Evidence Based Library and Information Practice

## Evidence Summary

# Flexible Scheduling May Have a Positive Impact on School Library Circulation 

## A Review of:

Gavigan, K., Pribesh, S., \& Dickinson, G. (2010). Fixed or flexible schedule? Schedule impacts and school library circulation. Library and Information Science Research, 32(2), 131-37.

## Reviewed by:

Ann Medaille
Reference \& Instruction Librarian
University of Nevada, Reno
Reno, Nevada, United States of America
Email: amedaille@unr.edu

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## Abstract

Objective - To determine whether a significant, positive relationship exists between flexible scheduling in elementary school library media centers and per-pupil circulation statistics.

Design - Online survey.

Setting - Library media centers in public elementary schools in two states of the United States.

Subjects - A total of 88 elementary school library media specialists completed the survey.

Methods - A 22-question online survey was created using Inquisite software. A link to the
survey was sent via e-mail to a 600-person random sample of public school library media specialists whose names were drawn from the memberships of the North Carolina School Library Media Association and the Virginia Educational Media Association, with combined memberships totalling approximately 2,000 . A random sample of 600 was chosen to provide a $95 \%$ confidence level with a confidence interval of plus or minus three points. The survey included questions about school schedules (flexible, partially flexible, or fixed), collection size, circulation statistics, total student enrolment, school type (elementary, middle, or high), school location (urban, rural, or suburban), percentage of students eligible for free and reduced price lunch, numbers of full-time professional library media specialists employed at the school, access procedures, and library closure
information. The survey response rate was $29.3 \%$ ( 176 respondents). Because fixed versus flexible scheduling is an issue that primarily affects elementary schools, the authors further narrowed their subject pool to 88 elementary school respondents. Data were analyzed using SPSS 16.0 statistical software. Correlation analysis, including the analysis of covariance (ANCOVA), was used to compare differences in the three scheduling types and to control for other variables (such as location, socioeconomic status, collection size, staffing, days closed, and others) that may affect circulation.

Main Results - Of the 88 elementary school responses, 33 (38\%) had fixed schedules, 44 (50\%) had partially flexible schedules, and 11 ( $13 \%$ ) had totally flexible schedules. Fiftythree schools supplied data regarding perpupil check-out, and the average number of books checked out per student per year was 52 , across all types of schools. The number of book check-outs per pupil differed according to schedule type. Students in schools with fixed schedules checked out an average of 51 books per year, those in schools with partially flexible schedules checked out 46 books per year, and those in schools with totally flexible schedules checked out 71 books per year. When the authors adjusted the data for other factors affecting circulation (such as location, socioeconomic status, collection size, staffing, and others), they found that students in schools with fixed schedules checked out 57 books per year, those in schools with partially flexible schedules checked out 68 books per year, and those in schools with totally flexible schedules checked out 102 books per year. The authors concluded that schedule accounts for $21 \%$ of variation in the rate of book check-out per pupil.

Conclusion - These results suggest that the type of schedule used in elementary school library media centers does have a significant relation to circulation statistics. Specifically, when library media centres employ flexible scheduling, students are likely to check out more books per year on average. Although these results are not generalizable, this study
provides much-needed research into the relationship between scheduling and circulation, and establishes a basis for further studies in this area.

## Commentary

The debate about whether flexible scheduling is superior to fixed scheduling has been going on for decades among school library media specialists (Creighton, 2007). Fixed scheduling occurs when classes are regularly scheduled in the library media center each week, while flexible scheduling means that access to the library is available throughout the day, and classes meet in the library on the basis of curricular need rather than a predetermined schedule (Hurley, 2004; Creighton, 2007). With fixed scheduling, classes may be regularly scheduled in the library media center to give teachers a free or planning period (Creighton, 2007). As of November, 2010, the American Association of School Librarians (AASL) strongly opposes library scheduling that is designed to provide teacher release time, asserting that "the integrated library media program philosophy requires that an open schedule must be maintained."

Despite the AASL's strong stance, some elementary school librarians oppose flexible scheduling (Johnson, 2001), and many elementary school libraries used fixed schedules instead. While most public secondary school libraries use flexible scheduling, fewer than half of elementary school libraries use flexible or partially flexibly scheduling (Creighton, 2007). Although several research studies have examined the benefits of flexible scheduling on libraryteacher collaboration and instruction, there is a lack of statistical research that demonstrates a connection between flexible scheduling and student achievement (Hurley, 2004). The current study makes an important contribution to this debate by linking scheduling to circulation statistics, a relationship that is critical because higher numbers of book check-outs may be connected to improved reading abilities of students.

However, this study contains some methodological errors in regard to sampling. The authors explain that they chose a random sample size of 600 from a population of 2,000 school library media specialists, although they do not divulge how the participants in their sample were selected (e.g., simple random, systematic random, or stratified random). They authors sent their survey to 600 participants so as to ensure a $95 \%$ confidence level with a plus or minus three-point confidence interval. Unfortunately, the authors calculated their confidence interval without anticipating a high refusal rate. Since their survey response rate was only $29.3 \%$ (176 respondents), their confidence interval is actually much higher (for a discussion of population sampling and sample sizes, see Beck \& Manuel, 2008). The authors further reduced their sample by $50 \%$ because they were only interested in responses from elementary schools. The result is a much smaller sample size (88) than originally planned, with only 11 responses coming from schools with totally flexible schedules. In addition, circulation data have been reported from only 53 schools.

Thus, the limitations of the sample suggest that the findings of this study may not be representative of the target population - that is, elementary school librarians in two school library associations. Although the authors tested the survey instrument in advance, the sampling errors raise questions regarding the validity and reliability of the study. However, the authors themselves point out that their study is exploratory in nature and cannot be generalized to other public elementary schools in the United States.

Because the authors used statistical modeling to control for other variables that may have an impact on circulation, their results are still noteworthy, even if their findings are not statistically generalizable. This study provides useful guidance for further research into the impact of scheduling type and its relation to free voluntary reading and literacy development. Free voluntary reading is the idea of reading for pleasure. Krashen (2006)
explains that "the secret of its effectiveness is simple: children become better readers by reading" (p. 43). Free voluntary reading includes people's ability to choose the materials they read without regard to completing assignments or selecting from a predetermined list. Proponents of free voluntary reading point to a large amount research showing its connection to higher literacy skills (Krashen, 2004, 2006). To help improve children's literacy, school library media centres should provide as much access to books as possible and encourage children to read for pleasure. This study provides evidence that flexible scheduling may provide children with improved access to reading materials, and in turn, may be an important factor in children's literacy development.

Continued research in school library media centers will attempt to articulate the factors that contribute to enhanced literacy skills in students. Because there is a lack of statistical data showing support for the AASL's position in regard to flexible scheduling, this study makes an important contribution to the debate by suggesting that flexible scheduling may play a critical role in improving student achievement.

## References

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