ways of transforming schools are: using technology to build a project-based curriculum, customizing the curriculum through technology, and schooling outside of school.

When integrating technology into a classroom, teachers should review the present curriculum resources and classroom activities to determine how they do and don't meet the learning needs of students. Teachers should look for technology-based resources that can add power to the curriculum. Also, teachers should work actively with other teachers, administrators, parents, and students to design and implement new structures and schedules that enable them to use technology more effectively (Kinnaman and Dyrli 1995).

Telecommunications and technology provide many benefits to students. Students apply themselves for longer periods of time and take on more responsibility for their own learning. Students also take more interest in world events and foreign cultures and societies as well as have a deeper understanding of the ideas they encounter. Finally, students become better at

working collaboratively with peers (Kinnaman and Dyrli 1996).

Teachers have reported that they see a developmental gap between children who have home computers and those who don't (Branstad 1996). It hurts children to go to schools that are cut off from the information age. Only nine percent of classrooms have internet access which means that only ten percent of children have regular access to advanced communication tools. While half of the country's public schools have been hooked up to the internet, this doesn't mean that it is available in the classrooms. Children on the lower end of the economic spectrum must be given the necessary tools in school which they do not get at home. It is also necessary to ensure that the 49 million Americans with disabilities are not left out of the current information revolution. Children with disabilities can have a much brighter future if technology is available in every classroom. Screenreaders, E-mail, and home provisions for home bound children are also necessary. The internet is the tool that can ensure quality education for such students as it provides many different mediums for learning (Hundt 1996).

The internet has been called a "classroom without walls", but learning on-line is very different than learning in a traditional setting. However, there is much more learning and much less teaching involved in on-line learning. On-line is not about writing or lectures . Assessment cannot take the traditional forms because on-line learning is so different. On-line learning creates settings that require independent activity on the part of learners. Teachers must now learn to adapt to settings where the learners have a large role in setting the learning agenda and come away from the traditional teaching style of lecture and having total control over the learning process and environment (Peterson and Facemyer 1996).

The tremendous growth of the World Wide Web over the past few years has excited both students and educators. With the richness and variety of resources it provides, there are many different and unusual implications for both learning and teaching in the future (Geoghegan 1996).

Along with the growth of the internet, other educational technologies have become more and more popular. Desktop videoconferencing can be used in classrooms and consist of individuals or groups at remote sites interacting through audio and video connections. Distance education has become an increasingly popular alternative for schools experiencing teacher shortages. The teacher and the class are at different locations and are connected via satellite or cable transmissions. Intelligent tutors are computer-based tutoring systems which are capable of providing learning task-relevant information on demand and "learning" about students' needs as the tutoring progresses. It can modify instruction as needed by offering alternatives that are responsive to individual learning styles (Martorella 1996). Multimedia presentations such as Power Point and HyperStudio provide a much more interesting alternative to traditional papers and presentations. Multimedia presentations can also be used to create and maintain electronic portfolios (Milone 1995). Computer software can now be used to help non-traditional students such as ESL and special education students. There is software available that mimics real-life situations which can help such students increase language and vocabulary proficiency as well as self-help skills. Integrated learning systems provide drill-and-practice/ tutorial-based software can allow for individualized instruction and give teachers more free time (Niederhauser 1996).

Computers and the accompanying technology tools are becoming increasingly more available to educators and provide ways to actively engage

the learner with the world. The internet provides a vehicle by which students learn to search for information and answers. Students will have the opportunity to become more aware of the world and strengthen their inquiry-based skills. Teachers are using the internet to share lesson plans, software, and curriculum ideas, to connect students from different cultures, and to obtain current information useful in professional development and the classroom. The World Wide Web and internet are extremely powerful tools that enhance the learning and teaching environments and can provide many opportunities for different experiences.

Chapter Three

For this thesis, I obtained data from the World Wide Web. I used both a Macintosh computer and an IBM compatible PC. In order to connect to the Web, I utilized the network server Netscape Communicator. I also used the search engine Yahoo! in order to locate web sites.

I needed to locate numerous web sites to obtain data and I began by connecting to the World Wide Web using Netscape Communicator. I then used the search engine Yahoo! to locate various sites. I entered a search for subjects such as special education, lesson plans, reading, and science. The search engine returned sites related to the subject. I needed to examine each site to determine its appropriateness to my research topic and whether it was relevant to the categories of educational resources I chose.

I chose the specific categories of web sites after I began searching for subjects such as Science and Social Studies. I began to notice that the search engine was returning sites that could be categorized into two different areas. I found that some sites contained ideas for projects and lesson plans and some sites simply gave information about a certain subject. Therefore, I chose the two main categories of Lesson Plans and Information Sites. While navigating the Information sites, I found that many of the sites could be used by students in the classroom and by teachers to find information for a class or professional development. I also found that there were sites that could be used as references (i.e. dictionaries and encyclopedias) and sites that pertained to special

16

education. Thus, I determined that the Information sites could be further categorized into For the Classroom, Teacher Resource, Reference, Special Education, and Content Areas.

I analyzed the data I obtained in quantitative methods. I divided the web sites into two main categories: Information and Lesson Plans. The Information category was further divided into the following sub-categories: For the Classroom, Special Education, Teacher Resources, References, and Content Areas. The Content Areas sub-category was again divided into the specific subjects of Art/Music, Health/Physical Education, Math, Science, Social Studies/History, and Language Arts/English.

I then calculated the number of sites that fell into each main category and each sub-category. I also calculated the percentage of total sites that fell into each of the categories. I compared the percentage of sites from one category to another and determined which categories contained the most number of sites. I created a table to display these results as well as compiled a list of all of the sites I examined.

Chapter Four

This thesis examines the different types of educational resources that can be found on the internet. I looked at the different categories of sites that are located on the internet and related to the field of education. My hypothesis for this thesis was that a teacher looking for educational resources on the internet would find at least twice as many Information sites as Lesson Plan sites and at least three times as many Language Arts related sites as any other content area. I looked to quantify the sites I found in order to determine which category [Lesson Plans or Informational (Teacher Resource, For the Classroom, Special Education, Reference, and Content Areas)] contains the most sites that are useful for educators. I entered a search for these categories using Netscape Communicator and the Yahoo! search engine.

I examined a total of two hundred ninety-two web sites. I found fifty-four sites (18.5%) that contained lesson plans and project ideas. These sites dealt with different content areas and some contained ideas for all subject areas. I found two hundred thirty-eight informational sites (81.5%). Out of these sites, twenty-two (7.5%) were Teacher Resource sites; sixty-six (22.6%) were For the Classroom sites; thirteen (4.5%) were Special Education sites; eighteen (6.2%) were reference sites; and one hundred fifteen (39.4%) were Content Area sites. The one hundred fifteen Content Area sites were further broken down into specific subject areas. I found thirteen Art/Music sites and ten Health/Physical Education Sites. I also found eleven Math and nineteen science sites. Finally, I found forty-two Social Studies/History sites and twenty Language Arts/English

sites. I also quantified my results in percentages. The following table illustrates the number of sites that belong in each category as well as the percentage of the total number of sites that each category comprises.

Table1

Type of Site	Number of Sites	Percentage of Total Sites
Lesson Plans	54	18.5%
Information	238	81.5%
Teacher Resource	22	7.5%
For the Classroom	66	22.6%
Special Education	13	4.5%
Reference	18	6.2%
Content Areas	115	39.4%
Art/Music	13	4.5%
Health/Physical Education	10	3.4%
Math	11	3.8%
Science	19	6.5%
Social Studies/ History	42	14.4%
Language Arts/ English	20	6.8%

The next table illustrates the breakdown of the Information Sites category. It gives the percentage that each category is of the total number of Information

19

Sites and it also gives the percentage that each sub-category of Content Area Sites is of the total number of Content Area Sites.

Table 2

Type of Informational Site	Percentage of Total # of Info. Sites	Percentage of Total # of Content Sites
Teacher Resource	9.2%	------
For the Classroom	27.7%	------
Special Education	5.5%	------
Reference	7.6%	------
Content Area	48.3%	------
Art/Music	5.5%	11.3%
Health/Physical Education	4.2%	8.7%
Math	4.6%	9.6%
Science	8%	16.5%
Social Studies/ History	17.6%	36.5%
Language Arts/ English	8.4%	17.4%

I found about four times as many Information sites (238) as Lesson Plan sites (54) and I found about twice as many Social Studies (42) related sites as Language Arts (20) related sites. Social Studies related sites far outnumbered any other content area sites. Health/Physical Education (10) and Math (11) contained the least number of sites. Sites that are For the Classroom (66)

consisted of about three times as many sites as Teacher Resource (22), Special Education (13), and Reference (18) sites. Content Area sites were numerous, 115, and this category contained about five times as many sites as the other Information sites.

Chapter Five

This thesis examined the different types of educational resources that can be found on the World Wide Web. I categorized the sites into two main categories: Information and Lesson Plans. The Information category was then sub-categorized into Teacher Resources, For the Classroom, Special Education, Reference, and Content Areas. The Content Areas sub-category was again divided into Art/Music, Health/Physical Education, Math, Science, Social Studies/History, and Language Arts/English. I expected to find at least twice as many Information sites as Lesson Plans sites and at least three times as many Language Arts/English sites as any other content area.

The results that I obtained were the results I expected in that I found four times as many Information sites as Lesson Plan sites. However, I found that there were twice as many Social Studies sites as any other content area, which was not expected. Since Language Arts/English encompasses a very large area and includes other subjects such as Reading and Spelling, I thought that I would find a great deal more of sites than I actually did. I was very surprised that the Social Studies/History category by far had the most number of sites. One reason for this could be that Social Studies and History contain innumerable other specific subjects, such as the Civil War, the Holocaust, and Columbus' voyage. Therefore, there are many more subjects that could be turned into web sites in Social Studies and History. Another reason for finding more Social Studies sites could be the particular search engine that I used. Another search engine would probably bring in completely different results to my query.

I did encounter a few problems while doing the research and data collection for this thesis. Since the World Wide Web is a new concept, there is not much research available. I did not find any research that was directly related or on the same topic as this thesis. What research I did find was hard to locate and was not empirical. I also encountered some difficulty in collecting my data. There is so much information available through the internet that it is impossible to find it all. I definitely could have used more time to complete my data collection, as the time constraint made it difficult to navigate a large number of sites. I also found it difficult to "wade through" a lot of the useless information that the computer returns after a search. It was necessary to really take a look at each site to see if it was relevant to my topic. Some of the sites I located could also fit into more than one category and it was difficult to determine which one it was best suited for.

If this study were to be done again in the future, I would definitely use more than one search engine. Different search engines return different results for the same query. I would also try to narrow my search down to more specific topics as some searches, such as Social Studies, return thousands of results. I navigated each of the sites I used for this thesis at least twice and some I returned to more than that. Unfortunately, the internet changes so frequently that some of those sites may no longer be active or the address may have changed. I would try to navigate each site more than twice if I were to do this again.

This thesis does contain a large number of educational resources, but it is not, by far, a complete listing of all of the resources available to teachers. I would suggest that teachers use this as a guide, but that they check each site to determine if it is helpful to them and meets their needs.

I have compiled a list of internet resources for teachers and divided them

into what I feel are helpful categories. I found that there are a lot of sites available that contain lesson plans and project ideas, but there are far more sites that give information related to specific topics. I also found that there are far more sites related to Social Studies and Humanities than there are sites for other subject areas such as Math and Language Arts. I know that the abundance of internet information will only get larger and I think that a more complete way of organizing the material needs to be developed.

The sites that I have reviewed can be used to increase professional competency, to supplement instruction, by students in a class, or to plan instruction. Students can use these sites to locate information for a class project, paper, or simply for homework help. The internet can be a fun and useful way to vary the way teachers and students find information. However, as of now, there are not enough sites that give teachers ideas for lessons and projects, nor are there enough sites that pertain to special education. More sites need to be developed that can be used by teachers when planning instruction and contain methods and strategies to use in the classroom. There is a definite need for sites that contain modifications and adaptations that can be used by special education teachers. A great resource would be sites that provide help and advice to teachers of special needs students. Hopefully, these types of sites will soon be commonplace and that teachers will learn to integrate this wonderful resource into their teaching. It is important for teachers to realize that they need to use the World Wide Web for educational purposes as it is a wonderful tool that contains a plethora of information and can be easily implemented into a classroom.

References

Allen, D. (1996). Break the language barrier. Teaching PreK-8, 16.

Bailey, E. and Cotlar, M. (1996). Teaching via the internet. Internet Teaching, 184-193.

Boldt, D.J., Gustafson, L.V., and Johnson, J.E. (1994). The internet. Business Education Forum, 23-26.

Branstad, T. (1996). Technology in iowa schools: Linking classrooms and making opportunities accessible. Bulletin, 21-24.

Geoghegan, W.H. (1996). Change, 30.

Hundt, R. (1996). Providing opportunity for all through the telecommunications revolution. Bulletin, 3-11.

Kinnaman, D. and Dyrli, O. (1995). Part 2: Developing a technology-powered curriculum. Technology & Learning, 15, 46-51.

Kinnaman, D. and Dyrli, O. (1996). Teaching effectively with telecommunications. Technology & Learning, 16, 56-61.

Martorella, P.H. (1996). The degathering of society: Implications for technology and educators. Bulletin, 34-41.

Metzger, E.P. (1995). Getting caught in the web; Getting taught on the web. Journal of Geological Education, 43, 552-555.

Milbury, P. (1997). Collaborating on internet-based lessons: A teacher and librarian score with PBL. Technology Connection, 4, 8-9.

Milone, M.N. (1995). Electronic portfolios: Who's doing them and how? Technology & Learning, 16, 28-36.

Morrison, D. (1996). You want cyberwhat? A school teacher's guide to technology and the internet. English Journal, 87-89.

25

Niederhauser, D.S. (1996). Using computers in an information age classroom: What teachers need to know. Bulletin, 71-79.

North, A.B., Hubbard, J., and Johnson, J.E. (1996). Inquiry-based learning via the internet. Business Education Forum, 47-49.

Peterson, N.S. and Facemyer, K.C. (1996). The impact of the internet on learners and schools. Bulletin, 53-58.

Schrock, K. (1996). It must be true. I found it on the internet! Technology Connection, 3, 12-13.

Werner, J. (1994, March). Reaching out to the world: Training teachers to integrate telecommunications into special education classrooms. Paper presented at the 14th Annual National Conference of the American Council on Rural Special Education, Austin, TX.

Appendix A: Educational Resources on the Internet

ART/MUSIC

18th Century French Painting Exhibit
http://dmf.culture.fr

Leonardo daVinci Museum
http://cellini.leonardo.net/museum/main.html

Gallery Walk
http://www.ECNet/users/mfjfg/galwalk.html

Art Laboratory
http://www.artn.nwu.edu/index.html

Dali Web
http://www.highwayone.com/dali/daliweb.html

Eastman Museum of Photography and Film
http://www.it.rit.edu:80/~gehouse/

Cezanne
http://www.cezanne.com/eng/

ArtServe
http://rubens.anu.edu.au

Web Museum
http://sunsite.unc.edu/louvre/

National Museum of American Art
http://www.nmaa.si.edu:80/masterdir/pagesub/tourthegallery.html

World of Escher
http://www.texas.net/escher

The European Dance Server
http://www.net-shopper.co.uk/dance/index.htm

Internet Movie Database
http://www.msstate.edu/Movies/search.html

FOR THE CLASSROOM

Ask An Expert, Ask An:

Amish Expert
http://padutch.welcome.com/askamish.html

Antartic Expert
http://icair.iac.org.n2/~psommerv/web/askaques/askaques.htm

Astronaut
http://www.nss.org/askastro/

Astronomer
http://www-hpcc.astro.washington.edu/k12/ask.html

AstronomerII
http://tfnet.ils.unc.edu/ask.html

The Astronomers and Space Physicists
http://umbra.nascom.nasa.gov/spartan/ask_astronomer.html

Banker
http://www. oba.com/public/public.html

Bell Labs Expert
http://www.research.att.com/leisure/ask/

Bird Expert
http://www.upatsix.com/ask_experts/

Cardiologist
http://www.atlcard.com/ask_md.html

Chemist
http://www.chem.lsu.edu/form.html

Classics Expert from UCLA
http://www.humnet.ucla.edu/humnet/classics/questions.html

College Admissions Guru
http://jayi.catalogue.com/jayi/ACG/ques.html

Criminologist
http://www.cas.usf.edu/criminology/faculty.html

Diamond Expert
http://www.citenet.net/vandaaz/ask.html

Dinosaur Expert
http://denr1.igis.uiuc.edu/isgsroot/dinos/rjjinput_form.html

Doctor
http://www.rain.org/~medmall/askadoc.htm

Dr. Math
http://forum.swarthmore.edu/dr.math.dr-math.html

Equistrian
http://www.netresource.com/eq/vet.html

Fashion Forecaster
http://www.fashionmall.com/experts/wolfe/doc/wolfe.htm

Fashion Writer
http://www.fashionmall.com/experts/sharon/doc/sindx.htm

Fly Fisherman
http://www.flyfield.com/ask_experts.htm

Dr. Tooth
http://www.dentistinfo.com/aska.htm

ERIC Questions about Education
http://ericir.sunsite.syr.edu/About/userform.html

Geologist
http://walrus.wr.usgs.gov/docs/ask-a-ge.html

Government Contractor
http://www.kcilink.com./govcon/contractor/ate/index.html

Holography Expert
http://www.shadow.net/~holodi/ask.html

Reference Librarian
http://ipl.sils.umich.edu/ref/QUE/

Mad Scientist
http://pharmdec.wustl.edu/YSP/MAD.SCI/MAD.SCI.html

Meteorologist
http://www.weather.com/metnet.html

Musician
http://sin.fi.edu/~helfrich/music/askexprt.html

New England Life in the Early 19th Century Expert
http://www.osv.org/pages/askjack.htm

Population Genetist
http://www.ag.auburn.edu/~mwooten/form1.html

President Lincoln Expert
http://gettysburg.welcome.com/dearmr.html

Scientist
http://www.cedarnet.org/aska/scientist/index.html

Scientist from the Franklin Science Museum
http://sin.fi.edu/tfi/publications/askexprt.html

Volcanologist
http://volcano.und.nodak.edu/vwdocs/ask_a.html

Shamu about Marine Mammals
http://www.bev.net/education/SeaWorld/ask_shamu/asintro.html

Pediatrician
http://www.umn.edu/nlhome/g028/reinb002/askdr.html

About Plastics
http://www.harbec.com:80/askexp.htm

Soy Bean Expert
http://www.ag.uiuc.edu/~stratsoy/expert.html

Internet Public Library about Research Using the Net
http://www.iren.net/cfpl/forms/aal_form.html

Mr. Modem about the Online World
http://www.intellinet.com?

Dr. Internet
http://promo.net/gut/bm_gut03.htm

World Wide Web Expert
http://www.charm.net/~web/Dr.Web/

Computer Networking Experg
http://www.netcreations.com/fibercorp/ask_dave.htm

Battery Expert
http://www.netcreations.com/fibercorp/ask_jack.htm

Movie Expert
http://www.netcreations.com/fibercorp/ask_jack.htm

Hilton Head Island
http://www.aesir.com:80/HiltonHead/Expert/Qestions.html

Berit's Best Sites for Children
http://www.cochran.com/theosite/Ksites.html

Canadian Kids Homepage
http://www.onramp.com/~lowens/107kids.htm

Interesting Places for Kids
http://www.crc.ricoh.com/people/steve/kids.html

Uncle Bob's Kids' Page
http://gagme.wwa.com/~boba/kids.html

Academy One
http://nptn.org/cyber.serv/AOneP/

CyberKids Online Magazine
http://www.woodwind.com/cyberkids/index.html

Exploratorium
http://www.exploratorium.edu/

Global Show-n-Tell
http://emma.manymedia.com/show-n-tell/

Hotlists: Kids Did This!
http://sln.fi.edu/tfi/hotlists/kids.html

Kids Web
http://www.npac.syr.edu/textbook/kidsweb

Kids Internet Delight
http://www.clark.net/pub/journalism/kid.html

Vocal Point
http://bvsd.k12.co.us/cent/Newspaper/Newspaper.html

Electronic Field Trip to the United Nations
http://www.pbs.org/tal/un/

Visit the White House
http://www.whitehouse.gov

The White House for Kids
http://www.whitehouse.gov/WH/kids/html/kidshome.html

Grand Canyon National Park
http://www.kaibab.org/

BJ Pinchbeck's Homework Helper
http://tristate.pgh.net/~pinch13/

LANGUAGE ARTS/ENGLISH

Classics Archive
http://the-tech.mit.edu/Classics/

Cool Word of the Day
http://www.dsu.edu/projects/word_of_day/word.html

English as a Second Language
http://www.ed.uiuc.edu/EdPsy-387/Rongchang-Li/esl/index.html

English Server
http://english-server.hss.cmu.edu

Jane Austen Home Page
http://uts.cc.utexas.edu/~churchh/janeinfo.html

Lingua Center Grammar Safari
http://deil.lang.uiuc.edu/web.pages/grammarsafari.html

Online Books Page
http://www.cs.cmu.edu/Web/books.html

Science Fiction Study Guides
http://www.wsu.edu:8080/~brians/science_fiction/Science_Fiction_Guides.html

Strunk's Elements of Style
http://www.columbia.edu/acis/bartleby/strunk/

The Complete Works of William Shakespeare
http://the-tech.mit.edu/Shakespeare/

Nando Times
http://www2.nando.net/nt/nando.cgi

Responses to the Holocaust
http://jefferson.village.virginia.edu/holocaust/response.html

Book Nook
http://schoolnet2.carleton.ca/english/arts/lit/bboknook/index.html

Book Web
http://charlotte.spiders.com/bookweb/

Children's Literature Web Guide
http://www.ucalgary.ca/~dkbrown/index.html

Elementary Language Arts Resources
http://falcon.jmu.edu/~ramseyil/childlit.htm

Center on English Learning and Achievement
http://www.albany.edu.celal

So Many Colors
http://www.geocities.com/Athens/Parthenon/9502/index.html

English Language and Literature
http://www.virginia.edu/~libarts/english.htm

Web University Interactive Education Network
http://www.web-u.com/

SOCIAL STUDIES/HISTORY

Native and Inuit Internet Resources
http://www.fdl.cc.mn.us/~isk/canada.html

CityNet
http://www.city.net

The Arctic Circle
http://www.lib.uconn.edu/ArcticCircle/

The Schuykill River
http://sin.fi.edu/river/schuykill.html

Serbia
http://www.umiacs.umd.edu/users/lpv/YU/HTML/srbija.html

Welcome to Slovakia
http://www.tuzco.sk

MapQuest
http://www.mapquest.com

CIA The World Factbook
http://www.odci.gov/cia/publications/95fact/index.html

Virtual Tourist II
http://www.vtourist.com/vt/

The Perry-Castaneda Library Map Collection
http://www.lib.utexas.edu/Libs/PCL/Map_collection/Map_collection.html

USA CityLink
http://banzai.neosoft.com/citylink/

National Park Service
http://www.nps.gov

Los Angeles River Virtual Tour
http://www.lalc.k12.ca.us/laep/smart/river/tour/index.html

Treasures of the Czars
http://wwwltimes.st-pete.fl.us/Treasures/Default.html

Encyclopedia of Women's History
http://www.teleport.com/~megaines/women.html

Enter Evolution
http://ucmp1.berkeley.edu/exhibittext/evolution.html

From Revolution to Reconstruction
http://grid.let.rug.nl/~welling/usa/revolution.html

Perseus Project of Tufts University
http://www.perseus.tufts.edu

Selections from the Africa-American Mosaic
http://lcweb.loc.gov/exhibits/African.American/intro.html

Titanic Home Page
http://gil.ipswichcity.qld.gov.au/~dalgarry/mail.html

United Nations Home Page
http://www.un.org/index.html

Encyclopedia Mythica
http://www.bart.nl/~micha/

The City of Hiroshima
http://www.city.hiroshima.jp

The Library of Congress
http://www.loc.gov

NASA Historical Archives
http://www.ksc.nasa.gov/history/history.html

Exploring Ancient World Cultures
http://cedar.evansville.edu/~wcweb/wc101/

Life of the Prairie
http://www.gps.com/life/life.htm

Ancient World Web
http://atlantic.evsc.virginia.edu/julia/AncientWorld.html

The American Civil War Home Page
http://funnelweb.utcc.utk.edu/~hoemann/cwarhp.html

1492: An Ongoing Voyage
http://sunsite.unc.edu/expo/1492.exhibit/Intro.html

Project DIANA
http://www.law.uc.edu/Diana/

The ANTHAP Home Page
http://www.acs.oakland.edu/~dow/anthap.html

Archaeology Magazine
http://www.he.net/~archaeol/index.html

U.S. Census Data
http://www.census.gov

Social Studies Site at Ft. Braden School
http://www.nettally.com/byarst/

Social Studies Sources
http://www.halcyon.com/howlevin/social.studies.html

History/Social Studies Web Site for K-12 Teachers
http://www.execpc.com/~dboals/boals.html

Internet Resources for Social Studies Educators
http://www.indiana.edu/~ssdc/internet/html

Social Studies
http://www.csun.edu/~vceed009/socialstudies.html

Charles Vaughan's Social Studies Page
http:.//www. geocities.com/Athens/Acropolis/3589/index.html

Cybrary of the Holocaust
http://remember.org/

Holidays on the Net
http://www.holidays.net

HEALTH/PHYSICAL EDUCATION

Emergency Medical Services
http://galaxy.tradeware.com/editors/fritz-nordengren.ems.html

Action on Smoking and Health
http://ash.org/ash/

Guide to Women's Health Issues
http://asa.ugl.lib.umich.edu:80/chdocs/womenhealth/womens_health.html

USA Today Children's Health
http://web.usatoday.com/life/health/lh015.htm

Ask the Dietician
http://www.hoptechno.com/rdindex.htm

International Food Information Council Home Page
http://ificinfo.health.org

Nutrition Advocate
http://envirolink.org/arrs/advocate/nut1.htm

CPR-You Can Do It!
http://weber.u.washington.edu/~gingy/cpr.html

American Red Cross Home Page
http://www.redcross.org

American Dental Association Online
http://www.ada.org/index.html

MATH

Mental Math Exercises
http://jjj.mega.net/BEATCALC/

International Mathematical Olympiad
http://camel.cecm.sfu.ca/IMO/IMO.html

Mathematics & Problem Solving Task Centers
http://www.srl.rmit.edu.au/mav/PSTC/index.html

This is Mega-Mathematics!
http://www.c3.lanl.gov/mega-math/

Frequently Asked Questions in Mathematics
http://daisy.uwaterloo.ca/~alopez-0/math-faq/node1.html

The Prime Page: Index of Information on Prime Numbers
http://www.utm.edu/research/primes/

MathNews
http://www.undergrad.math.waterloo.ca/~mathnews/index.html

Math Help Homebase
http://www.nashville.com/~Sandra.Smith/math.htm

Internet Resources for Elementary Math Educators
http://www.math.ttu.edu/~dmettler/title.html

A+ Math
http://www.aplusmath.com

InfoMath
http://www.infomath.com

REFERENCE

Free Internet Encyclopedia
http://clever.net/cam/encyclopedia.html

Roget's Thesaurus
http://humanities.uchicago.edu/forms_unrest/ROGET.html

Webster's Dictionary
http://c.gp.cs.cmu.edu:5103/prog/webster/

Virtual Reference Desk
http://infoshare1.princeton.edu:2003/vlib/erefdesk/Eref3.html

CNN Interactive
http://www.cnn.com

Wire Services
http://www.trib.com/NEWS/APwire.html

Weather Page
http://www.trib.com/WEATHER/

Britannica Online
http://www.eb.com

Supreme Court Decisions
http://www.law.cornell.edu/supct/supct.table.html

The WWW Virtual Library
http://www.w3.org.hypertext/DataSources/bySubject/Overview.html

News on the Net
http://www.reporter.org/news

Internet Public Library
http://www.ipl.org/

Developing Educational Standards
http://putwest.boces.org/Standards.html

On-line Reference Works
http://www.cs.cmu.edu/Web/references.html/

The Virtual Daily News
http://www.infi.net/~opfer/daily.htm

Langauge Dictionaries
http://www.yahoo.com/Reference/Dictionaries/Language

News and Newspapers Online
http://www.uncg.edu/lib/news

Yahoo Weather
http://weather.yahoo.com

SCIENCE

Virtual Frog Dissection
http://george.lbl.gov/vfrog/

Volcanoes Page
http://www.geo.mtu.edu/volcanoes/

United States Geological Service Home Page
http://www.usgs.gov/

Earth and Universe
http://www.eia.brad.ac.uk/btl/

Space Telescope Electronic Information Service
http://www.stsci.edu

NASA Space Shuttle Web Archives
http://shuttle.nasa.gov

The Tree of Life Home Page
http://phylogeny.arizona.edu/ree/phylogeny.html

WebElements
http://www.shef.ac.uk.chemistry/web-elements/

Saturn Ring Plane Crossings
http://newproducts.jpl.nasa.gov/saturn/

Butterfly World
http://www.introweb.com/butterfly/

Smithsonian Gem and Mineral Collection
http://galaxy.einet.net/images/gems/gems-icons.html

The Virtual Professor's Physics Shop
http://ici1.integratedconcepts.com/virtualprof/

The Heart: A Virtual Exploration
http://sin.fi.edu/TOC.biosci.html

Microscopes, Cells, DNA, and You
http://chroma.mbt.washington.edu/outreach/hands_on_science.html

Minnetonka Elementary Science Center
http://www.minnetonka.k12.mn.us/support/science/index.html

Franklin Institute Science Museum
http://www.fi.edu/

Smithsonian Institute
http://web6.si.edu

Dinsosaur Exhibit
http://www.hcc.hawaii.edu/dinos/dinos.1.html

ZooNet
http://www.mindspring.com/~zoonet/

TEACHER RESOURCES

Armadillo's K-12 Resources
http://chico.rice.edu/armadillo/Rice/k12resources.html

Briarwood Educational Network
http://www.briarwood.com

December's K-12 Resources
http://www.rpi.edi/Internet/Guides/decemj/icmc/applications-education.html

Education Links from Wentworth
http://www.wentworth.com/classroom/edulinks.html

Educational Online Services
http://archive.phish.net/eos1/webs_image.html

Galaxy's Education Resources
http://galaxy.einet.net/galaxy/Social-Sciences/Education.html

K-12 Cyberspace Outpost
http://k12.cnidr.org/janice/k12/k12menu.html

Larry's Best of the URLs: Education
http://www.clark.net/pub/lschank/educate.txt

Latitude 28: Internet Schoolhouse
http://www.packet.net:80/schoolhouse/inside/html

Meta Center K-12 Resources
http://www.tc.cornell.edu/Edu/MetaCenter/EduK12.html

Web66
http://web66.coled.umn.edu/

Yahoo-Education Resources
http://www.yahoo.com/Education

The Electronic School
http://www.access.digex.net/~nsbamags/e-school.html

Internet Resources for the K-12 Classroom
http://www.ncsa.uiuc.edu/Edu/classroom/classroom.html

Scholastic Internet Center
http://scholastic.com:2005/

Busy Teachers' Web Site
http://www.ceismc.gatech.edu/BusT

Classroom Connect
http://www.classroom.net

Global Schoolhouse
http://www.gsh.org/

Houghton Mifflin (Education Place)
http://www.eduplace.com

The Teacher Resource Page
http://grove.ufl.edu/~klesyk

EdWeb
http://edweb.gsn.org/

Electronic School
http://www.electronic-school.com

SPECIAL EDUCATION

Disability Information
http://www.eskimo.com/~jlubin/disabled/html

Internet Disability Resources
http://www.eskimo.com/~dempt/dis.html

Maddux Special Education
http://unr.edu/homepage/maddux/

Marc's Special Education Page
http://www.halcyon.com/marcs/sped.html

Special Needs Education Network
http://schoolnet2.carleton.ca/sne/

Special Education Resources on the Internet
http://www.hood.edu.seri/serihome.htm

Ari's Special Education Links Site
http://www.geocities.com/athens/forum/7551

Center for Special Needs Populations
http://www.csnp.ohio-state.edu/

Inclusive Education
http://www.uni.edu/coe/inclusion/index.html

Dyslexia, Positive Aspects of the Learning Disability
http://www.dyslexia.com

EDLAW, Inc.
http://access.digex.net/~edlawinc/

Special Needs Resources
http://www.bushnet.qld.edu.au/~sarah/spec_ed/

Office of Special Education Web Resource Page
http://curry.edschool.virginia.edu/go/specialed/

LESSON PLANS/PROJECTS

Global Schoolnet's Internet Project Registry
http://gsn.org/gsn.projects.registry.html

Arctic to Amazon Project
http://www.mukilteo.wednet.edu/MSD/HSPages/ACES/ArcticToAmazon.html

Bird Migration Project
http://nptn.org/cyber.serv/AOneP/academy_one/special/bird-participate.html

Centennial Launches
http://www.gsn.org/archives/Oct95?0004.html

A Day in the Life of a Student
http://nptn.org/cyber/serv/AOneP/academy_one/special/ditl.html

GeoGame
http://gsn.org/gsn/geogame.home.html

Intercultural Email Classroom Connections
http://www.stolaf.edu/network/iecc

Inter-Generational Project
http://nptn.org/cyber.serv/AOneP/academy_one/student/menu.inter-gen.html

KidsCom
http://www.spectracom.com/kidscom

Mathmagic
http://forum.swarthmore.edu/mathmagic

Mouse Trap Powered Vehicles Challenge
http://leeca8.leeca.ohio.gov/ocfs/ms/MTPV_Files/mtpv.html

Newsday Project
http://gsn.org/gsn/newsday.home.html

Where on the Globe is Roger?
http://www.gsn.org/archives/ongoing/0002.html

Appetizers and Lessons for Mathematics and Reason
http://www.cam.org/%7Easelby/lesson.html

Lesson Plans Page
http://www.coe.missouri.edu/~kyle/edu.htm

Flying High with Science
http://www.spacefare.com

Lesson Plans and Resources for Social Studies Teachers
http://www.csun.edu/~hcedu013/index.html

English and Library Lesson Plans
http://www3.sympatico.ca/ray/saitz

Marc's Lesson Plans Page
http://www.halcyon.com/marcs/lessons.html

Ask ERIC Lesson Plans
http://ericir.syr.edu/virtual/Lessons/

Mathematics Lesson Page
http://www.cs.rice.edu/~sboone/Lessons/lptitle.html

C-SPAN Lesson Plans
http://www.c-span.org/classroo/lessons.html

Web Sites and Resources for Teachers
http://www.csun.edu/vceed009/math.html

Chicago Systemic Initiative Math Education Resources
http://www.luc.edu/schools/education/csi.htm

Educator's Guide to NEAR
http://sd-www.jhuapl.edu/NEAR/Education/

Big Sky Math Lessons
http://bvsd.k12.co.us/11/Educational_Resources/Lesson_Plans/Big%20Sky/math

NSTA Curriculum Development and Evaluation Project
http://www.gsh.org/NSTA_SSandC/

Netnoir's Bridge to Black History
http://www.netnoir.com/spotlight/bhm98/index.stm

For Science Teachers and Students
http://www.webcom.com/~pjgrant/

Science Power 2000
http://www.luc.edu/schools/education/science.htm

Science and Math Initiatives
http://www.learner.org/sami/

Learning from the Fossil Record
http://www.ucmp.berkeley.edu/fosrec/fosrec.html

Educator's Toolkit
http://www.eagle.ca/~matink/

Eduzone
http://www.eduzone.com

Biology Page
http://www.d91.k12.id.us/www/skyline/teachers/robertsd/bio.htm

Virtual Field Trips
http://www.field-guides.com

The Garden of Origami
http://ccwf.cc.utexas.edu/~vbeatty/origami/

Small Planet Communications
http://www.smplanet.com

Connections+
http://www.mcrel.org/connect/plus/

Window of Discovery: Sports
http://www.middleschool.com/virtual/classroom/window/current/sports.html

USA Today Class Line
http://www.usatoday.com/classlin/clfront.htm

Kids Food CyberClub
http://www.kidsfood.org

United Nations Cyber School Bus
http://www.un.org/Pubs/CyberSchoolBus/

Learning with Mysteries
http://www.MysteryNet.com/learn/

TalentZ
http://www.talentz.com/MusicEd.html

Music Education Launch Site
http://www.talentz.com

Teachers Guide to the Professional Cartoonists Index
http://www.cagle.com/teacher

Wasson Block Scheduling
http://www.classroom.net/classweb/wasson/myhome.html

Teacher's Edition Online
http://www.teachnet.com/

Teacher Talk Forum
http://education.indiana.edu/cas/ttforum/ttforum.html

Kathy Schrock's Guide for Educator's
http://www.capecod.net/schrockguide/

NASA Goddard Space Flight Center
http://pao.gsfc.nasa.gov/gsfc.html

The Incredible Art Department
http://www.artswire.org/kenroar

Music Education Online
http://geocities.com/Athens/2405/index.html