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This study is a content and design analysis of twenty randomly selected school library media center (SLMC) web home pages. The primary purpose of this study is to create a comprehensive list of content and design elements that school library media specialists should use in designing and publishing home pages. A secondary purpose is to compare ten SLMC home pages that were designed and published on the World Wide Web over two years prior to this study versus ten that were designed and published less than two years prior in order to determine if there are any significant differences in content and design. On 28 March 1999 and 29 March 1999 the home pages were analyzed by using content and design criteria synthesized from information and library science literature and web style guides.

Study results show the most common content and design elements contained on the home pages are the names of the SLMCs, headers, email links, links to Internet resources and search engines, and links to school web home pages. The following conclusions were reached: [1] The SLMC web home pages analyzed in this study do not meet a majority of the criteria and [2] there are no significant differences between the older home pages and the newer home pages in content or design.

Headings:

World Wide Web—School Libraries

World Wide Web—Evaluation

Internet—School Libraries

CONTENT AND DESIGN ANALYSIS OF SCHOOL LIBRARY WEB HOME PAGES

by
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INTRODUCTION

A school library media center (SLMC) web home page provides a defining presence for the SLMC on the World Wide Web. The home page can symbolize the library, school, district, and community (Metz and Metz, 84). In technical terms a home page is “a designed and designated entry-point for access to a local web site” (van Brakel, Roeloffze, van Heerden 383), sometimes referred to as the index page or the top level.

The SLMC can accomplish three principal objectives by designing, creating, publishing, and maintaining a SLMC home page: “[1] media center and school projects are advertised to the local and global communities, [2] essential information about [the] program is publicly accessible, and [3] links to resources are organized to improve student and teacher access” (MacDonald, 28). Experienced library web home page designers Kristen Garlock and Sherry Piontek concur: “The World Wide Web is just another tool that you can use to access familiar resources, discover new information, and display information of your own” (2). Practicing school library media specialists Denise Wiltsee and Ella Marie Yates reveal that their SLMC home page “helps us organize bookmarks and advertise our online resources by providing an electronic trail for students to follow as they research their topics” (37). More practitioners and educators share the views expressed by the preceding supporters. Randall MacDonald, a collection development librarian and SLMC volunteer, addresses this matter in The Internet and the School Library Media Specialist when he states:

Media specialists are uniquely positioned to construct pages useful to an entire school, with links to local information and cross-disciplinary remote sites. [Their] involvement with every teacher and students allows [them] to monitor instructional trends and anticipate which sites will hold the interests of those parties (86).

Librarian David Lankes expressed the same sentiments:

The Internet is ultimately about information and organization of information. The LMC is a natural match. The LMC works across curriculum and grade levels as should the Internet and intranet...It is the opportunity of the decade for the Library Media Specialist to get involved and build bridges to the faculty, students and parents (7).

The home page has other benefits for media specialists. They have to prove themselves in this era of site-based management and limited budgets. Web savvy can be demonstrated by developing pages that require more than “pointing and clicking” through proper use of text, sound, graphics, and animation (Passiczuk, 42). The Minnesota Center for Arts Education lists creating a SLMC home page that “provide[s] information on the services of the Media Center Program” as part of its job description for a 21st century school librarian (Johnson, 72).

I became interested in analyzing SLMC web home pages because I had a chance to see the process unfold firsthand. The process I saw was not what I had envisioned it to be. The type of web home page created was a list of bookmarks arranged by subject. Its designer and publisher was the technology specialist. My curiosity was peaked—Are other SLMC web home pages collections of bookmarks? What other kinds of information can be found on SLMC home pages? How are the home pages designed? In order to find out the answers to these questions, I chose to conduct a content and design analysis.

LITERATURE REVIEW

Three main bodies of literature about SLMC web home pages exist: [1] “how to” HTML guides to aid in development, [2] content and/or design recommendations offered by an individual or group who has completed the process and written a case study, and [3] advice about ways to effectively maintain the site. Few empirical studies exclusively about SLMC web home pages were found in information and library science or education literature, but there are more general articles that include SLMC web home page analyses.

Laurel A. Clyde (1996) discovered the SLMC web home pages and supporting pages she analyzed varied widely in design, content, and intended audience. In a two-day period Clyde accessed fifty randomly selected web home and supporting pages in a two-day period. The pages were chosen from the online SLMC web home page directories of Peter Milbury and Linda Bertland (last updated 1999). Twenty-nine of the fifty provided information about the school library; twenty-eight provided email addresses; fourteen provided the street address; eight provided information skills guides; six had citation guides; six provided mission statements; four provided Internet tutorials; and all lacked catalog access (555). The most popular feature other than listing the name of the school and library was links to Internet resources (555). Few sites provided explicit statements about the intended audience. Links were arranged in numerous ways—topic, subject, course, classroom teacher, geographic, and Dewey (555).

In addition, Clyde surveyed fifty-four academic, public, and special libraries in Iceland to obtain data concerning how many had web home pages, who maintained them, and what information should be found on them (549-550). Eleven had home pages; staff

members maintained a majority of them; and general library information plus Internet resource links were the most common features (550).

MacDonald (1997) studied features of twenty SLMC web home pages and compiled a list of SLMC web page elements. He concluded that SLMC pages usually include local content, links to often consulted Internet resources, and graphics of some type (29). All twenty sites contained a graphic; nineteen had links to other pages; sixteen listed email links; thirteen sites had more than one level; ten showed the date of last update; five had a background color other than white; one had sound files; and one had frames (30).

Two short articles have been written about SLMC web home page design. Kimberly Chrobak's "Build a WWW Home Page for Your School!" merely reveals that a SLMS should look at other home pages to emulate and that there are many web sites dedicated to design that should be used (39). Linda Braun's "Building a Better Web Site" recommends that interactive components should be part of all library home pages, such as creating weekly email messages that announce new materials added to the collection (25). Braun's article contains no guidelines to help in the creation.

More empirical studies in the literature have been published specifically about research library web home pages. Research librarian David King analyzed the 120 web home pages of the members of the Association of Research Libraries. He looked at seven areas: backgrounds, document headers, document footers, document body, page length, number of steps to library home page from parent home page, and domain name server (459). He found that half of the pages have backgrounds other than white; an author or maintainer is usually listed; some type of graphics are employed; links are mostly text based; unlinked text is found; and most are one printed page long (464).

Before conducting their research, librarians Mark Stover and Steven Zink expected “librarians...to offer some exemplary models of home pages” (8). They were surprised by the lack of competence shown through the content and design elements of the web home pages studied. The authors compared commonalities, patterns, and anomalies of forty randomly selected higher education library web home pages found by choosing every third library in the Yahoo “Reference:Libraries:University Libraries” heading (11). Stover and Zink used a point system to rate pages by quality, a subjective measurement. In the study, quality was defined by having three to nine links; identifying the author; having one screen; being under 10,000 bytes in size; containing a link to the main home page of its institution; having no typographical errors; being updated within a month of the study and/or listing a date of last update; containing a mechanism for leaving user-generated comments; and containing a statement of purpose and goals (12). Stover and Zink found that thirty-nine of the forty provided an email address or form to elicit comments; thirty-nine had graphics; thirty-four had a link to the parent institution; thirteen had a date of last update; and two contained statements of purpose (15).

An example of a general library web page design article is by D.R. Goudsward (1997). He advised librarians to think of the patrons as the web home page is designed and to have a purpose in mind. Goudsward recommends creating smaller pages with fewer graphics and consistent layouts are efficient to maintain and attractive to patrons (17).

General web home page design literature was reviewed for this study, although mainly in order to gather and synthesize criteria.

PURPOSE OF THE STUDY

The purpose of this study is to perform a content and design analysis of randomly selected SLMC web home pages. Questions to be answered by the study are –[1] What content and design elements are present on the pages analyzed? [2] Is there a significant difference in the content and design of pages that were designed and published at least two years ago versus pages designed and published in the past two years? [3] How do the pages compare to the recommended criteria synthesized from information and library science literature and web style guides?

A goal of the study is to provide a comprehensive list of content and design elements library media specialists can use when developing a web page. The framework can be an instrument that saves time and limits frustration for the librarian, students, teachers, parents and the community because they will have access to an effective source of information. The study is needed because “everybody’s doing it, but not everybody’s

Ilan and Lazinger, 189). By analyzing SLMC web page content and design, elements worthy of emulation according to information and library science and general web style criteria can be determined.

METHODOLOGY

Twenty SLMC web home pages were selected for analysis--ten that were designed and published at least two years prior to this study and ten that were designed and published within the previous two years. By viewing author statements on the older web home pages and asking school library media specialists on LM NET, a listserv

dedicated to school librarians, to volunteer new SLMC web home pages, I could determine that library media specialists had designed and published each home page.

To ensure a minimum two-year presence on the web, the older web home pages were chosen from the list of twenty sites in the MacDonald (1997) study (Appendix A). As the author did not verify that the web home pages were designed and published by school library media specialists with little to or no student or staff assistance, I visited each site and viewed author information. All but one of them had indeed been created by a school library media specialist. One web home page no longer contained library information so it was eliminated. Six sites were not available on 28 March 1999 and 29 March 1999 so they were eliminated as well. I reduced the number to ten by random selection.

The newer web home pages were selected from responses to an email message request I sent to LM NET (Appendix B). I received 24 responses (Appendix C) during the three-week period of 3 March 1999 through 24 March 1999. Three web home pages were eliminated because the school library media specialists were not the main designers and publishers of their SLMC home pages according to statements in their email responses. The remaining twenty-one email messages were reduced to ten through random selection. One respondent requested that I omit his/her name and the school name from the study.

The SLMC web home page design and content criteria used in the analysis was synthesized from information and library science literature plus well known web style guides. For the purposes of this study I also analyzed supporting pages in order to find evidence of criteria, although there are exceptions. On 28 March 1999 and 29 March 1999 I analyzed the twenty web home pages by live viewing, making notations on

printouts of each home page, and entering data into a spreadsheet (Appendix D) that lists the criteria (Appendix E). The printouts were destroyed after the final analysis.

Concerning the differences between older and newer SLMC web home pages, it is hypothesized that newer home pages will contain more desirable content and design elements than the older home pages. New content and design criteria have been published since 1997, and with major technological advancements in web page design such as Java, there is reason to believe school library media specialists designing and publishing new pages would have more opportunities to read the criteria and utilize it.

RESULTS

Data was tabulated by calculating simple percentages and averages. It was classified into several broad categories.

Countries and States

The SLMC sites selected for the study were designed and published by school library media specialists from all over the world. The majority of SLMCs whose sites are included in this study are located in the United States. Representative countries and states are shown in Table 1.

Country and State	Number of Sites	Percentage of Sites Studied
Canada	1	5%
Germany	1	5%
Italy	1	5%
Sweden	1	5%
United States	16	80%
<i>California</i>	3	15%
<i>Florida</i>	1	5%
<i>Iowa</i>	1	5%
<i>Kentucky</i>	1	5%
<i>Maryland</i>	1	5%
<i>Michigan</i>	1	5%
<i>New Hampshire</i>	2	10%
<i>New Jersey</i>	1	5%
<i>Oklahoma</i>	2	10%
<i>Pennsylvania</i>	1	5%
<i>Texas</i>	1	5%
<i>West Virginia</i>	1	5%

Table 1. Countries and States Represented

School Grade Levels

The grade levels of schools whose SLMC web home pages were analyzed are shown in Table 2. SLMC home pages at multi-level schools, which are generally kindergarten through twelfth grade, are the most represented with seven. Middle/junior high SLMC home pages and high school SLMC home pages are equally represented with six pages each. Elementary SLMC home pages are underrepresented with just one page included in this study.

Grade Levels	Total Number in Study (n=20)	Percentage of Study Sites	Number of Old Pages	Number of New Pages
Elementary	1	5%	0	1
Middle/Junior High	6	30%	4	2
High School	6	30%	2	4
Multi-level	7	35%	4	3

Table 2. Representation of School Grade Levels

Factual Information about the SLMC

Factual information helps identify what SLMC web home page is being viewed. A school library media specialist has no way of knowing how a person will find the web home page, so it is best to include this type of information even if the home page is linked to a parent page. The information can provide parents and other outside viewers an idea of the SLMC's layout and collections, ways to contact staff, and a general overview of its activities in relation to the school.

SLMC web home pages in this study generally did not contain factual information elements. Only the name of the SLMC (85%) and general information such as hours of operation (55%) were found on more than fifty percent of the home pages. News was not far behind at 45 percent. School library media specialists seem to have ignored this promotional type of content. Factual information data is shown in Table 3.

Type of SLMC Information	Total Number of Pages with Type of Information (n=20)	Percentage of Pages with Type of Information	Number of Old Pages with Type of Information	Number of New Pages with Type of Information
Name	17	85%	8	9
Address	5	25%	3	2
Phone number	1	5%	1	0
Fax number	0	0%	0	0
Email	18	90%	2	16
Staff Directory	0	0%	0	0
General Information	11	55%	7	4
Rules	0	0%	0	0
Policies	3	15%	1	2
News	9	45%	4	5
Projects with patrons	3	15%	1	2
List of CD-ROMs	5	25%	2	3
Photograph	2	20%	0	2
Floor Plan	0	0%	0	0

Table 3. Factual Information about the SLMC

Links

Links are “text containing HTML commands to connect you to the requested text, graphic, or audio information” (Metz and Metz ,191). They can route parents to community and school information and teachers and students to sites with materials not available in the SLMC and/or additional information about topics studied in the curriculum. Link annotations help viewers decide which links are worth pursuing.

Internet resources can be easily grouped in a variety of ways suited to the patrons, and if they are not familiar with the Internet, tutorials can provide instruction about how to utilize it. A library catalog link provides quick access and serves as a reminder that patrons should search for materials already part of the local holdings if information on Internet cannot be found or is insufficient. HTML guides can show viewers how they can create pages similar to what they are viewing.

In this study links is one of the elements contained on all of the SLMC web home pages examined. The types of links found most often were school web home page (85%), Internet resources (75%), and search engines (75%). It appears that the home pages serve as a gateway to Internet resources and tools to find more resources by linking to search engines. Types of links found on the SLMC home pages are shown in Table 4.

Link Type	Total Number of Pages with Link Type (n=20)	Percentage of Pages with Link Type	Number of Old Pages with Link Type	Number of New Pages with Link Type
Annotated	8	20%	4	4
Library Catalog	1	5%	1	0
Other Library catalog	7	35%	4	3
Internet Resources	15	75%	6	9
Search Engines	15	75%	6	9
Local Resources	12	60%	6	6
School home page	17	85%	8	9
HTML and/or Web Page Design	6	30%	2	4
Internet Tutorial	4	20%	2	2

Table 4. Types of Links

Additional Content Elements

Additional content elements were also found on the SLMC web home pages examined. Most of these elements furnish materials useful to patrons in conducting research. Student work, if published with permission, can be a model for students and show outside viewers concrete examples of work aided by the use of the SLMC. The only undesirable element in this section is “Student Names.” It is not prudent to publish full names because of privacy considerations and because it brings attention to specific students.

Few of the additional content elements were found on the SLMC web home pages in this study. Research skills (45%), book reviews (40%), and citation guides (40%) were the most commonly found. A help statement encouraging patrons to ask for help inside or outside of the SLMC can be an indicator that the staff is responsive to the needs of the user; only one page contained this statement. Additional Content Elements is represented in Table 5.

Type of Miscellaneous Content	Total Number of Pages with Type of Miscellaneous Content (n=20)	Percentage of Pages with Type of Miscellaneous Content	Number of Old Pages with Type of Miscellaneous Content	Number of New Pages with Type of Miscellaneous Content
Database Access	5	20%	2	3
Research Skills	9	45%	4	5
Book Reviews	8	40%	4	4
Citation Guides	8	40%	4	4
Student Work	2	10%	2	0
Student Names	1	5%	0	1
Help	0	0%	0	0

Table 5. Additional Content Elements

Design

Design decisions are critical because it is important to ensure “the purpose is instantly apparent, it is appealing to your patrons, and is visually organized so that your objectives come across loud and clear (Metz and Metz, 97). An explicit statement of purpose places the page into context on the World Wide Web. Correct spelling and proper use of grammar are signs that the home page was thoughtfully executed and checked. Navigation aids consistently placed will allow patrons to navigate with ease.

Since patrons want timely information, a date of last update assures the patron that the information is current, especially if a date is included on each supporting page. Headers usually distinguish the name of the SLMC from other parts of text. Counters show the school library media specialist and viewers how often a site is visited.

Undesirable elements annoy patrons and may discourage them from visiting the home page. Text in all capital letters is difficult to read, as is text on a dark background. Scrolling marquees and blinking objects may be distractions. Frames may not translate correctly with all browsers; if frames are used, linking to other home pages with frames can cause navigation problems.

Headers (100%) and dates of last update (60%) were the design elements represented on a majority of SLMC web home pages in this study. Almost a third of the home pages had spelling or grammatical errors, though the Samskolans home page skewed the results because it had a majority of both types of errors when compared to the other home pages. Only one page had frames. A breakdown of Design Elements is shown in Table 6.

Design Element	Total Number of Pages with Design Element (n=20)	Percentage of Pages with Design Element	Number of Old Pages with Design Element	Number of New Pages with Design Element
Explicit Purpose of Site	5	25%	3	2
Header	20	100%	10	10
Navigation Aids	9	45%	3	6
Date of Last Update	12	60%	5	7
Counter	4	20%	2	2
Main Page Prints as 1 Page	8	40%	4	4
Spelling Errors	6	30%	3	3
Grammatical Errors	7	35%	4	3
Text in All Capital Letters	2	10%	1	1
Marquees or Blinking Objects	0	0%	0	0
Medium or Dark Backgrounds	2	10%	2	0
Frames	1	5%	0	1

Table 6. Design Elements

More Design Elements

The school library media specialist should design a SLMC web home page that balances graphics with text. Too many inline images can be distracting and increase download times. Clear, concise phrases are easier to comprehend than long pages of text, so text should be kept at a minimum (Metz and Metz, 102). Having more than five to seven links on the home page may cause information overload. Forms allow patron input.

Few additional design elements were represented on the SLMC web home pages studied. Certain types of inline images, such as buttons, occurred often and inflated the average of images per page. Two pages skewed the average of broken links per page because they contained a majority of them. Detailed results are shown in Table 7.

Type of Design Element	Total Number of Pages with Design Element	Percentage of Pages with Design Element	Average Per Page	Average per Old Page with Type of Design Element	Average Per New Page with Type of Design Element
Inline Images	20	100%	10.05	10.10	9.90
Main Page Links	20	100%	23.55	20.40	26.70
Broken Links	6	30%	1.55	2.20	0.90
Forms	3	15%	0.15	0.20	0.10

Table 7. Additional Design Elements

Special Design Elements

Three design elements are special because they were not applicable to some of the SLMC web home pages examined. Three sites have no supporting pages, so links to a parent page nor page titles were not necessary. Only one site had an inactive link to a page still under construction. An analysis is shown in Table 8.

Special Design Element	Number of Pages with Special Design Element (n=17)	Percentage of Total Pages with Special Design Element	Number of Old Pages with Special Design Element	Number of New Pages with Special Design Element
Parent page link	13	76.47%	5	8
Links to unfinished pages not “hot”	1	5.88%	0	1
Internal page titles on supporting pages	15	88.24%	7	10

Table 8. Special Design Elements

DISCUSSION

There are limitations in this study’s methodology. Not every aspect of content and design of SLMC web home pages was studied, including domain name servers, consistency in design, size of images, and the number of screens for the home page. Errors could have been made collecting and recording data. Regardless of the limitations, the results of this study are similar to the studies found in the literature. On

the whole, SLMC web home pages do not reflect proper usage of content and design elements.

It is no surprise that school library media specialists do not have exemplary SLMC web home pages. Their primary concern involves assisting patrons and running day-to-day operations, not designing, publishing, and maintaining a site. Each school library media specialist could have a list of reasons why he/she cannot dedicate more time to this effort: support staff may not be available; time is spent teaching and collaborating with teachers; some may not have the technical knowledge required. Few studies have been conducted, and those that have are not published in popular journals read by school library media specialists.

I was somewhat surprised that older and newer SLMC web home pages do not seem to have significant differences. I had hypothesized that newer pages would contain more of the desirable elements. But the only areas in which newer home pages contain more elements are that they have a larger number of Internet-related links, navigation aids throughout the site, and email links. Perhaps school library media specialists who have designed and published their pages recently have not had enough time to redesign—they may have been fortunate to have the opportunity to develop one at all. Overall I was disappointed that the home pages did not have their own tutorials or interactive components that go beyond “pointing and clicking.”

This study provides a starting point for further research. The media specialists who developed the SLMC web home pages contained in this study could be surveyed to inquire about intended purpose and audience, their feelings about the creation process, and the factors that influenced design. Students at the schools could be surveyed and asked their opinions of their school’s SLMC home page, how it is used, and what content

and design recommendations they would make to the school library media specialist. Perhaps individual students could be enlisted to participate in the process.

CONCLUSION

The principal purpose of this study was to create a comprehensive list of SLMC web home page content and design criteria synthesized from information and library science literature and web style guides. By perusing SLMC home pages and analyzing them based upon the criteria, a “snapshot” of trends and typical SLMC content and design criteria was taken. The conclusion is SLMC home pages do not meet a majority of the criteria. In addition, evidence was provided as to why the elements are desirable or undesirable. Hopefully more research will be conducted in the future that pertains to SLMC home pages.

Access to a SLMC web home page can help teachers integrate the Internet into the curriculum. By providing a starting point for research, students, with guidance, “can work independently...assimilating new information and accommodating intellectual frameworks to an expanding knowledge base” (LeBaron, Collier, Friel 5). A SLMC home page and the school library media specialist can act as intermediaries between the patrons and the apparently infinite number of resources on the Internet. The home page can also promote the SLMC as the students’ primary information resource center.

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APPENDIX A

20 SITES ANALYZED IN MACDONALD STUDY

*not available 28 March 1999

°chosen by random selection

●eliminated from selection

●www.biddeford.com/brhs/
°www.chicojr.chico.k12.ca.us/tech/lib.html
●www.educational.net/elemschool/coralref
°www.wsd1.winnipeg.mb.ca/nnl/cecil_r/school/lib.htm
206.65.103.2/CPE/Library_Staff.html
°www.kingphilip.west-hartford.k12.ct.us/kingphilip
*lpsweb.kps.k12.co.us/schools/littleton/library%26media2.html
°www.voicenet.com/~srussell/welcome.html
°rhs.jack.k12.wv.us/RvHS/libpage.htm
°www.algonet.se/~sirius/library.htm
°www.voicenet.com/~bertland/index.html
voyager.rtd.utk.edu/~tsd/library/library.html
°www.ursulinehs.org/students/library.html
www.concentric.net/~Lparcel/lmc.html
°www.saint.andrews.pvt.k12.fl.us/lib/Newlib.htm
www.ouhsd.k12.ca.us/sites/ohs/lmc/ohslmc.htm
°www.stillwater.k12.ok.us/blazer/page3.html
*www.nashua.k12.nh.us/Nashua/schools/esjh/lmc.html
*198.237.73.25/lib/.lib.html
*esu3.esu3.k12.ne.us/districts/ralston/karen-western/media.html

APPENDIX B

LM NET EMAIL REQUEST

Date: Tue, 2 Mar 1999 11:03:07 -0500
 From: Kimberly Poe <poek@ils.unc.edu>
 To: LM_NET@LISTSERV.SYR.EDU
 Subject: REQUEST: SLMC web home pages

Hello! I'm Kimberly Poe, a library science master's student at UNC-Chapel Hill. I'm sending this email to LM_NET members because I need your assistance in collecting data for my master's paper. The focus of my paper is the analysis of SLMC home pages created by school media specialists. I want to compare home pages created several years ago versus home pages that have been created within the past two years. I will be analyzing content and design elements to see what kinds of information appear on the pages and how the pages are arranged.

If you've created a home page for your SLMC in the past two years, and you're willing to let me analyze the page you've created, please reply directly to me. In your reply, please include contact information for your SLMC, the URL for the home page, and indicate whether or not you want your SLMC named in the study. I will gladly share my results with those of you that respond when the study is complete.

If I am fortunate enough to receive more responses than I need, I will select the first ten that represent a good balance between levels and states.

If you have any questions, please let me know. I look forward to hearing from you!
 Thanks in advance!

Kimberly L. Poe
 Master's Student
 School of Information and Library Science
 The University of North Carolina at Chapel Hill
 poek@ils.unc.edu

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 listserv@listserv.syr.edu In the message write EITHER:
 1) SIGNOFF LM_NET 2) SET LM_NET NOMAIL or 3) SET LM_NET DIGEST
 3) SET LM_NET MAIL * Please allow for confirmation from Listserv
 For LM_NET Help & Archives see: http://ericir.syr.edu/lm_net/

APPENDIX C

LM NET EMAIL REQUEST RESPONSES

- eliminated from selection
- °chosen by random selection

°Benkert, Barb	www.nda-cvg.org/super.html
●Bolas, Deborah	Carrboro Elementary School
°De Angelis, Trudy	avia-hs.odedodea.edu/ahs/library/library.htm
°Doyle, Tony	www.lhs.muhsd.k12.ca.us/.html/lhslibrary/lhslib.htm
Frank, Helen	www.inil.com/users/helen
°Grainger, Gail Shea	www.sau29.k12.nh.us/library/Dewey/dewey_browse_2.html
Homme, John	www.mneta.net/~WMpms/virtual.html
Hunt, Sadie	www.open.org/~dallashs/LibPage.html
°Jay, Ellen	www.mcps.k12.md/schools/damascuses/
●Jones, Carol	Canyon High School
°XXXXX, XXXXX	www.xxxxx.k12.is.us/lmcdept.htm
°LaForge, Edith	www.tulsaschools.org/schools/hamilton
Lewis, Mary Stewart	www.benjaminhschool.com/library
Moore, Patricia	www.n-polk.k12.ia.us/Pages/Departments/media/MediaCenter.html
Neal, Jim	parkhill.k12.mo.us/hs/media/media_center.htm
Pankratz, Marty	phs.tusd.k12.az.us/library
Rathbun, Joni	lincolncity.org/naims
Slacum, Linda	www.ccps.org/ccps/chms/home/home.html
°Smith, Becky	www.tyler.net/ruskhslib/default.htm
°Stafford, Debbie	www.wies-hs.odedodea.edu /MediaCenter/arnoldhs.htm
●Taylor, Ellen	207.125.42.150/schools/clarksvillehigh/
Unker, Christi	www.carroll.k12.ky.us
°Vander Ark, Steve	www.bccs.org/mc
Wallace, Suby	nic.crsc.12.ar.us

APPENDIX D
Data Collection Results of Content and Design Analysis

	Chico	Cecil Rhodes	Mt. Laurel	Ravens-wood	Sams-kolans	Stetson	Ursuline	Elm St.	St. Andrews	Stillwater	Notre Dame	Aviano	Living-ston	Chester-field	Damas-cus	Xxxxx	Hamilton	Rusk	Gen H.H. Arnold	Byron
<i>Features</i>																				
Explicit purpose of site (Gregory and Brown, Stover and Zink)	no	no	no	no	yes	no	yes	no	yes	no	yes	no	no	no	no	no	no	no	no	yes
Name of school and library (Berners-Lee, Clyde, Garlock and Piontek, Gregory and Brown, McClements and Becker)	no	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	yes
Address of the school library (Berners-Lee, Clyde, Garlock and Piontek, Gregory and Brown, McClements and Becker)	no	no	no	yes	no	yes	no	no	no	yes	no	no	no	no	no	no	yes	yes	no	no
Phone number (Berners-Lee, Gregory and Brown, McClements and Becker)	no	no	no	no	no	no	no	no	no	yes	no	no	no	no	no	no	no	no	no	no
Fax number (Garlock and Piontek, Gregory and Brown)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Information about the school library (Clyde)	yes	yes	yes	no	yes	yes	yes	no	yes	no	no	no	no	no	no	yes	yes	yes	no	yes
Staff directory (Garlock and Piontek)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Information about library policies [including AUP] (Clyde, Garlock and Piontek)	yes	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no
Library rules (Clyde)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Library news (Clyde, Garlock and Piontek)	no	yes	yes	no	no	no	yes	no	no	yes	no	yes	yes	no	yes	yes	no	no	no	yes
Link annotations (Garlock and Piontek, McMurdo)	no	no	no	yes	yes	yes	yes	no	no	no	yes	yes	yes	no	no	yes	no	yes	no	no
Link to the library catalog (Clyde, Garlock and Piontek, McClements and Becker)	no	no	no	no	no	no	no	no	yes	no	no	no	no	no	no	no	no	no	no	no
Link to a library catalog	no	no	no	yes	yes	no	yes	yes	no	no	yes	no	no	no	no	no	no	yes	no	yes
Links to selected resources on the Internet (Clyde, Garlock and Piontek, MacDonald)	no	no	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
Links to Internet search engines (Clyde, MacDonald)	no	no	no	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes	no	yes	yes	yes	yes	yes
Links to local resources (Clyde)	no	no	yes	yes	yes	yes	yes	yes	no	no	yes	no	yes	no	no	yes	yes	yes	yes	no
Link to a school home page (Clyde)	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes
Links to HTML guides or information about creating a home page (Clyde)	no	no	no	yes	no	yes	no	no	no	no	no	no	no	yes	no	yes	yes	yes	no	no
Access to databases (Clyde)	no	no	no	yes	no	no	no	no	yes	no	no	no	no	yes	no	no	no	yes	yes	no
Information about projects undertaken in the library (Clyde)	no	no	yes	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	no	no	yes
Internet tutorial[s] (Clyde, Garlock and Piontek)	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no
Research skills information or guides (Clyde)	no	yes	no	no	no	yes	yes	no	yes	no	no	yes	no	yes	no	no	yes	yes	yes	no
Link to an online reference desk (Clyde)	no	no	no	yes	no	yes	no	no	yes	no	no	yes	no	yes	no	no	yes	yes	yes	yes
List of CD-ROMs in the school library (Clyde)	no	no	no	no	yes	no	no	no	yes	no	yes	no	no	no	no	no	no	no	yes	yes
Book reviews, either professional or student (Clyde)	no	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	no	no	yes	yes	no	no
Citation information (Clyde)	no	no	no	yes	no	yes	yes	no	yes	no	no	yes	no	yes	no	no	no	yes	yes	no
Help	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
Number of common word spelling errors discovered (Johnson, McClements and Becker, McMurdo, Stover and Zink)	0	0	0	1	2	0	1	0	0	0	0	1	1	0	1	0	0	0	0	0
Number of grammatical errors discovered (Johnson, Stover and Zink)	5	7	1	0	6	0	0	0	0	0	2	1	0	0	1	0	0	0	0	0
Use of a student's full name (Johnson)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Student work (Johnson)	no	no	yes	no	no	no	no	yes	no	no	no	no	no	no	no	no	no	no	no	no
Sound files (Garlock and Piontek, MacDonald)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Header (McClements and Becker, Stover and Zink)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Text in all capital letters (Lynch and Horton, Metz and Metz)	no	no	no	no	yes	no	no	no	no	no	yes	no	no	no	no	no	no	no	no	no
Marquees or blinking objects (Lynch and Horton, McMurdo)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Medium or dark background used (Johnson, Metz and Metz)	yes	yes	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
No frames (McMurdo, Nielsen)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Photograph of school library	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes
Floor plan (Garlock and Piontek)	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Number of images (Stover and Zink)	2	14	14	9	29	8	13	3	1	9	15	15	15	3	8	6	8	16	4	9
Email link (Johnson, MacDonald, McClements and Becker)	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
Internal page titles (Berners-Lee, Gregory and Brown)	n/a	n/a	yes	no	yes	yes	n/a	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes
Navigation aids (Lynch and Horton, McClements and Becker)	no	no	no	yes	no	no	yes	no	no	yes	yes	yes	no	no	yes	yes	no	yes	yes	yes
Links to return to parent page on other pages (Gregory and Brown, Johnson, Lynch and Horton, McClements and Becker, Stover and Zink)	n/a	n/a	no	yes	yes	yes	n/a	yes	yes	yes	no	no	yes	yes	yes	yes	yes	yes	yes	yes
Links to pages not yet completed are not "hot" (Johnson, Lynch and Horton, Nielsen)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	yes	n/a	n/a	n/a
Date of last update (Berners-Lee, Gregory and Brown, Johnson, MacDonald, McMurdo, Stover and Zink)	no	no	yes	yes	yes	yes	no	yes	no	no	yes	yes	yes	no	yes	yes	yes	yes	no	yes
Number of links on main page (MacDonald); 5-7 links per page (Lynch and Horton)	1	1	11	66	29	15	59	6	8	8	10	22	39	18	8	19	5	104	26	16
Number of broken links (Garlock and Piontek, McMurdo)	0	0	1	1	9	0	11	0	0	0	0	0	2	0	0	0	7	0	0	0
Forms (Garlock and Piontek)	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Main page prints as one page (King)	yes	no	no	yes	no	no	no	yes	yes	no	yes	yes	no	yes	no	no	no	no	no	yes

APPENDIX E

LIST OF CONTENT AND DESIGN CRITERIA WITH NOTES

Explicit purpose of site (Gregory and Brown, Stover and Zink)—Tells viewer why the site exists. It usually identifies the intended audience.

Name of school and school library media center (Berners-Lee, Clyde, Garlock and Piontek, Gregory and Brown, McClements and Becker)

Address of the school library media center (Berners-Lee, Clyde, Garlock and Piontek, Gregory and Brown, McClements and Becker)

Phone number (Berners-Lee, Gregory and Brown, McClements and Becker)

Fax number (Garlock and Piontek, Gregory and Brown)

Information about the school library media center (Clyde)—Information includes, but is not limited to, hours of operation, type of collections, services rendered, and a description of the library and its resources.

Staff directory (Garlock and Piontek)—A staff directory generally lists the names and displays pictures of staff members. Short biographies may be found in this section.

Information about library policies [including AUP] (Clyde, Garlock and Piontek)—This section highlights key areas of the collection development, circulation, copyright, and acceptable use policies.

Library rules (Clyde)—The rules are a general listing of behavioral expectations of patrons who visit the SLMC.

Library news (Clyde, Garlock and Piontek)—News is concerned with any changes in the SLMC, such as new materials received and upcoming events.

Link annotations (Garlock and Piontek, McMurdo)—Annotations are concise descriptions of content found on sites linked to on the home page.

Link to the library catalog (Clyde, Garlock and Piontek, McClements and Becker)

Link to a library catalog—Patrons can determine if local community libraries have resources that they can use.

Links to selected resources on the Internet (Clyde, Garlock and Piontek, MacDonald)—These links are placed onto the home page by the school library media specialist because he/she believes they are relevant to the patrons, namely teachers and students.

Links to Internet search engines (Clyde, MacDonald)

Links to local resources (Clyde)—Internet resources that relate to the community at large are in this category.

Link to a school home page (Clyde)

Links to HTML guides or information about creating a home page (Clyde)

Access to databases (Clyde)—Examples of databases include online encyclopedias, Electric Library, SIRS Researcher, and EbscoHost.

Information about projects undertaken in the library (Clyde)—Student projects, with permission, can be displayed. A short paragraph can outline how the student(s) used the SLMC in completing the project.

Internet tutorial[s] (Clyde, Garlock and Piontek)—Viewers have the opportunity to learn about the Internet at their own pace if they have access to an Internet tutorial.

Research skills information or guides (Clyde)—The Big Six is one of many skill guides for research that can be displayed online by the school library media specialist.

List of CD-ROMs in the school library (Clyde)

Book reviews, either professional or student (Clyde)

Citation information (Clyde)

Help statement—This statement suggests that if the viewer is having difficulty with anything related to the site to call or send an email message.

Number of common word spelling errors discovered (Johnson, McClements and Becker, McMurdo, Stover and Zink)—Spelling errors did not include personal names or words in a foreign language.

Number of grammatical errors discovered (Johnson, Stover and Zink)—If a home page uses phrases consistently throughout the site, then those are not considered errors. Types of grammatical errors include subject-verb agreement, capitalization errors, and punctuation errors.

Use of a student's full name (Johnson)—It is not a good idea to use students' full names because of privacy concerns.

Student work (Johnson)—Photographs, drawings, excerpts of research papers, any type of student project that was in part created because the creator used the SLMC is in this category.

Sound files (Garlock and Piontek, MacDonald)—A school library media specialist may want to welcome viewers to the site.

Header (McClements and Becker, Stover and Zink)

Text in all capital letters (Lynch and Horton, Metz and Metz)—Text in all capital letters is difficult to read.

Marquees or blinking objects (Lynch and Horton, McMurdo)—Viewers may be annoyed with marquees or blinking objects. Also their attention is drawn toward the movement and flashing elements instead of the home page's content.

Medium or dark background used (Johnson, Metz and Metz)—It is difficult to read text on a dark background.

No frames (McMurdo, Nielsen)—Frames cause navigation problems.

Photograph of school library

Floor plan (Garlock and Piontek)

Number of images (Stover and Zink)—Inline images include any graphics that are contained on the home page, such as buttons, horizontal bars, and gifs.

Email link (Johnson, MacDonald, McClements and Becker)

Internal page titles (Berners-Lee, Gregory and Brown)—Internal page titles are titles found at the top left corner of the browser screen.

Navigation aids (Lynch and Horton, McClements and Becker)—Buttons, arrows, links, anything that allows the viewer to go to the home page or any other page within the site without having to return to the home page.

Links to return to parent page on other pages (Gregory and Brown, Johnson, Lynch and Horton, McClements and Becker, Stover and Zink)

Links to pages not yet completed are not "hot" (Johnson, Lynch and Horton, Nielsen)

Date of last update (Berners-Lee, Gregory and Brown, Johnson, MacDonald, McMurdo, Stover and Zink)

Number of links on main page (MacDonald); 5-7 links per page (Lynch and Horton)

Number of broken links (Garlock and Piontek, McMurdo)

Forms (Garlock and Piontek)—Forms allow for interactivity.

Main page prints as one page (King)—It is important not to have viewers scroll down too many pages because they will get tired of scrolling and stop. It is best to have the information fit on one screen if possible.

Counter (Clyde)—The school library media specialist needs to keep up with how many times his/her site has been visited to see if it is appealing and actually being used. If possible it would be best to separate internal from external hits by using Java.