Open and Accessible: The Relationship between Closures and Circulation in School Library Media Centers by Gail Dickinson, Karen Gavigan, and Shana Pribesh

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A hallmark of school library media best practice is for the library media center to be open and accessible to patron use before, during, and after the school day and throughout the entire school year. Anecdotal evidence and informal discussion among school library media specialists indicate that library media facilities are sometimes used for activities unrelated to the mission of the school library media program in the school. These activities may close the library media center to regular patron use for all or part of the school day. This study surveyed school library media specialists in two states and examined the reasons that school library media centers are closed as well as the effect of the closure on circulation. Results indicate that the three most commonly reported reasons for closure of the school library media center were preparation for the end of the school year, book fairs, and standardized testing. The only predictor of school library media center closures was the poverty level of the school. No effect was found on the number of materials circulated.

A hallmark of school library service throughout the last century has been for school library media centers to be open and accessible before, during, and after the school day and throughout the entire school year. As stated in the American Association of School Librarians' *Position Statement on the Value of Library Media Programs in Education*, "In today's information age, an individual's success, even existence, depends largely on the ability to access, evaluate, and utilize information" (AASL 2007). *Information Power* (AASL/AECT 1998) notes that the focus of the school library media center is learning, and that it has to take precedence over schedules, school hours, and other logistical elements of the school library media program. In order to fully understand the structure of the library program that can best support learning, the profession needs to understand how current structure elements are affecting output measures in the library program. Circulation of materials is probably one of the most often used output elements, yet there is little research on how structural logistics such as library hours impact circulation as well as the extent to which changes in educational programs affect library hours. Recent anecdotal reports indicate that closing the library for standardized testing and other nonlibrary school functions has become a problem impacting the operation of the school library media program. This study investigates the reasons that school library media centers report being closed and the affect of occasional closure on library circulation.

Review of the Literature

The theoretical framework for this research study is drawn from concepts of equitable access to library resources and services. Wiegand has noted that libraries do three things very well: (1) they make information accessible, (2) they provide a meeting place for both social and instructional programming, and (3) they provide materials for leisure and

information reading (Wiegand 2003). As early as 1928, access to the library as a physical place was seen as vital to the success of library media centers (Wilson 1929). This emphasis has been institutionalized in seminal library documents such as *Access to Resources and Services in the School Library Media Program, an Interpretation of the Library Bill of Rights* (AASL 2005). It is articulated in national guidelines such as *Information Power* (AASL/AECT 1998). Access to school library media programs has been further outlined in studies of flexible access, the impact of access on achievement, and access to resources.

Access through Scheduling

Circulation data is the most common method of measuring library usage (Everhart 1998). Thanks to automated circulation systems, schools can easily gather data on-site; however, there have been few studies that examine the affect of access to resources on circulation. The importance of doing so, however, is reiterated by manuals for the practitioner on the evaluation of school library media programs such as Bradburn's *Output Measures for School Library Media Programs* (1999). The relationship between the numbers of days that the library is open and the effect on circulation during the school year has not been studied. Before intellectual access to information can occur, physical access must be addressed (*Impact* 2005).

In his book *Taxonomies of the School Library Media Program* (1988), Loertscher addresses the importance of access to facilities, materials, and equipment, stressing that access is a vital component of an efficient school library media center. He points out that rules of access should benefit the patron and not the organization and its workers. Listed below are two of Loertscher's ten principles of access as they relate to the issue of closure and circulation in school library media centers:

- Open hours of the library media center (LMC) respond to the needs of 99.9 percent of the patrons.
- The library media center is not closed while school is in session. Meetings, workshops, absence of the LMC staff, and LMC operations are no excuse for depriving students of access to the center.

Research in the field of school library media access issues was historically limited until Keith Curry Lance and peers first published *The Colorado Study: Impact of School Library Media Centers on Academic Achievement* (1994). Since this seminal Colorado study, the research has been replicated in fourteen other states: Alaska, Arkansas, Florida, Iowa, Illinois, Massachusetts, Missouri, Minnesota, Michigan, New Mexico, North Carolina, Oregon, Pennsylvania, and Texas. The results from these studies consistently indicate that access to school libraries improves student achievement (Lance 1994; Lance 2002a and 2002b; Lance, Wellburn, and Hamilton-Pennell 1993; Lance, Rodney, and Hamilton-Pennell 2003a and 2003b).

In several of his studies, Lance addresses access issues when referring to the correlation between longer library media center hours and higher student usage and, consequently, test scores (Lance 1994; Lance 2002a and 2002b; Lance, Wellburn, and Hamilton-Pennell 1993). For example, in the Michigan study, he found that higher numbers of weekly hours of librarian and staff resulted in a rise in seventh grade reading scores. The Michigan and New Mexico studies offer further evidence that an increase in school librarian hours results in an increase in reading achievement (Lance, Rodney, and Hamilton-Pennell 2003a and 2003b). Furthermore, in the North Carolina study, a statistically significant correlation ($p = .008$) was found between the number of school library hours open in a typical week and student achievement. Student achievement tended to increase as the number of hours that the school library was open increased. High-performing schools were open an average of 36.3 hours per week whereas low-performing schools were open an average of 28.7 hours per week—over 20 percent fewer hours (Burgin and Bracy 2003).

Although these studies have contributed significantly to advancing knowledge in the field of school library media services, there have been few if any studies that have solely examined the number of days media centers are open or closed during the academic year. There is currently a gap in the literature regarding the reasons school library media centers close as well as the impact these closings have on physical access issues.

There is also little research articulating the role that poverty plays in access issues in school library media centers. In 1990, the American Library Association created a policy statement, *Library Services for the Poor*, that's first objective is "promoting the removal of all barriers to library and information services" (ALA 2008). However, only one book in

the field of librarianship specifically treats library services in the context of poverty (Gehner 2005). The book *Poor People and Library Services* (1998) focuses on public library services rather than school library media services.

One study examining the relationship between school library media closings and poverty found that school library media centers in middle-income neighborhoods were open more days per week than school library media centers in low-income neighborhoods (Neuman and Celano 2001). On average, libraries were open about three days a week for children in low-income neighborhoods compared with five days a week in the middle-income neighborhood schools. Ironically, this study showed that those children who would benefit the most from access to school library resources were the ones who had access on fewer days of the week. When school library media centers are closed to lower-income children, the differences in access to print resources may have significant implications for children's early literacy development.

Krashen (2004) believes that "schools can counter the effects of poverty in at least one area: access to books." When it is true that children of poverty have less access to books, given two groups of such children, the group provided greater access to books will show more literacy development (Krashen 2004).

Additional research suggests that students who have access to materials are more likely to read, thus improving their reading motivation and achievement. For example, Worthy, Moorman, and Turner (1999) examined the reading preferences and access to reading materials of 419 sixth-grade students in the southwestern United States. The sample was divided into high- and low-income groups on the basis of eligibility for free and reduced lunch. Sixty-three percent of the lower-income children used the school library, as compared to forty percent of the students from higher-income families. There is cause for concern when marginalized students, who use the school library more than their higher income peers, are denied access to library materials because of library closings.

Further studies support the hypothesis that the more students read, the greater the student's reading achievement (Guthrie and Greaney 1991; Krashen 1989; Krashen 2004). In his book *The Power of Reading*, Krashen (2004) cites the Houle and Montmarquette (1984) study that revealed that students take more books out of school libraries that have more books and stay open longer. Unfortunately, the existing body of research fails to account for the reasons media specialists close their media centers and how often they do so in an academic year. Previous studies also failed to examine which school library media centers are most likely to limit access during the school day or the academic year.

Method

This exploratory study addresses the question, "To what extent do school library media center closures affect circulation?" Specifically, we posed the following research questions:

Research Question 1: How many full or partial days are school library media centers closed to circulation during the academic school year?

Research Question 2: Are the following conditions correlated with the number of days of school library media center closures?

- Type of school: Elementary, middle, or high school
- Number of Full Time Librarians
- Amount of clerical assistance
- Proportion of students eligible for free and reduced price lunch

Research Question 3: Is the number of days closed related to annual library circulation per pupil?

Design

This study employed a nonexperimental research design to explore the relationship between closures and circulation. Specifically, we designed and administered an online survey to a random sample of over 600 school library media

specialists. This cross-sectional data collection was designed to gather information about library closures in such a way that we might correlate the number of days that school library media centers are closed with library circulation.

This study is exploratory in nature, thus well suited to a nonexperimental design. Due to the nature of our research questions, we were best served by collecting specific information in terms of closures and circulations from a random sample of school library media specialists. And, although true experimental research is often held as the gold standard in educational research, manipulating the number of days school library media centers are closed is both unfeasible and politically unpalatable. Thus, this nonexperimental design is appropriate for establishing baseline information about the possible relationship between library closures and circulation.

Participants

The population for this study consisted of public school library media centers in North Carolina and Virginia. We selected participants from these two states because of our collegial relationships with the states' school library media organizations. In fact, partial funding for the study was provided by the North Carolina School Library Media Association (NCSLMA) and the Virginia Educational Media Association (VEMA). NCSLMA and VEMA have approximately one thousand members each and together represent almost one third of all school library media specialists employed in North Carolina and Virginia.

The study sample consists of a six-hundred-person random sample drawn from the approximately two thousand NCSLMA and VEMA members. The sample was derived from members who were currently working as school library media specialists. We drew a random sample of sufficient size to provide a 95 percent confidence level with a confidence interval of approximately plus or minus three points. Although the sample was not nationally representative, it was designed to be representative of the memberships of the two large school library media organizations.

Thirty percent of the six-hundred-person sample responded (181 respondents). Two respondents indicated that they did not want to participate and three entered blanks throughout the survey. With these records removed, we still garnered a 29.3 percent response rate (176 respondents in the analysis file).

In table 1, we describe the sample. Of the 176 respondents, 64 percent worked in North Carolina, 51 percent worked at an elementary school, and 44 percent worked at suburban schools. Seventy-eight percent were the only library media specialist working at the school; however, 62 percent had access to 30 hours or more of part-time professional or clerical assistance. Forty-three percent of respondents worked in schools where 40 percent or more students were eligible for free and reduced price lunch.

Instrument and Measures

We developed a twenty-two-question survey for online distribution. In this survey, we asked school library media specialists to report how many days the school library media center was closed in the past year and to list the reasons for the closures. The questions concerning closures specifically referred to closures where circulation was stopped. In other words, the school library media specialists described instances where the center was closed and students could not check out books or materials through other avenues. Reasons for school library media center closures included

- beginning and ending of school year;
- testing;
- student pictures;
- health screenings;
- book fairs;
- librarian absences;
- PTO/PTA meetings, school/district meetings; and
- other

Because we were interested in the association with circulation, we asked school library media specialists about their school library media center's collection size and circulation. From their reports about student enrollment, we calculated a measure of books circulated per pupil. By examining books per pupil, we provide a metric that is comparable across schools, thus comparing schools with diverse enrollments or collection sizes is easier.

We also asked school library media specialists to describe their schools. They told us about the type (elementary, middle, or high school) and location of the school (urban, rural, and suburban). Because poverty is linked with learning outcomes, we asked school librarians what percentage of students were eligible for free and reduced price lunch. The questions on the survey were similar to mandated end-of-year report forms and statistical reports and therefore familiar to school library media specialists.

Because the survey was researcher-developed, we were concerned about establishing validity and reliability measures. To do so, we called on experts familiar with the school library media field. Specifically, we asked members of the VEMA and NCSLMA executive boards to review the survey for content and face validity. We also asked the board members to pilot test the survey. The feedback from the board members indicated that the survey was easy to navigate; and the items were both reliable and had a high level of content validity.

Data Collection

Inquisite software is the development and management tool we used to administer the online survey. Online surveys have many advantages. Most school library media specialists have regular access to e-mail, online surveys—if designed correctly—are easy to take, and direct downloading of data eliminates data entry errors common with mail surveys. Thus, we e-mailed the survey to over six hundred school library media specialists who were members of VEMA or NCSLMA and whose e-mail addresses indicated they were working as public school librarians.

Initial returns were sparse, and we realized that spam filters on some school district e-mail servers rejected e-mails with attachments and those with links embedded in the e-mail. We attempted to contact nonrespondents in ways that did not trigger e-mail filters such as placing the survey on the server at Old Dominion University. By taking such measures, we were able to increase the response rates to 30 percent.

Analytic Approach

The survey data were collected on Inquisite and analyzed using SPSS 14.0 statistical software. Because this study is exploratory in nature, we first utilized univariate statistics to describe the number and reasons school library media specialists report school library media centers being closed. This method is a straightforward reporting of the reasons school library media specialists gave for why the school library media center was closed for either full or partial days and a count of the number of times that this occurred. Using correlational analysis, we examined the relationships between closures and circulation. This method attempts to find commonalities among elements of library structure for library closures and investigates the impact of the closures on circulation. Specifically, we employed two types of generalized linear models called ANOVA-analysis of variance and ANCOVA-analysis of covariance. These models let us account for the relationship between independent variables such as number of days closed and the dependent variable, circulation, independent of other confounding factors. The reader should note that this study does not attempt to expose causal linkages between closures and circulation, but merely reports conditions under which the two seem to be related.

Findings

In this section, we present the results of our examination of school library closures and circulation. First, we present a description of how often school library media centers are closed during the academic year to students who wish to make use of the collection.

How many full or partial days are school library media centers closed to circulation during

the academic school year?

Study participants in the survey were asked to indicate the number of days that library media centers were closed to circulation for the following reasons:

- Beginning of the school year
- End of the school year
- Absence of the librarian
- Student pictures or senior portraits
- Health screenings
- School or district staff meetings
- PTA/PTO meetings
- Book fairs or other special events
- Testing
- Other

In table 2, we present school library media specialists' responses about reasons for library closures. On average, end-of-year activities and book fairs *each* accounted for 7.2 full days of library closures in an academic year. Testing was not far behind, taking up 7 full days and 6.7 partial days of library time on average. Other reasons for closing were not as time intensive but could add up. Beginning-of-year activities took up 4.4 full days and 4.7 partial days of library time on average. Librarian absences accounted for an average of 3.7 full days and 3.9 partial days of library closure.

Overall, reasons to close school library media centers for either full or partial days added up. On average, school library media centers were closed almost 15 full and 9 partial days (table 2). If one prorates a partial day as a half day, then the total time school library media centers are closed to circulation, on average, is 17 full days in a year. An academic year is typically 185 days, thus, on average, libraries are likely to be closed 9 percent of the time students are in school.

This is not to say that all schools close their media centers 9 percent of the academic year. The amount of closures varies. Eight schools reported no full or partial day closures. Of the 168 who did report closures, they ranged from one to forty-eight full days. Similarly, schools reported closing for partial days for anywhere from one to thirty-two days.

Table 3 provides data on the reasons that school library media centers are closed by whether the school is elementary, middle, or high school level. In general, there is little difference for the numbers of days closed, although in some categories high schools appear to be closed for fewer days. This is especially apparent in days closed due to the absence of the school library media specialist. No school library media specialist reported any full or part-day closures due to PTA/PTO meetings.

Are the following conditions correlated with the number of days of school library media center closures: Type of school: Elementary, middle, or high school, Number of Full Time Library Media Specialists, Amount of clerical assistance, Proportion of students eligible for free and reduced price lunch?

Tables 4 through 7 present the analysis of covariance on the above factors. Table 4 presents the findings on the differences between elementary, middle, and high schools. This statistical test compared the total number of days closed for each level to see if elementary, middle, or high schools were closed more often. There was no significant difference to indicate that one level of school had more days of closure for their school library media center than any other. In tables 5 and 6, we tested whether having only one professional librarian (full time and part time were tested separately) in the school would impact the number of days closed. The results in table 5 and 6 indicated that school library media centers with more than one professional full- or part-time library media specialist were as likely to close the school library media center as schools with no additional staffing.

Free and reduced lunch (FRL) percentage is commonly used as an indicator of socioeconomic level of the school. In

table 7, an ANCOVA was performed to find out if schools with differing levels of FRLs reported differing numbers of days closed. Table 7 indicates that there is a significant difference in the amount of school library media center closures in schools with differing FRL percentages ($F(1513,5) = 2.580$, $p = .028$). As the FRL percentages increased, indicating more students who lived in poverty and attended that school, the number of days reported closed increased as well. This indicates that the poorest schools closed their school library media centers the most days.

Is the number of days library media centers are closed related to annual library circulation per pupil?

It was surmised that closing the library could have an impact on the books per pupil circulated. Tables 8 and 9 indicate that circulation numbers were affected by school library media center closings in Virginia, but not in North Carolina. We do not place a lot of importance on this difference. The Virginia sample was small, which could have led to an unstable estimate and spurious relationships. Not surprisingly, the results do show significantly different circulation statistics per level, with elementary schools circulating significantly more books to pupils than middle or high schools. The reason that findings in one state would show a significant difference while another did not is unclear, and will need further research to uncover other factors that affect circulation. Our conclusion is that we cannot say with certainty that there are factors pertaining to numbers of days closed that impact circulation. Further study may be needed to provide a satisfactory level of certainty with this finding.

Discussion

In this survey, library media specialists were asked to report the number of days that school library media centers were closed to circulation. Our analysis reported the number of days that the library was closed to circulation, and found that the top three reasons that libraries were closed were end-of-year preparation, book fairs, and standardized testing. Further statistical analysis showed no significant differences in the numbers of days closed pertaining to the school level or presence of more than one library profession. Significance was found when investigating the poverty level of the school. Schools with higher numbers of FRLs were closed significantly more often. Interestingly enough, the number of days closed overall did not seem to affect the numbers of materials circulated, but some significance was found when analyzing the data from each state separately.

This study addressed the closure of the school library media center to circulation. Whether some parts of the school library media centers remained open for other uses pertaining to the school library program was not addressed. It is unknown if the closures affect other aspects of library media center programs, such as information skills instruction, reader’s advisory services, or use of electronic or print reference resources for research or class projects.

One of the areas of concern that prompted this study was the amount of anecdotal evidence that pointed to standardized testing as the reason for increased library media center closings. Although testing was in the top three, this research study found that closings for book fairs and end-of-year preparations close the library slightly more often.

Most likely the school library media specialist at the building level does not have the authority to demand that testing, school district meetings, health screenings, or even student pictures be conducted at locations other than the school library media facility. However, other reasons that the school library media centers were closed for full and partial days are under the purview of the building level school library media specialist.

The finding regarding book fairs has implications for library program development. Book fairs are a common method of fundraising for school library media centers. During a book fair, new books are displayed for purchase with the library media center or sponsoring organization receiving a percentage of the profits. In certain schools, a shortage of staff or lack of funding may create situations in which the school library media specialist feels compelled to close the library media center in order to hold the book fair. This decision may have far-reaching implications. For example, principals may feel justified in using the school library media center for testing or other purposes since the school library media specialist has already made the decision to close the library for programmatic reasons. Additionally, students, teachers, and parents may resent the fact that the library media center’s resources and services are curtailed when it is closed for a book fair.

Although many school library media centers reported opening the library for circulation on the first day of school, far more closed the school library media center to circulation before the last day of school. Of course, school library media specialists need time to work with students, classroom teachers, and parents to ensure a high return rate for materials. The number of days that were reported for this process ranged from two to fifteen days. It is unclear what the circumstances are under which the numbers of days closed for this purpose could be reduced or under which leisure reading using school library books and other materials could be encouraged.

A summary conclusion that can be drawn from this study is that it is clear that testing affects the operations of the school library media center program by closing the facility for use. It is not known if this is because testing occurs in the school library media center or because the school library media specialist is called to administer the testing process in other parts of the school. What is known as a result of this study is that in many schools, when testing occurs, the school library media center was closed to circulation. This is an unfortunate finding, since the lack of other school studies during testing time could focus the school on reading. If the library is closed, reading as a post–test activity may be limited.

This research study has found that school library media centers in public schools are all-too-frequently closed for purposes other than that for which they are designed. The mission of the school library media program in the school "to ensure that students and staff are effective users of ideas and information" (AASL/AECT 1998, 1) is impaired when the library is closed. The fact that a school library media center may be closed to student use more than 20 percent of the school year has to be of concern, especially with the current national emphasis on reading, information literacy, and student achievement. Wasman, in *New Steps to Service*, notes about closing "Students, who often leave assignments until the last possible moment, get disturbed when blocked off from the information sources they need. Parents, hearing that their children are cut off from what their taxpayer dollars have bought, become angry. The bad PR thus generated from such closures taints much of the good work done during the school year" (Wasman 1998, 44).

Of even greater concern is the finding that there is a relationship between the poverty of the school and the numbers of days that students are able to access school library media center resources. The implication is that school library media centers in the poorest schools are closed the most, thus denying access to marginalized children who have the greatest need for accessing resources. School library media centers have the potential to bridge the achievement gap for these students by providing access to books and other resources. They can also bridge the digital divide by providing free access to computers and electronic information. Closing a school library media center has significant implications for these students, whereas students in wealthier schools may have multiple avenues to seek access to both print and electronic resources.

Suggestions for Further Research

Although this study provides important research into the challenges facing school library media specialists in the day-to-day operation of the building-level school library media program, there are limitations. The sample size was small and covered only two states. Even though the two states are similar in size and policy regulations, it is conceivable that a similar study performed in only one state may have other findings. Also, this is the first study of its kind. Further research that replicates this study in other states will provide more definitive answers as to how and why school library media centers are closed to circulation.

The use of circulation data as a measure of program outcomes also needs much further study. Although this study indicates that closing the library has no impact on circulation, further analysis is needed to determine how students retrieve materials when the library is closed. We don't know if school library media specialists are mitigating the impact of the library being closed, or if that finding speaks to the persistence of students as readers who will return when the library is open and find reading material. Regardless, further study is needed before definitive conclusions can be reached.

This research also only examines the statistical dimension of school library closures. There are important research questions beyond the scope of this study, such as whether the principal, the school library media specialist, or central office staff makes the decision that the library needs to be closed. Factors pertaining to usage are also not included in

this study. For example, it was not determined whether or not the school library media center uses student self-checkout at times when school library media staff is otherwise occupied, the number and ways that students used the library facility, and the degree to which the facility is used if the school library media specialist is called to other parts of the building or on other assignments.

This study can be used to inform library program development to include partitioned library media center spaces that support school activities while still using the library program for instructional purposes.

Finally, the affect of library closures on student learning is not included. What are needed now are additional studies that examine the relationship between library closures and circulation in school library media centers nationwide. Using student-level achievement data to compare similar school library media centers on issues of library use, circulation, collection size, quality, or other factors remain the topics for future study.

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ALA American Library Association

Open and Accessible: The Relationship between Closures and Circulation in School Library Media Centers (Tables) by Gail Dickinson, Karen Gavigan, and Shana Pribesh

Table 1. Description of Analysis Sample

	Total		NC		VA	
Sample Descriptors	*N*	%	*N*	%	*N*	%
Total	176	100	110	64	63	36
School Type						
Elementary	89	51	62	56	26	42
Middle	54	31	39	35	15	24
High	30	17	9	8	20	32
Detention	1	1	0	0	1	2
Total	174	100	110	100	62	100
FT Librarians						
1 FT Librarian	135	78	94	86	41	65
1.5 FT Librarians	4	2	3	3	0	0
2 FT Librarians	32	18	10	9	22	35
2.5 Librarians	2	1	2	2	0	0
Total	173	100	109	100	63	100
PT Staff						
None	36	21	24	22	12	19
LT 30 hours	31	18	21	19	8	13
GT 30 hours	108	62	65	59	43	68
Total	175	100	110	100	63	100
School Location						
Urban	32	18	22	20	10	16
Suburban	77	44	40	36	36	57
Rural	66	38	48	44	17	27
Total	175	100	110	100	63	100
FRL Eligible Students						
less than 10%	31	18	14	13	16	26
11-20%	23	13	15	14	8	13
21-30%	24	14	13	12	11	18
31-40%	21	12	15	14	6	10
41-50%	22	13	14	13	8	13
more than 50%	53	30	39	35	13	21
Total	174	100	110	100	62	100

Table 2. Description of Full and Partial Days School Libraries are Closed

	Full Days Closed					Partial Days Closed				
Types of Closures	*N*	Mean	SD	Min	Max	*N*	Mean	SD	Min	Max
Beginning of the school year	69	4.4	2.53	1	14	10	4.7	3.23	1	10
End of the school year	120	7.2	3.53	2	15	26	5.2	3.66	1	10

Due to absence of librarian	19	3.7	4.45	1	20	15	3.9	3.35	1	10
Student picture or senior portraits	15	1.8	0.77	1	4	11	1.7	1.27	1	5
Health screenings (speech, hearing or other)	20	1.9	0.88	1	4	17	1.3	0.59	1	3
School or district staff meetings	24	2.7	2.16	1	10	30	2.8	2.45	1	10
PTA/PTO meetings	0	0.0	0.00	0	0	6	2.5	1.22	1	4
Book fairs or other special events	52	7.2	3.63	1	14	25	4.5	4.30	0	18
Testing	69	7.0	5.12	1	23	87	6.7	5.24	1	27
Other	15	4.9	3.00	1	12	8	2.5	1.07	2	5
Total	156	14.8	9.95	1	48	121	9.1	7.81	1	32
Combined Total	168	17.0	11.07	1	58					

Table 3. Description of Full and Partial Days School Libraries are Closed by Type of School

	Elementary School				Middle School				High School			
	Full Days Closed		Partial Days Closed		Full Days Closed		Partial Days Closed		Full Days Closed		Partial Days Closed	
Types of Closures	*N*	Mean	*N*	Mean	*N*	Mean	*N*	Mean	*N*	Mean	*N*	Mean
Beginning of the school year	38	4.6	6	4.0	29	4.4	4	5.8	2	2.5	0	0.0
End of the school year	72	7.1	16	5.1	38	7.8	7	5.7	10	5.8	3	4.3
Due to absence of librarian	13	4.4	8	5.4	4	2.0	6	2.2	1	1.0	1	3.0
Student picture or senior portraits	8	1.6	8	1.5	6	2.2	2	1.0	1	1.0	1	5.0
Health screenings (speech, hearing or other)	14	1.7	8	1.3	4	2.5	7	1.4	2	1.5	2	1.0
School or district staff meetings	15	2.8	14	3.3	4	2.0	9	2.1	5	3.0	7	2.6
PTA/PTO meetings	0	0.0	4	2.8	0	0.0	1	2.0	0	0.0	1	2.0
Book fairs or other special events	35	8.6	17	4.8	15	4.5	5	4.2	1	5.0	3	3.7
Testing	28	5.1	43	5.4	22	7.3	27	7.1	18	8.9	16	9.3
Other	6	3.5	5	2.8	6	4.7	1	2.0	3	8.0	2	2.0
Total	82	15.7	60	9.2	48	15.0	39	8.3	24	11.4	21	9.9
Combined Total	86	18.2			41	16.6			27	13.9		

Table 4. ANCOVA of School Type on Total Days Closed

School Type	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound

Elementary	18.2	1.19	15.83	20.53		
Middle	16.6	1.51	13.61	19.60		
High	13.9	2.12	9.75	18.14		

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	35164.3	1	35164.34	289.123	0.000	0.639
School Type	380.764	2	190.38	1.565	0.212	0.019
Error	19824.8	163	121.62			
Total	68120.1	166				
Corrected Total	20205.5	165				

R Squared = .019 (Adjusted R Squared = .007)

Table 5. ANOVA of FT Librarian on Total Days Closed

School Type	Mean	Std. Error	Lower	Upper	
1 FT Librarian	17.8942	0.97826	-0.18074597	8.20444	
More than 1 FT Librarian	13.8824	1.79932	-0.09393616	8.11763	
	F	Sig.	t	df	Sig. (2-tailed)
Equal variance assumed	0.0428	0.83635	1.889584267	162	0.0606

Table 6. ANCOVA of PT Librarians on Total Days Closed

PT Librarians	Mean	Std. Error	95% Confidence Interval			
			Lower Bound	Upper Bound		
None	21.0	1.94	17.18	24.82		
LT 30	16.3	2.00	12.30	20.20		
GT 30	16.0	1.07	13.85	18.09		
	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	38170.99	1	38171.0	317.993	0.000	0.661
PT Librarians	639.47	2	319.7	2.664	0.073	0.032
Error	19566.06	163	120.0			
Total	68120.08	166				
Corrected Total	20205.53	165				

R Squared = .032 (Adjusted R Squared = .020)

Table 7. ANCOVA of FRPL on Total Days Closed

FRPL	Mean	Std. Error	95% Confidence Interval			
			Lower Bound	Upper Bound		
less than 10%	12.21	1.98	8.30	16.11		
11-20%	13.48	2.31	8.92	18.04		
21-30%	17.57	2.26	13.10	22.03		
31-40%	18.11	2.55	13.07	23.15		
41-50%	20.26	2.36	15.59	24.93		
more than 50%	19.42	1.52	16.43	22.42		
	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	41665.93	1	41665.9	355.005	0.000	0.691

FRPL	1513.81	5	302.8	2.580	0.028	0.075
Error	18661.40	159	117.4			
Total	67987.83	165				
Corrected Total	20175.21	164				

R Squared = .075 (Adjusted R Squared = .046)

Table 8. ANCOVA of Days Closed on Books Per Pupil for Virginia

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	8464.3	1	8464.3	40.572	0.000	0.619
Total Days Closed	1039.8	1	1039.8	4.984	0.035	0.166
School Type (1=elem, 3=HS)	5312.4	2	2656.2	12.732	0.000	0.505
FRPL	677.0	5	135.4	0.649	0.665	0.115
FT Librarians	564.3	1	564.3	2.705	0.113	0.098
PT Librarians/Clerical	42.4	2	21.2	0.102	0.904	0.008
Error	5215.5	25	208.6			
Total	52662.5	37				
Corrected Total	26483.3	36				

R Squared = .803 (Adjusted R Squared = .716)

Table 9. ANCOVA of Days Closed on Books Per Pupil for North Carolina

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	5217.2	1	5217.2	8.857	0.004	0.137
Total Days Closed	115.6	1	115.6	0.196	0.659	0.003
School Type (1=elem, 3=HS)	16254.8	2	8127.4	13.798	0.000	0.330
FRPL	1024.9	5	205.0	0.348	0.881	0.030
FT Librarians	609.4	1	609.4	1.034	0.313	0.018
PT Librarians/Clerical	3643.2	2	1821.6	3.093	0.053	0.099
Error	32985.9	56	589.0			
Total	151472.7	68				
Corrected Total	56837.4	67				

R Squared = .420 (Adjusted R Squared = .306)

ALA American Library Association

Open and Accessible: The Relationship between Closures and Circulation in School Library Media Centers (Survey) by Gail Dickinson, Karen Gavigan, and Shana Pribesh

Survey

Part I.

1. What was the total student book circulation during the 2006–2007 school year?

2. What was the total numbers of books missing in inventory during the 2006–2007 school year (missing, but not checked out)?

3. How many books were lost in circulation during the 2006–2007 school year (checked out) and paid for?

4. How many books were lost in circulation and paid for during the 2006–2007 school year?

5. How many books are students allowed to check out at the same time?

6. Are students permitted out books under the following conditions?

   - If one book is overdue?
   - If two or more books are overdue?
   - If books are returned but fines still owed?
   - If books are admitted to be lost, but not yet paid for?
   - Other

7. Are students denied access to the library (including checkout) for behavior reasons?

Part II. School Demographics

8. What is the grade level of your school?

   - Pre-K
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7
   - 8
   - 9
   - 10
   - 11
   - 12

9. Which of the following best describes your school?

   - rural
   - urban
   - suburban

10. What is your school enrollment?

11. What is your school Free and Reduced Lunch percentage (FRL)?

12. How many full-time professional certified librarians work in this school library?

- 1
- 1.5
- 2
- 2.5
- 3

13. How many library assistants or clerical staff work in this library?

- 10 hours or less a week
- 11–20 hours per week
- 21–30 hours per week
- 30–40 hours per week
- 40 or more

14. What is the total collection size of this library (books only)?

15. How many new books were added to the collection during the 2004–2005 school year?

16. What is the total funding for your school library in all categories and from all sources for 2004–2005?

17. Is your school schedule?

- Fixed
- Flex
- Partially flex

How many classes per week do you have on the fixed schedule?

What is the average length of time for fixed schedule classes?

- 20
- 25
- 30
- 35
- 40
- 45
- Other

18. How many entire school days was the library closed for circulation due to the following reasons?

- Beginning of the school year
- End of the school year
- Due to absence of librarian
- Student pictures or senior portraits
- Health screenings (speech, hearing, or other)
- School or district staff meetings
- PTA meetings
- Book fairs or other special events
- Testing

19. How many partial days was the library closed to circulation for the following reasons?

- Beginning of school year
- End of school year
- Absence of librarian
- Student pictures/senior portraits
- Hearing tests
- Book Fairs
- Other

20. Is the library for student book checkout for the following reasons?

- Library class in session
- Librarian at lunch
- Other

21. Is the library open before and after school?

- Before school
- After school

22. Would you like to comment further on any issues relating to circulation, loss of materials, scheduling, facility use, or other topics we have not asked in this survey?