

CHILDREN'S LIBRARIANS' PERCEPTIONS OF COMPUTERS IN THE
CHILDREN'S SECTION OF THE PUBLIC LIBRARY

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This research study examines children's librarians' perceptions of computers in the children's section of the public library. Combining a case study approach with personal interviews, it considers four North Carolina public children's librarians' impressions of the following: quality of computers and computer software; staff knowledge of and involvement with computers; procedures for computer use; patron use of computers; and children's librarians' attitudes and responses toward computers in the children's section of the public library. Based on their answers to interview questions, this study attempts to capture children's librarians' unique insights into the way computer services are implemented, utilized, and promoted. Finally, it offers a glimpse into current practices surrounding computers in the children's section of the public library, revealing both strengths and weaknesses, as well as illuminating tensions within the field of children's librarianship.

Headings

Computers and children

Children's libraries – North Carolina

Public libraries – North Carolina

Table of Contents

Introduction.....	4
Literature Review.....	5
Methodology.....	12
Summary of Results.....	14
Analysis and Discussion.....	29
Conclusion.....	37
Future Research.....	41
Bibliography.....	44
Appendix A.....	46
Appendix B.....	47
Appendix C.....	48

Introduction

In *The Historical Society of Cotuit*, Sheila Bourbeau writes: “A library is books and somewhere to put them and some people to want them there” (Griliches 69). Yet increasingly, this simple definition doesn’t apply to the modern public library. More often, today’s public libraries are bustling community centers, offering not only books, but also computers with online catalogs, databases, various software, and internet access. Indeed, computer use in the public library is becoming more prominent and pervasive. Moreover, technological services are available to a wider audience of adults and children than ever before. In particular, computers with educational or recreational software and internet access are especially popular in the children’s section of the public library.

Given this recent shift toward computer use in the children’s section, it is essential that library and information science professionals examine the way in which these services are implemented, utilized, and promoted. Children’s librarians are in a unique position to provide observations and suggestions regarding the role of computers in the children’s section of the public library. In addition, they are more likely to be able to identify trends in computer use. Collecting their impressions signifies an important step toward offering better computer services to children in the public library.

Through personal interviews, this research project considers children’s librarians’ perceptions of the following: quality of computers and computer software; staff knowledge of and involvement with computers; procedures for computer use; patron

use of computers; and children's librarians' attitudes and responses to computer use in the children's section of the public library. Ultimately, this study's findings have the potential to benefit both children's librarians and their young patrons by highlighting ways computer services are successful and ways in which they require improvement.

Literature Review

Little scholarly literature on children's librarians' impressions of computer use in the children's section of the public library exists. Simple searches for "computers and children" or "computers and public library" usually lead to discourse on internet safety. Several sources offer age-appropriate software recommendations and guidelines for using the internet safely and effectively. Others, such as Charles Hohmann's *Young Children & Computers*, are geared toward encouraging computer use among young children, with little attention to whether or not such interactions are appropriate. In addition, a small body of literature studying children and specific computer applications is available. For example, Paul Solomon's "Children's Information Retrieval Behavior: A Case Analysis of an OPAC" explores how children approach online public access catalogs in the school media center. Also, there are many positive and negative anecdotal accounts by public and school librarians regarding computer use by children. Further, instructive literature about children's services at the public library often addresses the role of computers in the children's section. Finally, a large amount of material exists that stresses the potentially beneficial, or conversely detrimental, effects of computer use on children.

Anecdotal Literature

Several articles documenting librarians' positive attitudes toward computers are available. In "Young Children and Computers: Crossroads and Directions from Research," Douglas H. Clements, Bonnie K. Nastasi, and Sudha Swaminathan highlight research supporting children's interactions with educational computer programs. In "Treasure Island on the WWW," Sarah Ormes contends that libraries must develop services that support "electronic literacy skills" (Ormes 125). In "The Medium Is Not the Message," former public librarian, Walter Minkel, speaks to children's librarians' aversion to technology: "If you're a librarian working with young people, you probably do so because you love books and kids, and want to bring them together ... watching the kids diving for the machines is a little discomfiting" (Minkel 49). He reminds librarians, however, that they "should be teaching and directing students to seek out and evaluate the best content—fiction and nonfiction—in every format, whether it's an online database, an e-book, an audiotape, or a hardcover novel" (49). Ultimately, his message is one of optimism and encouragement for the future of computers in the library. Finally, in an editorial piece in *The Unabashed Librarian*, Frank Romano laments the decline of the printed word in favor of the computer screen: "Now we are at another generation, of technology and human consciousness. Our kids have grown up in a more literal world where the image is the thing and the word is less important" (Romano 25). Still, he argues that "computers and libraries are not enemies," but instead have the potential to benefit one another (25). Perhaps it is this notion of synergy or middle ground that is most promising for librarians, and in turn, the patrons they serve.

Some articles are more critical of new technology for children. In another essay by Walter Minkel, "Not So Elementary," he asserts that much of the internet's content is unsuitable for young children. He suggests "... there aren't many folks who possess both a fundamental knowledge of children's developmental stages and the skills to build an effective website" (Minkel 41). In "Technology in School Libraries," Nancy Melin Nelson underscores the widening gap between rich and poor children's exposure to computers in New York state schools. In his article "All That Glitters," educator Doug Johnson reflects on the direction in which technology is heading, asking: "Is technology being used as a baby-sitter or in place of more effective human-directed activities?" and "Is the amount of time children spend with computers relatively small compared to that spent working with physical materials and other human beings?" (Johnson 39). The issues and questions these authors raise are particularly relevant to today's children's librarians and the children they serve.

Instructive Literature

In *Public Library Youth Services: A Public Policy Approach*, Holly G. Willett discusses ways computers can be used in the children's section of the public library. She urges children's services to provide software that promotes reading readiness, word processing programs, OPACs, databases, and educational CD-ROMs (Willett 11). She notes that computer games often dominate the children's section of the public library, but suggests that children's interactions with computers at the public library are bound to be recreational in nature. Further, she argues that "recreation is a legitimate part of the public library mission, [so] librarians need not be concerned to present only purely

educational gameware” (52). Moreover, she stresses that “a few studies have found that children learn more factual information from games than from textbooks” (51). Finally, Willett contends that as a public institution, the public library has both an obligation and a responsibility to provide access to computers: “... there is an opportunity for public libraries to redress an inequality by working to make microcomputers, software, and Internet access available for young people in libraries everywhere” (226).

Similarly, in *Managing Children’s Services in the Public Library*, Adele M. Fasick reflects on the role children’s librarians play in the implementation of computers in the children’s section of the public library. For instance, she underscores the importance of staff training when introducing new computer services. She asserts that an “enthusiastic introduction” fosters a positive attitude toward technology (Fasick 57). In addition, she discusses organization of the physical space of the children’s section to accommodate the inclusion of computers successfully: “Sufficient space for CD-ROM towers, Internet access, and online searching should be allowed for both current and planned technologies ... It is almost always less expensive to plan for these innovations during new building construction or renovations than to install them later” (141). Lastly, she emphasizes the importance of promoting computer services in the children’s section: “Because the children’s department is an important and highly visible part of library service, children’s librarians should make an effort to publicize the department’s services” (151).

Literature on the Effects of Computer Use

Children and Computer Technology is a useful collection of essays about the effects of computers on children. In fact, *Children and Computer Technology* is just one issue from a publication entitled *The Future of Children*, which attempts to distribute timely information on major issues related to children's well-being. Essays address topics like children's access to computers, the future of electronic media culture, and how computer use affects child development. In particular, the essay "Children and Computer Technology: Analysis and Recommendations," offers helpful suggestions for fostering positive computer use among children. First, the authors recommend that adults teach children to make good choices about the time they spend with computers. Second, they encourage the use of computer technology that allows children "to create, to design, to invent, and to collaborate with children in other classrooms and communities." Third, they insist on equal computer access among both rich and poor children. Finally, they suggest conducting further research to "identify the technology-supported practices that show the most promise for enhancing learning" (Behrman 23-24). These recommendations are especially applicable to the children's section of the public library.

In addition, *Children and Technology* includes a brief, but interesting article about what children think of computers. This essay deserves mention, not only because it is unusual to see children quoted in academic research, but also because it is useful to keep in mind children's thoughts and opinions regarding computers. For example, a table showing what children like about computers reveals that they most enjoy playing games and surfing the internet. In contrast, a table showing what children don't like about computers reveals that, not unlike adults, they dislike when computers won't work or

freeze. Similarly, they dislike having to use passwords, “getting stuck” in certain websites, and not being able to find the information they’re looking for online (188-189).

Editors Sandra L. Calvert, Amy B. Jordan, and Rodney R. Cocking’s *Children in the Digital Age: Influences of Electronic Media on Development* includes essays on the relationship between child development and computer use. Essays address a variety of topics, such as media use patterns, behavioral and cognitive effects of media, and family and consumer media models. While focusing primarily on young adults and the internet, this collection offers a glimpse into today’s world of computing among young people. Interestingly, in “The Impact of Computer Use on Development,” Kaveri Subrahmanyam, Patricia M. Greenfield, Robert Kraut, and Elisheva Gross suggest that while “playing specific computer games has immediate positive effects on specific spatial, iconic, and attentional skills used by the game,” further research is needed to determine the long-term benefits of computer and internet use (Calvert, Jordan, and Cocking 26).

Many full length texts about the potentially negative effects of computer use on children’s development are also available. Among these are Jane Healy’s *Failure to Connect: How Computers Affect Our Children’s Minds—for Better and Worse*. In *Failure to Connect*, Healy discusses ways in which computers are changing children’s minds in fundamental ways. She explains when children should start using computers, how parents can guide their children’s computer use, what kinds of software applications and educational technology are best and worst for particular age groups, and how we can best prepare today’s young people for the future. In a time and place in which computers are often touted as the answer to modern education, she asserts that we must temper our

zeal for information technology with careful consideration, thoughtful implementation, and responsible use (Healy 318-319).

In *The Plug-In Drug: Television, Computers, and Family-Life*, Marie Winn considers the effects of television, video games, and computers on children's play, imagination, family life, and academic achievement. In her chapter, "Computers in the Classroom," Winn questions the benefits of educational computer use: "Yet no real evidence exists that computer use in the classroom leads to any significant gains in achievement, while evidence of a negative impact, especially in early childhood and elementary education, is beginning to trickle in" (Winn 165). Later, she argues that computers are potentially valuable to junior high, high school, and college students. Ultimately, however, she stresses the need for a balance between the "proper educational foundation" and computer technology (185).

Alison Armstrong and Charles Casement's *The Child and the Machine: How Computers Put Our Children's Education at Risk* focuses on the role of computers in the public school system. In addition, the authors briefly touch on the influence of computers in libraries. For instance, they claim that the demands of new technology detract from valuable time children's librarians once spent interacting with patrons: "Whereas in the past a librarian would question a child about her interests and reading level, and then steer her toward a good book, today's librarian usually does not have the time to do so" (Armstrong and Casement 122). Also, they suggest that children and young adults are less capable of successfully navigating their way through the library: "Today's students have greater difficulty finding their way around the public library, not only because it is more complex, but also because students receive less library instruction in school than

they did in the past” (123). Indeed, *The Child and the Machine* calls attention to several important computer-related issues that are relevant to both schools and libraries today.

Methodology

This research project employed a flexible, rather than a fixed design. More specifically, it comprised a set of individual case studies. In *Real World Research*, Colin Robson defines the case study approach as a “strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson 178). Further, this study focused on a “small number of individuals with some features in common” (181). These common features included: location (North Carolina’s Triangle area); workplace (the children’s section of a public library); and job description (children’s librarian). Because multiple libraries and librarians were represented in this study, the results are more reliable and more generally applicable. Moreover, this approach provided multi-layered, qualitative, and empirical evidence.

Personal interviews constituted this study’s research method. In his chapter on interviews, Robson explains that personal interviews offer a “flexible and adaptable way of finding things out,” providing potentially rich and illuminating material (272-273). Further, he suggests that personal interviews promise several advantages, including “modifying one’s line of enquiry” and “following up interesting responses and investigating underlying motives in a way that postal and other self-administered questionnaires cannot” (273). This study is based on personal interviews, each lasting approximately a half an hour in length, with four children’s librarians from North

Carolina public libraries. In addition, physical observations provided a visual dimension to this study.

The process for initiating this research project involved several steps: first, after submitting a proposal, UNC's Institutional Review Board granted permission to conduct a study involving human participants; second, four children's librarians at North Carolina public libraries were invited to participate in the study; and finally, research participants were asked to sign informed consent forms at the time of their scheduled interviews. (Appendix B includes the Interview and Observation Consent Form.) Three out of four sessions were taped with a handheld recorder to ensure precision and completeness. Interviews consisted of both closed and open-ended questions related to five broad headings: computers, staff, procedures, patrons, and attitudes and responses. (Appendix C includes these Interview Questions.)

This study produced a combination of quantitative and qualitative data. A small portion of this data, such as the number of computers available in the children's section, was quantitative in nature. (Appendix A shows the results of quantitative interview questions.) The majority of data collected, however, was qualitative. Since the purpose of this research project was to gather a sample of children's librarians' perceptions of computers in the children's section of the public library, the qualitative results of this study were emphasized. An interpretive and flexible editing approach, rather than a quasi-statistical, template, or immersion approach, was utilized for analysis (458). Informal coding was applied to the results of the personal interviews, highlighting "similar phrases, patterns, themes, relationships, sequences, differences between sub-groups, etc." (459). Finally, the emergence of these relationships was used to describe

trends in children's librarians' perceptions of computers in the children's section of the public library, as well as to identify strengths and weaknesses in practice.

Summary of Results

Library A

Library A offers two non-OPAC computers specifically designated for children. While posted signs stipulate that these computers are intended for users between the ages of two and fourteen, other patrons are allowed to use them as well. At one time, these computers were located at the entrance to the children's section, making them immediately visible to incoming patrons. Now, the computers are still within view of the children's information desk, but they occupy a less central part of the children's section. As Children's Librarian A explains: "... the problem we were having with our old location was that it was so prominent, that as soon as kids entered the children's section, they'd be drawn, like a television, to the computers, and they often would have to be pulled away." Indeed, because the computers are so popular, the library is planning to add at least two more to the children's section in the near future. Moreover, although the current computers are perhaps only two or three years old, both will be replaced in the next year in accordance with the town's computer replacement policy. Further, as gifts of the Gates Foundation, Library A's computers came with a variety of software, including Microsoft's Office package, Encarta Encyclopedia (Africana and Streets and Trips), three Arthur games, three Barney games, three Magic Schoolbus games, Living Tales, Success Builder Algebra and Geometry, Experiment Science, and Big Science Ideas. Most of the games range in age appropriateness from two to ten years old, while the more educational

software is appropriate for young adults. Currently, Library A's children's section does not have a budget for computers since both computers were gifts.

Library A's children's section is staffed by three full-time and two part-time librarians. While acknowledging that "you could use one person just to do the computer cue," Children's Librarian A stresses that she would like more staff for activities unrelated to computer use, such as community outreach. She describes monitoring computer use as a "pretty constant" staff responsibility, but "not excessive." She mentions one instance in which this task becomes problematic: "The only time it's troublesome is when you get a lot of people coming in, and you have a whole lot of people on the wait list, and people are up and down, and you're trying to find the person who's next."

Library A uses a manual sign-in procedure and limits patrons to thirty minutes on the computer at a time. Children's Librarian A explains: "We have a list, a purple sheet at the desk ... where patrons are supposed to, if it's their first time, read the guidelines for use, and then sign in with the adult name, if the child is nine or younger, the child's name, age, and the time they're starting to use the computer, and which computer they're on." If other patrons are already using the computers, this sign-in sheet acts as a wait list. When a computer becomes available, staff in the children's section call on patrons who are waiting. For this reason, most of the interactions Library A's children's staff have with the computers consist of "keeping an eye on the clock and showing people where to sign in." Children's Librarian A describes the procedure for using computers as relatively problem-free, although there are "complications sometimes." Usually, these complications arise when a patron does not sign in, but expects to be able to use a

computer when it becomes available. For this reason, Children's Librarian A would like an automated sign-in procedure installed eventually, mentioning a company called Library Guardian that offers software with a timing component. While noting that this type of procedure requires patrons to have their library cards with them to access the computers, she suggests that this system would be advantageous overall. In the meantime, she comments: "For the most part, our procedure works pretty well, and we haven't been able to think of how we might improve on it."

Library A does not have a strict age requirement for computer use, although they suggest that children be at least two years old. Children's Librarian A feels that this recommendation is appropriate, if only because children under two do not have the manual dexterity to use a mouse successfully. Still, she points out that "some two year olds really will just sit and listen to the whole *Stellaluna* story [a read-along story program] ... And other [children] just want to bang on the keyboards!" Children who are nine years old and younger are required to be with an adult in the library building, so they are also required to be supervised by an adult on the computer. Children's Librarian A agrees with this policy, too, noting that the children's section has had a problem with parents leaving their children at the computers unattended. In terms of written policy regarding computer use, Library A has a safe child policy, guidelines for using the computers, rules of conduct, and an internet use policy. Children's Librarian A designed the safe child policy to apply to the computers in the children's section specifically, "covering all your basic safeguards," which was approved by her library director. This policy is posted beside the sign-in sheet at the children's information desk, as well as beside the computers.

Computer use in the children's section at Library A is constant. Children's Librarian A estimates that many children would stay on the computers longer than their allotted thirty minutes if possible. When asked if she would prefer to see her young patrons spending their time in other ways, like reading books and attending programs, Children's Librarian A says she feels "pretty good" about the level of computer use. She explains that her library supports a strong base of readers: "I think a lot of people who are coming, that are using the computers, are also big readers ... we're real lucky to have readers." In addition, she suggests that many patrons who would not ordinarily visit the library are drawn in by the computers. She describes a scenario in which a nanny told her: "I used to try to bring the kids, and they never really wanted to come here, but now that you have the computers, it gets them excited to come and visit the computers, and then once I have them here, we can also grab some books." She hypothesizes that computers may be related to the children's section's dramatic rise in circulation statistics. She thinks that the Barney and Arthur games are the most popular applications because even the youngest children are able to play them. She feels that almost all the games and read along stories are both age appropriate and appealing to children. On the other hand, she criticizes the Magic Schoolbus programs, which attract younger children, but are intended for six to eleven year olds. She estimates that three to five year olds spend the most time on the computers. Although she does not have a preference for which age group uses the computers most or least, she wishes that the educational software, such as the Encarta Africana, were available more often: "I'd like to see the more educational products, which are really great, being used more, and they would be helpful to upper elementary, middle school students, but I think that most of the time [when] the

elementary and middle school students walk by, they see Arthur and Barney there, [and] they assume that's all there is."

Children's Librarian A lists several reasons for having computers in the children's section. First, she suggests that the public library has an obligation to provide access to computers to patrons who don't have them at home. Second, she argues that the computers act as a gateway, drawing in patrons that might not visit the library otherwise, in effect, increasing "use of the library by having different resources." Third, she asserts that computers are a "really great service [the library] can provide." For example, she mentions being able to offer free word processing for children to complete homework assignments, rather than having to refer them to a for-profit business, like Kinko's. When asked what she considers to be the mission and goals of children's services, she explains: "I think it's to get kids excited about reading ... and [to] get kids excited about learning." She feels that the inclusion of computers in the children's section is in keeping with these mission and goals. While pointing out that there are some patrons who disapprove of "technology in general or things changing in general," she feels that it is useful to have computers in the children's section at Library A. Indeed, her impressions of computers are positive: "On the whole, I think that most people are happy that we have [computers], and making your public happy and satisfied with the services you offer is obviously what's going to keep you in business."

Library B

Library B offers six non-OPAC computers specifically for children in the children's section. Like Library A, these computers are intended primarily for children's

use, but they are also available to adults. Located immediately adjacent to the children's information desk, four of the six computers are internet access only, while the other two are for word processing. A printer is also available for patron use. When asked if the children's section would benefit from a greater number of computers, Children's Librarian B asserts that they are able to meet their patrons' needs successfully with their six current computers: "We have the ability to see how many reservations we might have for people waiting [for a computer], and we don't have a waiting line." While it does not offer any educational software, Library B does subscribe to several online sources, such as Gale Source's Biography Resource Center and World Geography Online, that arrive via the internet. Children's Librarian B notes that while children would probably enjoy "wilder video games," the amount of software the library offers meets the standards specified in the library's mission statement. Finally, Library B's children's section does not have a budget of its own for computer technology, but rather is encompassed by the library's Computer Operations budget.

Two full-time librarians, one part-time librarian, one full-time library assistant, two part-time library assistants, and several floaters staff Library B's children's section. Children's Librarian B explains: "To meet the daily needs of [the patrons that] come through the door, we do our best to balance, so we do OK," but implies that she would like more staff. She estimates that the children's staff spends about ten percent or less of its work day "giving directions" about the computers. She notes, however, that before the implementation of their current automated sign-in procedure, they were devoting a much higher percentage of their time to this activity: "... we were spending probably a third of our time everyday monitoring computer use, because we signed everybody up at

the desk, and we also were trying to place limitations on how long they could use the computers, so we were spending a lot more time paying attention to it, and now we don't."

At Library B, the procedure for using computers in the children's section is the same as the procedure used in the adults' section. Children's Librarian B explains: "We require our users to bring a library card, and to use that library card to sign themselves up at an available computer ... If all the stations are busy, then they come to a library staff member who can make a reservation for them, and they will get the next available opening." Although young patrons sometimes forget their library cards, Children's Librarian B claims that this system "works very well." She reflects that at one time, the staff in the children's section acted as a "reservation station," signing children up manually for time on the computer. Now, they find that having children sign themselves up requires certain skills that act as "kind of a test" of appropriateness. In effect, the automated sign-in procedure helps screen out children who are physically or developmentally unready to use the computer without an adult. Further, she notes that the automated sign-in procedure frees up staff in the children's section to spend valuable one-on-one time with patrons who need assistance: "It allows us to be able to spend time with the people who can really take advantage of the expertise we have."

There is no age requirement for using the computers in the children's section at Library B. Children's Librarian B explains that at one time there were certain guidelines they required patrons to read before using the computers, specifying that "if you were a non-reader, that you have a reader with you." Children's Librarian B feels that their new policy works well. She argues that just as children are not required to be supervised in

the stacks, they should not be required to be supervised at the computer unless their behavior demonstrates that they need such supervision: "... if they show that they don't have the skills to use [the computer], then we ask that they [do it with] an adult or someone that can help." While Library B does not have a standard acceptable use policy, there is a statement on the automated sign-in page that patrons must click on or agree to before accessing the internet. This statement was developed by the county library system, and appears on all branch computers.

Children's Librarian B estimates that the average child spends thirty to sixty minutes on the computer in the children's section of Library B, while pointing out that patrons can spend up to three hours on the computers. She explains that she would like to see "more of a mix" between computer use and other library-related activities, especially reading. When asked what computer applications are most popular among her patrons, Children's Librarian B mentions several game sites, including Bonus.com and Nickelodeon.com. She does not feel comfortable evaluating "how good they are at what they are," but says that children seem to enjoy them. She thinks that six to twelve year olds spend the most time on the computer, noting that young children "think they want to [use the computer], but then they get on there, and it's not quite what they thought it was." Finally, when asked which age groups she would like to see spending the most and the least amount of time on the computer, Children's Librarian B claims to have no preference.

Children's Librarian B suggests that having computers in the children's section supports the library's mission and goals: "Our mission statement is to promote the love of reading and foster the pursuit of knowledge, and [computers are] an avenue of

knowledge.” Further, she sees the inclusion of computers in the children’s section as a positive extension of library services, not only because it is an expectation that public libraries provide computers, but also because children get excited about them. In addition to the formal interview, Children’s Librarian B shared some unique insights about computers afforded by her long-time career in the public library system. She mentions some of her past frustrations related to computer use in the children’s section. First, she describes observing staff struggling with the way children use computers. She explains that children’s librarians are trained to help children “find information to support homework or to support a hobby or a special interest,” but that children rarely use the computers for these purposes. Second, in the past, she recalls being irritated at the computers freezing up, particularly on game sites: “... [it got] to the point where you were spending much more than a third of your time shutting them down, starting them up, and you [felt like asking], ‘Why are we doing this?’ We didn’t have Scrabble, we didn’t have pinball, and now we’re spending a lot of time doing this.” Third, she touches on the issue of appropriateness, mentioning that older children sometimes use chat rooms in an unacceptable manner. She points out that although Library B uses filtering software, this mechanism “limits sites,” but not “what people can type.” Interestingly, she says that she and her staff have been very satisfied with filtering: “It’s relieved a lot of responsibility from our staff, of having to watch and watch and watch, which has been nice. And we all did not want it. We did not want filtering at all, we felt like that would be the wrong way to go, but once it came, nobody wanted to go back.”

Library C

Unlike the other libraries represented in this study, Library C does not have any non-OPAC computers in the children's section. Instead, it offers six computers for both children and adults. Four are available beside the adults' information desk, while two others (which Children's Librarian C refers to as the "NC Live" and "Gates" computers) are located inside a small private room. Children's Librarian C explains that this branch was, at one time, slated for renovations that would have expanded the physical space, thus allowing room for both a children's desk and computers in the children's section. In the mean time, however, one of the computers in the back room does include several "animated games," as well as the online Encarta Encyclopedia for children.

Library C employs only one full-time children's librarian. Children's Librarian C explains that one part-time position is informally assigned to children's services, but that "it's a little problematic because [the part-time employees] don't always come as a person that has any experience and training in children's [services], and they don't really emphasize that when they advertise, so ... I have to sort of go with the flow." She says that she would like more staff, especially for programming. When asked how much time staff spends directing children to computers and offering instruction (since there are no computers in the children's section at Library C), she explains that because they don't have "software that self-times," staff is constantly assisting patrons with the computers. She claims, however, that staff spends a "really, really small" amount of time offering more extensive help, such as helping a child with a paper.

Library C utilizes a manual sign-in procedure and limits computer use to thirty minutes. Children's Librarian C reflects that in terms of procedure, the time limit poses

the biggest challenge: "... we only have four [computers], and you know, it's becoming more and more popular. People come here first thing in the morning to use the computers." She considers the potential benefits of an automated sign-in procedure, noting that it might be less work for Library C's small staff, but suggests that "it's kind of hard [to judge] until you get there."

At Library C, children under eighteen are not allowed to use the computers without adult supervision or signed parental consent. Children's Librarian C explains that at one time the age requirement was sixteen, but they raised it because all of Library C's computers have unfiltered internet access. She mentions that the county's central branch has software that blocks certain internet sites according to age, but explains that Library C chose not to adopt this option because so many adults need full access to the internet. Library C does have an acceptable use policy, developed by the county library system, which is posted by the sign-in sheet at the adults' information desk.

To answer the series of questions about patrons, Children's Librarian C relies partly on her weekend experience at the county's central branch, where she has observed greater computer use. She argues that because the children at the county's central branch come from a lower socioeconomic level that "it's a little bit more fascinating to them, and it's a little bit harder to tell them to get off because, you know, it's kind of new and exciting." At Library C, she suggests that many patrons have computers at home. She worries that her young patrons don't find books to be as exciting as computers: "I guess my fear is that they're just so hooked into it, and it's sort of an interactive thing that they don't really get involved in the whole book thing." In spite of these concerns, however, she feels that Library C needs more computer opportunities for children. She says that

children at Library C use the computers most often for homework and to play games. She estimates that older children, from nine years old to the early teens, use the computers most often. In contrast, she thinks that eight to twelve year olds spend the most time on the computers at the county's central branch. When asked what age groups she would like to see spending the most amount of time on the computers, she says five to six year olds, because they stand to gain the most from these interactions: "... people talk about kids improving their reading skills when they're just learning to read, and you know, I've heard some good results from that, so I think that's something that could be an opportunity for them." Conversely, she feels that older children "often gravitate toward the computer when the book is right there." Also, at the county's central branch, she mentions older children printing off "music to rap songs" and "all kinds of stuff that's kind of a waste of time." She wishes that older children "could just be more inclusive in using books" and not be so quick to "discount" them.

Children's Librarian C feels that inclusion of computers in the children's section would complement the mission and goals of children's services. She tempers this response, however, by suggesting that children's use of computers should be "controlled." She argues that the children's section would require space for a children's information desk in order to provide support and supervision for computers designated solely to children. She stresses that children, like adults, should have access to computers. Further, she asserts that computers have the potential to "help with reading or help with homework," by providing "timely," as well as "obscure" information. Ultimately, she agrees that her impressions of computer use are generally positive,

emphasizing that she thinks children should “definitely have access [to computers] and more so than [they do at Library C].”

Library D

Library D offers one non-OPAC computer specifically designated for children in the children’s section. Unfortunately, this computer is at least three years old, and therefore breaks often due to hard and frequent use by young children. Children’s Librarian D notes that it would be nice to have more computers, especially since children enjoy using the computer, but feels that space and shelving are more pressing issues. In addition to the designated children’s computer, a Gates and a bilingual computer, both purchased with Smart Start money, are popular among children. In fact, Children’s Librarian D explains that most new computers come to Library D through grants, such as Gates or LSTA, because although the county has a computer replacement policy, there is currently no budget. Reading games and read along programs are most popular with children, although Children’s Librarian D stresses that the children’s section would benefit from having new and different story CD-ROMs.

At Library D, the staff hours for the children’s section are split into two jobs, so that there is one full-time librarian and one part-time librarian. Children’s Librarian D feels that she does not have enough staff to meet the demands of the children’s section. When asked how much time staff spends monitoring computer use, Children’s Librarian D says that “it’s like twenty four-seven, all day, everyday,” because patrons often run into problems when using the computers. Further, she characterizes the demands of

monitoring computer use as “labor-intensive” and “bothersome,” because she believes that patrons spend too much time on activities like email, which aren’t research-oriented.

Unlike the other libraries in this study, Library D’s procedure for computer use in the children’s section is first come, first serve, with no time limit, although there’s an informal thirty minute rule when other patrons are waiting. For the other computers with internet access, there is a manual sign-in procedure, which Children’s Librarian D describes as “staff-intensive.” Interestingly, while acknowledging that patrons are “pretty good” about following these procedures, she hints that they could be improved, but admits that staff is reluctant to confront patrons.

There is no age requirement for using the computer in the children’s section at Library D because it only offers educational CD-ROMs. Twelve year olds and younger can use the computers with internet access with a parent, while thirteen year olds and older may use them independently with signed parental consent on file. Children’s Librarian D feels that these requirements are appropriate, not only for safety reasons, but also because she thinks that children do not need to spend “all their time” on the computer. Further, she stresses that librarians are not babysitters, noting that internet use opens up a number of safety and legality issues. Library D does have an acceptable use policy. While the county and state set certain guidelines that must be followed for determining this policy, the library itself is responsible for particular details, such as age requirements. This policy is posted with support documentation at the adults’ information desk.

Children’s Librarian D describes the amount of time children spend on computers as constant. She feels that although a little time on the computers is appropriate, she

would prefer to see them reading books. Interestingly, however, she says that the most popular computer applications are reading activities, such as *Curious George Does the Alphabet* and *Mom and Me*. When asked what age group spends the most time on the computer, Children's Librarian D says that younger children tend to use the computer most often because it is the first thing they encounter when entering the library and the children's section. Moreover, she claims to have mixed feelings about this age group using the computer so often. She thinks that younger children need to be aware of computers and how to use them, since many of them do not have computers at home. Further, she acknowledges that they enjoy using the computer. On the other hand, she feels that the computer might be more appropriate for school age children, especially if it had a greater number of applications. She is particularly interested in the idea of creating a permanent room for computers, suitable for homework help and online research.

When asked to describe the purpose of computers in the children's section, Children's Librarian D answers in ideal terms, emphasizing that the computer should act as an educational and informational resource, rather than as a recreational opportunity only. She suggests that computers should enhance research and reading skills, as well as help children explore areas of interest. She feels that the computer in the children's section complements the mission and goals of children's services at Library D, which include "providing a wide range of programs and services to supplement the schools, curriculum, [and promoting] literacy, appreciation of cultural and artistic diversity, environmental awareness, creative expression, and life-long learning." Children's Librarian D admits to having mixed impressions about the use of computers in the children's section. She reiterates the need for increased staff, more space for leisure

reading, and child-friendly shelving, over OPACs and computers with internet access for the children's section.

Analysis and Discussion

Computers

The number of non-OPAC computers designated specifically for children in the children's sections of Libraries A, B, C, and D varies from zero to six. Most of these computers, however, are similar in age, ranging from two to three years old. Three out of four children's librarians felt that the children's section would benefit from having more computers, while only one expressed a need for newer computers. Children's Librarian B, with six computers in the children's section, insisted that at this time, her staff needed computers more than her patrons. All four libraries distinguish between computers intended for children versus computers intended for adults, although they do not necessarily prohibit adults from using computers in the children's section. Library C stands out for not making computers available in the children's section. This distinction, however, is the result of limited physical space, rather than a philosophical choice. Moreover, all four children's librarians mentioned space issues when discussing inclusion of computers in the children's section. In addition, they reported placing computers near the children's or adults' information desk. Likewise, they suggested that placement of computers contributed to use significantly. At Libraries A and D, where the computers are or were located at the entrance into the children's section, both children's librarians described active computer use. Indeed, they alluded to the almost magnetic effect of computers on young children in particular.

Libraries A, B, C, and D differ in the amount and variety of software available on computers in the children's section. Library A offers word processing and educational programs/games; Library B offers internet access only; Library C offers internet access primarily, as well as word processing and some educational programs/games (on adult computers); and Library D offers educational CD-ROMs only. Children's Librarians A and B suggested that children might enjoy having a greater selection of games to choose from, but neither felt that more software was necessary. Children's Librarian D wanted more CD-ROMs related to reading, but was particularly interested in developing a homework center for more research-oriented computer use. For the most part, Children's Librarians A, B, C, and D agreed that most of the software available in the children's section is age-appropriate and appealing to their audience, although each librarian gave at least one anecdotal example of inappropriate use of computers. For instance, Children's Librarian A highlighted a game about dinosaurs intended for older children, which appeals to younger children who are unable to use it successfully. Similarly, both Children's Librarians B and C noted observing older children engaged in questionable internet activities, such as using chat rooms in an inappropriate manner or printing out explicit song lyrics.

In terms of money allocation for technology, all four librarians demonstrated little knowledge concerning budgeting for computers in the children's section. Children's Librarian A suggested that she and Library A's director would decide on the amount of money she could spend on computers; Children's Librarian B explained that the children's section's budget for computers was determined by the Computer Operations department; and Children's Librarian D said that her county library system established

the amount of money designated for computers. Clearly, allocation of money for computer services varies, especially in a year of budget cuts and crises. Interestingly, children's Librarian A called attention to a unique concern for children's librarians regarding staff training and new technology. While acknowledging that Library A "could come up with some money" for staff training on computers, she suggested that most "workshops offered by the state library usually have to do with online reference questions and NC Live." Seemingly, little training exists for the computer interactions children's librarians are most likely to observe, monitor, and guide in the children's section.

Staff

The children's sections of Libraries A, B, C, and D employ a range of full-time, part-time, professionally trained, and non-professionally trained staff. Library B's children's section supports the largest staff, with two full-time librarians, two part-time librarians, one full-time library assistant, two part-time library assistants, and floaters, while Library A's children's section supports the second largest staff, with three full-time librarians and two part-time librarians. Both Libraries C and D employ only one full-time librarian and one part-time library assistant in their children's sections. While staff numbers certainly reflect the size of each library's children's section, they also affect the quality of computer services these libraries are able to offer. It is not surprising that Libraries A and B not only provide more computers, but also report high levels of computer use among their patrons. Despite variation in staff numbers, however, all four children's librarians consistently expressed a desire for more staff, especially for assistance with programming. Children's Librarian C, in particular, explained that until

Library C has a children's information desk, the inclusion of computers in the children's section will not be possible. It is noteworthy that all four children's librarians to participate in this study feel that they are understaffed to meet the demands of the children's section.

While three out of four children's librarians described monitoring computers to be a constant staff responsibility, few viewed it as an overwhelmingly demanding task. Despite feeling understaffed, when asked if they spent a disproportionate amount of time monitoring computer use (i.e. explaining policy, supervising use, helping patrons with equipment, etc.), two out of four children's librarians disagreed. In fact, most of the time staff spends monitoring computer use appears to be related to procedure. For example, Library B, which uses an automated sign-in procedure, demands a markedly smaller portion of children's staff's time. Indeed, Children's Librarian B reported spending only ten percent of her day addressing computer-related issues. This finding indicates that a combination of offering more computers, more staff, and automated sign-in reduces staff involvement in monitoring computer use dramatically.

Procedures

Libraries A, B, C, and D utilize a variety of procedures for using computers in the children's section. Both Libraries A and C use a manual sign-in procedure, in which patrons sign their names and other pertinent information to a list in order to use the computers. Library B uses an automated sign-in procedure, in which patrons enter their library card numbers to gain access to computers. Library D operates on a first come, first serve basis, allowing patrons to use the children's computer any time it is available.

Library D's internet access computers, however, involve a manual sign-in procedure. All four children's librarians report that these procedures work fairly well, with patrons following the rules properly, although Library B's procedure stands out as the most problem-free. While Children's Librarians A, C, and D must devote a significant part of their time to monitoring procedure (i.e. explaining the sign-in process, verifying information, keeping track of use, and managing patrons), Library B's children's staff's involvement with computer procedure is notably hands-off. Accordingly, Children's Librarians A, C, and D suggest that their procedures could be improved, although they also express some hesitancy about changing current practices. These findings demonstrate a need for improved procedure for computer use in the children's section, but a reluctance to depart from the status quo.

Most libraries require patrons to be a certain age to use computers independently. Library A insists that children nine years old and younger be supervised by an adult while using the computer. Because Library B's computers are filtered, children of any age may use the computers independently. Library C requires patrons to be eighteen years old or older, or have signed parental consent, to use their internet access computers without supervision. Library D allows children of all ages to use the computer located in the children's section, since this computer is not connected to the internet, but uses educational CD-ROMs only. They require children to be twelve years old or older, or have signed parental consent, to use their internet access computers independently. Children's Librarians A, B, C, and D unanimously support these age requirements for a variety of reasons. For example, Children's Librarian D speaks to both safety and legality issues related to the internet, noting that there is a lot of information on the

internet that children “don’t need to get into.” Similarly, Children’s Librarian A points out that younger children often do not have the manual dexterity or the maturity to operate computers without adult help. All four children’s librarians demonstrate both a keen sensitivity and a vigilant awareness about children’s safe and acceptable use of computers.

In turn, Libraries A, B, C, and D all have written policies dictating appropriate computer use. Library A’s “Rules of Conduct for Children’s Personal Computers” stipulates fifteen guidelines for using computers in the children’s section. Library B’s “Internet Use Statement” offers county and state statutes regarding internet use, and appears on both its website and its automated sign-in page. Library C posts a county “Policies and Procedures: Computer Use Policy” sheet, which includes specific information about computer use by children. Library D requires parents with children twelve years old and under to read and sign its “Internet Use Guidelines.” All of these policies are determined by library, county, and state authorities, and posted with computers and at sign-in stations. Indeed, it is evident that all four libraries take child protection and responsible computer use seriously.

Patrons

Children’s librarians A, B, C, and D estimate that children spend different amounts of time on the computer, ranging from thirty minutes to several hours. At Libraries A and C, however, computer use is limited to a certain length of time. For instance, at Library A, children may only stay on the computer for thirty minutes, unless no one else is waiting for a turn. According to all four children’s librarians, educational

and recreational games are by far the most popular applications. Even on Library B's internet access computers, Children's Librarian B reports that children most frequently visit online game sites. At both Libraries A and D, reading games/programs are especially well-liked by children. Three out of four children's librarians say that they would prefer to see their patrons spending their time engaged in activities other than using computers, such as reading books, doing research, and attending programs. In particular, Children's Librarians B, C, and D mention that they would like their patrons to show more interest in books and reading, or at least demonstrate an equal balance between time spent with computers and time spent with books. Interestingly, Children's Librarian A describes her young patrons as "big readers," so perhaps it is not surprising that she is unconcerned by the amount of time they spend on the computers.

Children's Librarians A, B, C, and D observe different age groups using the computers most often. Children's Librarians A and D report that three to five year olds are their most enthusiastic computer users; Children's Librarian B reports that six to twelve year olds are her most enthusiastic computer users; and Children's Librarian C reports that children nine years old to the early teens are her most enthusiastic computer users. Children's Librarian A speculates that preschoolers may appear to use the computer most often simply because they patronize the library most frequently. Similarly, Children's Librarian B has the impression that six to twelve year olds show more persistence on the computers than three to five year olds. It is interesting to note that computers are most popular among young children in the libraries with educational games/programs and CD-ROMs, whereas they are most popular among older children in the libraries with internet access. Although this distinction may be related to age

requirements regarding internet use, it is possible that games are more appealing to younger children, while the internet is more appealing to older children. In addition, Children's Librarians A and B both claim not to have any preference for which age groups use the computers. Children's Librarian C feels that younger children should spend more time with educational, reading-related games/programs, while older children should spend less time on the computers in general. Children's Librarian D, on the other hand, believes that young children should have access to and experience with computers, but wishes that their interactions did not revolve around play alone. Overall, Children's Librarians A, B, C, and D feel mixed about which age groups should be spending the most and least amount of time on computers in the children's section.

Attitudes and Responses

When asked what they consider to be the purpose of having computers in the children's section, Children's Librarians A, B, C, and D offer a variety of thoughtful and compelling responses. These purposes include providing access to children who do not have computers at home; attracting patrons to the library; offering resources in a variety of formats; promoting a love of reading and fostering the pursuit of knowledge; supplying timely and sometimes obscure information; enhancing research and reading skills; and helping children explore their areas of interest. Interestingly, none of the children's librarians repeated the same potential reason for offering computer services in the children's section. This array of responses not only indicates the different ways children's librarians perceive computers, but also demonstrates the plethora of opportunities that computers can afford in the children's section of the public library.

Further, while three out of four children's librarians express some ambivalence about the fulfillment of these potential purposes, most appear to feel that computers are a positive addition to the children's section. Similarly, all four children's librarians believe that computers complement the mission and goals of children's services, which most often included inspiring children's excitement about reading and learning. Finally, when Children's Librarians A, B, C, and D were asked to characterize their overall impressions of computer use in the children's section as positive or negative, three out of four claimed to feel positively. Children's Librarian D's impressions were mixed based on her opinion that computers should be used primarily for educational, rather than recreational purposes. She acknowledged, however, the potential benefits of inclusion of computers in the children's section. Children's librarians' positive impressions act as a promising predictor of the future of computer services in the children's section of the public library. Indeed, these results reflect children's librarians' commitment to providing exemplary computer services to their patrons.

Conclusion

This study addresses many of the issues discussed in current literature about children and computers. First, it offers further anecdotal evidence of children's librarians' perceptions of computers. In particular, it shows that children's librarians are demonstrating increased comfort and enthusiasm for computers. Although Children's Librarians A, B, C, and D observed some problems related to computer use, they are working to remedy these challenges. Further, they showed attention to the developmental needs and abilities of young children by implementing age and adult supervision

requirements, as well as by creating thoughtful policies dictating computer use. Moreover, quality computers and software appeal to their patrons' educational and recreational needs. In addition, all four children's librarians underscored the importance of providing computer access to children who do not have computers at home. Such actions affirm the suggestions of children's services experts. They speak to the concerns of authors who worry about the potentially negative effects of computer use on young children. Children's Librarians A, B, C, and D exhibited careful consideration, sensitivity, and responsibility to children regarding computer services in the children's sections of their libraries.

Specifically, the results of this study yield patterns and similarities that reveal the strengths and weaknesses of current practices in the children's section of the public library. Strengths include: availability of quality computers and software in the children's section; children's staff's level of interaction with computers; improved sign-in procedures for using computers (i.e. automated sign-in); clear and prominent policies guiding computer use; appropriate age requirements for computer use; and children's librarians' positive attitudes toward the inclusion of computers in the children's section. Weaknesses include: children's librarians' involvement in budgeting for computers; lack of staff; outmoded sign-in procedures for computer use (i.e. manual sign-in); inappropriate use of computers by children; and children's diminished interest in books and reading.

Thus, this research offers several implications for future practice in the children's section of the public library. First, it is apparent that many libraries must address larger concerns, such as providing adequate space, child-appropriate shelving, and a children's

information desk, before incorporating computers into their children's sections. For those libraries that already include computer services in their children's sections, most require both more and newer computers to meet the demands of their patrons. Second, children's staff need better training on how to provide excellent computer services. Computer training should focus on applications that children's librarians will encounter on the computers in the children's section, thus engendering confidence and enthusiasm. Third, children's librarians should have the opportunity to participate in developing a budget for computer services. Further, they should be involved in shaping all aspects of library policy that affect the children's section. Fourth, children's services in most public libraries require more staff. Increased staff would benefit all parts of the children's section, including reference, reader's advisory, programming, and outreach, in addition to computer services. Fifth, procedures for computer use should be improved. Automated sign-in procedures appear to be most effective and efficient. Sixth, children and young adults require guidance when using the computers in the children's section of the public library. While most libraries insist that young children be supervised by an adult, it would be helpful for older children to be reminded of what constitutes appropriate computer use. Lastly, the children's section of the public library must attempt to strike a compromise between computer services and other more traditional services, such as the promotion of recreational reading.

The results of this study also reveal a number of tensions regarding computers in the children's section of the public library. For instance, three out of four children's librarians claimed to need more computers. Yet based on current evidence, having more computers would result in the need for greater staff involvement monitoring their use,

when children's librarians already report being understaffed. Moreover, several children's librarians expressed ambivalence about children's current interactions with computers. Perhaps it is necessary for children's librarians to address these concerns before introducing not only more computers, but also a greater variety of software or internet access. At this crucial stage of growth and development, it is particularly important that children's librarians define children's services' role in offering computers. Implementing good procedures for computer use represents another step toward ensuring children's staff's increased satisfaction with computers. Also, while all four children's librarians felt that having computers in the children's section complements the mission and goals of children's services, most were anxious to see a better balance between computer use and reading. In addition, they noted that games are by far the most popular computer activity in the children's section. It is unlikely that when children's librarians speak of promoting access and providing service, that they are referring to computer game use. For this reason, children's services must attempt to reconcile their conflicting attitudes toward informational, educational, and recreational computer use. In many ways, the tensions children's librarians face in introducing computers to the children's section reflect larger issues for children's services as a whole. Some of these issues include appropriate adult supervision of children, the children's section's role as a place of education or recreation, and children's librarians' commitment to promoting reading.

This study's findings also demonstrate the symbiotic relationship between computers, children's staff, procedures for computer use, patrons, and, in turn, children's staff's attitudes and responses to computers. To be sure, placing computers in the children's section of the public library necessarily demands the time and consideration of

children's librarians. Next, procedure functions as the vehicle for negotiating the level of interaction between computers and children's librarians in making this service accessible to children. Further, children's use of the computers demands the attention of children's staff. Thus, children's librarians involvement with patrons, procedures, and computers shape their overall attitudes and responses to computers in the children's section.

Indeed, children's librarians represent the frontline of children's services at the public library. For this reason, their perceptions of computers are of considerable significance. Children's librarians have enormous influence over the way in which computers are implemented, utilized, and promoted. Because they act as a filter between the needs of children and the services the library provides, they are in an excellent position to gauge the degree to which computer use among their young patrons is successful, as well as to suggest ways in which it could be improved. Although computer use in the children's section of the public library is on the rise, insufficient literature exists to document this phenomenon. By consulting children's librarians in North Carolina public libraries, this study not only reflects children's librarians' perceptions of computers, but also offers a portrait of computer services in the children's section of the public library today. In turn, these findings have the potential to shape future practices and to illuminate noteworthy tensions in the field of children's librarianship.

Future Research

As with any research based on case studies, the results of this study reflect only a small sample of the target population of children's librarians in the public libraries of North Carolina. For this reason, interviewing a greater number of children's librarians

would ensure more reliable and conclusive data. Further, a national, rather than a regional, study might reveal significant trends in children's librarians' perceptions of computers. Current literature indicates a growing disparity in computer access between more affluent public libraries and their less fortunate counterparts, which could in turn affect children's librarians' attitudes and responses toward new technology. Also, employing a different research method, such as conducting telephone or mail surveys, would make it possible to reach a greater number of research participants, although results would surely provide less detail.

Another study might involve children more directly, through observation, interviews, or surveys. In some ways, by removing the children's librarian or intermediary from the equation, this kind of research would address issues, such as appropriateness, more explicitly. Another study might compare computer use in the children's section of the public library with the school media center. Lastly, an additional approach to this area of research would address computer services geared toward adults. Such a study might utilize the insights of reference and reader's advisory librarians in the adult section of the public library.

In addition, each category of research in this study (i.e. computers, staff, procedures, patrons, and attitudes and responses) could be its own focus in a future study. For instance, procedures for computer use in the children's section of the public library alone, offer many potential avenues of exploration. Research projects related to this topic could include a study of the effectiveness of manual versus automated sign-in or the examination of various acceptable use policies. Similarly, research geared even more exclusively toward gathering children's librarians' perceptions of computers could prove

useful to the field of children's librarianship. Attention to specific aspects of children's computer use, such as OPAC use, internet use, or educational game use might demonstrate whether the children's section is meeting the needs of its young patrons successfully.

Finally, conducting follow-up interviews with this study's research participants could be valuable. It would be interesting to chart levels of computer use over time, changing staff responsibilities with regard to computers in the children's section, revised procedures and policies related to computers, patterns of patron use, and ultimately, children's librarian's changing perceptions of computers. Also, it would be useful to gather more information about the children's librarians included in this study. Experience, level of training, and professional background could be related to their perceptions of computers. For example, it is telling that the most recently graduated children's librarian involved in this study is also the most excited about computers in the children's section of the public library. Perhaps this distinction indicates that comfort with and enthusiasm for computers is, in part, related to age and experience with them. It is clear that the implementation, utilization, and promotion of computer services in the children's section of the public library is in a state of flux. As these services become a more integrated part of the public library, it is especially important that library and information science professionals document and respond to this phenomenon. Children's librarians should play a primary role in this process.

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Appendix A: Summary of Quantitative Interview Questions

QUESTIONS		Library A	Library B	Library C	Library D
COMPUTERS	How many non-OPAC designated computers are available in the children's section?	2	6	0	1
	Are they specifically designated for children's use only?	Yes	Yes	No	Yes
	Do you feel that the children's section would benefit from having more computers?	Yes	No	Yes	Yes
	How old are the computers in the children's section?	2-3 years	2-3 years	N/A	3 years
	Do you feel that the children's section would benefit from having newer computers?	No	No	N/A	Yes
	What kind of software is available on non-OPAC computers?	Large selection	Small selection	Small selection	Small selection
	Do you feel that the software available is both age-appropriate and appealing to your patrons?	Yes and no	Yes and no	N/A	Yes
	Do you feel that the children's section would benefit from having a greater variety of software?	No	No	N/A	Yes
	Do you feel that the location of the computers promotes use?	Yes	Yes	N/A	Yes
	Approximately how much money is allocated for computers in the children's section?	N/A	N/A	N/A	N/A
	Who determines how much money is spent on computers?	Director and Children's Services staff	Computer Operations	N/A	County library system
	Do you feel that the children's section receives enough money for computers, computer software, and staff training?	Yes	N/A	N/A	No
STAFF	How many full-time and part-time librarians staff the children's section in the library?	3FT, 2PT	2FT, 2PT, 1FTA, 2PTA	1FT, 1PT	1FT, 1PT
	Do you feel that you have enough staff to meet the demands of the children's section?	No	No	No	No
	Approximately how much time do you think staff spends monitoring computer use?	Constant	10% of day	Constant	Constant
	Do you think that the staff spends a disproportionate amount of time monitoring computer use?	N/A	No	No	Yes
PROCEDURES	What is the procedure for using computers in the children's section?	Manual sign-in	Automated sign-in	Manual sign-in	First come, first serve
	Do your patrons follow this procedure?	Yes and no	Yes	Yes and no	Yes
	Are there ways that you feel this procedure could be improved?	Yes	No	Yes	Yes and no
	Is there an age requirement for computer use?	2-14 years	No	18 years	12 years
	Do you feel that this requirement is appropriate?	Yes	Yes	Yes	Yes
	Are younger children required to be supervised by an adult while using the computers in the children's section?	Yes	No	Yes	Yes
	If so, do you feel that this requirement is appropriate?	Yes	Yes	Yes	Yes
	Does your library have an acceptable use policy (for adults and for children)?	Yes	Yes	Yes	Yes
	If so, who determines this policy?	Children's Services staff	County library system	County library system	Library staff
Is this information posted with support documentation?	Yes	Yes	Yes	Yes	
PATRONS	Approximately how much time do children spend on the computers?	30 minutes at a time	30-60 minutes at a time	Several hours	Constant
	Would you prefer to see them spending their time in other ways (i.e. reading books, attending programs, etc.)?	No	Yes	Yes	Yes
	What kinds of applications are most popular?	Games	Game websites	Games and Encarta	Games
	What age group do you think spends the most time on the computers?	3-5 year olds	6-12 year olds	9-14 year olds	3-5 year olds
	Who would you like to see spending the most/least time on the computers?	No preference	No preference	5-6 year olds/Older kids	Mixed feelings

Appendix B: Interview and Observation Consent Form

The purpose of this study is to gather a sample of children's librarians' perceptions of computer use in the children's section of the public library. Your participation will consist of one interview, approximately a half an hour to an hour in length. During the interview, I'll ask you questions related to five broad headings: computers, staff, procedures, patrons, and attitudes and opinions. If you agree, I will tape our interview and take notes. I plan to interview four children's librarians for this study. In addition, I intend to briefly observe and photograph each of the four children's sections I visit in order to determine how computer services are offered, utilized, and promoted. However, I will make sure that children are not present in any of the photographs I take.

My faculty advisor, Dr. Brian Sturm, and I are the only people who will have access to data associated with your name and library. I will not refer to you or your library by name in the final report of my research findings. All the data that you provide will be kept confidential.

I do not anticipate your experiencing any personal risk or discomfort from being in this study. You may choose not to answer certain questions while still participating in the study. Furthermore, you are free to withdraw from the study at any time without penalty.

You may contact me, Susie Heimbach, at (919) 968-4819 or heims@email.unc.edu, or my faculty advisor, Dr. Brian Sturm, at (919) 962-7622 or sturm@ils.unc.edu, at any time if you have questions or comments about this study.

In addition, you may contact the Academic Affairs Institutional Review Board at the University of North Carolina at Chapel Hill at (919) 962-7761 or aa-irb@unc.edu if you have any concerns about your rights as a participant.

Please sign and date both copies of this form to show that you agree to participate, retaining one copy for your records.

Thank you for your participation!

Participant

Date

Researcher

Date

Appendix C: Interview Questions

1. Computers
 - a. How many non-OPAC designated computers are available in the children's section? Are they specifically designated for children's use only? Do you feel that the children's section would benefit from having more computers? Why or why not?
 - b. How old are the computers in the children's section? Do you feel that the children's section would benefit from having newer computers?
 - c. What kind of software is available on non-OPAC computers? Do you feel that the software available is both age-appropriate and appealing to your patrons? Do you feel that the children's section would benefit from having a greater variety of software?
 - d. Where are the computers located in the children's section? Do you feel that their location promotes use?
 - e. Approximately how much money is allocated for computers in the children's section? Who determines how much money is spent on computers? Do you feel that the children's section receives enough money for computers, computer software, and staff training?
2. Staff
 - a. How many full-time and part-time librarians staff the children's section in the library? Do you feel that you have enough staff to meet the demands of the children's section?
 - b. Approximately how much time do you think staff spends monitoring computer use (i.e. explaining policy, supervising use, helping patrons with equipment, etc.)? Do you think that the staff spends a disproportionate amount of time monitoring computer use?
3. Procedures
 - a. What is the procedure for using computers in the children's section? Do your patrons follow this procedure? Are there ways that you feel this procedure could be improved?
 - b. Is there an age requirement for computer use? Do you feel that this requirement is appropriate? Why or why not?
 - c. Are younger children required to be supervised by an adult while using the computers in the children's section? If so, do you feel that this requirement is appropriate? Why or why not?
 - d. Does your library have an acceptable use policy (for adults and for children)? If so, who determines this policy? Is this information posted with support documentation?
4. Patrons
 - a. Approximately how much time do children spend on the computers? Would you prefer to see them spending their time in other ways (i.e. reading books, attending programs, etc.)?

- b. What kinds of applications are most popular? What do you think of these applications?
 - c. What age group do you think spends the most time on the computers? Who would you like to see spending the most/least time on the computers?
5. Attitudes and responses
- a. In your opinion, what is the purpose of having computers in the children's section?
 - b. What do you consider to be the mission and goals of children's services? Do you feel that computers complement these mission and goals?
 - c. On the whole, how do you feel about the use of computers in the children's section—are your impressions positive or negative? Why?